

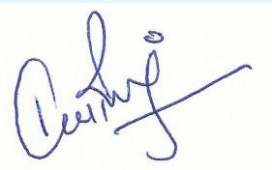


Verification report form for GS4GG  
Programme of Activity

(Gold Standard for the Global Goals)

BASIC INFORMATION

Title of the GS4GG Programme of Activity (PoA)	Improved Cookstove and Safe Water Programme
Reference number of the Programmes of Activity (PoA)	GS 11189
Version number of the verification and certification report	1.1
Completion date of the verification and certification report	22/03/2023
GS ID (s) of VPAs under PoA	VPA ID: GS11259, GS11260, GS11261, GS11262, GS11263, GS11264, GS11265, GS11266, GS11267, GS11268, GS11269, GS11270, GS11271, GS11272, GS11273, GS11274, GS11275, GS11276, GS11277, GS11278, GS11279, GS11280, GS11281, GS11282, GS11283, GS11284, GS11285, GS11286, GS11287, GS11288
Version number of the monitoring report to which this report applies	3.0
Completion date of the monitoring report to which this report applies	01/03/2023
Monitoring period no. and duration	2 <sup>nd</sup> 01/01/2022 – 30/06/2022(both days inclusive)
Date of project design certification	02/02/2022
Crediting period of the PoA corresponding to this monitoring period	01/01/2021 – 31/12/2025
Project Representative	Impact Carbon LLC Impact Water LLC
Host Party	Nigeria
Applied methodologies and standardized baselines	"Emission reductions from Safe Drinking Water Supply" Version 1.0 – 03/05/2021.
Activity requirements applied	<input checked="" type="checkbox"/> Community Services Activities <input type="checkbox"/> Renewable Energy Activities <input type="checkbox"/> Land Use and Forestry Activities/Risks & Capacities <input type="checkbox"/> N/A
Product Requirements applied	<input checked="" type="checkbox"/> GHG Emissions Reduction & Sequestration <input type="checkbox"/> Renewable Energy Label <input type="checkbox"/> N/A
Amount of annual average GHG emission	863,907 tCO <sub>2</sub> e

reductions			
Sustainable Development Goals Targeted	SDG Impact	Total amount of certified SDG impact (as per approved methodology) achieved in this monitoring period (01/01/2021 – 31/12/2021)	Units/Products
SDG 13: Climate Action	13.2.1 Amount of CO2e emissions reduced by the project per year	863,907	tCO2e (GS VER)
SDG 1: No Poverty	1.4.1 Proportion of population living in households with access to basic services  Indicator: Indicator: Total number of premises (Schools / institutions) with at least one WPS distributed / installed under the project	18,907	Number
SDG 3: Good Health and Well Being	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)  Indicator: % sampled Schools / institutions reporting reduction in incidence of diarrhoea and water borne diseases etc. after shifting to the project WPS	95.33%	Percentage
SDG 6: Clean Water and Sanitation	6.1.1 Proportion of population using safely managed drinking water services  Indicator: % of WPS distributed/installed providing safe drinking water quality	90.62%	Percentage
SDG 7: Affordable and Clean Energy	7.1.2 Proportion of population with primary reliance on clean fuels and technology  Indicator: % Schools / institutions reporting an operational WPS in project	91.46%	Percentage
SDG 8: Decent Work and Economic Growth	8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities  Indicator: Number of male / females employment created by project	17	Number
Name and UNFCCC reference number of the VVB	Earthood Services Private Limited; E-0066		
Name, position and signature of the approver of the verification report	 Dr. Kaviraj Singh		

	Managing Director
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## SECTION A. Executive summary

The programme of activity “Improved Cookstove and Safe Water Programme” involves distribution of low GHG Water Purification technologies (WPS) to schools in Nigeria. The PoA is using carbon finance to support local partners engaged in different activities like production, distribution, and maintenance of various product technologies particularly WPS. This programme includes technologies, designed to reduce GHG emission and supply safe water to institutions, which are efficient and meet the technology and measure requirements of the applied methodology: Emission reduction from Safe Drinking Water Supply, version 1.0. The distribution of WPS has provided institutions with safe and clean drinking water and reduced incidences of water borne diseases. This has also reduced the consumption of non-renewable biomass resources or fossil fuel for cooking purposes as well as eliminate the use of non-renewable resources or fossil fuel for water boiling. The PoA will also improve the indoor air quality and health of women and children as a co-benefit.

The VPAs under current verification are: GS11259, GS11260, GS11261, GS11262, GS11263, GS11264, GS11265, GS11266, GS11267, GS11268, GS11269, GS11270, GS11271, GS11272, GS11273, GS11274, GS11275, GS11276, GS11277, GS11278, GS11279, GS11280, GS11281, GS11282, GS11283, GS11284, GS11285, GS11286, GS11287, GS11288.

Total annual average emission reductions for this crediting period are 863,907tCO<sub>2e</sub>.

The PoA has been registered under GS4GG (GS ID: 11189), the CME is Impact Carbon LLC and VPA Implementer is Impact Water LLC.

