Gold Standard for the Global Goals
Transition Annex
(To be used by all GS CDM/VER stand alone projects and PoAs, Micro Scale stand alone projects and Micro PoAs)

Version 1 – September 2017

Gold Standard

KEY PROJECT INFORMATION

Title of Project/PoA/Activity:	PoA: GS1247 Improved Kitchen Regimes (Multi-Country PoA) VPAs: VPA 86 Southern Ethiopia Community Boreholes VPA 87 Southern Ethiopia Community Boreholes VPA 88 Southern Ethiopia Community Boreholes VPA 127 Southern Ethiopia Community Boreholes VPA 128 Southern Ethiopia Community Boreholes
GS ID of the project/PoA/activity:	PoA: GS1247 VPAs: GS5322, GS5323, GS5324, GS6037, GS6038
GS Version:	GS version 2.1, transitioning to Gold Standard for the Global Goals
Brief description of Project:	In this project co2balance and Vita, an Irish Charity that works in Ethiopia, will renovate broken boreholes so that they deliver clean, safe water.
Project type: Energy/Land Use	Energy Efficiency - Domestic
For Renewable Energy Projects – intention to apply RECs Labels (y/n)	N/A
GS Stream (CDM/VER):	VER
Scale (large/scale/micro):	Micro
GS Registration Date:	GS5322 – 19/10/2017 GS5323 - 19/10/2017 GS5324 - 19/10/2017 GS6037 – 14/12/2017 GS6038 – 14/12/2017
GS Crediting period start date:	GS5322 – 07/06/2017 GS5323 – 11/06/2017 GS5324 – 07/06/2017 GS6037 – 11/06/2017 GS6038 – 17/06/2017
CDM Registration Date:	N/A
CDM Crediting period start date:	N/A
Project Developer:	CO2balance
Project Representative:	Emma Donnachie
Project Participants and any communities involved:	CO2balance UK Ltd is the Co-ordinating/Managing Entity which communicates with Gold Standard; the project is managed in the Host Country by Vita.
Host Country/Location:	Ethiopia: Southern Nations, Nationalities and Peoples Region
Methodologies applied:	TPDDTEC v1.0
SDG Impacts:	1 – SDG 3 – Good Health and Wellbeing 2 – SDG 5 – Gender Equality 3 – SDG 6 – Clean Water and Sanitation 5 – SDG 13 – Climate Action
Estimated amount of SDG Impact (GSVERs and others)	SDG3- 9380 additional persons with access to safe water SDG5- at least 0.5 hours per trip per household time saved SDG6- 11545 additional persons with provision to safe water SDG13- 50,000 tCO2e per year

NOTE: *This Annex shall be used for all PoAs if the sustainable development assessment is conducted at PoA level. In case sustainable development assessment is conducted at activity level, then this Annex shall be filled for each of the activities.*

SECTION A Sustainable Development Goals (SDG) outcomes

A.1 Relevant target for each of the three SDGs

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

A.2 Explanation of methodological choices/approaches for estimating the SDG outcome

>> (Explain how the methodological steps in the selected methodology(ies) or proposed approach for calculating baseline and project outcomes are applied. Clearly state which equations will be used in calculating net benefit.)

Outcomes for SDG 3 (Good Health and Wellbeing):

The VPAs are premised on generating Emission Reductions by ensuring that borehole users have safe water, thereby removing the need for them to burn non-renewable biomass in order to boil water to purify it. Emission reductions are also claimed through the principle of suppressed demand, meaning that users lacked the resources, time or information necessary to purify their water prior to the project. Therefore, the users for whom ERs are claimed through suppressed demand were forced to use unsafe water for drinking, food preparation and basic personal hygiene prior to the project.

This usage of unsafe water can be taken as a proxy cause of Disability Adjusted Life Years (DALYs) in Ethiopia, meaning that using unsafe water is deemed a significant cause of illness and death in the country. The Joint Monitoring Project showed that in 2015 less than 40% of the rural population had close access to an improved water source. There are around 30% of children under 5 receiving treatment for diarrhoea in Ethiopia[1] with the number of those affected by diarrhoea likely to be higher; 8% of under 5 deaths are attributed to diarrhoea[2] with 90% of those likely to be directly linked to contaminated water, poor sanitation and hygiene[3]. Therefore, to ensure access to safe water for households that previously relied on unsafe water sources and had no means to purify can be demonstrated as removing a major cause of illness and death.

