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Gold Standard for the Global Goals
Key Programme Information & Programme Design Document (PoA-DD)

July 2017, Version 1

KEY PROGRAMME INFORMATION

Title of Programme:	GS1247 Improved Kitchen Regimes Multi-Country PoA
Brief description of Programme:	GS1247 Improved Kitchen Regimes Multi-Country PoA started on 01/05/2012. The first Crediting Period (CP) ends on 30/04/2020. This PoA-DD covers CP2 from 01/05/2020 to 30/04/2025. The purpose of this Micro-Scale Programme of Activities (mPoA) is to reduce Green House Gas emissions from the burning of non-renewable biomass for cooking and water treatment. This mPoA will distribute energy efficient cook stoves and/or safe water supply and treatment technologies to households/communities across Less Developed Countries and Landlocked Developing Countries.
Expected duration of Programme:	28 years (20 years remaining from CP2)
Coordinating & Management Entity:	CO2balance UK Ltd.
Project Representative:	Lucas Emmerson, CO2balance
Project Participants and any communities involved:	Various partner organisations in target countries to be mentioned at the VPA level
Version of PoA-DD: Date of Version:	Crediting Period 2 v11 22/04/2020
Host Country (ies) / Location:	Burkina Faso Eritrea Ethiopia Gambia Malawi Mozambique Rwanda Sierra Leone Tanzania Togo Uganda Zambia Zimbabwe
Certification Pathway (Project Certification/Impact Statements & Products	Impact Statements & Products - Voluntary Emission Reductions & Gender Equality Certification
Activity Requirements applied: (mark GS4GG if none relevant)	GS4GG
Methodologies applied:	GS TPDDTEC v3.1
Product Requirements applied:	VERs, ADALYS, Gender Certification
Regular/Retroactive:	Regular
SDG Impacts:	This list comprises all the SDGs which may be targeted by component VPAs of this PoA. All component VPAs will contribute to at least 3 of the SDGs listed here, including SDG 13. 1 – SDG 3: Good Health and Well-Being 2 – SDG 4: Quality Education 3 – SDG 5: Gender Equality 4 – SDG 6: Clean Water and Sanitation 5 – SDG 7: Affordable and Clean Energy 6 – SDG 8: Decent Work and Economic Growth

	7 – SDG 13: Climate Action 8 – SDG 15: Life on Land

SECTION A. General description of PoA

A.1. Purpose and general description of the PoA

>> (Provide a brief description of the PoA including information on policy/measure or stated goal that the PoA seeks to promote and framework for the implementation of the proposed PoA.)

The purpose of this Micro-Scale Programme of Activities (mPoA) is to reduce Green House Gas (GHG) emissions from the burning of non-renewable biomass for cooking and water treatment. This mPoA will distribute energy efficient cook stoves and/or safe water supply and treatment technologies to households/communities across Less Developed Countries (LDCs) and Landlocked Developing Countries (LLDCs).

Biomass, principally firewood and charcoal, holds huge importance in Developing Countries, and is the main source of household energy for some 2-3 billion people in the Developing World, with this demand expected to continue growing.[1] More than 1 billion people worldwide do not have access to safe drinking water and a high percentage of these boil their water to purify it for consumption, taking significant amounts of fuel and time.

High population densities coupled with high population growth rates, is putting increasing pressure on natural resources across the Developing World, which are being overexploited. The resulting situation is high and increasing levels of deforestation and environmental degradation.

In addition to the environmental consequences of such high wood use, there are also serious health implications. Biomass is often the predominant source of energy for cooking and water boiling, especially in rural areas, and is generally carried out on thermally inefficient traditional devices, which produce large amounts of smoke and indoor air pollution. It has been concluded that '*indoor air pollution is a major environmental and public health hazard for many of the world's poorest, most vulnerable people.*'[2]

This mPoA will attempt to address issues such as these through the distribution of several different technologies, which will result in environmental, social and economic benefits, and significant contributions towards achieving Sustainable Development Goals (SDGs)[3] (explored later):

- The distribution of improved cook stoves to households currently cooking on inefficient devices will reduce carbon emissions by allowing families to cook the same amount of food using less non-renewable biomass
- The distribution of household level point of use water treatment technologies to those lacking access to safe water will remove the need to boil water as a form of treatment before consumption, thus reducing carbon emissions.
- The installation and/or repair of community wide safe water supply technologies such as hand-pumped boreholes will also remove the need to treat water by boiling before consumption.

The efficient cook stoves and/or safe water supply and treatment technologies will be distributed to households/installed in communities for a nominal installation fee or through a subsidised sales model. By introducing a small fee, it is anticipated that recipients will experience greater levels of ownership, value the technology more and therefore uptake, usage and continued interest in the project will be greater.

