

TEMPLATE

KEY PROJECT INFORMATION & VPA DESIGN DOCUMENT (VPA DD)

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VERSION **v.2.3**

RELATED SUPPORT

- [Programme of Activity requirements](#)

- [TEMPLATE GUIDE VPA Design Document](#)

This document contains the following sections

Section A – Description of project

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

Section C – Duration and crediting period

Section D – Summary of Safeguarding Principles and Gender Sensitive Assessment

Section E – Summary of Local stakeholder consultation

Section F - Eligibility and inclusion criteria for VPAs inclusion

Appendix 1 – Safeguarding Principles Assessment (mandatory)

Appendix 2- Contact information of VPA Implementer (mandatory)

Appendix 3 – LUF Additional Information (VPA specific)

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KEY PROJECT INFORMATION

Type of VPA	☐ Real case VPA ☒ Regular VPA
Scale of VPA Note that a VPA can be of one scale. Please select applicable scale accordingly.	☒ Microscale ☐ Small scale ☐ Large scale
Title of corresponding real case VPA (if applicable)	N/A
GS ID of real case VPA (if applicable)	N/A
GS ID of VPA	GS5106 GS5186 GS5187 GS5188 GS5189 GS5190 GS5191 GS5192 GS5193 GS5194 GS5195 GS5196 GS5197 GS6349 GS6350 GS6351 GS7362 GS7363 GS7364 GS7635 GS7366

Title of VPA	GS1247 VPA 71: Lango Safe Water Project (GS5106) GS1247 VPA 72 Lango Safe Water Project (GS5186) GS1247 VPA 73 Lango Safe Water Project (GS5187) GS1247 VPA 74: Lango Safe Water Project (GS5188) GS1247 VPA 75 Lango Safe Water Project (GS5189) GS1247 VPA 76 Lango Safe Water Project (GS5190) GS1247 VPA 77 Lango Safe Water Project (GS5191) GS1247 VPA 78 Lango Safe Water Project (GS5192) GS1247 VPA 79 Lango Safe Water Project (GS5193) GS1247 VPA 80 Lango Safe Water Project (GS5194) GS1247 VPA 81 Lango Safe Water Project (GS5195) GS1247 VPA 82 Lango Safe Water Project (GS5196) GS1247 VPA 83 Lango Safe Water Project (GS5197) GS1247 VPA 139: Lango Safe Water Project (GS6349) GS1247 VPA 140 Lango Safe Water Project (GS6350) GS1247 VPA 141 Lango Safe Water Project (GS6351) GS1247 VPA 183 Lango Safe Water Project (GS7362)
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	GS1247 VPA 184 Lango Safe Water Project (GS7363) GS1247 VPA 185 Lango Safe Water Project (GS7364) GS1247 VPA 186 Lango Safe Water Project (GS7365) GS1247 VPA 187 Lango Safe Water Project (GS7366)
Time of First Submission Date	11/10/2023
Date of Design Certification	GS5106 & 5186-94: 11/09/2017 GS5196-7 & 6349-51: 26/12/2018 GS7362-7366: 16/08/2019
Version number of the VPA-DD	02
Completion date of version	11/01/2024
Coordinating/managing entity	CO2balance UK Ltd.
VPA Implementer (s)	CO2balance UK Ltd.
Project Participants and any communities involved	N/A
Host Country (ies)	Republic of Uganda
GS ID and Title of applicable Design Certified VPA	Same as above
GS ID and Title of applicable Performance Certified VPA	Same as above
Activity Requirements applied	☒ Community Services Activities ☐ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A
Other Requirements applied	N/A
Methodology (ies) applied and version number	TPDDTEC v1
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label

	☐ N/A
VPA Cycle:	☒ Regular
	☐ Retroactive

Table 1 – Estimated Sustainable Development Contributions

SUSTAINABLE DEVELOPMENT GOALS TARGETED	SDG IMPACT (DEFINED IN B.6.)	ESTIMATED ANNUAL AVERAGE	UNITS OR PRODUCTS
SDG 3 - Good Health and Wellbeing	Reduced incidence of stomach related diseases/illnesses associated with unsafe drinking water	GS7366: 6,665 GS7365: 6,760 GS7364: 6,385 GS7363: 6,760 GS7362: 6,551 GS6351: 6,532 GS6350: 6,748 GS6349: 6,271	P _{safe} (additional persons consuming safe water in the project activity compared to the baseline scenario)
SDG 5 - Gender Equality	Time saved collecting water	57.5%	TR _y (reduction in time spent collecting water)
SDG 6 - Clean Water and Sanitation	By 2030, achieve universal and equitable access to safe and affordable drinking water for all	GS7366: 6,383 GS7365: 6,474 GS7364: 6,115 GS7363: 6,474 GS7362: 6,274 GS6351: 6,256 GS6350: 6,463 GS6349: 6,006	P _{access} (additional persons with access to safe water in the project activity compared to the baseline scenario)
SDG 13 - Climate Action (mandatory)	Total project emission reductions	GS7366: 9,839 GS7365: 9,978 GS7364: 9,425 GS7363: 9,978 GS7362: 9,671 GS6351: 9,643 GS6350: 9,962 GS6349: 9,257 Total: 77,753	tCO ₂ e

SECTION A. DESCRIPTION OF PROJECT

A.1. Purpose and general description of project

In Uganda over 45% of the rural population are without access to safe water and rely exclusively on unprotected wells, lakes and other open water sources that are highly susceptible to contamination. The Lango sub region is largely made up of rural communities where local people typically use wood fuel on traditional three stone fires to purify their water for drinking, cooking and basic personal hygiene. This process results in the release of greenhouse gas emissions from the combustion of wood which can be avoided if a technology that does not require fuel (wood or fossil) supplies clean water desired by households. By providing safe water this project ensures that households consume less firewood during the process of water purification and therefore reduce greenhouse gas emissions from the combustion process. The boreholes included under the project will be fitted with zero emission technologies such as commonly used hand pumps. The depth of the boreholes will be limited to 150m or less.

Many existing boreholes in Lango sub-region are owned by community groups or community-based organizations (CBOs) and have fallen into disrepair because maintenance programmes have been poorly managed, or proven too expensive. CO2Balance will work with community groups in the project area to identify broken down boreholes. The number of boreholes per VPA will be limited by the amount of pure water supplied by each unit; the maximum quantity of emission reductions generated by this project is limited to 10,000tCO₂e per year. CO2Balance will implement a long-term maintenance programme to ensure that the quality of the water delivered by the boreholes is fit for human consumption for the entire length of the project, which will be a minimum seven years.

CO2Balance gets funding for this project by marketing the anticipated carbon credits from the wood savings to ethical investors, so borehole owners must agree to transfer the emissions reductions over to CO2Balance in return for them supplying the work to renovate the boreholes. This project will be developed under the Gold Standard, which in addition to checking that the carbon credits from this project are real, also measures local social, environmental and economical impact.

A.1.1. Eligibility of the VPA under approved PoA

The VPA is located in the Republic of Uganda, and therefore eligible under PoA 1247. By providing safe water through the rehabilitation and installation of boreholes and solar pumps, the project will ensure that households consume less firewood and charcoal by displacing the need to boil water for purification. This will result in a reduction of carbon dioxide emissions.

Table 2 Eligibility for VPA inclusion as per PoA requirements

NO.	ELIGIBILITY CRITERION	DESCRIPTION/ REQUIRED CONDITION	DESCRIPTION OF THE VPA IN RELATION TO THE CRITERIA, MEANS OF VERIFICATION AND SUPPORTING EVIDENCE FOR INCLUSION
1	Types of Project	Eligible Projects shall include physical action/implementation on the ground. Pre-identified eligible Project types are identified in the Eligibility Principles and Requirements section.	The Project Technology comes under "Safe Water Source" as the Project Activity involves the rehabilitation of safe water sources such as boreholes and a solar pump in the project area.
2	Location of Project	The host country and location of each VPA will be specified in each VPA-DD, in line with the locations outlined in Section A.3.	The location of the Project is Lango sub-county in the Republic of Uganda is eligible under the PoA-DD for GS1247.

Project Area, Project Boundary and Scale	The Project Area and Project Boundary shall be defined. Projects may be developed at any scale although certain rules, requirements and limitations may apply under specific Activity Requirements, Impact Quantification Methodologies and Products Requirements. In order to avoid double counting the Project shall not be included in any other voluntary or compliance standards programme unless approved by Gold Standard (for example through dual certification). Also, if the Project Area overlaps with that of another Gold Standard or other voluntary or compliance standard programme of a similar nature, the project shall demonstrate that there is no double counting of impacts at design and performance certification (for example use of similar technology or practices through which the potential arises for double counting or misestimation of impacts amongst projects).	The Project area and boundary is defined in section A.2 The Project is only included under the Gold Standard and no dual certification will take place. Each water point has a unique location recorded and stored in the Emission Reduction Calculation sheet. Each micro-scale VPA included under the PoA will not be included by any other carbon standard and will not exceed the 10,000 VERs per year cap.
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Host Country
Requirements

Projects shall be in compliance with applicable Host Country's legal, environmental, ecological and social regulations.

Each homogeneous VPA included in this project will comply with Uganda's national policies around water access, rural water infrastructure, community engagement, women empowerment and climate change action.

Uganda's National
Development Plan 2020/21
-2024/25 – NDPIII

Contact Details

As part of the Project Documentation the Project Developer shall provide (i) name and (ii) contact details of all Project Participants; AND in case of an organisation (iii) the legal registration details and (iv) documentation by the governing jurisdiction that proves that the entity is in good standing (defined as being a legal or other appropriate entity registered in or allowed to operate within the required jurisdiction and with no evidence of insolvency or legal/criminal notices placed against it or any of its Directors). Gold Standard retains the right (at its own discretion) to refuse use of the Standard where reputational concerns are highlighted.

Project Developer
information is in appendix 2

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.

PD has full rights over the Products generated from GS Certification. A representative from each waterpoint signs a carbon transfer form at the time of the rehabilitation, which exchanges the rights to carbon savings for repair and ongoing maintenance of the waterpoint.

7	Other Rights	As well as legal title and ownership, the Project Developer shall also demonstrate where required uncontested legal rights and/or permissions concerning changes in use of other resources required to service the Project (for example, access rights, water rights etc.). Any known disputes or contested rights must be declared immediately to Gold Standard by the Project Developer and resolved prior to further Project implementation in affected areas.	PD will inform GS of any disputes.
8	Official Development Assistance (ODA) Declaration	All Project Developers applying for project activities located in a country named by the OECD Development Assistance Committee's ODA recipient list and seeking Gold Standard Certification for carbon credits shall declare the Official Development Assistance (ODA) support. The Project Developer shall follow the GHG Emissions Reduction & Sequestration Product Requirements and submit the declaration at the time of Design Certification.	PD has submitted a signed ODA Declaration.

9	Factor of Non-Renewable Biomass (VR)	Reference from where fNRB shall be calculated for VPAs shall be included in the eligibility criteria to avoid confusion at the time of VPA inclusion and for consistency	The fNRB has been calculated by PD and updated in the key parameter box and ex-ante calculations.
10	Test for Wb,y parameter (VR)	The test for fixed parameter Wb,y is based on the water boiling test.	PD conducted this test during project implementation. Figure outlined in parameter box.
11	Water Project Treatment Capacity (VR)	The treatment capacity limits of project technology/source are required to be monitored to ensure that the water consumption level applied for emission reductions must not be greater than the treatment capacity of the project technology/sources.	PD will ensure that user numbers are within the capacity of the water source. 300 user cap will be applied as per the methodology and the specifications of the technology.

Cookstove Project The theoretical wood savings
Theoretical Savings from a cook stove project shall
be estimated based on
following-

$$P_y = B_{b,y} * (1 - h_b/h_{p,y})$$

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P_y - quantity of firewood
consumed in project
 $B_{b,y}$ - quantity of firewood
consumed in baseline
 h_b - efficiency of baseline
technology
 $h_{p,y}$ - efficiency of project
technology

The Project Activity does
not involve cookstoves.