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 (Pb, boil) is deducted. Calculations are as follows (parameters from sections B.5.1 of the VPA-DD will be applied):

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

[1] WHO, 2018, compiled data, http://apps.who.int/gho/data/view.main.1600, accessed 07/03/2018

[2] WHO and Maternal and Child Epidemiology Estimation Group (MCEE) estimates, 2015, http://apps.who.int/gho/data/node.main.ChildMort?lang=en, accessed 07/03/2018

[3] UNICEF, 2018, https://www.unicef.org/media/media_68359.html, accessed 07/03/2018

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.

Outcome for SDG 5 (Gender Equality)

Globally, women and girls perform the majority of unpaid domestic work.[4] This leaves them with less time to rest, study and realise their economic potential, leaving them in *time poverty*. In regards to time, women are poorer than men as unpaid domestic duties, such as collecting firewood and water, must be added to their market productive work, making time much more scarce.[5] Women are widely recognised as being principally responsible for natural resource collection.[6]

These trends demonstrate that reducing the amount of firewood required by households has the potential to reduce the *time poverty* of women, because the time burden of collecting firewood, which falls disproportionately on women, will be reduced. The average % decrease per household in time spent gathering firewood will be taken as a proxy contribution towards the SDG target.

The overall reduction in time spent collecting firewood 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 firewood for project activity in year y (%)
$T_{b,y}$	Baseline time spent collecting firewood per household per day (hours)
$T_{p,y}$	Project time spent collecting firewood per household per day (hours)

Outcomes for SDG 6 (Clean Water and Sanitation):

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 (parameters from sections B.5.1 of the VPA-DD will be applied):

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

[4] UN (2017) 'Progress towards the Sustainable Development Goals (E/2017/66)'. Available at https://unstats.un.org/sdgs/files/report/2017/secretary-general-sdg-report-2017--EN.pdf

[5] Charmes, J 'A Review of Empirical Evidence on Time Use in Africa from UN-Sponsored Surveys', in Word Bank (2006) 'Gender, Times Use, and Poverty in Sub-Saharan Africa'. World Bank Working Paper No. 73

[6] Nankhuni (2004) 'Environmental Degradation, Resource Scarcity and Children's Welfare in Malawi: School Attendance, School Progress, and Children's Health'

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

Outcome 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.

A.3 Data and parameters fixed ex ante for monitoring contribution to each of the three SDGs

(Include a compilation of information on the data and parameters that are not monitored during the crediting period but are determined before the design certification and remain fixed throughout the crediting period like IPCC defaults and other methodology defaults. Copy this table for each piece of data and parameter.)

Relevant SDG Indicator/Safeguarding Principle	SDG 3 (Good Health and Wellbeing) SDG 6 (Clean Water and Sanitation)
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 project survey
Value(s) applied	As per PDD, determined through baseline survey
Measurement methods and procedures	Established through questions in the baseline on a representative sample of the end users
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 comment	

Relevant SDG Indicator/Safeguarding Principle	SDG 5 (Gender Equality)
Data / Parameter	$T_{b,y}$
Unit	Hours
Description	Baseline time spent collecting firewood per household per day
Source of data	Baseline kitchen survey
Value(s) applied	Determined through baseline survey for each VPA group
Measurement methods and procedures	Established through questions in the baseline on a representative sample of the end users

Purpose of data	To measure the % decrease in hours spent collecting firewood, a responsibility falling disproportionately on women, as an indicator of reduced time poverty of women.
Additional comment	

Relevant SDG Indicator/Safeguarding Principle	SDG 3 (Good Health and Wellbeing)
Data / Parameter	$P_{b,\,boil}$
Unit	Number
Description	Percentage of persons boiling water in the baseline
Source of data	Baseline survey
Value(s) applied	Determined through baseline survey
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 comment	

SECTION B Safeguarding Principles Assessment

B.1 Analysis of social, economic and environmental impacts

>> (Refer the GS4GG Safeguarding Principles and Requirements document for detailed guidance on carrying out this assessment. The assessment of following Safeguarding Principles Assessment is required to be carried out by GS Version 2.0, 2.1 and 2.2 projects. GS v1.0 projects will carry out assessment of all the safeguarding principles discussed in the GS4GG Safeguarding Principles and Requirements document.)