Users will enter into an agreement with CO2balance UK Ltd, transferring rights to the VERs generated by the PoA in return for the subsidised technology. The users must also agree to submit to the monitoring programme as described in this PoA Design Document (PoA-DD) and the relevant Voluntary Programme Activity Design Document (VPA-DD).

CO2balance UK Ltd will undertake a thorough stakeholder engagement process for each of the proposed VPAs or groups of homogenous VPAs under the PoA, ensuring that users understand the agreement, are trained in the usage of the technology, and are able to give adequate feedback on their usage of the technology.

Forward Action Requests from CP1

[1] 2020 Vision for Food, Agriculture and the Environment
http://www.ifpri.org/sites/default/files/pubs/2020/focus/focus14/focus14_10.pdf
[2] WHO, 2000: http://www.who.int/bulletin/archives/78(9)1078.pdf
[3] United Nations (UN), 2020: https://sustainabledevelopment.un.org/?menu=1300

- FAR 1: "*The approach to communicate with the stakeholders in the local language with the help of an interpreter at the LSC level is accepted. PP shall ensure that the stakeholder consultations are conducted in the local language for all activities that are a part of the micro programme"*

PP has applied this request across all LSCs under the PoA. The meeting have either been conducted in the local language completely, or in the local language with some parts translated from English to local language.

A.2. CME and participants of PoA

>> (Details of the CME of the proposed PoA, as the entity which communicates with the Gold Standard Secretariat)

CO2balance UK Ltd. is the CME of the PoA. CO2balance UK Ltd. is the entity which communicates with the Gold Standard.

Local partner organisations and staff will be involved in the implementation of activities in some VPAs, therefore being participants in the PoA. These will be identified and indicated at the individual VPA level.

Project Implementer is defined as CO2balance UK Ltd. or a nominated organisation defined in each VPA-DD.

A.3. Physical/ Geographical boundary of the PoA

>> (Provide details of the defined boundary of the proposed PoA in terms of a geographical area e.g. municipality, region within a country, country or several countries within which all VPAs to be included in the PoA will be implemented)

All micro-scale voluntary project activities (mVPAs) included in the PoA will be implemented within the geographic country borders of the following, along with current and future VPAs:

- Burkina Faso: 266-271, 287-300
- Eritrea: 28, 40, 45-8, 54-5. 84-5, 65-70, 84-5, 119-26, 134-6 & 176-82
- Ethiopia: 86-90, 127-8, 149-50, 156, 165-6, 168-72 & 188-9
- Gambia: 224-30
- Malawi: 24-7, 36-7, 91-104 & 112-16
- Mozambique: 159-63 & 200-2
- Rwanda: 1, 7-22, 38-9, 41-2, 56-64, 106-10, 151-5 & 157-8
- Sierra Leone: 203-12 & 231-240
- Togo: 272-281
- Uganda: 2-5, 33-5, 43-4, 49, 71-82, 139-41, 183-7 & 219-223
- Zambia: 190-7
- Zimbabwe: 142-7 & 213-218

A.4. Technologies/measures and eligibility under Gold Standard

>> (Describe the technologies and/or measures to be employed and/or implemented by the VPAs in the PoA including a list of the facilities, systems and equipment that will be installed and/or modified by the VPA. Include information essential to understand the purpose of the PoA and how it will contribute positively to three SDGs. Describe how the VPAs meet the eligibility criteria as per section 3.1.1 of GS4GG Principles & Requirements document and the relevant activity requirements document)

Improved Cookstoves

Improved cookstove (ICS) VPAs provide energy efficient cook stoves to households in the countries included in the PoA, which are currently using non-renewable biomass as fuel (this may include both charcoal and wood). The ICS will replace inefficient baseline cooking technology, such as three stone fires. The models and details of the improved cookstoves will be set out in the VPA-DDs where this is the relevant technology. The stove design will vary by VPA as different locations, climates, traditions and improvements in technology demand. This

technology is eligible under GS4GG Community Services Activity Requirements s3.1.1(b): End-Use Energy Efficiency, and the project type, '*efficient cooking*', is mentioned in the section.

One example of the ICS technology which may be included under the PoA is a design developed by CO2balance. The user-friendly design delivers high thermal efficiency and, where possible, is built from locally sourced materials. This technology performs at 21% thermal efficiency, thereby reducing the amount of biomass required in day-to-day cooking by approximately 70% as compared to the traditional three-stone, open fire method of cooking.