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Double Counting

Conditions to confirm that
VPAs are neither registered as
CDM project activities,
included in another
registered PoAs, nor the
project activities that have
been deregistered.

PP can confirm that VPAs
are not registered
anywhere else.

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Technical
Specification

Specification of the
technology/measure, such as
the level and type of service,
as well as performance
specification based on, inter
alia, testing/certification.

This VPA-DD
includes technical
specifications of the Project
Technology.

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Start Dates

Conditions to check the start
dates of VPAs through
documentary evidence.

The start date of
projects are confirmed by
carbon transfer
forms and repair
confirmation forms.

16	Applicability	Conditions to ensure compliance with the applicability of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents.	This has been set out in this VPA-DD.
17	Additionality	Conditions to ensure that VPAs meet the requirements for demonstration of additionality.	This has been set out in this VPA-DD.
18	LSC and EIA	Conditions related to undertaking local stakeholder consultation and environmental impact analysis.	This has been set out in this VPA-DD. An EIA is not required to be carried out for this safe water project.
19	Target Group	Target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/offgrid), and where applicable, distribution mechanisms (e.g. direct installation).	The target group has been set out in VPA-DD.

20	Sampling Sampling approaches are set out in each VPA and will follow the TPDDTEC v1 methodology.	The VPAs will follow the sampling approach set out in the applicable methodologies (Safe Water methodology) which take precedence over CDM methodologies. Sampling approaches are set out in Section B7 and will follow the methodology. Suitable confidence and precision levels are considered to ensure suitable sample sizes are applied and data is representative of the project area.
21	Crediting period All VPAs submitted for inclusion after the first crediting cycle of such PoA and completion of transition to GS4GG shall follow the GS4GG Certification Cycle (i.e. 5 years renewals.	The crediting period is stated in the VPA-DD.

Community Services Activity Requirements	
Requirements relevant to this VPA.	Demonstration of meeting Requirements
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.	By providing a safe water source in rural communities, the project improves access to safe water services/resources at community 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.	The project conforms with the Principles and Requirements detailed in the document. The project is eligible under section 4, Principle 1, section (a) of the Principles and Requirements as it follows an established Gold Standard methodology. Concerning point 4.1.7, the project does not support geoengineering or entail energy production from fossil fuels or nuclear. Rather it supports a switch away from polluting technologies to an emissions-free means of accessing safe water.
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.	By providing safe water, the project activity reduces the energy requirements compared to the baseline scenario by ensuring that households consume less firewood 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	The project Area and Boundary are defined in line with the applicable Methodology, outlined in Section A.2.

Quantification Methodologies and Product Requirements. c) For the purpose of applying UNFCCC methodologies for quantification of GHG reductions, 'small-scale' is defined as in CDM Modalities and Procedures for three project types; Renewable Energy, Energy Efficiency and Others.	The project is a micro-scale and is capped at 10,000 tCO₂e per year for each VPA.
3.1.3 Suppressed Demand baseline Certain Impact Quantification methodologies allow projects to account Suppressed Demand scenario when establishing a baseline. In such cases, the application of Supressed Demand baseline is limited to Small-Scale and Microscale Projects. Where a Supressed 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.	The VPA is a micro-scale project, therefore it is eligible to allow for suppressed demand in the baseline scenario. The baseline scenario is assessed in terms of suppressed demand. Supressed demand is determined through a set of questions in the Baseline Project Survey that establish the method that households use to purify their water, if any, and how they would choose to purify if they were not subject to monetary and access barriers. A fixed suppressed demand baseline has been opted for. However, in the event the project surveys show a substantial change in fuel use characteristics, a new baseline shall be conducted. No Gold Standard Certified Impact Statements or Products are intended to be stacked in case of suppressed demand baseline.
3.1.4 Legal ownership 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	a) It will be clearly communicated that CO₂balance is the Co-ordinating/Managing Entity which communicates with the Gold Standard 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 CO₂balance.

aware of and willing to give up their rights on Products shall be provided. b) The transfer for Product ownership shall be discussed during the local stakeholder consultations for projects.	CO2balance have legal ownership of the carbon credits produced as a result of the project. Water points are managed by communities, who are recognised as the main users of the water points in the project. A Carbon Transfer Form (CTF) is signed at the point of technology installation. An elected representative from each water resources committee responsible for a water source will sign a CTF on behalf of all users thereof. b) The transfer of ownership was discussed during the local stakeholder consultation conducted by CO2balance, presenting the details of the project to the local community members, officials and Community Leaders who attended. No issues were raised during the meeting voicing issues regarding the transfer of product ownership.
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A.1.2. Legal ownership of products generated by the VPA and legal rights to alter use of resources required to service the project

In this project CO2balance is the managing entity and is responsible for communication with the Gold Standard. CO2balance manages all monitoring data collection and conducts field activities. CO2balance owns the legal rights to carbon credits generated by the project. A Carbon Transfer Form is signed by the Community Water Resources Committee on behalf of the whole community for each water point. This entitles CO2balance to the rights of any carbon saved by the project in exchange for the installation, rehabilitation, and maintenance of the water point.

The project will ensure it does not breach any of the Host Country's legal, environmental, ecological, and social regulations. Water sources are managed by communities who are recognised as the main users of the water source in the project.

A.2. Location of VPA

This project is located in Lango sub-region, Northern Uganda. Below is the geographic reference to allow unique identification of the project boundary. The target area and the fuel collection area are defined as being contained within project boundary, with the outer limits of the project boundary being clearly defined below. As the majority of beneficiaries collect their wood fuel locally in close proximity to their homesteads, the wood fuel collection area and target area are considered the same.



Figure 1. Map of Uganda with the Lango sub region outlined

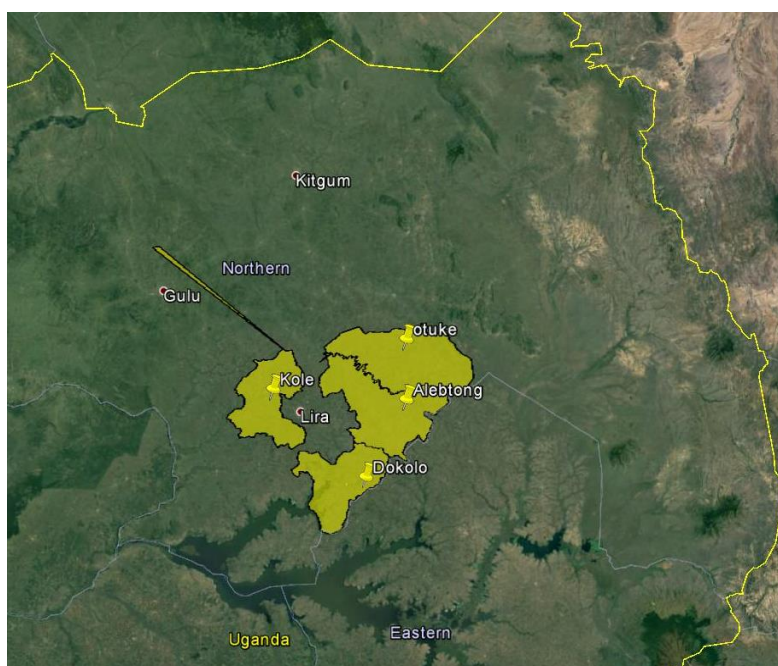


Figure 2. Map outlining the four surveyed districts

Table 1. Geographical characteristics of Alebtong, Dokolo, Otuke and Kole Districts

Country	Region	District	Population	Geographical Reference	
Uganda	Northern Uganda	Alebtong	227,541 (2014 Census)	Lat 2.257959	Lon 33.290910
Uganda	Northern Uganda	Dokolo	183,093 (2014 Census)	Lat 1.927760	Lon 33.075794
Uganda	Northern Uganda	Otuke	104,254 (2014 Census)	Lat 2.518926	Lon 33.397837
Uganda	Northern Uganda	Kole	239,327 (2014 Census)	Lat 2.370110	Lon 32.763304

A.3. Technologies and/or measures

In this project, water points are drilled or rehabilitated to deliver clean, safe water, which contributes to SDGs 6. Likewise, the reduction in local water-borne diseases is predicted to decrease the incidence of stomach related illnesses and diarrhea, contributing positively to SDG 3. The types of water points installed and rehabilitated are solar powered pumps or handpumps. Current pump models could include India Mark 3 handpumps, U3 Modified handpumps and solar pumps.

Water pumped by solar pumps is stored in water containers and piped to taps, where it is collected. At handpumps, water is pumped and collected at site from the spout.

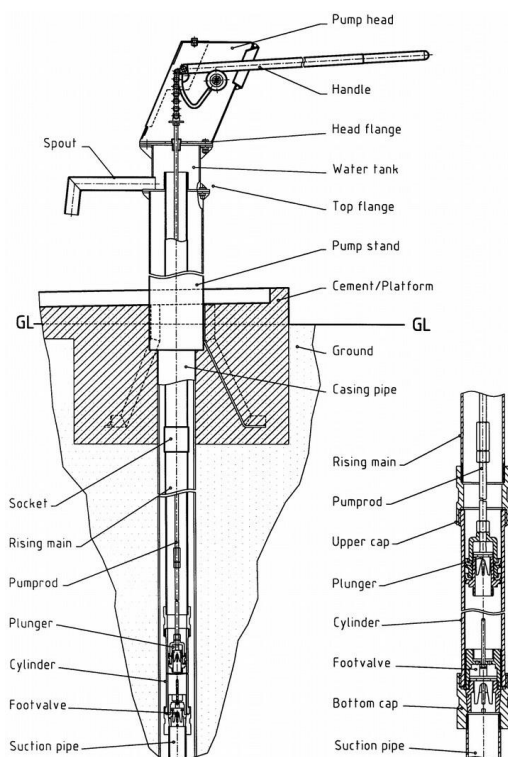


Figure 1. Components of an uninstalled hand pump (left) and an India Mark II pump in operation (right)

	Borehole technology		
	Afridev	India Mark II	U3 Modified
Cylinder diameter (mm):	50	63.5	50
Maximum Stroke (mm):	225	125	125
Approx. discharge at about 75 watt input m3/h:	at 10 m head 1.4	at 10 m head 1.8	at 10 m head 1.2
	at 15 m head 1.1	at 15 m head 1.3	at 15 m head 1.0
	at 20 m head 0.9	at 20 m head 1.0	at 20 m head 0.8
	at 30 m head 0.7	at 30 m head 0.8	at 30 m head 0.6
Pumping lift (m):	10-45	10-50	20-45

Water consumption (lpcd):	15-20	15-20	15-20
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India Mark III Handpump¹



Solar Pump



¹ Rural Water Supply Network (2018) 'India Mark II'
<http://www.rural-water-supply.net/en/implementation/public-domain-handpumps/india-mark-ii>

A.4. Scale of the VPA

The project is micro-scale. Each VPA will be capped at 10,000 VERs per year.

A.5. Funding sources of VPA

There is no public or ODA funding for this project activity, all revenue for the project will be derived from the sales of VERs.

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

B.1. Reference of approved methodology (ies)

Gold Standard Methodology: Technologies and Practices to Displace Decentralised Thermal Energy Consumption v1 Methodology applied.

GS Gender Equality Requirements & Guidelines document has been consulted for the project's gender equality annex.

B.2. Applicability of methodology (ies)

Gold Standard Methodology: Technologies and Practices to Displace Decentralised Thermal Energy Consumption v1 Methodology applied.

GS Gender Equality Requirements & Guidelines document has been consulted for the project's gender equality annex.