### Scope of Verification

The scope of the services provided by the Earthood Services Private Limited is to perform verification of the PoA. The scope of verification is to assess the claims and assumptions made in monitoring report /5/ against the GS4GG criteria, UNFCCC criteria, including but not limited to the Gold Standard Principles & Requirements/1/, Gold Standard Programme of Activities Requirements/11/, Gold Standard Community Services Activity Requirements/12/, CDM PS for PoA/3/, CDM VVS for PoA/4/ and other relevant rules and requirements established for Gold Standard.

The scope of the services provided by Earthood Services Private Limited for the project is to perform verification of GS4GG programme of activity. The scope of verification is to assess the claims and assumptions made in the monitoring report /5/ against the GS4GG principles and requirements /1/ criteria and GS4GG VVB requirements /2/, including but not limited to, CDM PS for PoA /3/, CDM VVS for PoA/4/, applied methodology /8/ and other relevant rules and requirements established for GS4GG PoA.

### Verification Process

This verification is an independent and objective review for determination of the monitored reductions in GHG emissions. The verification includes the implementation and operation of the PoA as reported in the registered PoA-DD, VPA-DD, and monitoring report. The verification process is undertaken by verification team that involves the following:

- The desk review of documents and evidence submitted by the project participant in context of the GS4GG criteria along with reference CDM rules and guidelines issued by CDM EB,
- Undertaking site visit, interview, or interactions with the representative of the project participant,
- Reporting audit findings with respect to clarification and non-conformities and the closure of the findings as appropriate.
- Preparing a draft verification report of GS4GG programme of activities period complying with the GS4GG principles and requirements.
- Technical review of the draft verification opinion along with other documents as appropriate by an independent competent technical review team finalization of the verification opinion (this report).
- An independent technical review team reviews the verification report made by the verification team. After the final report is accepted by the Technical Reviewer it is then approved by Earthood Services Private Limited which is processed further according to the GS and CDM procedures.

### Conclusion

The review of the monitoring report, supporting documentation and subsequent follow up actions have provided ESPL with sufficient evidence to determine the fulfilment of stated criteria. Earthood is of the opinion that the PoA “Improved Cookstove and Safe Water Programme” (GSID: 11189) meets all the GS

requirements and has correctly applied the GS approved methodology Emission reduction from Safe Drinking Water Supply Version 1.0 /8/.

The GHG emission reductions were calculated correctly based on the approved methodology “Emission reduction from Safe Drinking Water Supply, version 1.0”/8/ and the monitoring plan contained in the registered PoA-DD/9/ and VPA-DD /10/.

Earthood Services Private Limited can certify that the emission reductions achieved in the monitoring period dated 01/01/2022 – 30/06/2022 by GS PoA “Improved Cookstove and Safe Water Programme” (GSID: 11189) amount to 863,907tCO<sub>2e</sub>. Therefore, this is being submitted for request for issuance, as per GS4GG and UNFCCC procedures.

**SECTION B. Verification team, technical reviewer and approver**

**B.1. Verification team member**

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader	IR	Mahala	Deepika	Central Office	Y	Y	Y	Y
2.	Methodological Expert	IR	Mahala	Deepika	Central Office	Y	Y	Y	Y
3.	Technical Expert (TA 3.1)	IR	Mahala	Deepika	Central Office	Y	Y	Y	Y
5.	Local Expert	EI	Nanbal	Kumden	Central Office	Y	Y	Y	Y
6.	Trainee Verifier	IR	Chaudhary	Anjali	Central Office	Y	N	N	Y

**Technical reviewer and approver of the verification report**

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)
1.	Technical reviewer and TA expert to TR(TA 3.1)	IR	Gautam	Ashok	Central Office
2.	Approver	IR	Singh	Kaviraj	Central Office

**SECTION C. Application of materiality in conducting the verification****C.1. Consideration of materiality in planning the verification**

No.	Risk that could lead to material errors, omissions, or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1.	Observational error by monitoring survey staff of CME/VPA implementer while recording the responses of users in relation to survey parameters	High	The survey is conducted for representative samples of population, which may impact the population significantly. Surveyors may be unsupervised at the site.	Verification team randomly selected the samples from the CME surveyed sampled WPS. The recorded survey forms by CME were checked by VVB during the onsite audit. The verification team also interviewed the monitoring staff and checked their training records/20/.
2.	Error in transferring the recorded data to ER sheet	Medium	The procedure for transferring the recorded break-up sheet readings to the spreadsheet is manual in nature thus increasing the chances of error. However, CME has implemented internal quality checks to ensure prevention of any such potential error in the prepared ER calculation sheet /15/.	The surveying and monitoring personnel assigned for PoA implementation have been trained and certified. The interviews conducted during the site visit confirms the regular training is conducted as per the monitoring plan and implementation procedures to reduce the risk of oversight or data transfer. All the values in ER calculation sheet have been verified from supporting documents and survey data forms/21,34/. No discrepancies were reported due to transferring of data.
3.	Calculation Errors	Medium	The process is manual and therefore there is potential risk of errors / omissions/misstatements.	All calculations were checked by verification team concerning applicable requirements under various documents viz., methodology, PoA DD/9/ and VPA-DDs /10/.

**C.2. Consideration of materiality in conducting the verification**

Based on the review of ER sheet, it can be confirmed that the actual individual and aggregated material error is determined for the PoA as per GS requirements. The verification team has conducted a complete verification of all the information presented in the monitoring report and data monitored as presented in the emission reduction calculation spread sheet /15/. There are no material errors, overestimation of ER, omission, or misstatement.