Figure 2: Efficient Stove Design

The improved stove has been designed to balance efficiency, safety, cost, stability and strength with a focus on using locally available materials. The key components of the stove are prefabricated in local factories and the rest of the components can be sourced and manufactured in the locality of the project. The stove consists of a metal case, ceramic liner, soft clay, husks, sand, cement, and metal pot support and grate. The exact stove construction details will be listed in a specification document which will accompany the specific VPA-DD for which that technology is used.

For VPAs using Technologies and Practices to Displace Decentralised Thermal Energy Consumption (TPDDTEC) methodology, if during a VPA roll out a stove with similar design and performance characteristics is introduced it can be included under the same project scenario. Improved cook stoves can be considered similar if they are based on the same fundamental combustion technology and their respective thermal efficiencies do not differ by more than +/-5%. Project technologies with significantly different performance characteristics are treated as independent project scenarios and hence monitored and credited separately (Manufacturing and Design Specifications will be included with the relevant VPA).

ICS VPAs may contribute to the following SDGs: (specific SDG contributions will be determined on a VPA level)

- SDG 3: Reduction in exposure to indoor air pollution
- SDG 5: Reduction in time spent on unpaid chores by women and girls
- SDG 7: Distribution of improved technology
- SDG 8: Provision of work, training and sales opportunities
- SDG 13: Reduction in CO2 emissions
- SDG 15: Reduction in demand for firewood

Water Filters

Water filter projects will provide safe water *treatment* technologies to households in the host country currently boiling water as a purification method, or, using the concept of suppressed demand, members of the community that are not able to boil water due to the unavailability or expense of firewood.

These technologies are likely to treat water at the point of use. The technology chosen may vary by VPA as different locations, climates, traditions and improvements in technology demand. The technology likely to be chosen is a household level water filter, similar to that shown in Figure 3 below.

Figure 3: Household Ceramic Filter

The ceramic filter shown above is made up of a clay filtering element, treated with colloidal silver which acts as a disinfectant. The filter removes odour, colour and turbidity, as well as killing bacteria and parasites from water that has come from an unsafe source. The filter is designed to meet the needs of a family of 5-6 people, with a filtering rate of 1-2.5 litres per hour.

The filter is certified and tested annually, and specifications and testing results for the exact technology will be included with the specific VPA-DD.

Water Filter VPAs may contribute to the following SDGs: (specific SDG contributions will be determined on a VPA level)

- SDG 3: Reduction in exposure to indoor air pollution or reduction in illnesses related to unsafe water
- SDG 4: Reduction in absences from school due to reduction in time spent by children on unpaid domestic duties
- SDG 5: Reduction in time spent on unpaid chores by women and girls
- SDG 6: Provision of access to clean water
- SDG 13: Reduction in CO2 emissions
- SDG 15: Reduction in demand for firewood

Safe Water Sources

The project will involve the provision of technologies that provide a safe water *source* to communities in the host country currently boiling water as a purification method, or, using the concept of suppressed demand, members of the community that are not able to boil water due to the unavailability or expense of firewood.

These technologies will provide a safe water provision to communities, so that it can be consumed from the source without the need for treatment first. The technology chosen may vary by VPA as different locations, climates, traditions and improvements in technology demand. The technology likely to be chosen is a zero-emission pumped borehole, with the pump similar to that shown in Figure 4 below. The project activity will involve the installation and/or repair of broken boreholes, and their maintenance over the lifetime of the project.

Figure 4: AfriDev Hand Pump

The pump pictured above draws water from depths of 3-45m and has a discharge rate of 16.5 litres per minute in 40 strokes. Full details of the exact technology will be included with the specific VPA-DD. The user numbers per technology will be limited by the volume of water that each water point is able to provide.

Safe Water Source VPAs may contribute to the following SDGs: (specific SDG contributions will be determined on a VPA level)

- SDG 3: Reduction in exposure to indoor air pollution or reduction in illnesses related to unsafe water
- SDG 4: Reduction in absences from school due to reduction in time spent by children on unpaid domestic duties
- SDG 5: Reduction in time spent on unpaid chores by women and girls
- SDG 6: Provision of access to clean water
- SDG 13: Reduction in CO2 emissions
- SDG 15: Reduction in demand for firewood

A.5 Funding sources of PoA

>> (Provide the public and private funding sources for the programme. Confidential information need not be provided.)

The Programme is currently intended to be funded by private funding from Project Implementer or its partners.

There is currently no public funding for the Programme. However, Project Implementer and its partners may apply for public funding for projects under the Programme. Details of any relevant public funding sources will be included on a VPA basis.

No ODA funding shall be used within the PoA, as confirmed by signed ODA Declarations to be made at the VPA level.