Methodology Requirement	Project
1. The project boundary can be clearly identified, and the technologies counted in the project are not included in another voluntary market or CDM project activity.	The project area has been clearly demarcated using political boundaries recognized in Uganda. Each technology will be recorded using GPS coordinates and individually tagged with an identification code which is stored securely in the project database. Regular project surveys together with distribution records will ensure that the

	technologies included in the project are not double counted.
2. Technologies have a continuous useful energy output of less than 150kW per unit (defined as total energy delivered usefully from start to end of operation of a unit divided by time of operation). For technologies or practices that do not deliver thermal energy in the project scenario but only displace thermal energy supplied in the baseline scenario, the 150kW threshold applies to the displaced baseline technology.	The project technology does not deliver thermal energy; the rehabilitation and installation of boreholes displace energy supplied in the baseline as they eliminate the need to purify water through boiling; the 150kw threshold therefore applies to the baseline technology. Boreholes displace energy supplied in the baseline as they eliminate the need to purify water through boiling. Based on the results of the WBT, the estimated energy output is 13.46 Kw which is well within the methodological limit of 150kw. This has been proven via calculation.
3. The use of the baseline technology as a backup or auxiliary technology in parallel with the improved technology introduced by the project activity is permitted as long as a mechanism is put into place to encourage the removal of the old technology and the definitive discontinuity of its use.	As noted in the Gold Standard Methodology p.5. 'the removal and continued non-use of three stone fires and other easily constructed traditional devices (the baseline technology replaced by this project activity) is in many cases unlikely and impractical to monitor.' However, local people will be educated on the health and environmental benefits of abandoning inefficient use of the baseline technology. Furthermore, a WASH program will be carried out parallel to the project which will help to increase awareness regarding water use, health and hygiene among local communities. This education programme will act as a mechanism to encourage the removal of old technology.
a) The project documentation must provide a clear description of the approach chosen and the monitoring plan must allow for a good understanding of the extent to which the baseline technology is still in use after the introduction of the improved technology, whether the existing baseline technology is not surrendered at the time of the introduction of the	Overall use of the baseline technology will be monitored in conjunction with that of the project technology, as will the emergence of any other baseline technology by targeted end users. As per the Methodology kitchen surveys will be carried out at regular intervals to determine any changes in baseline technology use. The baseline survey indicated that all respondents were using

improved technology, or whether a new baseline technology is acquired and put to use by targeted end users during the project crediting period.	a traditional wood fire to boil water which consists of a three-stone fire.
b)'The success of the mechanism put into place must therefore be monitored, and the approach must be adjusted if proven unsuccessful. If an old technology remains in use in parallel with the improved technology, corresponding emissions must of course be accounted for as part of the project emissions.'	Parallel baseline technology use (three stone fires or traditional equivalent) will be revealed during monitoring and its effect on emissions reductions will be captured in the parameter Q, p, clean boil, y and in the usage surveys. The uptake rate U will also be determined by surveys and hence used to account for parallel baseline and project technology use.
4. The project proponent must clearly communicate to all project participants the entity that is claiming ownership rights of and selling the emission reductions resulting from the project activity. This must be communicated to the technology producers and the retailers of the improved technology or the renewable fuel in use in the project situation by contract or clear written assertions in the transaction paperwork. If the claimants are not the project technology end users, the end users should be notified that they cannot claim for emission reductions from the project.	A full explanation will be given to elected representatives of borehole users that CO2Balance have committed to provide them with a rehabilitated and fully maintained for free on the basis that the emissions reductions will be transferred to CO2Balance. This will be recorded using a Carbon Transfer Form, which elected representatives of borehole owners will sign confirming that they understand the agreement and will explain it to borehole users.
5. Project activities making use of a new biomass feedstock in the project situation (e.g. shift from non- renewable to green charcoal, plant oil or renewable biomass briquettes) must comply with relevant Gold Standard specific requirements for biomass related project activities, as defined in the latest version of the Gold Standard rules.	As the technology used in this project has been specifically designed to displace baseline feedstock use via fuelwood, rather than a new biomass feedstock, this criterion is not applicable to this project. The emission reductions from this project will result from a change in quantity of fuel consumed, rather than change of fuel type.
a) Adequate evidence is supplied to demonstrate that indoor air pollution (IAP) levels are not worsened compared to the baseline, and greenhouse gases (as listed in section 2.1) emitted by the project fuel/stove combination are estimated with adequate precision. The project fuel/stove combination may	The fuel used in both the project and baseline scenario is the same, as such there are no additional harmful gases released in the project scenario. The baseline technology has also not changed; rather its use will have been eliminated.

include instances in which the project stove is a baseline stove.	
b) Records of renewable fuel sales may not be used as sole parameters for emission reduction calculation, but may be used as data informing the equations in section 2.0 of this methodology if correlated to data on distribution and results of field tests and surveys confirming (a) actual use of the renewable fuel and usage patterns such as average fraction of non- renewable fuels used in mixed combustion or seasonal variation of fuel types, (b) GHG emissions, (c) evidence of CO levels not deteriorating (d) any further factors effecting emission reductions significantly.	Renewable fuels are not sold as part of this project therefore this point is not applicable.

B.3. VPA boundary

Source	GHGs	Included?	Justification/ Explanation
Baseline scenario	CO ₂	Yes	Important source of emissions
	CH ₄	Yes	Important source of emissions
	Combustion of wood fuel to boil water		Gas included in the calculations. Emissions factors for fuel in stationery combustion by the IPCC.
	N ₂ O	Yes	
Project scenario Combustion of wood fuel to boil water	CO ₂	Yes	Important source of emissions

CH4	Yes	Important source of emissions
N2O	Yes	Gas included in the calculations. Emissions factors for fuel in stationery combustion by the IPCC.

B.4. Establishment and description of baseline scenario

In the baseline scenario local people typically use wood fuel on inefficient three stone fires for cooking and water purification. This process results in the release of greenhouse gas emissions from the combustion of wood. This can be avoided if local communities have access to safe water and therefore do not need to boil water as a treatment method.

Over 45% of the rural population are without access to safe water and rely exclusively on unprotected wells, lakes and other open water sources that are highly susceptible to contamination. Many depend on boiling as the only treatment method available or are forced to drink dirty water due to suppressed demand factors such as lack of access to fuel, time and financial resources.

This micro scale project will use the methodology "Technologies and Practices to Displace Decentralized Thermal Energy Consumption Version 1". Many existing boreholes have been poorly managed or proven too expensive to maintain properly. CO2Balance will work with community groups in the Lango sub-region to identify broken down boreholes and renovate them so that they deliver clean and safe water. The number of boreholes per VPA will be limited by the amount of safe water supplied by each unit, with emission reductions capped at 10,000 tCO₂e. CO2balance will rehabilitate and deliver the maintenance programme for each borehole to ensure that the quality of the water delivered by the boreholes is fit for human consumption for the entire 21-year length of the project.

The baseline situation is not expected to change significantly during the next years considering the current situation in Uganda, its economic development of the last years and predictions for the future. Uganda is an LDC with a Human Development Index ranking of 166 out of 191 countries.

B.5. Demonstration of additionality

Specify the methodology, activity requirement or product requirement that establishes deemed additionality for the proposed project (including the version number and the specific paragraph, if applicable).	As demonstrated in the Gold Standard for the Global Goals Community Services Activity Requirements section 2.5.2 - 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: 1. (a) Positive list (Annex B) 2. (b) Projects located in LDC, SIDS, LLDC 3. (c) Micro-scale projects
Describe how the proposed VPA meets the criteria for deemed additionality.	Uganda is an LDC. This project is also a Micro-scale project and so is deemed additional by the relevant activity requirement.

B.5.1. Prior Consideration

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No prior consideration regarding additionality required as the project is automatically additional.

B.5.2. Ongoing Financial Need

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Demonstration of ongoing financial need is required only for those projects that are required to demonstrate financial additionality.

B.6. Sustainable Development Goals (SDG) outcomes

Relevant Target/Indicator for each of the three SDGs

SUSTAINABLE DEVELOPMENT GOALS TARGETED	MOST RELEVANT SDG TARGET	SDG IMPACT
		INDICATOR (PROPOSED OR SDG INDICATOR)
SDG 3 – Good Health and Well-being	By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	Number of persons consuming safe water
SDG 5 - Gender Equality	Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.	Time saved collecting water
SDG 6 - Clean Water and Sanitation	By 2030, achieve universal and equitable access to safe and affordable drinking water for all.	Number of persons having access to safe water
SDG 13 – Climate Action	Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing states, including focusing on women, youth and local and marginalized communities.	Total project emissions reductions

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

Outcomes for SDG 3 (Good Health and Well-Being) are calculated as follows:

The outcome for SDG 3 is quantified as the additional number of persons consuming safe water in the

project activity compared to the baseline scenario (P_{safe}). The number of persons using each borehole is determined in the sensitization process during the rehabilitation. The percentage of users who were already consuming safe water in the baseline without boiling it (C_j) is determined through the baseline survey and deducted. Additionally, the percentage of users who consumed safe water by boiling it in the baseline ($P_{b, boil}$) is deducted. Calculations are as follows:

$$P_{safe} = P_y * (1 - C_j) * (1 - P_{b, boil})$$

Where:

P_{safe} Number of additional persons having access to safe water in the project activity compared to the baseline scenario.

P_y Number of persons having access to safe water in the project activity.

C_j Expressed as a percentage, the portion of users of the project technology j who in the baseline were already consuming safe water without boiling it.

$P_{b, boil}$ Percentage of persons boiling water for purification in the baseline scenario.

Outcomes for SDG 5 (Gender Equality) are calculated as follows:

By ensuring that there is a safe water source at the centre of communities, the projects have the potential to reduce the time poverty of women, because the time burden of collecting water, which falls disproportionately on women, will be reduced. As the safe water sources are located centrally within communities, closer to public institutions and villages, the distance travelled to collect water will be reduced, reducing the time per trip spent collecting water. In addition, as the water sources will be maintained, they will provide a reliable water supply, ensuring that water needs for cooking, drinking, and food preparation can be met by one central water source, so the time spent collecting water is minimised. The average % decrease per household in time spent collecting water will be taken as a proxy contribution towards the SDG target.

The overall reduction in time spent collecting water by the project activity are then calculated as follows:

$$TR_y = (T_{b,y} - T_{p,y}) / T_{b,y}$$

Where:

TR_y Total reduction time spent collecting water for project activity in year y (%)

$T_{b,y}$ Time spent collecting water per household per day prior to project (hours)

$T_{p,y}$ Time spent collecting water per household per day in project (hours)

Outcomes for SDG 6 (Clean Water and Sanitation) are calculated as follows:

The outcome for SDG 6 is quantified as the additional number of persons having access to safe water in the project activity compared to the baseline scenario (P_{access}). The number of persons using each borehole is determined in the sensitization process during the rehabilitation. The percentage of users who were already consuming safe water in the baseline without boiling it (C_j) will be determined through the baseline survey. Calculations are as follows:

$$P_{access} = P_y * (1 - C_j) * U_{p,y}$$

Where:

P_{access} Number of additional persons having access to safe water in the project activity compared to the baseline scenario.

P_y Number of persons having access to safe water in the project activity.

C_j Expressed as a percentage, the portion of users of the project technology j who in the baseline were already consuming safe water without boiling it.

$U_{p,y}$ Usage rate in project scenario p during year y

Outcomes for SDG 13 (Climate Action) are calculated as follows:

CO2 emission reductions are the indicator to demonstrate that the project has raised capacity for effective climate change-related planning and management. This outcome is measured using the VPA's emission reductions calculations.