## SECTION D. Means of verification

### D.1. Desk/document review

The verification of the information of the PoA was performed through the document review including review of monitoring report /5/ version 2.0 dated 09/11/2022. Additionally, cross checks were performed for information provided in the monitoring report using other source of information, the verification team's sectoral or local expertise and, if necessary, independent background investigations.

The desk review involves:

- A review of the data and information presented to verify their completeness.
- A review of the monitoring plan, the monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, paying attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures.
- A review of calculations and assumptions made in determining the GHG data and emission reductions.
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

The list of documents reviewed during the verification is provided under appendix 3 of this report.

### D.2. On-site inspection

Duration of on-site inspection: 14/10/2022 to 15/10/2022				
No.	Activity performed on-site	Site location	Date	Team member
1.	Opening meeting  An assessment of the implementation and operation of the registered GS project activity as per the registered PDD or any approved revised PDD	Nigeria	14/10/2022 - 15/10/2022	Deepika Mahala, Kumden Nanbal
2.	Review of information flows for generating, aggregating, and reporting the monitoring parameters			Deepika Mahala, Kumden Nanbal
3.	Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the registered monitoring plan			Deepika Mahala, Kumden Nanbal
4.	A cross check between information provided in the monitoring report and data from other sources such as logbooks, inventories, purchase records or similar data sources  Closing meeting			Deepika Mahala, Kumden Nanbal

### D.3. Interviews

#### D.3.1. Interviews with CME and VPA Implementers

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Turgesen	Mark	Impact Water, Nigeria	14/10/2022	Implementation, Distribution records, database management	Deepika Mahala, Kumden Nanbal,
2.	Kumar	Ritesh	Climate Secure India	14/10/2022	Methodology application,	Deepika Mahala, Kumden Nanbal,

			Private Limited		monitoring plan, sampling method, ER calculations	
3.	Odunaya	Samuel	Impact Carbon (CME)	14/10/2022	PoA Implementation, Operational and Management Framework, sampling surveys, end-users' feedback, etc.	Deepika Mahala, Kumden Nanbal,
4.	Odewole	Olabode	Impact Carbon (CME)	14/10/2022	PoA Implementation, Operational and Management Framework, sampling surveys, end-users' feedback, etc.	Deepika Mahala, Kumden Nanbal,
5.	Ariyo	Olabisi	Enumerator (Impact Water)	14/10/2022	Water quality test, Monitoring survey training	Deepika Mahala, Kumden Nanbal,
6.	Hammed	Gbadebo	Enumerator (Impact Water)	14/10/2022	Water quality test, Monitoring survey training	Deepika Mahala, Kumden Nanbal,

**Type of questions asked by VVB to VPA Implementers:**

- a. Role and responsibilities of CME or VPA Implementers in the implementation of PoA
- b. Monitoring and implementation process of the PoA
- c. Frequency of training conducted for monitoring personnel.
- d. Water quality test process
- e. How institution received training related to operation of WPS unit?
- f. What is annual hygiene campaign and how it is recorded?
- g. Any grievance received during current monitoring period.

CME and VPA Implementers explained the monitoring and operation of the PoA. In water hygiene campaign, CME team visits schools and conducts a brief discussion about hand washing techniques. SMS campaign was conducted in all schools. Schools also celebrate water day and hygiene day under this campaign. Monitoring personnel interviewed during site visit described the monitoring system and how cleanliness and hygiene is maintained while installing the WPS. Data collection procedure followed during monitoring consists of collecting details of school name, address, signature of school representative, unique product ID and other information related to monitoring parameters. They monitoring partners briefed the assessment team on how they conduct the water quality test and training they have received for conducting water quality test and survey which was found to be in line with the training records and certificates shared by the CME /19,20/.

All the details collected were found correct and inline to the monitoring plan described in the monitoring report /5/.

**D.3.2. Interviews with end-users**

No.	Interviewee		WPS technology	Date	Subject	Team member
	School name	Institution ID				
1.	Christ Anglican church nursery & primary school	N1842496	UltraTab	14/10/2022	VVB site visit	Deepika Mahala, Kumden Nanbal,
2.	Ahamadiya nursery and primary school, egbatado-odeda	N1843041	UltraTab	14/10/2022	VVB site visit	Deepika Mahala, Kumden Nanbal,
3.	Odeda local government nursery and primary school, Mawuko	N1843101	UltraTab	14/10/2022	VVB site visit	Deepika Mahala, Kumden Nanbal,
4.	Community Primary school, Apakila	N1843123	UltraTab	14/10/2022	VVB site visit	Deepika Mahala, Kumden Nanbal,