SECTION B. Demonstration of additionality and development of eligibility criteria

B.1. Demonstration of additionality for PoA

>> (Justify why the PoA will not be implemented without revenues from transaction of certified SDG outcomes.)

Finance derived from Gold Standard Certification funds, either entirely or in part, the on-going implementation of all projects under this PoA. This may include funding of implementing the project, such repairs of waterpoints or subsidising household technologies, and on-going project implementation, such as maintenance, repairs and

sensitisation campaigns. The project activities under the PoA are sustained by the funding derived from Gold Standard Certification.

B.2. Eligibility criteria for inclusion of a VPA in the PoA

>> (Describe the eligibility criteria to be met by VPAs for inclusion in the PoA)

Eligibility Criteria as per section 3.1.1 of GS4GG Principles & Requirements and requests from Re-Validation Review (RVR)

Eligibility Criteria	Description	Means of Verification (Checked at VPA Inclusion)
(a) 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.	Projects will involve the distribution of improved cookstoves or the distribution/installation/rehabilitation of safe water sources or treatment technologies. Project types are eligible under Community Services Activity Requirements s3.1.1(b) and s3.1.1(d).
(b) 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.	This will be clearly stated in each VPA-DD.
(c) Project Area, Project Boundary and Scale	The Project Area and Project Boundary shall be defined. Projects may be developed at any scale although certain rules, requirements and limitations may apply under specific Activity Requirements, Impact 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).	Each VPA will state the location of the Project and provide a range of GPS coordinates and maps to define the Project boundary. Each micro-scale VPA included under this PoA will not be included by any other carbon standard and will not exceed the 10,000 VERs per year cap.
(d) Host Country Requirements	Projects shall be in compliance with applicable Host Country's legal, environmental, ecological and social regulations.	Each VPA will be in compliance with these regulations.
(e) 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	The details of the Project Developer will be included in each VPA-DD.

	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.	
(f) Legal Ownership	Full and uncontested legal ownership of any Products that are generated under Gold Standard Certification, (for example carbon credits) shall be demonstrated. Where such ownership is transferred from project beneficiaries this must be demonstrated transparently and with full, prior and informed consent (FPIC). Note that for certain Project types there is a requirement for full and uncontested legal land title/tenure to be demonstrated. These are contained within specific Activity or Product Requirements. All projects shall immediately report to Gold Standard any land title/tenure disputes arising.	Means of demonstration of legal ownership of Products generated under the Programme will be specified in each VPA-DD. Demonstration of legal ownership will be in line with Community Services Activity Requirements s.3.1.4.
(g) Other Rights	As well as legal title and ownership, the Project Developer shall also demonstrate where required uncontested legal rights and/or permissions concerning changes in use of other resources required to service the Project (for example, access rights, water rights etc.). Any known disputes or contested rights must be declared immediately to Gold Standard by the Project Developer and resolved prior to further Project implementation in affected areas.	This will be demonstrated where applicable in the relevant VPA-DDs.
(h) Official Development Assistance (ODA) Declaration	All Project Developers applying for project activities located in a country named by the OECD Development Assistance Committee's ODA recipient list and seeking Gold Standard Certification for carbon credits shall declare the Official Development Assistance (ODA) support. The Project Developer shall follow the GHG Emissions Reduction & Sequestration Product Requirements and submit the declaration at the time of Design Certification.	A declaration confirming that there is no diversion of ODA for each VPA will be attached with the PoA-DD and individual VPA-DDs.
Criteria demanded from PoA Re-Validation Review		
(i) Factor of Non-Renewable Biomass	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 value will be taken, where possible, from default values provided by CDM and the Gold Standard.
(j) Test for Wb,y parameter	The test for fixed parameter Wb,y is based on the water boiling test.	The test for the Wb,y fixed parameter will be conducted following the established test set out in the 'GS1247

