Gold Standard for the Global Goals

TEMPLATE

DEVIATION REQUEST FORM

PUBLICATION DATE **14.1.2021**
Version **4.0**

A. To be completed by Gold Standard

1| Decision

1.1 | Date – 07/12/2021

1.2 | Decision

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

1. The stratified random sampling approach applied for sample size calculation for the monitoring survey must meet all the requirements under Appendix 3 of Guideline: Sampling and surveys for CDM project activities and programmes of activities.

2. Continuity in the project's monitoring activities is maintained, and PD can justify that no monitoring gaps exist (especially for SDG parameters) within the Monitoring Period(s). However, if gap(s) exist, the project shall justify that conservative approach(es) have been applied in line with section 3 of the Deviation Approval Requirements and Procedures (version 1.1) and overarching GS principles (as applicable).

The PD shall document the deviation request, its implications, and GS' decision in the appropriate section of the GS PDD and Monitoring Report (for the relevant MP). The

validating and verifying VVB shall, through appropriate means at its disposal, evaluate the Project's compliance with the above condition(s) and provides its opinion in the Validation and Verification Report.

SustainCert shall review both the PD's response and the VVB's assessment/opinion of the same and take appropriate steps.

FAR for the verifying VVB/PD for the first monitoring period:
The PD shall ensure that no systemic bias exists in the usage of chlorine tablets which might be leading to an overestimation of emission reduction. If a bias is identified, the PD must apply a conservative approach and shall also propose a revision to the monitoring plan to ensure a continuous supply of UltraTAB.

The verifying VVB (through the end-user database and onsite verification) ensure that the PD meets the mentioned requirement and is following a conservative approach.

1.3 | Is this decision applicable to other project activities under similar circumstances?

No

B. To be completed by the Project Developer/Coordinating and Managing Entity and/or VVB requesting deviation (Submit deviation request form in Microsoft Word format)

2| Background information

Deviation Reference Number	DEV_184	
Date of decision	07/12/2021	
Precedent (YES/NO)	No	
Precedent details	N/A	
Date of submission	16/08/2021	
Project/PoA/VPA	Project	ID – GSXXXX
	☒ PoA	ID – GS11189
	☒ VPA	ID – GS11259 to GS11305
Project/PoA/VPA title	Improved Cookstove and Safe Water Programme	
Location of project/PoA/VPA	Host country(ies) Kenya and Nigeria	
Scale of the project/PoA/VPA	☐ Microscale ☒ Small scale ☐ Large scale	
Gold Standard Impact Registry link of the project/PoA/VPA	not yet listed	
Status of the project/PoA/VPA	☒ New ☐ Listed ☐ Certified design ☐ Certified project	
Title/subject of deviation	Deviation from ageing based survey for WPS	
Specify applicable rule/requirements/methodology and version number	METHODOLOGY FOR EMISSION REDUCTIONS FROM SAFE DRINKING WATER SUPPLY, Ver. 1.0	
Specify the monitoring period for which the request is valid (if applicable)	Start date 01/01/2021 End date --	
Submitted by	Contact person name: Rohit Lohia Email ID: rohit.lohia@climate-secure.com	
	Organisation: Climate Secure India Pvt. Ltd.	
	Project participant: Yes NO	
Validation and Verification body (VVB opinion shall be included, where required by the applicable rules/requirements or request is submitted by the VVB).	Yes NO If yes; VVB name: Auditor name:	

3| Deviation detail

3.1 | Description of the deviation:

**Guidance* Use the space below to describe the deviation and substantiate the reason for requesting deviation from applicable rules/requirements. Please include all relevant information in support of the request. You are requested to follow the principles for requesting deviations, given in the Deviation Approval Procedure/ Design Change Requirements.*

3.1.1 | Deviation detail (to be completed by Project developer):

Impact Carbon (CME) is developing a new Gold Standard PoA (GS11189) using newly published methodology "Methodology for emission reductions from safe drinking water supply" version 1.0, 03/05/2021.

Specific authorization is requested for the following requirements of the methodology for project usage surveys:

1. **As per applied methodology "Methodology for emission reductions from safe drinking water supply version 1.0, 03/05/2021" parameter table SDWS 29 - *The minimum sample size for IWT – for individual technology age group shall be determined considering the project technology type and in line with the sampling approach applied"***
2. ***Also, page 51 of the applied methodology, for parameter SDWS29, refers a minimum sample size of 30 per technology age.***
3. ***Para 4.2.2. of the applied methodology prohibits grouping more than 10 VPAs together.***

Justification for seeking deviation

The PoA has 47 small sale VPAs that include Water Purification System (WPS) in Nigeria and Kenya. These VPAs include two WPS technologies as follows:

a. Multi- Barrier UV WPS (GPM 1 and GMP2) – GPM 1 and GP2 only differ in flow rate and total purification capacity
b. Chlorination WPS (UltraTAB and UltraFLO) – UltraFlo is a continuous feeding system and UltraTAB is a batch feeding system.