5.	Christ apostolic church school Oko Baba Yewa South	N1843436	UltraTab	14/10/2022	VVB site visit	Deepika Mahala, Kumden Nanbal,
6.	St. Paul's Anglican Schools I,II&III Owode Yewa South	N1843435	UltraTab	14/10/2022	VVB site visit	Deepika Mahala, Kumden Nanbal,
7.	Ebenezer Anglican Primary School 1, Olokuta	N1843420	UltraTab	14/10/2022	VVB site visit	Deepika Mahala, Kumden Nanbal,
8.	Victoryland school	N1870101	UltraFlo	15/10/2022	VVB site visit	Deepika Mahala, Kumden Nanbal,
9.	Orile primary school	N1868674	UltraFlo	15/10/2022	VVB site visit	Deepika Mahala, Kumden Nanbal,
10.	Ekifound comprehensive college	N1866411	UltraFlo	15/10/2022	VVB site visit	Deepika Mahala, Kumden Nanbal,
11.	Blossom springs academy	N1865574	UltraFlo	15/10/2022	VVB site visit	Deepika Mahala, Kumden Nanbal,

**Type of questions asked by VVB to end-user institutions:**

No.	Questions asked to end-user institutions	Responses Received
1.	To confirm the name of the school, type of school, total population, name and designation of the respondents,	Details correctly provided
2.	Type of product received (UltraFlo or UltraTab) and its unique product ID	Details correctly provided
3.	Primary source of water in the institution and water purification methods	Details correctly provided
4.	Questions related to hygiene indicator covered in this PoA	Positive
5.	Benefits received from WPS unit installed in their institutions	Positive
6.	Training received from CME team and monitoring survey confirmation	Positive
7.	Confirmation of having grievance number for outreaching	Positive

The representatives of each of the institutions interviewed during site visit reported that they are happy with the installation of WPS system. They expressed positive feedback and listed benefits of using WPS which includes access to safe water, and no incidence of water borne disease. They also reported that they are aware of the water quality test being conducted by the VPA Implementer and the grievance mechanism. No negative response was received during the interviews.

**D.4. Sampling approach**

**CME's sampling approach**

For the purpose of sampling, CME has followed the CDM guidelines for sampling and surveys for CDM project activities and programmes of activities version 9.0 /13/ which is in-line with the registered PoA-DD /9/. The CME has applied Stratified Random Sampling at PoA level for different monitoring parameters as per validated PoA DD /9/ and VPA-DDs /10/. 95/10 confidence precision was applied by CME in the sampling which is appropriate as per the single sampling covering 30 VPAs within the boundaries of PoA geographical location Nigeria. Thus, PoA wide single sampling plan was used by the CME.

However, for current MP, PP has sought deviation and applied the sampling plan in line with applied "Emission reductions from Safe Drinking Water Supply" Version 1.0. Please refer section E.6. for details.

**VVB's sampling plan:**

The VVB applied a sampling approach to confirm the implementation of the VPA and compliance of monitoring plan against the registered documents /9/. The VVB has followed Standard for Sampling and surveys for CDM project activities and programmes of activities, version 9, and applied acceptance sampling

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in the verification in accordance with para 28. Para 30 and 31 of standard suggests the AQL, UQL and maximum errors which have been followed by the VVB. The table 2 of Standard for Sampling and surveys for CDM project activities and programmes of activities, Version 9, prescribes minimum sample size and acceptance number for discrepant values. Applying para 30 and 31 of the standard, verification will require 11 samples to be covered in order to verify the CME's sampling plan /13/.

The current verification is for VPA ID: GS11259, GS11260, GS11261, GS11262, GS11263, GS11264, GS11265, GS11266, GS11267, GS11268, GS11269, GS11270, GS11271, GS11272, GS11273, GS11274, GS11275, GS11276, GS11277, GS11278, GS11279, GS11280, GS11281, GS11282, GS11283, GS11284, GS11285, GS11286, GS11287, GS11288. The CME has applied across VPA sampling. The VVB has also applied the across VPA sampling.

The verification team has selected the sample size as 11 institutions and 4 institutions in extra as backup for the purpose of on-site inspection to check the acceptability of CME's sampling results or otherwise. VVB has taken 2 back up samples for each of the technology due to chances of unavailability of the school representatives during the site visit.

Sample size: per region

VPA Ref no.	AQL	UQL	Producer risk	Consumer risk	Sample size; min	Acceptance no.
GS11259, GS11260, GS11261, GS11262, GS11263, GS11264, GS11265, GS11266, GS11267, GS11268, GS11269, GS11270, GS11271, GS11272, GS11273, GS11274, GS11275, GS11276, GS11277, GS11278, GS11279, GS11280, GS11281, GS11282, GS11283, GS11284, GS11285, GS11286, GS11287, GS11288	0.5%	20%	10%	10%	11	0

These 11 systems are divided as per the distribution ratio of different kinds of units:

WPS Unit type	Distribution number	VVB samples
Ultra-Flo	8,040	4
Ultra-Tab	10,867	7

The verification team selected the random samples of CME's sampled records to check the acceptability (or otherwise) of the data for each such record with CME's sample records to determine if the CME's sample records meet the requirements. Prior to the site visit, VVB applied randomizer in the monitoring data and generated the random numbers for the required 11 samples (4 of Ultra-Flo WPS unit type and 7 Ultra-tab WPS unit type). The samples were randomly picked-up to ensure that the selected samples were representative of the entire population. In addition, 4 extra samples were taken from the randomized dataset to propose backup samples. VVB confirmed that the required confidence level has been met for the sampled data and that the samples were randomly selected and are representative of the entire population.

All the 11 main institutions (4 samples from Ultra Flo and 7 samples from Ultra TAB) sampled for the on-site survey were covered during the site visit. During the interviews with end-users, all the details and were found correct and no discrepancies were observed in the monitoring data.