		Annex IV - Wb,y Test Guidelines' document.
(k) Water Project Treatment Capacity	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.	Each VPA will ensure that consumption levels are not greater than the treatment capacity of the project technology/source.
(l) Cookstove Project Theoretical Savings	The theoretical wood savings from a cook stove project shall be estimated based on following- Py = Bb,y * (1-hb/hp,y) Py - quantity of firewood consumed in project Bb,y - quantity of firewood consumed in baseline hb – efficiency of baseline technology hp,y – efficiency of project technology	Cookstove projects will provide theoretical estimates based on the calculation.
(j) 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 will confirm that VPAs are not registered anywhere else.
(k) 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.	VPA-DDs will include technical specifications of the Project Technology.
(l) Start Dates	Conditions to check the start dates of VPAs through documentary evidence.	The start date of projects will be confirmed by carbon transfer forms, repair confirmation forms, or other suitable methods depending on the project type and circumstances.
(m) Applicability	Conditions to ensure compliance with the applicability of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents.	This will bet set out in each VPA-DD.
(n) Additionality	Conditions to ensure that VPAs meet the requirements for demonstration of additionality.	This will bet set out in each VPA-DD.
(o) LSC and EIA	Conditions related to undertaking local stakeholder consultation and environmental impact analysis.	This will bet set out in each VPA-DD.
(p) Target Group	Target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/offgrid), and where applicable, distribution mechanisms (e.g. direct installation).	This will bet set out in each VPA-DD.
(q) Sampling	Sampling approaches are set out in each VPA and will follow the TPDDTEC v3.1 methodology.	The VPAs will follow the sampling approach set out in the applicable methodologies which take precedence over CDM methodologies.
(r) 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	The crediting period will be stated in each VPA-DD.

	Certification Cycle (i.e. 5 years renewals.	
(s) Prior Consideration	Demonstration of prior consideration of revenues from Gold Standard certification are required in the following circumstances: (a) Regular projects are exempt from any kind of prior consideration of revenues from Gold Standard certification checks (b) Retroactive projects shall submit the required documents for preliminary review (time of first submission) within one year of the project start date. (c) The prior consideration rule is also applicable to a Project that undergoes a design change. A project with a Certified Design requesting to include a new technology/measures shall submit the request for approval of design change to Gold Standard within one year of the start date of the proposed technology/measures (design change component).	Evidence of start date for technology implementation will be provided at a VPA level in line with prior consideration requirements. The start date of projects will be confirmed by carbon transfer forms, repair confirmation forms, or other suitable methods depending on the project type and circumstances. Credits generated more than one year before time of first submission (for registration or design change) will not be eligible for Gold Standard certification.

Community Services Activity Requirements	
Requirements relevant to this VPA.	**Demonstration of meeting Requirements**
1.1 Eligible Project Types and Scope	
1.1.1) Projects shall lead to climate change mitigation and/or adaption by providing or improving access to services/resources at household or community or institution level. Eligible services include electricity and energy, water and sanitation, waste management, housing, etc.	By providing a safe water in rural communities, the safe water Projects will improve access to safe water services/resources at community level. By distributing improved cookstoves the cookstove projects will ensure that households consume less firewood during the process of domestic cooking. As a result, there shall be a reduction of carbon dioxide emissions from the combustion process at household level. This mitigates climate change by increasing access to improved cooking technologies amongst rural communities As such, the projects are Eligible Project Types in line with the requirements.
1.1.2) In relation to the above all Projects shall therefore confirm to Gold Standard for the Global Goals Principles & Requirements (and associated documents)	The project conforms with GS4GG Principles and Requirements.
1.2 General Eligibility Criteria	
1.2.2 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. For example, efficient cooking, heating, lighting, etc.	By providing safe water, the safe water Project activities reduce the energy requirements compared to the baseline scenario by removing the need for households to boil water for purification. By distributing improved cookstoves the cookstove Project activities reduce the energy requirements compared to the baseline scenario by ensuring that households consume less firewood through the use of a more efficient technology.
1.2.3 Project Area, Boundary and Scale Project Area and Boundary shall be defined in line with the applicable Methodologies or Product Requirements. Projects are eligible under the microscale scheme if the annual emission reductions achieved are limited to a maximum of 10,000 tonnes of CO2eq in each and every year of the crediting period.	The project area and are defined in line with the applicable Methodology, outlined in Section A.3. The Projects are Micro-Scale Project as the annual issuance of each VPA is capped at 10,000 tCO2e per year.
1.2.4 Legal ownership: Projects involving the distribution of a large number of devices for services such as heating, cooking, lighting, electricity generation, water treatment technology such as water filter etc. shall provide a clear description of the ownership of the Products that are generated under Gold Standard Certification all along the investment chain. In line with FPIC requirement, the proofs that end-users are aware of and willing to give up their rights on Products shall be provided.	CO2balance UK Ltd is the Co-ordinating/Managing Entity which communicates with the Gold Standard; the project is managed in the Host Country by Project Implementer and/or its partners. Project Implementer have legal ownership of the carbon credits produced as result of the project.
1.2.5 The transfer of Product ownership shall be discussed during the local stakeholder consultations for regular cycle projects.	The discussion of transfer of Product ownership will be discussed in detail during Local Stakeholder Consultations, presenting the details of the project to the local community members, officials and Community Leaders who attend.