Baseline Emissions

$$BE_{b,y} = B_{b,y} * ((fNRB_y * EF_{b,fuel,co2}) + EF_{b,fuel,nonco2}) * NCV_{b,fuel}$$

Where:

$$B_{p,y} = (1 - C_j) * N_{j,y} * W_{i,y} * (Q_{j,y} + Q_{j,rawboil,y}) \quad (11)$$

Where:

$N_{j,y}$	Number of person.days consuming water supplied by project scenario p through year y ⁴⁷
C_j	Expressed as a percentage, this is the portion of users of the project technology j who in the baseline were already consuming safe water without boiling it
$B_{b,y}$	Quantity of fuel consumed in baseline scenario b during the year y in tons
$Q_{p,y}$	Quantity of safe water in litres consumed in the project scenario p and supplied by project technology per person per day
$Q_{p,rawboil,y}$	Quantity of raw water boiled in the project scenario p per person per day
$W_{b,y}$	Quantity of fuel in tons required to treat 1 litre of water using technologies representative of baseline scenario b during project year y, as per Baseline Water Boiling Test.

Project Emissions

$$PE_{p,y} = B_{p,y} * ((fNRB_y * EF_{p,fuel,co2}) + EF_{p,fuel,nonco2}) * NCV_{p,fuel}$$

Where:

$$B_{p,y} = (1 - C_j) * N_{p,y} * W_{b,y} * (Q_{p,rawboil,y} + Q_{p,cleannoil,y})$$

$N_{p,y}$	Number of person.days consuming water supplied by project scenario p through year y
C_j	Expressed as a percentage, this is the portion of users of the project technology j or who in the baseline were already consuming safe water without boiling it
$B_{p,y}$	Quantity of fuel consumed in project scenario p during the year y in tons
$Q_{p,rawboil,y}$	Quantity of raw water boiled in the project scenario p per person per day
$Q_{p,cleannoil,y}$	Quantity of safe water boiled in the project scenario p per person per day
$W_{p,y}$	Quantity of wood fuel or fossil fuel in tons required to treat 1 litre of water using technologies representative of the project scenario p during project year y

Leakage:

The potential sources of leakage listed in the methodology have been investigated, and addressed below:

a) The displaced baseline technologies are reused outside the project boundary in place of lower emitting technology or in a manner suggesting more usage than would have occurred in the absence of the project.

In all cases the baseline technologies displaced are three stones; these have no market value and are not a product as such. There is nothing limiting the use of three stone cooking across the country (the technology is lowest rung on the energy ladder and the price is zero), which is why this cooking method is so widespread. In any case the primary purpose of these three rocks is for cooking so they will not be replaced/displaced in their entirety as a result of this project - which means they will not be reused outside the project boundary. This leakage source can therefore be discounted.

b) The non-renewable biomass or fossil fuels saved under the project activity are used by non-project users who previously used lower emitting energy sources.

There is no evidence to suggest significant (if any) use of renewable energy for purifying water in the project region as found in the Baseline Water Surveys. As solar purification devices are not used, renewable energy used

for purifying water would likely be animal dung or crop residues which will be used due to ease of availability/proximity to the home rather than due to a shortage of wood fuel, therefore it is an independent factor. This leakage source can therefore be discounted.

c) The project significantly impacts the NRB fraction within an area where other CDM or VER project activities account for NRB fraction in their baseline scenario.

The NRB fraction will be monitored every 2 years. However, as the majority of participants collect wood from within the project boundary, it is not expected that the NRB in other areas will be affected. There are currently no other CDM or VER projects in the project area.

d) The project population compensates for loss of the space heating effect of inefficient technology by adopting some other form of heating or by retaining some use of inefficient technology.

The space heating effect of boiling water for purification purposes will be minimal, as the predominant use of baseline technology is for cooking. Therefore, it is highly unlikely that another technology will be used for heating when users no longer boil water.

e) By virtue of promotion and marketing of new technology with high efficiency, the project stimulates substitution within households who commonly used a technology with relatively lower emissions, in cases where such a trend is not eligible as an evolving baseline.

This project is not marketing efficient technology; it is eliminating the need for a fuel based technology to deliver pure water. Lower emission technology substitution within households is therefore not possible and this leakage source can therefore be discounted.

A value of 0 is applied for leakage, which will be monitored biennially, following first verification as per the requirements of the methodology.

Overall Emission Reductions

$$ER_y = (((\sum BE_{b,y} - \sum PE_{p,y}) * Up,y) - LE_{p,y}) * (1 - X_{Boil})$$

The percentage of non-suppressed demand premises (Xboil) shall be conservatively omitted from the total emission reductions.
For full calculations please see accompanying Ex-Ante Calculations Spreadsheet.

B.6.2. Data and parameters fixed ex ante

SDG 3, 6 & 13

Data/parameter	C_j
Unit	Percentage
Description	Portion of users of project safe water supply who were already in baseline using a non- boiling safe water supply.
Source of data	Baseline study. Credible literature, studies, survey, reports, relevant to the project target area.
Value(s) applied	4.56%
Choice of data or Measurement methods and procedures	The portion of safe water users is determined through the baseline project survey and refers to the number of users that already use safe water from water sources such as boreholes.
Purpose of data	Calculate ERs, SDG 3 & 6
Additional comment	SDG 3: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination SDG 5: Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate SDG 6: By 2030, achieve universal and equitable access to safe and affordable drinking water for all

SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities

SDG 13

Data/parameter	EF _{b,co2} (EF _{b,fuel,co2})
Unit	tCO ₂ /TJ
Description	CO ₂ emission factor arising from use of fuels in baseline scenario
Source of data	IPCC default value: Volume 2: 2006 IPCC Guidance for National Greenhouse Gas Inventories, Chapter 2, Table 2.5: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf
Value(s) applied	112
Choice of data or Measurement methods and procedures	Deemed valid by Methodology
Purpose of data	Calculate ERs
Additional comment	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

Data/parameter	EF _{b,non CO2} (EF _{b,fuel,non-co2})
Unit	tCO ₂ /TJ

Description	Non-CO2 emission factor arising from use of fuels in baseline scenario																													
Source of data	IPCC Default emissions factor: Non-CO2 Emissions from Stationary Combustion. Annex 1, Table 2 and Table 3. https://www.ipcc-nggip.iges.or.jp/public/gp/bgp/2_2_Non-CO2_Stationary_Combustion.pdf Global Warming Potential: https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf																													
Value(s) applied	9.46 (2021)																													
Choice of data or Measurement methods and procedures	Deemed valid by Methodology <table><tr><th></th><th>Default Emissions factor (kg_gas/TJ_{NCV})</th><th>GWP of gas</th><th>Default Emissions factor (kg_CO₂e/TJ_{NCV})</th><th>Default Emissions factor (t_CO₂e/TJ_{NCV})</th></tr><tr><td>Gas</td><td></td><td></td><td></td><td></td></tr><tr><td>CH₄</td><td>300</td><td>28 (2021)</td><td>8,400 (2021)</td><td>8.4 (2021)</td></tr><tr><td>N₂O</td><td>4</td><td>265 (2021)</td><td>1,060 (2021)</td><td>1.06 (2021)</td></tr><tr><td></td><td></td><td></td><td>Total</td><td>9.46 (2021)</td></tr></table>						Default Emissions factor (kg_gas/TJ _{NCV})	GWP of gas	Default Emissions factor (kg_CO ₂ e/TJ _{NCV})	Default Emissions factor (t_CO ₂ e/TJ _{NCV})	Gas					CH ₄	300	28 (2021)	8,400 (2021)	8.4 (2021)	N ₂ O	4	265 (2021)	1,060 (2021)	1.06 (2021)				Total	9.46 (2021)
	Default Emissions factor (kg_gas/TJ _{NCV})	GWP of gas	Default Emissions factor (kg_CO ₂ e/TJ _{NCV})	Default Emissions factor (t_CO ₂ e/TJ _{NCV})																										
Gas																														
CH ₄	300	28 (2021)	8,400 (2021)	8.4 (2021)																										
N ₂ O	4	265 (2021)	1,060 (2021)	1.06 (2021)																										
			Total	9.46 (2021)																										
Purpose of data	Calculate ERs																													
Additional comment	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities. Following the new rule update regarding the applicability of global warming potential for GS for the Global Goals Projects, AR5 has been applied to 2021 ERs and AR4 to 2020 ERs. The parameter is updated when the IPCC release new figures. EF_{b,non,CO2} (Non-CO2 emission factor arising from use of fuels in baseline scenario) and EF_{p,non,CO2} (Non-CO2 emission factor arising from use of fuels in project scenario) values are set by the IPCC value. This value is updated intermittently and, as per the methodology, the newest figures are included in the Monitoring Report and Emission Reduction Calculations.																													

Data/parameter:	NCVb (NCV,b,fuel)
Unit	TJ/ton
Description	Net calorific value of the fuels used in the baseline
Source of data	IPCC default value (referenced in TPDDTEC v1)
Value(s) applied)	0.0156
Choice of data or Measurement methods and procedures	Deemed valid by Methodology
Purpose of data	Calculate ERs
Additional comments	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

Data/parameter:	NCVp
Unit	TJ/ton
Description	Net calorific value of the fuels used in the project
Source of data	IPCC default value (referenced in TPDDTEC v1)
Value(s) applied)	0.0156
Choice of data or Measurement methods and procedures	Deemed valid by Methodology
Purpose of data	Calculate ERs
Additional comments	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

Data/parameter:	EFp,CO2
Unit	tCO ₂ /TJ
Description	CO2 emission factor arising from use of fuels in project scenario
Source of data	Volume 2: 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2, Table 2.5; https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf
Value(s) applied)	112
Choice of data or Measurement methods and procedures	Deemed valid by Methodology
Purpose of data	Calculation ERs
Additional comments	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

Data/parameter:	EFp,non CO2
Unit	tCO ₂ /TJ
Description	Non-CO2 emission factor arising from use of fuels in project scenario
Source of data	IPCC Default emissions factor: Non-CO2 Emissions from Stationary Combustion. Annex 1, Table 2 and Table 3. https://www.ipcc-nggip.iges.or.jp/public/gp/bgp/2_2_NonCO2_Stationary_Combustion.pdf Global Warming Potential: https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf
Value(s) applied)	9.46 (2021)

Choice of data or Measurement methods and procedures	Deemed valid by Methodology				
	Ga s	Default Emissions factor (kg_gas/TJ _{NCv})	GWP of gas	Default Emissions factor (kg_CO ₂ e/TJ _{NCv})	Default Emissions factor (t_CO ₂ e/TJ _{NCv})
	CH ₄	300	28 (2021)	8,400 (2021)	8.4 (2021)
	N ₂ O	4	265 (2021)	1,060 (2021)	1.06 (2021)
				Total	9.46 (2021)
Purpose of data	Calculate ERs				
Additional comments	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.				
	Following the new rule update regarding the applicability of global warming potential for GS for the Global Goals Projects, AR5 has been applied to 2021 ERs and AR4 to 2020 ERs.				
	The parameter is updated when the IPCC release new figures. EF _{b,non,CO2} (Non-CO2 emission factor arising from use of fuels in baseline scenario) and EF _{p,non,CO2} (Non-CO2 emission factor arising from use of fuels in project scenario) values are set by the IPCC value. This value is updated intermittently and, as per the methodology, the newest figures are included in the Monitoring Report and Emission Reduction Calculations.				