Safeguarding principles	**Assessment questions**	**Assessment of relevance to the project (Yes/potentially/no)**	**Justification**	**Mitigation measure (if required)**
3.2 Gender Equality and Women's Rights	Is there a possibility that the Project might reduce or put at risk women's access to or control of resources, entitlements and benefits?	No	The project will increase the access of women to safe water	
	Is there a possibility that the Project can adversely affect men and women in marginalised or vulnerable communities (e.g., potential increased burden on women or social isolation of men)?	No	There will be less burden on women, men and children, as less firewood for water purification needs to be collected. This will reduce the burden on women and men and involve them	

			spending less time in the time-consuming and socially isolating activity of collecting resources.	
	Is there a possibility that the Project might not take into account gender roles and the abilities of women or men to participate in the decisions/designs of the project's activities (such as lack of time, child care duties, low literacy or educational levels, or societal discrimination)?	No	Equal participation of women in decision making will be encouraged by promoting their equal membership on water resource committees. Women and men will have more time to engage in project activities due to the reduced time required to be spent collecting water and gathering firewood.	
	Does the Project take into account gender roles and the abilities of women or men to benefit from the Project's activities (e.g., Does the project criteria ensure that it includes minority groups or landless peoples)?	Yes	Both women and men will benefit from the project activities, no group is excluded from participating in the project activities or benefitting from the clean water.	
	Does the Project design contribute to an increase in women's workload that adds to their care responsibilities or that prevents them from engaging in other activities?	No	The project will decrease the workload of women in collecting water and firewood, thereby allowing more time to engage in other activities.	
	Would the Project potentially reproduce or further deepen discrimination against women based on gender, for instance, regarding their full participation in	No	The project aims to benefit the whole community equally and women's equal participation in the LSC and water	

	design and implementation or access to opportunities and benefits? Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and priorities of women and men in accessing and managing environmental goods and services? Is there a likelihood that the proposed Project would expose women and girls to further risks or hazards?	 No No	resource committees is encouraged. The project will increase natural protection as no firewood will be required for water purification. No further risks or hazards for women were identified.	
3.4.3 Land Tenure and Other Rights	Does the Project require any change to land tenure arrangements and/or other rights? a. b. c.	No	No changes to land tenure arrangements and/or rights are required.	
3.6.2 Negative Economic Consequences	Are there economic impacts and potential risks to the local economy?	No	There are no negative economic impacts and potential risks to local economy.	
4.1.1 Emissions	Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	GHG emissions will be reduced through replacing water purification using firewood with access to safe water.	
4.1.2 Energy Supply	Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	No	The project will reduce consumption of biomass through the reduced need to boil water.	
4.2.1 Impact on natural water patterns and flow	Will the Project affect the natural or pre-existing pattern of watercourses, ground-water and/or the	No	There will be no significant change in the volume of water consumed by the	

	watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?		households having access to safe water.	
4.2.2 Erosion and/or water body stability	Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion?	No	The water is taken from boreholes at household usage levels. Therefore it is extremely unlikely that there will be additional erosion and/or water body instability or disruption of the natural pattern of erosion.	
4.2.3 Landscape modification and soil	Does the Project involve the use of land and soil for production of crops or other products?	No	No crops or other products will be produced in the project.	
4.3.2 Vulnerability to Natural Disaster	Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	No	There will be no impact by the project to natural disasters.	
4.3.3 Genetic Resources	Could the Project be negatively impacted by the use of genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development)?	No	No GMOs will be used in the project.	
4.3.4 Release of pollutants	Could the Project potentially result in the release of pollutants to the environment?	No	As safe ground water is used, there is no risk or releasing pollutants to the environment.	
4.3.5 Hazardous and Non-hazardous Waste	Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	No	The project does not deal with harzardous or non-hazardous chemicals and/or materials.	
4.3.6 Pesticides and fertilizers	Will the Project involve the application of pesticides and/or fertilisers?	No	No pesticides and/or fertilisers will be used in the project.	