1.2.7 Where Gold Standard methodologies allow for a Suppressed Demand baseline scenario, this shall be limited to Small and Microscale Projects. Where a Suppressed Demand baseline is applied, it is not possible to 'stack' Gold Standard Impact Statements or Products as the definition of baseline may be contradictory.	The VPAs under this PoA are Micro-Scale Project and are therefore eligible for suppressed demand in the baseline scenario.

B.3. Application of technologies/measures and methodologies

>> (Describe the technology/measures and indicate the methodology chosen. In cases where multiple technologies/measures or multiple methodologies are being applied, list all the combinations of technologies/measures and methodologies that will be used in the PoA.
If applicable, provide a description of the sampling plan applied for monitoring.)

The PoA will apply GS Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1. However, under the PoA's first Crediting Period TPDDTEC v1 was applicable. Existing VPAs under the PoA will continue to apply TPDDTEC v1 until that VPA's Crediting Period is renewed, at which point v3.1 will be applied and the VPAs will follow a 5-year crediting cycle as per GS4GG requirements.

Technology	**Methodology**
Improved Cookstoves	GS Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1
Water Filters	GS Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1
Safe Water Sources	GS Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1

This methodology is applicable to programmes or activities introducing technologies that reduce or displace greenhouse gas (GHG) emissions from the thermal energy consumption of households. Examples of these technologies include the introduction of improved biomass or fossil fuel cook stoves and safe water supply and treatment technologies that displace water boiling by introducing new zero emission technologies.

The community-based projects listed in the table above involve the transfer of carbon rights from individuals, households, institutions and/or communities to the Project Developer. The process is discussed during feasibility studies, at the LSC and at the time of project implementation with end users and other stakeholders. The details of carbon transfer is dealt with at the VPA level.

The following conditions in Section 1.0 'SOURCE AND APPLICABILITY' of TPDDTEC v3.1 are met:

Methodology Requirement	**Project**
1. The project boundary needs to be clearly identified, and the technologies counted in the project are not included in any other voluntary market or CDM project activity (i.e. no double counting takes place). In some cases there maybe another similar activity within the same target area. Project proponents must therefore have a survey mechanism in place together with appropriate mitigation measures so as to prevent any possibility of double counting.	The project boundary is the physical, geographical sites of the project technologies and potentially of the baseline and project fuel collection. The individual households where the project technologies will be installed, and/or communities where the boreholes are situated, are within the target area, which have been clearly demarcated using administrative boundaries. The technologies counted are given a unique identification number which is stored in the project database. This ensures that the technologies are not counted in other project activities.
2. The technologies each have continuous useful energy outputs of less than 150kW per unit (defined as the total useful energy delivered 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 stove project technology primarily delivers thermal energy, whilst the water technology displaces thermal energy supplied in the baseline. Therefore, the 150kW threshold applies differently to the two technologies. Stoves: Calculations will be included with each VPA-DD to demonstrate that the applicable technology has a continuous useful energy output of less than 150kW per unit

	Safe Water Technology: Calculations will be included with each VPA-DD to demonstrate that the displaced baseline technology has a continuous useful energy output of less than 150kW.
3. Using 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 (e.g. discounted price for the improved technology) and the definitive discontinuity of its use.	As referenced in the methodology '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, the mechanism introduced to encourage the cessation of use of baseline technology is educating local people on the extensive health and environmental benefits of abandoning inefficient baseline technology entirely. The same method of educating users about water technology will be adopted, whereby the extensive benefits will be fully explained.
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. For example, whether the existing baseline technology is not surrendered at the time of the introduction of the improved technology, or whether a new baseline technology is acquired and put to use by targeted end users during the project crediting period	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.
b) The success of the mechanism put into place must therefore be monitored, and the approach must be adjusted if proven unsuccessful5 . If an old technology remains in use in parallel with the improved technology, the corresponding emissions must be accounted for as part of the project emissions	Parallel baseline technology use (three stone fires or traditional equivalent for either cooking or water boiling) will be revealed during monitoring and its effect on emissions reductions will be captured in line with equations provided in the Methodology: Stoves: $B_{p,y} = N_{p,y} * ((P_{p,y} * U_{p,y}) + (P_{b,y} * (1 - U_{p,y}))$ Safe Water Technologies: $B_{p,y} = (1\text{-}C_i) * N_{p,y} * W_{b,y} * (Q_{p,rawboil,y} + Q_{p,cleanboil,y})$ The uptake rate U will be determined by usage 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. For technology producers and the retailers of the improved technology or the renewable fuel in use, this must be communicated by contract or clear written assertions in the transaction paperwork. If the claimants are not the project technology end users, the end users will need to be informed and notified that they cannot claim for emission reductions from the project6 .	A full explanation will be given to all household stove and/or water technology recipients, or end users, that Project Implementer distributed the technology on the basis that the emissions reductions will be transferred to CO2balance (or another entity set out in the relevant VPA-DD).
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 rules7 . If the biomass feedstock is sourced from a dedicated plantation, the criteria must apply to both plantations established for the project activity AND existing plantations that were established in the context of other activities but will supply biomass feedstock.	The emission reductions from this project, for both stove and water technologies, will result from a change in quantity of fuel c*onsumed*, rather than change of fuel *type,* therefore this condition is not applicable.
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	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.