Data/parameter:	$W_{b,y}$
Unit	T/litre
Description	Quantity of fuel that is used to treat 1 litre of water in the baseline scenario b during year y
Source of data	Baseline Water Boiling Test
Value(s) applied)	0.0004
Choice of data or Measurement methods and procedures	Gold Standard BAMG Cap.
Purpose of data	Calculation ERs
Additional comments	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

Data/parameter:	Xboil (Non-suppressed demand)
Unit	Percentage
Description	Percentage of premises that in the absence of the project activity would have used non-GHG emitting technologies like chlorine treatment techniques (if available) in the project boundary
Source of data	Baseline study. Credible literature, studies, survey, reports, relevant to the project target area.
Value(s) applied)	8.91
Choice of data or Measurement methods and procedures	Suppressed demand is determined through a set of questions in the project survey that establish the method households use to purify their water, if any, and how they would choose to purify if they were not subject to monetary and access barriers. This is in line with the Gold Standard principles of suppressed demand outline in annex 2. A fixed suppressed demand baseline has been opted for.
Purpose of data	Calculate ERs

Additional comments	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.
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SDG 3 & 13

Data/parameter:	$W_{p,y}$
Unit	T/litre
Description	Quantity of fuel that is used to treat 1 litre of water in the project scenario p during year y
Source of data	Baseline Water Boiling Test
Value(s) applied)	0.0004
Choice of data or Measurement methods and procedures	Gold Standard BAMG Default.
Purpose of data	Calculate ERs
Additional comments	SDG 3: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination. SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

SDG 3

Data/parameter:	Pb,boil
Unit	Percentage
Description	Percentage of persons boiling water for purification in the baseline scenario
Source of data	Baseline study (Qs 18-19)
Value(s) applied)	0.8
Choice of data or Measurement methods and procedures	The percentage of people stating that they used to boil their water for purification in the baseline scenario, evaluated through the baseline survey.
Purpose of data	Determination of number of persons boiling water in the baseline
Additional comments	SDG 3: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination. 3.9.1: Mortality rate attributed to household and ambient air pollution. 3.9.2: Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services SDG 3

SDG 5

Data/parameter:	Tb,y
Unit	Minutes
Description	Time spent collecting water per household per day prior to project
Source of data	Gender Baseline Survey
Value(s) applied)	169.5

Choice of data or Measurement methods and procedures	Survey
Purpose of data	Calculating time saved by project
Additional comments	SDG 5 (Gender Equality) 5.4: Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate. 5.4.1: Proportion of time spent on unpaid domestic and care work, by sex, age and location

B.6.3. Ex ante estimation of SDG Impact

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Estimation for SDG 3 (Good Health and Wellbeing)

$$52,672 = 55,636 * (1 - 0.0456) * (1 - 0.008046)$$

$$P_{safe} = P_y * (1 - C_j) * (1 - P_{b,boil})$$

Where:

P_{safe}	Number of additional persons having access to safe water in the project activity compared to the baseline scenario.
P_y	Number of persons having access to safe water in the project activity.
C_j	Expressed as a percentage, the portion of users of the project technology j who in the baseline were already consuming safe water without boiling it.
$P_{b,boil}$	Percentage of persons boiling water for purification in the baseline scenario.

Estimation for SDG 5 (Gender Equality)

$$57.5\% = (169.5 - 72)/169.5$$

$$TR_y = (T_{b,y} - T_{p,y}) / T_{b,y}$$

Where:

TR_y Total reduction time spent collecting water for project activity in year y (%)

$T_{b,y}$ Time spent collecting water per household per week prior to project (minutes)

$T_{p,y}$ Time spent collecting water per household per week in project (minutes)

Estimation for SDG 6 (Clean Water and Sanitation):

$$50,044 = 55,636 * (1 - 0.0456) * 1$$

$$P_{access} = P_y * (1 - C_j) * U_{p,y}$$

Where:

P_{access} Number of additional persons having access to safe water in the project activity compared to the baseline scenario.

P_y Number of persons having access to safe water in the project activity.

C_j Expressed as a percentage, the portion of users of the project technology j who in the baseline were already consuming safe water without boiling it.

$U_{p,y}$ Usage rate in project scenario p during year y

Estimation for SDG 13 (Climate Action)

CO2 emission reductions are the indicator to demonstrate that the project has raised capacity for effective climate change-related planning and management. These are calculated according to the description in Section B of the VPA-DD.

Baseline Emissions

$$89,851 = 58,143 * ((0.80 * 112) + 9.46) * 0.0156$$

$$BE_{b,y} = B_{b,y} * ((fNRB_y * EF_{b,fuel,co2}) + EF_{b,fuel,nonco2}) * NCV_{b,fuel}$$

Project Emissions

$$0 = 0 * ((0.80 * 112) + 9.46) * 0.0156$$

$$PE_{p,y} = B_{p,y} * ((fNRB_y * EF_{p,fuel,co2}) + EF_{p,fuel,nonco2}) * NCV_{p,fuel}$$

Where:

$$B_{p,y} = 0 = (1 - 0.0456) * 18,276,426 * 0.0004 * (0 + 0)$$

$$B_{p,y} = (1 - C_j) * N_{p,y} * W_{b,y} * (Q_{p,rawboil,y} + Q_{p,cleannoil,y})$$

$$77,753 = (((89,851 - 0) * 0.95) - 0) * (1 - 0.0891)$$

$$ER_y = (((\sum BE_{b,y} - \sum PE_{p,y}) * Up_{i,y}) - LE_{p,y}) * (1 - X_{Boil})$$

As the ERs per VPA are over 10,000 tCO₂e, the cap of 10,000 tCO₂e per year will be applied per VPA.

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

SDG 3

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	GS7366: 375	GS7366: 7,040	GS7366: 6,665
	GS7365: 380	GS7365: 7,140	GS7365: 6,760
	GS7364: 359	GS7364: 6,744	GS7364: 6,385
	GS7363: 380	GS7363: 7,140	GS7363: 6,760
	GS7362: 369	GS7362: 6,920	GS7362: 6,551
	GS6351: 368	GS6351: 6,900	GS6351: 6,532
	GS6350: 380	GS6350: 7,128	GS6350: 6,748
	GS6349: 353	GS6349: 6,624	GS6349: 6,271
		Total people consuming safe water: 55,636	Additional persons

Total people consuming
safe or boiled water:
2,964

consuming safe
water in the
project activity
compared to the
baseline
scenario:
52,672

Year 2	See above	See above	See above
Year 3	See above	See above	See above
Year 4	See above	See above	See above
Year 5	See above	See above	See above
Year 6	See above	See above	See above
Year 7	See above	See above	See above
Total	10,339	389,452	368,704

**Total number
of crediting
years** 7

**Annual
average over
the crediting
period**

2,964

55,636

52,672

SDG 5

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	GS7366: 169.5	GS7366: 72	GS7366: 57.5%
	GS7365: 169.5	GS7365: 72	GS7365: 57.5%
	GS7364: 169.5	GS7364: 72	GS7364: 57.5%
	GS7363: 169.5	GS7363: 72	GS7363: 57.5%
	GS7362: 169.5	GS7362: 72	GS7362: 57.5%
	GS6351: 169.5	GS6351: 72	GS6351: 57.5%
	GS6350: 169.5	GS6350: 72	GS6350: 57.5%
	GS6349: 169.5	GS6349: 72	GS6349: 57.5%
	Total minutes collecting water: 1,356	Total minutes collecting water: 576	reduction in time spent collecting water
Year 2	See above	See above	See above
Year 3	See above	See above	See above
Year 4	See above	See above	See above
Year 5	See above	See above	See above
Year 6	See above	See above	See above
Year 7	See above	See above	See above

Total	9,492	4,032	57.5%
Total number of crediting years	7		
Annual average over the crediting period	1,356	576	57.5%

SDG 6

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
	GS7366: 657	GS7366: 7,040	GS7366: 6,383
	GS7365: 666	GS7365: 7,140	GS7365: 6,474
	GS7364: 629	GS7364: 6,744	GS7364: 6,115
	GS7363: 666	GS7363: 7,140	GS7363: 6,474
	GS7362: 646	GS7362: 6,920	GS7362: 6,274
	GS6351: 644	GS6351: 6,900	GS6351: 6,256
	GS6350: 665	GS6350: 7,128	GS6350: 6,463
	GS6349: 618	GS6349: 6,624	GS6349: 6,006
Year 1	Total people with access to safe or boiled water: 5,192	Total people with access to safe water: 55,636	Additional persons having access to safe water in the project activity compared to the baseline scenario: 50,444
Year 2	See above	See above	See above
Year 3	See above	See above	See above
Year 4	See above	See above	See above
Year 5	See above	See above	See above
Year 6	See above	See above	See above
Year 7	See above	See above	See above
Total	36,344	389,452	353,108
Total number of crediting years	7		
Annual average over	5,192	55,636	50,444

**the crediting
period**

SDG 13

YEAR	BASILINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	GS7366: 11,369	GS7366: 0	GS7366: 9,839
	GS7365: 11,531	GS7365: 0	GS7365: 9,978
	GS7364: 10,891	GS7364: 0	GS7364: 9,425
	GS7363: 11,531	GS7363: 0	GS7363: 9,978
	GS7362: 11,176	GS7362: 0	GS7362: 9,671
	GS6351: 11,143	GS6351: 0	GS6351: 9,643
	GS6350: 11,512	GS6350: 0	GS6350: 9,962
	GS6349: 10,698	GS6349: 0	GS6349: 9,257
	Total tCO2e emitted: 89,851	Total tCO2e emitted: 0	Total emissions reduced by 77,753 tCO2e
Year 2	See above	See above	See above
Year 2	See above	See above	See above
Year 4	See above	See above	See above
Year 5	See above	See above	See above
Year 6	See above	See above	See above
Year 7	See above	See above	See above
Total	628,957	0	544,271
Total number of crediting years			
	7		
Annual average over the crediting period			
	89,851	0	77,753

B.7. Monitoring plan

B.7.1. Data and parameters to be monitored

SDG 13

Data / Parameter	$f_{NRB,i,y}$
Unit	Fractional non-renewability
Description	Non-renewability status of woody biomass fuel in scenario i during year y
Source of data	In-house calculation
Value(s) applied	0.80
Measurement methods and procedures	FNRB Assessment
Monitoring frequency	Fixed by baseline study for a given crediting period, updated if necessary, as specified in section III.1 of methodology.
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculate Emissions Reductions
Additional comment	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

Data/parameter:	$N_{p,y}$
Unit	Project Technology Days
Description	Number of persons consuming water supplied by project scenario p through year y
Measured/calculated/default	Measured
Source of data	Borehole Project Database
Value(s) of monitored parameter	GS7366: 2,312,640 GS7365: 2,345,490 GS7364: 2,215,404 GS7363: 2,345,490 GS7362: 2,273,220 GS6351: 2,266,650 GS6350: 2,341,548 GS6349: 2,175,984

	Total: 18,276,426 (estimated)
Monitoring equipment	Borehole Database
Measuring/reading/recording frequency:	Annual
Calculation method (if applicable):	Borehole users * days in MP – breakdown days
QA/QC procedures:	Transparent data analysis and reporting
Purpose of data:	Calculate ERs
Additional comments:	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

Data/parameter:	LEp,y
Unit	tCO2e per year
Description	Leakage in project scenario p during year y
Measured/calculated/default	Measured
Source of data	Baseline and monitoring surveys
Value(s) of monitored parameter	0
Monitoring equipment	-
Measuring/reading/recording frequency:	Annual
Calculation method (if applicable):	-
QA/QC procedures:	Transparent data analysis and reporting
Purpose of data:	Calculate ERs
Additional comments:	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

Data / Parameter	Failure Days _y (Non-functional days)
Unit	Number
Description	Number of days a particular water point was non-functioning during year y

Source of data	Borehole visits, communications from WRC
Value(s) applied	256,960 - 90% operationality (estimated)
Measurement methods and procedures	Please see ER calculations on how these days are incorporated.
Monitoring frequency	Ongoing
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculating ERs
Additional comment	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

SDG 3, 6 & 13

Data/parameter:	$U_{p,y}$
Unit	Percentage
Description	Usage rate in project scenario p through year y
Measured/calculated/default	Measured
Source of data	Annual Usage Survey
Value(s) of monitored parameter	95% (estimated)
Monitoring equipment	The usage survey has been carried out by staff trained by CO2balance to meet the specific requirements of the methodology. All data presented in Excel is subject to checking and cross referencing of a sample of the raw data by the project developers.
Measuring/reading/recording frequency:	Annual
Calculation method (if applicable):	-
QA/QC procedures:	Transparent data analysis and reporting
Purpose of data:	Calculate ERs
Additional comments:	SDG 3: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination. SDG 6: By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.
--	--