4.3.7 Harvesting of forests	Will the Project involve the harvesting of forests?	No	As the project reduces the consumption of firewood, there is a positive impact on forests.	
4.3.8 Food	Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No	The project has no impact on the quantity or nutritional quality of food.	
4.3.9 Animal Husbandry	Will the Project involve animal husbandry?	No	The project will not involve animal husbandry.	

SECTION C Monitoring plan

C.1 Data and parameters to be monitored

(Include specific information on how the data and parameters that need to be monitored in the selected methodology(ies) or proposed approaches or as per mitigation measures from safeguarding principles assessment or as per feedback from stakeholder consultations would actually be collected during monitoring. Copy this table for each piece of data and parameter.)

Relevant SDG Indicator/Safeguarding Principle	SDG 3 (Good Health and Wellbeing)
Data / Parameter	P_{safe}
Unit	Number
Description	Number of additional persons having access to safe water in the project activity compared to the baseline scenario.
Source of data	Household lists; Usage Survey
Value(s) applied	To be monitored
Measurement methods and procedures	Review the number of people using the borehole 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.
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 comment	

Relevant SDG Indicator/Safeguarding Principle	SDG 5
Data / Parameter	TR_y
Unit	Percentage
Description	Total reduction time spent collecting firewood for project activity in year y (%)
Source of data	Project Survey
Value(s) applied	To be monitored

Measurement methods and procedures	Calculate the average amount of time spent collecting firewood in the project scenario and compare to the pre-project scenario
Purpose of data	To quantify whether the project has contributed to a reduction in the amount of time spent collecting firewood compared to the pre-project scenario
Additional comment	

Relevant SDG Indicator/Safeguarding Principle	SDG 5
Data / Parameter	Usage of time saved on firewood collection
Unit	Percentage
Description	Uses of time saved which was previously spent on firewood collection
Source of data	Project Survey
Value(s) applied	To be monitored
Measurement methods and procedures	Ask users how time saved on firewood collection in the project scenario as opposed to the baseline scenario is now being used
Purpose of data	To quantify how time which was previously spent on firewood collection is now being used
Additional comment	

Relevant SDG Indicator/Safeguarding Principle	SDG 6
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.
Source of data	Household lists; Usage Survey
Value(s) applied	To be monitored
Measurement methods and procedures	Review the number of people using the borehole 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.
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 comment	

C.1.1 Other elements of monitoring plan (if applicable)

>>

SECTION D Duration and crediting period

D.1 Duration of project

D.1.1 Start date of project

>> *(Specify start date of the project, in the format of DD/MM/YYYY)*

GS5322 – 06/06/2017
GS5323 – 10/06/2017
GS5324 – 06/06/2017
GS6037 – 10/06/2017
GS6038 – 16/06/2017

D.1.2 Expected operational lifetime of project

>> 14 years (7 year renewable crediting period)

D.1 GS Crediting period of the project/activity

D.2.1 Start date of the ongoing GS crediting period

>> *(Specify in dd/mm/yyyy)*
GS5322 – 07/06/2017
GS5323 – 11/06/2017
GS5324 – 07/06/2017
GS6037 – 11/06/2017
GS6038 – 17/06/2017

D.2.3 End date of the ongoing GS crediting period

>> *(Specify in dd/mm/yyyy)*
GS5322 – 06/06/2024
GS5323 – 10/06/2024
GS5324 – 06/06/2024
GS6037 – 10/06/2024
GS6038 – 16/06/2024

D.2.3 Total length of the GS crediting periods

>> *(Specify the total length of crediting period in years in line with GS4GG Principles & Requirements or relevant activity requirements)*
7 years (all VPAs)

SECTION E Stacking of new assets

>> *(If project is looking to stack new assets over GSVERs the required information to demonstrate compliance to the relevant methodology, product specification and additionality shall be presented in the new PDD template launched with GS4GG)*

Not applicable.

Appendix 1. Contact information of project participants

Organization name	CO2balance
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