in section 2.1) emitted by the project fuel/stove combination are estimated with adequate precision8 . The project fuel/stove combination may include instances in which the project stove is a baseline stove.	Stoves: Distributed in households that previously used a traditional inefficient device. As such, both the volume of greenhouse gases and volume of harmful gases are reduced in the project scenario. Safe Water Technologies: Result in reduced boiling of water, hence also a reduction in both the volume of greenhouse gases and volume of harmful gases.
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. These records need to be correlated to data on distribution9 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.	The emission reduction calculation will be based on fuel wood usage measurements for both cook stoves and water technologies (Kitchen Performance Tests and Wb,y Tests). Fuel sales will not be monitored or used in any equations in this project.

B.3.2 Sampling Plan applied for monitoring:

This PoA will contain numerous VPAs covering different technologies and having different monitoring periods.

Homogenous VPAs, defined as those that share a common baseline and project technology, may apply cross sampling of technologies across during the monitoring period; or may apply VPA sampling if deemed more suitable.

During each verification period, a sample group of technology users within each VPA (or homogenous VPA group) will be identified to be monitored based on 90/30 confidence/precision. This sample group will alter during every verification period, according to the random selection process carried out in line with the confidence/precision and sample size requirements in the Methodology. Monitoring will be carried out in line with Section 3 of the Methodology.

The Monitoring Plan will be described in detail in each VPA-DD, which will also include a Sampling Plan for each survey. Each project type will follow a general pattern tailored to the demands of the individual project.

Projects applying TPDDTEC v3.1 will have an annual Project Survey and Usage Survey, and a field test such as a Kitchen Performance Test (KPT) or Water Consumption Field Test (WCFT) every two years.

Technology	**Monitoring Plan**
Improved Cookstoves	• Project Survey • Usage Survey • KPT (every 2 years) • Monitoring and Training based on Gold Standard 'Requirements and Guidelines for carrying out usage surveys for projects implementing improved cooking devices' where applicable
Safe Water Sources	• Project Survey • Usage Survey • WCFT (every 2 years) • WASH sensitisation • Water Quality Tests

SECTION C. Management system

>>

The operational and management plan has been updated as the CP1 PoA focused on a specific improved cookstoves programme. The updated management system under CP2 PoA is more inclusive.

Project Implementer, as defined in section A.2., will have overall operational and management responsibility for the implementation and monitoring of the proposed PoA and the VPAs belonging to it; and is therefore the PoA Managing Entity.

C.1 Operation and Management

Project Implementer will be responsible for the following operational and management activities related to each VPA under the PoA as listed below:

C.1.1 Manufacturing and Distribution

a. It is hoped that all components for the improved cook stoves will be manufactured in the host country; however stove parts may be imported if a suitable supplier cannot be found. The stove technology may be changed if an improved product is developed or if a specific requirement is identified in a specific VPA; in this case stove performance figures will be provided and calculations amended accordingly.
b. Safe water treatment technologies will be manufactured where possible in the host country, however they may be sourced from other locations if necessary. Project Implementer will work with partners, Community Based Organisations (CBOs) and/or NGOs responsible for borehole installation and maintenance in applicable areas in relation to safe water provision technologies.

C.1.2 VPA Project Area/Household Identification and Sensitisation

a. For each VPA a process for identifying project areas and/or households will be managed by Project Implementer and their partners. This will involve working with relevant stakeholders to help identify project areas and/or households suitable for stove sales and distribution and/or safe water supply and treatment technology project.
b. In partnership with community leaders, NGOs and other local community organisations, Project Implementer will initiate a sensitisation procedure to ensure that households/recipients understand the benefits of the technology, cultural issues are addressed, and users are trained in the optimal use of the equipment. Sensitisation campaigns for each project type will be carried out as follows:
    i. Improved Cookstoves – End-User training in line with Annex 10 of the Methodology
    ii. Safe Water Technologies - Hygiene campaign will be carried out in line with Annex 3 Section A.3.3.F of the Methodology.