SDG 3 & 13

Data/parameter:	$Q_{p,y}$
Unit	Litres per person per day
Description	Quantity of safe water supplied in the project scenario p during the year y using the zero or low emissions clean water supply technology
Measured/calculated/default	Measured
Source of data	Water Consumption Field Test (WCFT)
Value(s) of monitored parameter	7.5 (Capped), 25.98 (2023 WCFT result value) (estimated)
Monitoring equipment	-
Measuring/reading/recording frequency:	Biennial
Calculation method (if applicable):	Method used similar to Kitchen Performance Test in which the volume of water consumed in each household is averaged over 3 days. Volume capped at 7.5 litres per person per day as per the methodology The WCFT is be carried out by staff trained by CO2balance to meet the specific requirements of the methodology. All data presented in excel is subject to checking and cross referencing of a sample of the raw data by CO2balance UK Ltd.
QA/QC procedures:	Transparent data analysis and reporting
Purpose of data:	Calculate ERs
Additional comments:	SDG 3: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination. SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small

	island developing States, including focusing on women, youth and local and marginalized communities.
--	--

Data/parameter:	$Q_{p, \text{cleanboil}, y}$
Unit	Litres per person per day
Description	Quantity of safe water boiled in the project scenario p during the year y using the zero or low emissions clean water supply technology
Measured/calculated/default	Measured
Source of data	WCFT
Value(s) of monitored parameter	0 (estimated)
Monitoring equipment	-
Measuring/reading/recording frequency:	Biennial
Calculation method (if applicable):	
QA/QC procedures:	Transparent data analysis and reporting
Purpose of data:	Calculate ERs
Additional comments:	SDG 3: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination. SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

Data/parameter:	$Q_{p, \text{rawboil}, y}$
Unit	Litres per person per day
Description	The raw of unsafe water that is still boiled after installation of the water treatment technology.
Measured/calculated/default	Measured
Source of data	WCFT
Value(s) of monitored parameter	0 (estimated)
Monitoring equipment	-
Measuring/reading/recording frequency:	Biennial

Calculation method (if applicable):	-
QA/QC procedures:	Transparent data analysis and reporting
Purpose of data:	Calculate ERs
Additional comments:	SDG 3: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination. SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

SDG 6

Data/parameter:	Quality of Treated Water
Unit	Parameters as per national standards
Description	Performance of the treatment technology
Measured/calculated/default	Measured
Source of data	Water quality tests
Value(s) of monitored parameter	Pass (97%) / Fail (3%) (estimated)
Monitoring equipment	-
Measuring/reading/recording frequency:	Annual
Calculation method (if applicable):	-
QA/QC procedures:	Transparent data analysis and reporting
Purpose of data:	Ensure water is safe for human consumption without treatment using the baseline technology.
Additional comments:	SDG 6: By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

Data / Parameter	Py
Unit	Number
Description	Number of persons having access to safe water in the project activity
Measured/calculated/default	Calculated

Source of data	Household lists
Value(s) of monitored parameter	GS7366: 7,040 GS7365: 7,140 GS7364: 6,744 GS7363: 7,140 GS7362: 6,920 GS6351: 6,900 GS6350: 7,128 GS6349: 6,624 Total: 55,636 (estimated)
Monitoring equipment	-
Measuring/reading/recording frequency:	Annual (recorded continuously)
Calculation method (if applicable):	Sum of the total number of people using each water point in the project. The total number of households using each water point will be established through lists supplied by the water resource committee and/or community group and/or district officer responsible for that water point. Using this method, the total number of people using each water point will be known.
QA/QC procedures:	Transparent data analysis and reporting
Purpose of data:	Calculating access to safe water
Additional comments:	SDG 6: By 2030, achieve universal and equitable access to safe and affordable drinking water for all

Data / Parameter	P _{access}
Unit	Number
Description	Number of additional persons having access to safe water in the project activity compared to the baseline scenario
Measured/calculated/default	Measured
Source of data	Household lists; Usage Survey
Value(s) of monitored parameter	GS7366: 6,383 GS7365: 6,474 GS7364: 6,115 GS7363: 6,474

	GS7362: 6,274 GS6351: 6,256 GS6350: 6,463 GS6349: 6,006 Total: 50,444 additional persons with access to safe water in the project activity across all VPAs (estimated)
Monitoring equipment	-
Measuring/reading/recording frequency:	Annual
Calculation method (if applicable):	Water point users * Usage rate
QA/QC procedures:	Transparent data analysis and reporting
Purpose of data:	To calculate the additional number of persons having access to safe water in the project activity compared to the baseline scenario
Additional comments:	SDG 6: By 2030, achieve universal and equitable access to safe and affordable drinking water for all

SDG 5

Data / Parameter	Usage of time saved on water collection
Unit	Percentage
Description	Uses of time saved which was previously spent on water collection
Measured/calculated/default	Measured
Source of data	Project Survey
Value(s) of monitored parameter	1. (Unpaid) Domestic work (includes cooking and caring for family members): 100% 2. Income generating activities: 99% 3. Religious activities: 94% 4. Social and leisure activities: 93% 5. Voluntary activities: 73% 6. Education and training: 49% 7. Other (Specify): 0% (estimated)
Monitoring equipment	-
Measuring/reading/recording frequency:	Annual

Calculation method (if applicable):	Ask users how time saved on water collection in the project scenario, as opposed to the baseline scenario, is now being used.
QA/QC procedures:	Transparent data analysis and reporting
Purpose of data	To quantify how time which was previously spent on water collection is now being used
Additional comments:	SDG 5: Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

Data / Parameter	Tp,y
Unit	Minutes
Description	Time spent collecting water per household per day in project
Measured/calculated/default	Measured
Source of data	Project survey
Value(s) of monitored parameter	72 (estimated)
Monitoring equipment	-
Measuring/reading/recording frequency:	Annual
Calculation method (if applicable):	Project Survey
QA/QC procedures:	Transparent data analysis and reporting
Purpose of data	Calculate time saved for women by the project
Additional comments:	SDG 5: Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

Data / Parameter	TRy
Unit	Percentage
Description	Total reduction time spent collecting water for project

	activity in year y (%)
Measured/calculated/default	Measured
Source of data	Project Survey
Value(s) of monitored parameter	57.5% (All VPAs) (estimated)
Monitoring equipment	-
Measuring/reading/recording frequency:	Annual
Calculation method (if applicable):	Calculate the average amount of time spent collecting water in the project scenario and compare to the pre-project scenario
QA/QC procedures:	Transparent data analysis and reporting -
Purpose of data	To quantify whether the project has contributed to a reduction in the amount of time spent collecting water compared to the pre-project scenario
Additional comments:	SDG 5: Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate

SDG 3

Data / Parameter	P _{safe}
Unit	Number
Description	Number of additional persons consuming safe water in the project activity compared to the baseline scenario.
Measured/calculated/default	Calculated
Source of data	Household lists and Usage Survey
Value(s) of monitored parameter	GS7366: 6,665 GS7365: 6,760 GS7364: 6,385 GS7363: 6,760 GS7362: 6,551 GS6351: 6,532 GS6350: 6,748 GS6349: 6,271

	Total: 52,672 persons consuming safe water across all VPA's (estimated)
Monitoring equipment	-
Measuring/reading/recording frequency:	Annual
Calculation method (if applicable):	Review the number of people using the water point according to the household lists for each VPA and multiply by the usage rate to calculate the number of people now using a safe water source in order to calculate the amount of biomass that would have been burnt to purify the water in the baseline scenario. Deduct from this any individuals that still boil water in the project scenario.
QA/QC procedures:	Transparent data analysis and reporting
Purpose of data	To calculate the additional number of persons having access to safe water in the project activity compared to the baseline scenario.
Additional comments:	SDG 13: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities

B.7.2. Sampling plan

Cross sampling will be applied across all homogenous VPAs in Lango sub-region. Homogenous VPAs are defined as those that are sharing a common baseline. The number of boreholes that will need to be sampled for a 90/30 confidence/precision will be determined. Out of those boreholes, households will be randomly sampled, complying with the minimum sample size for the particular survey/test.

Individual participants will be selected from the borehole user database using the random selection process outlined in the monitoring plan. See Monitoring Plan document. Sample sizes will be in line with the Gold Standard requirements. The surveys below will be monitored under the cross sampling approach;

- Project Surveys- Completed annually
- Usage Surveys- Completed annually
- Water Consumption Field Tests - Completed biennially

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

B.7.3. Other elements of monitoring plan

The borehole installation/rehabilitation record includes the following information:

- Date of installation/rehabilitation
- GPS location of the borehole
- Model of the borehole
- Quantity of boreholes installed
- The total number of people obtaining their water from each borehole
- Mode of use: commercial/domestic

The total number of households using each borehole has been determined through the lists supplied by the community group and district officials. Further studies are conducted to screen and determine the exact number of people using the rehabilitated boreholes. Using this method, the total number of people using each borehole has been fixed and hence a figure for person days can be calculated.

The following ongoing monitoring studies were conducted; the results are given in the parameter boxes tables in Section B.

- **Water consumption field test** (Equation parameters $Q_{p,y}$ and $Q_{p,rawboil,y}$)
– Completed prior to first verification and then biennially with a sample of at least 30 households.
- **Quality of the treated water** - The quality of the treated water will be assessed to ensure that it is fit for human consumption. The parameters used to assess the water quality will be in line with Ugandan standards for potable water and all parameters will be shown to be within levels considered acceptable for domestic human consumption.
- **Usage Survey** - As all boreholes will be installed within 1 year of the start of the crediting period and are expected to last the lifetime of the project, minimum samples of 30 for different aged technologies will not be necessary.

Therefore, the annual usage survey will be conducted using a minimum sample size of 100.

- **Project Survey** – Conducted on a minimum sample size of 100 households, surveying end users currently using project technologies to explore changes in project scenario over time.
- **Leakage** - The PDD has described which sources of leakage detailed within the methodology are relevant to this project and which have been discounted. Individual participants were selected from the borehole user database using the random sampling process outlined in the monitoring plan. Sample sizes are in line with the Gold Standard requirements.
- **Monitoring Site Visits** - Occur on a quarterly basis, as a minimum. Visits involve ensuring operationality of BH, carrying out any required WASH activities with WRC and that the WRC is active.
- **Hygiene Campaign** – Annual WASH training takes place once a year at each waterpoint. The training involves sensitisation on principles of WASH, household water management and preventing pollution of the ground water.
- **Gender** – The project is Gender Equality Responsive certified under Gold Standard, which allows project developers and funders to quantify and certify the impacts of climate action on SDG 5 (Gender Equality). As part of this, CO2balance carry out frequent monitoring activities and training events relating to gender.

The first large-scale event, a Gender Sensitive Local Stakeholder Consultation (LSC) Meeting, took place in May 2018 in Alebtong District. The consultation aimed to seek the views of the community on how gender impacted the project beneficiaries in relation to various factors, such as female empowerment and decision making. Survey questions were designed in response to the event and added to the annual Project Survey. Analysis is carried out on these results to determine the current situation relating to gender-based violence in the community and if the project has improved the baseline situation.

Following this initial event, in November and December 2018 a Sensitisation Campaign commenced in all the project Districts (Kole, Otukey, Alebtong, Dokolo). This was to enable the members of water user committees to acquire knowledge on gender-based violence and group dynamics with the aim of

improving relations and interactions among the water user groups for improved water point management and maintenance.

In December 2021, a large-scale refresher Sensitisation Campaign event took place with the main purpose to recap the skills and knowledge given in the 2018 event to the water users. The follow-up activity included water point user committees who had attended the 2018 event as well as new members who had not been part of that event. The next large-scale refresher is scheduled for 2023.

From 2019 to present day, annual community follow up surveys were conducted to ensure the information from the 2018 and 2021 large-scale events had been disseminated across the water point communities. The surveys also assessed the current situation relating to gender equality and gender-based violence. These findings, paired with the results from the annual Project Surveys, are assessed and referenced in this report and the Gender Equality Annex Report to demonstrate the impacts of the project on gender aspects.