### D.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Area of verification findings	No. of CL	No. of CAR	No. of FAR
<b>General</b>	-	-	-
Compliance of the monitoring report with the GS4GG monitoring report form	-	CAR 01	-
Remaining forward action requests from validation and/or previous verifications	-	-	-
VPA's considered for verification and covered under this report	-	-	-
<b>Programme of activities</b>			

Compliance of the programme implementation with the registered PoA-DD	-	-	-
Implementation and operation of the management system	-	-	-
<b>VPA Implementation</b>			
Compliance of the VPA implementation with the included VPA design document	-	-	-
Post-design certification changes	-	-	-
<b>Compliance of the monitoring activities with the registered monitoring plan</b>			
Data and parameters fixed ex ante or at renewal of crediting period	-	-	-
Data and parameters monitored	CL 01	CAR 02	-
Comparison of monitored parameters with last monitoring period	-	-	-
<b>Implementation of the sampling plan</b>			
<b>Assessment of data and calculations of net emission reductions or removals</b>			
Calculations of baseline value of each SDG Impact	-	-	-
Calculations of project value of each SDG Impact	CL 02	-	-
Calculations of leakage GHG emissions	-	-	-
Calculations of net benefits for each SDG Impact	-	-	-
Comparison of actual GHG ER value achieved during this monitoring period with estimated value	-	-	-
Safeguarding principles	-	-	-
Stakeholder Inputs and Legal Disputes	-	-	-
Continuous input and grievance mechanism	-	-	-
Internal quality control	-	-	-
Verification opinion	-	-	-
Others( from GS performance review)			FAR 01*
<b>Total</b>	02	02	1

## SECTION E. Verification findings

### E.1. General

#### E.1.1 Compliance of the monitoring report with the GS4GG monitoring report form

<b>Means of verification</b>	The monitoring report form used is GS4GG Monitoring report template version 1.1 /6/, which is a valid version available at the time of verification. All the sections of the aforesaid form were filled as per the Monitoring report template guide version 1.1 /7/ and all the relevant details were provided in the form.
<b>Findings</b>	CAR 01 was raised and resolved
<b>Conclusion</b>	The monitoring report version 2.0 /5/ has been found to be completed using the valid version of the monitoring report form. The information provided in the monitoring report has been assessed in accordance with the GS4GG principles & requirements version 1.2/1/ and monitoring report template guide /7/.

#### E.1.2 Remaining forward action requests from validation and/or previous verifications

FAR raised was raised from the GS performance review (corresponding to previous verification i.e., first monitoring period from (01/01/2021-31/12/2021)/38/. For details, please refer Appendix 4 for this report. A FAR due to deviation sought /26/ was raised and the same is mentioned under section B.1.1 of the Monitoring report/5/.

#### E.1.3 VPAs considered for verification and covered under this report

Title and GS reference number of the VPA included in the PoA as of the end of this monitoring period	Is the VPA considered for this verification? (yes/no)	The date when the VPA was included	Version of the PoA-DD
GS11259: Improved Cookstove and Safe Water	Yes	10/06/2022	5.0

Programme – Nigeria – VPA 01.			
GS11260: Improved Cookstove and Safe Water Programme – Nigeria – VPA 02.	Yes	10/06/2022	5.0
GS11261: Improved Cookstove and Safe Water Programme – Nigeria – VPA 03.	Yes	10/06/2022	5.0
GS11262: Improved Cookstove and Safe Water Programme – Nigeria – VPA 04.	Yes	10/06/2022	5.0
GS11263: Improved Cookstove and Safe Water Programme – Nigeria – VPA 05.	Yes	10/06/2022	5.0
GS11264: Improved Cookstove and Safe Water Programme – Nigeria – VPA 06.	Yes	10/06/2022	5.0
GS11265: Improved Cookstove and Safe Water Programme – Nigeria – VPA 07.	Yes	10/06/2022	5.0
GS11266: Improved Cookstove and Safe Water Programme – Nigeria – VPA 08.	Yes	10/06/2022	5.0
GS11267: Improved Cookstove and Safe Water Programme – Nigeria – VPA 09.	Yes	10/06/2022	5.0
GS11268: Improved Cookstove and Safe Water Programme –Nigeria – VPA 10.	Yes	10/06/2022	5.0
GS11269: Improved Cookstove and Safe Water Programme – Nigeria – VPA 11.	Yes	10/06/2022	5.0
GS11270: Improved Cookstove and Safe Water Programme – Nigeria – VPA 12.	Yes	10/06/2022	5.0
GS11271: Improved Cookstove and Safe Water Programme – Nigeria – VPA 13.	Yes	10/06/2022	5.0
GS11272: Improved Cookstove and Safe Water Programme – Nigeria – VPA 14.	Yes	10/06/2022	5.0
GS11273: Improved Cookstove and Safe Water Programme – Nigeria – VPA 15.	Yes	10/06/2022	5.0
GS11274: Improved Cookstove and Safe Water Programme – Nigeria – VPA 16.	Yes	10/06/2022	5.0
GS11275: Improved Cookstove and Safe Water Programme – Nigeria – VPA 17.	Yes	10/06/2022	5.0
GS11276: Improved Cookstove and Safe Water Programme – Nigeria – VPA 18.	Yes	10/06/2022	5.0
GS11277: Improved Cookstove and Safe Water Programme – Nigeria – VPA 19.	Yes	10/06/2022	5.0
GS11278: Improved Cookstove and Safe Water Programme – Nigeria – VPA 20.	Yes	10/06/2022	5.0
GS11279: Improved Cookstove and Safe Water Programme – Nigeria – VPA 21.	Yes	10/06/2022	5.0
GS11280: Improved Cookstove and Safe Water Programme – Nigeria – VPA 22.	Yes	10/06/2022	5.0
GS11281: Improved Cookstove and Safe Water Programme – Nigeria – VPA 23.	Yes	10/06/2022	5.0
GS11282: Improved Cookstove and Safe Water Programme – Nigeria – VPA 24.	Yes	10/06/2022	5.0
GS11283: Improved Cookstove and Safe Water Programme – Nigeria – VPA 25.	Yes	10/06/2022	5.0
GS11284: Improved Cookstove and Safe Water Programme – Nigeria – VPA 26.	Yes	10/06/2022	5.0
GS11285: Improved Cookstove and Safe Water Programme – Nigeria – VPA 27.	Yes	10/06/2022	5.0
GS11286: Improved Cookstove and Safe Water Programme – Nigeria – VPA 28.	Yes	10/06/2022	5.0
GS 11287: Improved Cookstove and Safe Water Programme – Nigeria – VPA 29.	Yes	10/06/2022	5.0
GS11288: Improved Cookstove and Safe Water Programme – Nigeria – VPA 30	Yes	10/06/2022	5.0