C.1.3 Data Collection

a. Upon sale, distribution, rehabilitation or installation of each stove and/or safe water supply or treatment technology in the VPA, a representative or partner of Project Implementer will be responsible for collecting monitoring data. In line with Section 3.A of the Methodology, this will include:

    1. Date of sale/installation/distribution/rehabilitation
    2. Geographic area of sale/installation/distribution/rehabilitation
    3. Model/type of project technology sold/installed/distributed/rehabilitated
    4. Quantity of project technology sold/installed/distributed/rehabilitated
    5. Name and telephone number (if available), and address:
        i. For all bulk purchasers i.e. retailers and industrial users
        ii. All end users except in cases where this is justified as not feasible (such as cases of distributed sales of small items, including portable cook stoves and water filters, sold in market stalls or shops where the retailer cannot reasonably be expected to collect customers names and addresses during busy times. In such cases the number of names/telephone numbers/addresses collected will be as many as commensurate with representative sampling
    6. Mode of use: domestic, commercial, other:

i. At a minimum as many as commensurate with representative sampling

b. This data will be collected and form the Project Database

C.1.4 Monitoring

a. The ongoing monitoring of the performance of the stoves and/or safe water supply or treatment technology in each VPA will be the responsibility of Project Implementer and/or partner organisations.
b. A sampled group of project technologies will be assessed in line with the Methodology monitoring requirements. Sampling will be carried out as described in Section B.3.
c. Monitoring Reports will be written for each VPA or group of homogenous VPAs in each verification period.

SECTION D. Duration of PoA

D.1. Date of first submission of PoA to Gold Standard

>> *(State the date when PoA design consultation report was submitted to Gold Standard for review)*

Crediting Period 1: 01/05/2012
Crediting Period 2: 20/02/2020

D.2. Duration of the PoA

>> *(State the total duration of the proposed PoA in years.)*

28 years from 01/05/2012
Crediting Period 1: 01/05/2012 to 30/04/2020
Crediting Period 2: 01/05/2020 to 30/04/2027

SECTION E. Safeguarding principles and SDG outcome assessment

E.1. Level at which safeguarding principles and SDG outcome assessment is undertaken

>> *(Define whether these assessments will be carried out PoA level or VPA level. Justify, if it is done at PoA level.)*

These assessments have been/will be carried out at VPA level.

E.2. Assessment of safeguarding principles, if undertaken at PoA level

>> (If safeguards assessment is undertaken at PoA level then *refer the GS4GG Safeguarding Principles and Requirements document for detailed guidance on carrying out this assessment. Provide the inclusion criteria to be met by each VPA regarding safeguarding principles in section B.2 above)*

N/A

E.3. SDG outcomes assessment, if undertaken at PoA level

>> (If SDG outcomes assessment is undertaken at PoA level then *specify the relevant SDG target for each of three or more SDGs addressed by the PoA. Refer most recent version of targets here. Provide the inclusion criteria to be met by each VPA regarding SDG outcomes assessment in section B.2 above)*

N/A

SECTION F. Local stakeholder consultation

F.1. Level at which stakeholder consultation is undertaken

>> *(Define whether the stakeholder consultation will be carried out PoA level or VPA level. Justify, if it is done at PoA level.)*

These assessments have been/will be carried out at VPA level.

F.2. Solicitation of comments from stakeholders, if undertaken at PoA level

>> (Describe how stakeholder consultation was conducted in accordance with GS4GG Stakeholder Procedure Requirements and Guidelines.)

N/A

F.3. Summary of comments received, if stakeholder consultation undertaken at PoA level

>> (Provide a summary of key comments received during the consultation process.)

N/A

F.4. Report on consideration of comments received, if stakeholder consultation undertaken at PoA level

>> (Describe how the comments have been addressed by providing a clarification to the stakeholder or by altering the design of the PoA/VPA or by proposing to monitor any anticipated negative impacts etc.)

N/A

Appendix 1. Contact information of coordinating/managing entity and responsible person(s)/ entity(ies)

CME and/or responsible person/ entity	☒ CME ☐ Responsible person/ entity for application of the selected methodology(ies) and, where applicable, the selected standardized baseline(s) to the PoA
Organization	CO2balance UK Ltd
Street/P.O. Box	Cook Way
Building	1 Discovery House
City	Taunton
State/Region	Somerset
Postcode	TA2 2BJ
Country	UK
Telephone	+44 (0) 1823 332233
Fax	N/A
E-mail	lucas.emmerson@co2balance.com
Website	www.co2balance.com
Contact person	Lucas Emmerson
Title	Head of Project Development
Salutation	Mr. Emmerson
Last name	Emmerson
Middle name	