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1. Start date of VPA

GS7366: 11/06/2019

GS7365: 11/06/2019

GS7364: 12/06/2019

GS7363: 12/06/2019

GS7362: 12/06/2019

GS6351: 12/06/2019

GS6350: 21/09/2018

GS6349: 07/05/2018

*PD has applied start of crediting period date

C.1.2. Expected operational lifetime of VPA

Project lifetime is 7 years, twice renewable from VPA start date.

C.2. Crediting period of project

C.2.1. Start date of crediting period

GS7366: 11/06/2019 to 10/06/2026

GS7365: 11/06/2019 to 10/06/2026

GS7364: 12/06/2019 to 11/06/2026

GS7363: 12/06/2019 to 11/06/2026

GS7362: 12/06/2019 to 11/06/2026

GS6351: 12/06/2019 to 11/06/2026

GS6350: 21/09/2018 to 20/09/2025

GS6349: 07/05/2018 to 06/05/2025

C.2.2. Total length of crediting period

Crediting periods last 7 years each

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1. Safeguarding Principles that will be monitored

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

PRINCIPLES	MITIGATION MEASURES ADDED TO THE MONITORING PLAN
Principle 1: Human Rights	During all trainings, it will be emphasised that project beneficiaries should support vulnerable or less mobile community members to access water. SDG 5 Tp,y TR,y
Principle 2: Gender Equality and Women's Empowerment	The time spent collecting wood fuel is monitored in the project survey. The project aims to reduce the burden on the whole community of traveling far to collect wood and in particular to women who perform the majority of unpaid domestic work. Gender training events are also conducted as part of the Gender Responsive Certification.

SDG 3, 6 and 13

Np,y

Qp,y

Qp,cleanboil,y

Quality of Treated Water

Psafe

Paccess

P,y

Pp,y

**Principle 3:
Community Health and
Safety**

Incidences of water borne illnesses are monitored through the annual Monitoring Project Survey.

A WASH programme is carried out by the project including WASH training at the beginning of the project, as well as subsequent WASH follow-up training.

**Principle 4: Cultural
Heritage, Indigenous
Peoples,
Displacement and
Resettlement**

N/A

The project has no negative impact on Principle 4.

Principle 5: Corruption

Project beneficiaries are able to contact the project developer and implementer through the continuous grievance mechanism to report any form of corruption.

**Principle 6: Economic
Impacts**

To ensure long term sustainability of the water points, and avoid unexpected breakdowns and spending, training was conducted at the beginning of the project on conducting minor maintenance. The project is expected to benefit all members of the community.

**Principle 7: Climate
and Energy**

SDG 13

The Emission Reductions and leakage aspects of the project are monitored during the Monitoring Period.

Principle 8: Water

The project technology involves pumping groundwater, therefore there is a risk of altering groundwater levels if the pump is overused. Ongoing monitoring of water flow is conducted in the project and the community is educated on the threat to water supply.

Principle 9: Environment, Ecology and Land Use

N/A

The project has no negative impact on Principle 9.

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 is Gender Sensitive and gender certification. The project saves time for water collectors, who are mainly female, and monitors how much time is saved and the uses of this saved time. This data will highlight the positive impacts on women and feed into the design process of future projects, ensuring that they empower women even further.

The project aims to empower women and girls by encouraging meaningful participation in the Stakeholder Consultation and Water Resource Committees. This helps to shape the project in a gender sensitive way as women have an input at every stage of the project, from project development to the end user. This gives women an active role in natural resources management

and environmental sustainability. The Stakeholder Consultation and inclusive WRCs are Gender responsive as it requires community members to question entrenched gender roles, highlight gaps and question why they exist. The Gender Sensitive monitoring allows for the impacts of these sessions to be evaluated.

Additionally, the project is certified Gender Responsive. See further information in section B.7.3.

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

Uganda's official National Gender Policy was released by the Ministry of Gender, Labor, and Social Development in 2007 with a 10 year time frame (2007-2017). A mid-term evaluation was to be carried out in the fifth year of implementation (2012) but there is no documentation to distinguish whether this happened or not. As of now there is no updated Gender Policy since the last document expired in 2017. However, given this was the last official gender documentation released, it was used to align the projects with National Gender Policy.

According to the National Development Plan 2020/21 -2024/25, a Uganda Gender Policy Action Plan is to be developed and implemented. However, this has not yet been released.

The current Gender Policy outlines several main objectives, including the following which the project is aiming to meet:

1. To reduce gender inequalities so that all women and men, girls and boys, are able to move out of poverty and to achieve improved and sustainable livelihoods – the projects actively seek to reduce inequalities along the lines of gender and age discrimination. In providing clean water, the projects are allowing communities to develop and lead more sustainable

lives without the need to boil water for purification. The projects will help to close community and household gender gaps through the provision of clean water, regardless of existing social structures.

2. To increase knowledge and understanding of human rights among women and men so that they can identify violations, demand, access, seek redress and enjoy their rights – the project seeks to educate and empower participants to realise adopted social norms which may be damaging to development and the empowerment of women and girls. Once educated, men and women can begin to facilitate a more equitable living environment in households and in the community that delivers agency for men and women to make their own choices and demands and exercise their rights without discrimination.
3. To strengthen women's presence and capacities in decision making for their meaningful participation in administrative and political processes – as part of the projects, women will be encouraged to take part in community groups, particularly local WRCs, including presence in leadership roles where their contribution to decisions will

be followed through to the projects in order to improve access for project beneficiaries.

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

A gender expert who is knowledgeable about the regional and contextual background of the project is involved in the large-scale training events in order to meet the ideal requirements for gender responsive certification (Section 4.2.4 of Gold Standard Gender Equality Requirements and Guidelines). See section B.7.3 for further information on the gender training programme.

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

N/A

Gender Expert is involved in the Gender Responsive aspect of project.

SECTION E. SUMMARY OF LOCAL STAKEHOLDER CONSULTATION

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

E.1. Summary of stakeholder mitigation measures

>>

Refer to original PDD.

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)	During the LSC, it was widely agreed that a grievance expression book and phone access were the two best options. Following an animated discussion about where the book should be located for ease of access, it was unanimously decided that the LC1 chairmen's office was the most appropriate location as that is where frequent meetings are held.
GS Contact (mandatory)	help@goldstandard.org
Other	

SECTION F. Eligibility and inclusion criteria for VPAs inclusion

>>

The below table shall be completed for all VPAs.

The CME shall provide clear description on how eligibility criteria set at real case VPAs are complied with for each real case and regular VPAs submitted for inclusion.

The CME shall not change the eligibility criteria and required condition set at real case VPAs. At the time of inclusion of regular VPAs, the CME shall only describe how the regular VPAs comply with the eligibility criterion.

NO.	ELIGIBILITY CRITERION	DESCRIPTION/ REQUIRED CONDITION	DESCRIPTION OF THE VPA IN RELATION TO THE CRITERIA, MEANS OF VERIFICATION/SUPPORTI NG EVIDENCE FOR INCLUSION
1			
2			
3			
...			

APPENDIX 1 - SAFEGUARDING PRINCIPLES ASSESSMENT

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

SOCIAL SAFEGUARDING PRINCIPLES		
Reference requirement	Question	Response

[ERROR! REFERENCE SOURCE NOT FOUND.](#)[ERROR! REFERENCE SOURCE NOT FOUND.](#)

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project developer, its representatives and the Project disrespect internationally proclaimed human rights?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Is the project involved or complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Have local communities or individuals raised human rights concerns regarding the project (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Is there a risk that rights-holders (e.g., Project-affected stakeholders) do not have the capacity to claim their rights?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does this project undermine national or regional measures for the realisation of the right to development?	☐ YES ☒ NO

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

Would the project potentially involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalised groups?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	inequitable or discriminatory impacts on affected populations, particularly people living in poverty or	☐ YES ☐ POTENTIALLY

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

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

For example, by describing how the project design:

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

The project will adhere to all human rights requirements including respecting internationally proclaimed human rights and Universal Declaration of Human Rights and will not discriminate in any way.

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

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

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

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

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Would the project potentially involve or lead to:

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

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

There is no identified risk to gender equality and empowerment.

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

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

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

Would the project potentially involve or lead to:

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

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

There is no identified risk to community health and safety.

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

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Would the project potentially involve or lead to:

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

<u>NOT FOUND.</u>		
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If answer to question above is "YES", has project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA

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

ERROR! REFERENCE SOURCE NOT FOUND.

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

Would the project potentially involve or lead to:

<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	risk of forced evictions or involuntary relocation of people?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	temporary or permanent and full or partial physical displacement (including people without legally recognisable claims to land)?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	economic displacement (e.g., loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If answer to question above is "YES" or "POTENTIALLY", - has the project developed Resettlement Action Plan or Livelihood Action Plan in consultation and agreement with affected individual, group or community? - has the project integrated Resettlement Action Plan or Livelihood Action Plan into the Project design?	☐ YES ☐ NO ☒ NA
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If answer to question above is "YES" - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
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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.

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

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve any risks related to identifying and managing legitimate tenure rights that may be affected by the project?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

Would the project potentially involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	uncertainties with regards to land tenure, access rights, usage rights or land ownership? Examples include, but are not limited to water access rights, community-based property rights and customary rights.	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Changes in legal arrangements, if yes, are the changes done in line with relevant laws and regulations?	☐ YES ☒ NO ☐ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Changes in legal arrangements, if yes, are these changes agree with free, prior and informed consent of the involved stakeholders?	☐ YES ☒ NO ☐ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Does some other entity (other than the project developer) hold uncontested land title for the entire Project Boundary?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Have project developer in consultation with stakeholders established a functioning mechanism to receive, process, resolve, communicate and record grievances?	☐ YES ☐ NO ☒ NA

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

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

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve Indigenous People within the Project area of influence who may be affected directly or indirectly by the Project?	☐ YES ☒ NO
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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.

Would the project potentially involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	affect areas where indigenous peoples are present (including project area of influence)	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	affect areas, land and territory claimed by indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above questions is "YES" or "POTENTIALLY", - Is it determined that the proposed project may affect the rights, lands, resources, or territories of indigenous people? - Has an "Indigenous People Plan" (IPP) or "Indigenous People Plan Framework" been elaborated and included in the project documentation? - Was the plan developed in accordance with the effective and meaningful participation of indigenous peoples and in accordance with UNDP Guidelines?	☐ YES ☐ NO ☒ NA

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	risk of forcibly removing indigenous people from their lands and territories?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	utilisation and/or commercial development of natural resources on lands and territories claimed by indigenous peoples? Consider, and where appropriate ensure, consistency with the answers under Principle 4.1 above	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u> <u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	If answer to question above is "YES" or "POTENTIALLY" - Did the project obtain free, prior and informed consent from indigenous people before taking their cultural, intellectual, religious, and/or spiritual property? - Does the project ensure that the indigenous people receive an equitable sharing of benefits resulting from the use of their traditional knowledge and practices? ? - Does the project ensure that the sharing of benefits resulting from the use of indigenous peoples' 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?	☐ YES ☐ NO ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Does the project lack appropriate feedback and grievance channels for Indigenous Peoples and their representatives?	☐ YES ☐ NO ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Has a grievance mechanism not been established at the beginning of programme or project implementation with due consideration given to customary dispute settlement mechanisms among the Indigenous Peoples concerned and will it remain operational throughout the project cycle?	☐ YES ☐ NO ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA

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

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

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve, or is it complicit in, contributing to or reinforcing corruption or corrupt projects?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have a risk of encouraging bribery, kickbacks, or other unethical behavior?	☐ YES ☒ NO

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

ECONOMIC SAFEGUARDING PRINCIPLES

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

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

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

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

No workers in project, no grievance mechanism required

Would the project potentially involve or lead to:

(NOTE: APPLIES TO BOTH PROJECT AND CONTRACTOR WORKERS)

<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	use of forced labour?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	working conditions that do not meet national labour laws and international commitments?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	working conditions that may deny freedom of association and collective bargaining?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE</u>	absence of documented working agreements with all individual workers	☐ YES ☐ POTENTIALLY

NOT FOUND.	<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>	☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	use of migrant workers? <i>if engaged, the developer shall ensure that they are engaged substantially equivalent terms and conditions to non-migrant workers carrying out similar work.</i>	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	having no arrangements for basic services ² for workers? <i>the project developer shall put in place and implement policies on the quality and management of the accommodation and provision of basic services in a manner consistent with the principles of non-discrimination and equal opportunity. Workers' accommodation arrangements should not restrict workers' freedom of movement or of association</i>	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	any form of discrimination or harassment based on factors unrelated to job requirements, such as gender, race, nationality, ethnicity, social or indigenous origin, religion or belief, disability, age, or sexual orientation?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	any form of discrimination in any aspect of employment, such as recruitment, compensation, working conditions, training, job assignment, promotion, termination, or discipline?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	harassment, intimidation, and/or exploitation, especially in regard to women?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	discriminatory working conditions and/or lack of equal opportunity where national law provides provision to address non-discrimination in employment?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	use of child labour? (including third-party engaged workers)	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE	inadequate and verifiable mechanisms for age verification?	☐ YES ☒ NO

² 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.