Unlike ICS technologies that age significantly over time, WPS technologies are not affected by ageing, and are resupplied, maintained, and/or replaced on an ongoing basis. The water purification technologies operate on consumable modules basis i.e., once their treatment capacity (cartridge/tablets/filters) is fully consumed, their consumables (cartridges/tablets/filters) are replaced making them revive their useful lifetime (age) again. For example, Chlorination based UltraFLO cartridge has a capacity of 340,000 Ltrs. After every 340,000 Ltrs the system is replenished with a new cartridge and hence a given system can run for eternity with regular cartridge supplies. Also, unlike ICS (where ICS efficiency degrades over time and emission reduction is a function of thermal efficiency) WPS operate on binary performance rather than reducing performance i.e., a WPS irrespective of its age will either provide safe water or unsafe water. Thus, requirement to monitor the systems per technology age is deemed superfluous and only the monitoring of each WPS technology, irrespective of age shall be applicable for WPS devices.

Additionally, all 47 VPAs under the PoA are distributed in Nigeria (30 VPAs) and Kenya (17 VPAs). The VPAs in a given country are identical as they follow same management plan, operational plan and technologies. l. The VPA number is not a correct parameter to determine the limits for sampling. Please refer below for example:

a. 10 micro scale VPAs (with each unit resulting in 100 VERs per annum) shall only include 1,000 systems.
b. 10 small scale VPAs on the other hand, will have 6,000 systems (of the same type as in a) above)
c. Lastly, 10 large scale VPAs may have even 60,000 or 600,000 systems when combined for sampling.

Thus, limiting the sampling by VPA numbers is discriminating and prohibitive to micro and small scale PoAs.

Given the aforesaid VPAs are identical, hence **it the CME shall be allowed to conduct the project surveys for WPS stratifying each technology irrespective of their age and by grouping more than 10 small scale VPAs together**. An illustration for Nigeria (VPA 01-30) sample size is given below:

Sample Size - Operational Units			
WPS Type (Sampling Frame)	Total Sales (Sampling Frame Size)	expected operational rate (%)	Calculated Sample Size (n)
UltraFlo	8,427	90%	44
Multi-barrier UV	211	90%	**30**
UltraTab	10,949	90%	56
Sample size determination			
Estimated Operational Units (p)			90%
Estimated Standard Deviation of Operational Units (SD)			30.0%
$V = (SD/p)^2$			0.11
Sample Size required (Operational Units)			**100**

Thus, in line with the methodology the following have been considered:

1. A confidence level of 95% (for cross VPA sampling) and a precision of 10% (for annual sampling) has been applied.
2. A stratified random sampling approach has been applied stratifying on the basis of technology.
3. The minimum sample size for the group has been considered as 100.
4. For each technology category, the minimum sample size is considered as 30. In the above example, the sample size arrived for Multi-Barrier UV was only 2 samples which has now been considered as 30 instead.
5. Total sample size therefore is 130 (=44 + 30 + 56).

The aforesaid is in compliance with the latest Standard: Sampling and surveys for CDM project, version 09.0 and "Guidelines for sampling and surveys for CDM project activities and programmes of activities", version 04.0.

Also, on one side this optimizes the sampling requirements for PoAs with large number of VPAs, the other side, it renders the results more reliable. It is worth noting that reliability / precision is inversely proportional to number of samples monitored. Thus, if the desired reliability / precision is being achieved from the monitoring data set, then it can be deemed that the established results are statistically robust and sound and acceptable without significant uncertainty.

Alternatively, without this deviation approval, (considering age, technology and 10 VPA groups), 1,000 – 1,500 samples would need to be monitored for methodology compliance, which is not feasible to implement and rather overly superfluous. It would also be a very poor use of resources, given desired reliability and precision can be achieved with much lower sample sizes i.e. 100 – 150 samples (as illustrated above), preserving program resources for improving usage, hygiene campaigns, and other critical program activities.

3.2 | VVB opinion (to be completed by VVB, if applicable):

Not applicable

3.3 | Assessment of the deviation:

**Guidance* Use the space below to describe how the deviation complies with the requirements, and, where applicable, the accuracy, completeness and conservativeness is ensured. Please include all relevant information in support of the request.*

3.3.1 | Deviation assessment (to be completed by Project developer):

This deviation complies with latest Standard: Sampling and surveys for CDM project, version 09.0 and "Guidelines for sampling and surveys for CDM project activities and programmes of activities", version 04.0

3.3.2 | VVB opinion (to be completed by VVB, if applicable):

Not applicable

3.4 | Impact of the deviation:

**Guidance* Use the space below to describe the impact of the deviation on project design, safeguarding principles assessment, SDG assessment, emissions reductions, monitoring frequency, data quality, potential risk or any other relevant aspect of the project. Please substantiate the impact assessment with relevant and verifiable data/information.*

3.4.1 | Impact assessment (to be completed by Project developer):
No Impact envisaged

3.4.2 | VVB opinion (to be completed by VVB, if applicable):

Not applicable

3.5 | Documents:

**Guidance* List of documents provided (note that once a decision has been made by Gold Standard, this deviation form along with supporting documents will be made public on the Gold Standard website. If any of the supporting documents are confidential, please indicate here to ensure they are omitted.)*