## E.2. Programme of activities

### E.2.1 Compliance of the programme implementation with the registered PoA-DD

<b>Means of verification</b>	<p>The purpose of the PoA “Improved Cookstove and Safe Water Programme” is to provide safe and clean drinking water through dissemination of low GHG water purification technologies (WPS) to schools in Nigeria.</p> <p>The monitoring period covered under this verification is 01/01/2022 – 30/06/2022 (Inclusive of both days). The implementation of the PoA has led to reduced GHG emissions caused using non-renewable biomass/ fossil fuel for boiling water. It has also helped to reduce the incidence of waterborne/airborne illness and provided clean water to schools. The baseline study showed that the piped water can only be accessed by 11.7% of the total population of Nigeria. Only 4.71% of the schools/institutions has access to safe water derived from improved water sources or from water treatment method other than boiling /16/ Therefore, installation of WPS under the current PoA has provided access to safe water to larger population in schools of Nigeria. All the VPAs selected under PoA are within the boundaries of PoA location i.e., Nigeria. The VPAs covered by the PoA under this monitoring period are VPA 01 to VPA 30 corresponding to its GSID, GS11259 to GS11288.</p> <p>The PoA meets the eligibility criteria of the Gold Standard and has applied applicable methodology for quantification of GHG emission reductions. The latest and valid version of the methodology Emission reduction from Safe Drinking Water Supply, version 1.0 /8/. The CME for the PoA is Impact Carbon LLC, which distributed the WPS technologies by actively engaging with the local partners. The VPA Implementer is Impact Water LLC who is responsible for operating VPAs as per CME management system and conduct monitoring and verification.</p> <p>The aforesaid VPAs involve dissemination of two types of water purification systems:</p> <ol style="list-style-type: none"> <li>I. Chlorination (UltraFlo)</li> <li>II. Chlorination (UltraTab)</li> </ol> <p>The technical specifications of the WPS distributed under the VPAs is provided in the table below:</p> <table border="1"> <thead> <tr> <th>Description</th> <th>UltraFlo</th> <th>UltraTab</th> </tr> </thead> <tbody> <tr> <td>Application</td> <td>Piped water</td> <td>Un-piped water</td> </tr> <tr> <td>Flow rate</td> <td>20 litres /min</td> <td>1 tablet treats 100 liters</td> </tr> <tr> <td>Capacity/lifespan</td> <td>Expiry: 5 years Capacity:340,000 litres</td> <td>Expiry: 5 years Capacity: Big pack: 48,000 litres Small pack: 10,000 liters</td> </tr> <tr> <td>Fixed or Portable</td> <td>Fixed</td> <td>Portable</td> </tr> <tr> <td>Removal of E. Coli</td> <td>99 (2-log)</td> <td>99 (2-log)</td> </tr> </tbody> </table> <p>All the deployed systems meet the eligibility requirements of the PoA DD /9/. The details of the systems were verified from the manufacturer’s specification /18/ provided by the CME.</p> <p>During the site-visit, the installation of WPS claimed by the CME were checked and found to be in-line with the technical description provided in the registered PoA-DD/9/ and monitoring report/5/.</p> <p>The Verification team assessed the following information to verify the capacity and lifetime of systems under the VPAs:</p> <ol style="list-style-type: none"> <li>1. Technical specification including capacity/ expiry of UltraFLO issued by Medentech (technology supplier)</li> <li>2. Technical specification including capacity/ expiry of UltraTAB issued by Medentech (technology supplier)</li> </ol>	Description	UltraFlo	UltraTab	Application	Piped water	Un-piped water	Flow rate	20 litres /min	1 tablet treats 100 liters	Capacity/lifespan	Expiry: 5 years Capacity:340,000 litres	Expiry: 5 years Capacity: Big pack: 48,000 litres Small pack: 10,000 liters	Fixed or Portable	Fixed	Portable	Removal of E. Coli	99 (2-log)	99 (2-log)
Description	UltraFlo	UltraTab																	
Application	Piped water	Un-piped water																	
Flow rate	20 litres /min	1 tablet treats 100 liters																	
Capacity/lifespan	Expiry: 5 years Capacity:340,000 litres	Expiry: 5 years Capacity: Big pack: 48,000 litres Small pack: 10,000 liters																	
Fixed or Portable	Fixed	Portable																	
Removal of E. Coli	99 (2-log)	99 (2-log)																	