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

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

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

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

<u>NOT FOUND.</u>		
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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.

Would the project involve or lead to:

<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	economic impacts (negative/detrimental) to the local economy?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	negative economic consequences during and after project implementation, e.g., for vulnerable and marginalised social groups in targeted communities?	☐ YES ☐ POTENTIALLY ☒ NO

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

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<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Does the project have a risk of increasing greenhouse gas emissions over the Baseline Scenario?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Would the project involve or lead to:

<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	increase greenhouse gas emissions over the Baseline Scenario?	☐ YES ☐ POTENTIALLY ☒ NO
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If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

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

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

Would the project involve or lead to:

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

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

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<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Does the project increase water usage to a level that will not allow for the maintenance of environmental flows?	☐ YES ☒ NO
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<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Does the project result in the discharge of wastewater that does not meet the required standard for beneficial reuse and could therefore negatively impact the environmental flow?	☐ YES ☒ NO
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<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Does the project have the potential risk to exceed the rate of recharge for the groundwater source?	☒ YES ☐ NO
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<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Does the project involve any processes or activities that could contaminate the groundwater and render it unsuitable for use?	☐ YES ☒ NO
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If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Potential for aquifer to dry up if water point is overused. Education of water point usage and threat to groundwater supply is required.

Would the project involve or lead to:

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

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

Water pump technology is extracting groundwater. No expert stakeholder required

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

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

Please add text here....

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	negatively impact on the catchment area?	
-	<i>If yes, Erosion prevention measures, including soil and slope protection measures, must be implemented before project commencement. These measures should involve natural terracing, infiltration strips, permanent ground cover, hedge and tree rows, and effective slope length assessment. Regular reassessment of these measures is necessary.</i>	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

<u>NOT FOUND.</u>		
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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.

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

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

Would the project involve or lead to:

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

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

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

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

Would the project involve or lead to:

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

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

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

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

Would the project involve or lead to:

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

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

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

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

Would the project involve or lead to:

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

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

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

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

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Does the project involve the use of any chemicals or materials subject to international bans or phase-outs?	☐ YES ☒ NO
--	---	--

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

Would the project involve or lead to:

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	the generation and management of waste materials?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	treatment, destruction, or disposal of waste material?	☐ YES ☒ NO ☐ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	If answer to above question is "Yes", does the project involve an environmentally friendly method that includes appropriate control of emissions and residues resulting from the handling and processing of waste material?	☐ YES ☐ NO ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES ☒ NO ☐ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	If answer to above question is "yes", does project has measures in place to address health risks?	☐ YES ☐ NO ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Involve manufacture, trade, and use of chemicals and hazardous materials subject to international bans or phase-outs due to their high toxicity to living organisms, environmental persistence, potential for bioaccumulation, or potential for depletion of the ozone layer	☐ YES ☐ POTENTIALLY ☒ NO

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

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

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Does the project involve the use of chemical pesticides?	☐ YES ☒ NO
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ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve purchase, store, manufacture, trade or use products that fall in Classes IA (extremely hazardous) and IB (highly hazardous)	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project use fertilisers, and if so, are measures being taken to minimise their use and nutrient losses to the environment?	☐ YES ☒ NO

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

Would the project involve or lead to:

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

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

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

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have a risk of unsustainable forest management, including timber harvesting?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project pose a risk of depleting biodiversity and ecosystem functionality in areas where improved forest management is undertaken?	☐ YES ☒ NO

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Does the project risk not meeting requirements for environment-friendly, socially beneficial, and economically viable plantations using native species whenever possible?	☐ YES ☒ NO
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If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

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

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

Would the project involve or lead to:

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

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

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

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

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	animal husbandry or harvesting of fish populations or other aquatic species? ³	☐ YES ☒ NO ☐ NA
ERROR! REFERENCE SOURCE NOT FOUND.	limiting access for animals to basic needs like drinking water, adequate food, daylight, appropriate shelter etc.?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	inadequate measures to isolate sick animals and control the spread of disease, especially zoonotic diseases?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	inadequate low-stress methods, equipment, and facilities that facilitate calm animal movement.	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	inadequate measures to ensure that animals are exposed to the least stress possible during transportation and slaughtering?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	inappropriate spacing per animal and stocking rates per land unit?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	inadequate measures to address the specific needs of aquatic animals?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND. ERROR! REFERENCE SOURCE	primary production of living natural resources such as animal husbandry, aquaculture, and fisheries? If the answer is yes, implement industry-standard sustainable management practices in line with to one or more relevant and credible standards and utilise available technologies.	☐ YES ☐ NO ☒ NA

³ 'Involve' means if the project mechanism and/or impact(s) are achieved via changing animal husbandry practices in some way.

<u>NOT FOUND.</u>		
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If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

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

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

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

Would the project involve or lead to:

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

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

If the answer is "yes" or "potentially" to any of the above 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.

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

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

Would the project involve or lead to:

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	distortion of habitats of endangered species?	☐ YES ☐ POTENTIALLY ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	If answer to the above question is "yes", does the project plan to protect and enhance them?	☐ YES ☐ POTENTIALLY ☐ NO ☒ N/A
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above 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.

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

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

Would the project involve or lead to:

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

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

APPENDIX 2- CONTACT INFORMATION OF VPA IMPLEMENTER

Organisation name	CO2balance UK Ltd
Registration number with relevant authority	4889958 (UK company registration number)
Street/P.O. Box	Cook Way
Building	1 Discovery House
City	Taunton
State/Region	Somerset
Postcode	TA2 6BJ
Country	UK
Telephone	+44 (0) 1823 332233
E-mail	issie.hatfield@co2balance.com
Website	www.co2balance.com
Contact person	Issie Hatfield
Title	Senior Project Manager
Salutation	Miss
Last name	Hatfield
Middle name	Clare
First name	Issie
Department	Projects
Mobile	
Direct tel.	+44 (0) 1823 332233
Personal e-mail	issie.hatfield@co2balance.com

APPENDIX 3- LUF ADDITIONAL INFORMATION

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

APPENDIX 4 - DESIGN CHANGES

A4.1. Details of proposed or actual design change

>> *In this project, multiple VPAs have reached the end of their crediting period whilst many are far from reaching the end of their crediting period. PD has agreed with SustainCERT that a 're-bundling' approach can be taken in order to position water points from VPAs that have reached the end of their Crediting Period in to existing VPAs that are yet to reach the end of their Crediting Period.*

This will result in the reduction of active VPAs in the Lango Safe Water Project, changing from 21 VPAs to 8 VPAs.

Previous 21 VPAs:

GS5106

GS5186

GS5187

GS5188

GS5189

GS5190

GS5191

GS5192

GS5193

GS5194

GS5196

GS5197

GS6349

GS6350

GS6351

GS7362

GS7363

GS7364

GS7365

GS7366

8 active VPAs going forward:

GS7366

GS7365
GS7364
GS7363
GS7362
GS6351
GS6350
GS6349

The water points will not credit for longer than the agreed Crediting Periods below:

GS7366: 11/06/2019 to 10/06/2026
GS7365: 11/06/2019 to 10/06/2026
GS7364: 12/06/2019 to 11/06/2026
GS7363: 12/06/2019 to 11/06/2026
GS7362: 12/06/2019 to 11/06/2026
GS6351: 12/06/2019 to 11/06/2026
GS6350: 21/09/2018 to 20/09/2025
GS6349: 07/05/2018 to 06/05/2025

SDG 3

VPA	PREVIOUS EX-ANTE ESTIMATE	UPDATED EX- ANTE ESTIMATE
GS7366	3,726	6,665
GS7365	3,726	6,760
GS7364	3,726	6,385
GS7363	3,726	6,760
GS7362	3,726	6,551
GS6351	3,726	6,532
GS6350	3,726	6,748
GS6349	3,726	6,271

SDG 5

VPA	PREVIOUS EX-ANTE ESTIMATE	UPDATED EX- ANTE ESTIMATE
GS7366	57.5%	57.5%
GS7365	57.5%	57.5%
GS7364	57.5%	57.5%

GS7363	57.5%	57.5%
GS7362	57.5%	57.5%
GS6351	53.8%	57.5%
GS6350	53.8%	57.5%
GS6349	53.8%	57.5%

SDG 6

VPA	PREVIOUS EX-ANTE ESTIMATE	UPDATED EX-ANTE ESTIMATE
GS7366	3,757	6,383
GS7365	3,757	6,474
GS7364	3,757	6,115
GS7363	3,757	6,474
GS7362	3,757	6,274
GS6351	3,757	6,256
GS6350	3,757	6,463
GS6349	3,757	6,006

SDG 13

VPA	PREVIOUS EX-ANTE ESTIMATE	UPDATED EX-ANTE ESTIMATE
GS7366	9,973	9,839
GS7365	9,973	9,978
GS7364	9,973	9,425
GS7363	9,973	9,978
GS7362	9,973	9,671
GS6351	9,973	9,643
GS6350	9,973	9,962
GS6349	9,973	9,257

**increases in the updated ex-ante estimates are a result of the VPAs previously having fewer user numbers, there are now more boreholes per VPA resulting in increased user numbers*

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

a. **Additionality**

>> *Additionality does not change, and the project will remain the same.*

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

>> VPAs that have reached the end of their Crediting Period be positioned in existing VPAs that are still on TPDDTEC v1.0. Therefore, they will not transition on to ERSDWS v1.0 until the whole VPA moves on to that methodology.

The water points will not credit for longer than the agreed Crediting Periods.

c. Compliance with the monitoring plan of the applied methodology

>> There will be no changes to the previous monitoring and sampling approach with the reduction in VPAs. Compliance with the monitoring plan of the methodology does not change.

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

>> No changes to level of accuracy and completeness.

e. Scale of the project activity

>> Scale of project is still micro-scale. Each VPA will not claim above 10,000 tCO₂e.

f. Stakeholder consultation

>> No change.

g. Sustainable development criteria

>> No change.

h. Safeguarding Assessment

>> No change.

i. Compliance with applicable legislation

>> No change.

Revision History

Version	Date	Remarks
2.3	Dd/mm/yyyy	Editorial changes in line with V2.1 of the Safeguarding Principles and Requirements
2.2	21 June 2023	Editorial changes in line with V2.0 of the Safeguarding Principles and Requirements
2.1	14 April 2023	Integrated the design change memo as annex of the document.
2.0	4 May 2022	
1.1	7 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Inclusion criteria table added Gender sensitive requirements added Prior consideration (1 yr rule) and Ongoing Financial Need added Safeguard Principles Assessment as annex and a new section to include applicable safeguards for clarity Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on Stakeholder Consultation information required Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.0	10 July 2017	Initial adoption