3. The UltraTAB strip clearly mentions the treatment capacity of 1 tablet as 100 liters and a Small UltraTAB pack is standardized at 10 strips of 10 tablets each, rendering the capacity of Small Pack UltraTAB pack as 10,000 liters and big pack: 48,000 liters as verified through photos UltraTAB photos
4. UltraFLO cartridges are manufactured in a standardized size as per the dimensions specified in the VPA-DDs and MR (verified physically during previous site visits as well as UltraFLO dimension declaration by CME) and pertains to the specifications issued by Medentech.
5. The expiry of the UltraFlo/UltraTAB was also found mentioned on the UltraFLO cartridge / UltraTAB pack respectively as 5 years (photographs of UltraFlo and UltraTAB units).
6. The WPS installed by the CME were checked by the verification team during the site-visit and found to be in-line with the technical description provided in the registered PoA-DD/9/ and Monitoring report/5/ and manufacturer's specifications /18/.

Also, the verification team checked the implementation status of the project activity through interviewing the CME, the VPA implementer, monitoring personnel and WPS User as defined in the PoA DD/9/, and monitoring report /5/.

Interview of the monitoring personnel involved in the QA/QC procedures revealed that the procedures mentioned in the PoA DD/9/ are being followed and the training records/20/ regarding the trained personnel were checked.

The project location and coordinates shared by CME were verified during the site visit/27/ and are found to be in-line with the registered PoA-DD/9/ and MR/5/.

Further, based on the review of sales database (presented in ER sheet)/15/, onsite observations and interview conducted during the site visit, the verification team found that:

- The VPA(s) were implemented within the boundary of the PoA as described in the revised accepted PoA-DD/9/.
- The CME is same as that mentioned in the revised accepted PoA-DD/9/
- The implementation and operation of the project activity have been conducted in accordance with the description contained in the revised accepted PoA-DD/9/ and included VPA-DDs/10/.
- All physical features of the VPA proposed in the included VPA-DDs/10/ were in place.
- The project participants/VPA implementer has operated the VPAs as per the included VPA DDs/10/.

During the on-site audit survey conducted by the verification team 11 WPS were checked.

The uniqueness of the system is identified from UID written on the installed units. The details of the WPS were verified from the distribution database/28/ which was cross checked with their corresponding purchase orders/29/ for all 11 WPS samples.

The emission reductions being claimed during this monitoring period are lesser than the estimated emission reductions for the comparable period as per the VPA-DDs/10/, as is given in the table under section E.8. for comparing ex-ante estimated ERs in the VPA DDs/10/ for the corresponding period with the actual ERs achieved.

The VPAs are within the threshold limits of the applied methodology/8/.

The monitoring report was compared and verified against the description provided in the revised accepted PoA-DD/9/ and is found to be correct.

	<p>The technical description of the project activity has been verified by assessing the description reported in the monitoring report against the applied methodology /8/ and cross-checked during the site visit. All the information was correctly mentioned in the monitoring report and its corresponding ER calculation sheet /5,15/.</p> <p>The summary of the implemented PoA and the technology involved are described in the PoA-DD /9/ with sufficient details and clarity. The accuracy of the PoA description was determined on the basis of review of supporting documents (as listed in Appendix 3), and the onsite interviews conducted with the CME representatives, project personnel, and end-users as a part of the verification survey.</p> <p>The specification of the Installed technologies under each VPA is cross-checked from the manufacturer's specifications at the VPA level. /18/ The assessment team has checked and reviewed the monitoring report with supportive evidence and found the details to be correct.</p> <p>The start date of the project activity is 01/01/2021 as per the VPA-DD /10/ which is also the start date of the operation. The crediting period is from 01/01/2021 to 31/12/2025 which is of total 5 years. The monitoring period for this verification is 01/01/2022 – 30/06/2022.</p> <p>Achieved emission reductions are 863,907tCO<sub>2e</sub> for the current MP 01/01/2022 – 30/06/2022. The emission reduction calculation sheet was reviewed /15/ and it was verified that CME has applied correct formulae and calculated emission reductions in accordance with the applied methodology/8/.</p> <p>VVB has also checked the project details such as title of the project, project location, technology applied, and VPAs in project portals of carbon standard CDM, VCS, GCC, GS and through random google search. The PoA was previously registered as PoA 9948 with a different PoA title under CDM which has been transparently transitioned to GS 11189 through GS approval process.</p>
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	<p>Based on the review of the monitoring report, PoA-DD, VPA-DD, installation database and on-site interviews conducted with the CME, VPA Implementers and end-users, the verification team found that:</p> <ol style="list-style-type: none"> <li>a) The VPAs are implemented within the boundaries of the PoA i.e., Nigeria as described in the PoA-DD</li> <li>b) CME for the PoA is Impact Carbon and VPA Implementer is Impact Water</li> <li>c) The distribution and operation of the PoA has been done in accordance with the description reported in the PoA-DD and included VPA-DD.</li> <li>d) The monitoring and implementation process is in line to the VPA-DD, which is further explained under section E.4 of this verification report.</li> <li>e) The crediting period of the PoA is of 5 years starting form 01/01/2021 to 31/12/2025. The monitoring period covered under this verification assessment is 01/01/2022 – 30/06/2022.</li> <li>f) Achieved ERs are lower than the estimated ERs for the comparable monitoring period for all the VPAs.</li> </ol>

**E.2.2. Implementation and operation of the management system**

<b>Means of verification</b>	<p>The monitoring plan, as explained in section C of the monitoring report, has been found in compliance with the requirements of the applied methodology /8/.</p> <p>The roles &amp; responsibility of both CME &amp; VPA implementers are well defined. CME's role is primarily with the documentation at both PoA &amp; VPA level, training of the Implementers was confirmed during the interviews with the CME's team.</p> <p>The documentation and record maintenance for each VPA under the PoA is performed by Program Manager. CME is responsible for outreaching, training, and ensuring proper addressal of concerns or grievances made by the end-users related to WPS technology being installed at their institutions. Each VPA implementer collected and reported the required data to effectively monitor the</p>
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	<p>emission reductions of each VPA in accordance with the monitoring plan in the VPA-DD/10/.</p> <p>Training records are being maintained by the Program Manager who is also responsible for managing electronic database containing list of units installed/ distributed along with the required end user/ baseline information compiled by customer engagement staff.</p> <p>The database of total sales records for each of the distributed WPS (UltraFlo/ UltraTab) is maintained electronically along with the paper records and/or SMS tracking records. The total sales record consists of following information</p> <ol style="list-style-type: none"> <li>Type of system (UltraFLO / UltraTAB)</li> <li>Unique serial number of the units installed / distributed</li> <li>Date of installation / distribution</li> <li>Address and details of school and contact detail (if available) of representative</li> <li>Type of School (Boarding / Non-boarding)</li> <li>Number of project technology installed/distributed in an institution</li> <li>School population count (number of students / staff in boarding / non-boarding category)</li> </ol> <p>The verification team has confirmed during the site visit that the distributed WPS units have Unique product ID. This was found consistent with the information given in the installation database /15/ and it was ensured that double counting is avoided. The management system maintained by the CME is in line with the PoA DD /9/.</p>
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The verification team assessed the management systems in place to implement the monitoring of the PoA. This included the roles and responsibilities, data collection, transfer and aggregation procedures, data storage and archiving for the monitoring system, training records /19,20/ as reported in the monitoring report. The verification team confirms that the monitoring management system of the PoA is in place with the responsibilities properly identified and established.

**E.3. VPA Implementation**

**E.3.1. Compliance of the VPA implementation with the included VPA design document**

<b>Means of verification</b>	<p>The registered PoA aims to provide safe drinking water to the institutions in Nigeria. The PoA is primarily designed to replace the existing fossil fuel / non-renewable woody biomass-based means of purifying water by installing low emission / emission free Water purification systems to provide safe drinking water. Impact Water is the implementer of the VPAs and has fully implemented the VPAs with the help of Sales and Distribution Partners (SDP). The same has been verified from the agreement between the CME and VPA Implementer /35/. This monitoring report includes the implementation and monitoring of 30 VPAs- VPA GS 11259- GS 11288 in Nigeria.</p> <p>The type of systems installed under the VPA are as follows:</p>				
	Type of installed technology (Service level)	Technology / operating concept	Technology	Implementation level (Cumulative Number of units installed)	MoV
	Institution/School Institution/School	Chlorination: This uses activated chlorine to kill pathogens in water	UltraFlo	2022- 8,040	The total number of UltraFlo distributed by the end of the monitoring period is 8,040 which is verified from the installation database provided in the ER sheet /15/.
			UltraTab	2022- 10,867	The total number of

UltraTab distributed by the end of the monitoring period is 10,867 which is verified from the installation database provided in the ER sheet /15/.

The specification of water purification technology:

WPS Models	Lifetime	Fixed or Portable	Removal of E. coli	Minimum Watt / Voltage	MoV
UltraFLO	Expiry: 5 years Capacity: 340,000 litres	Fixed	99 (2-log)	Not applicable	Technical specifications of the UltraFlo system were verified through the details provided in the manufacturer's specifications /18/ and were found to be consistent with the information given in monitoring report /5/.
UltraTAB	Expiry: 5 years Capacity: Big pack: 48,000 litres Small pack: 10,000 litres	Portable	99 (2-log)	Not applicable	Technical specifications of the UltraFlo system were verified through the details provided in the manufacturer's specifications /18/ and were found to be consistent with the information given in monitoring report /5/.

The table below provides details on VPA and technology specific figures for this monitoring period:

VPA no.	First WPS Installation date	Crediting period	No. of units (installed)		Estimated ERs	ERs achieved
			FLO	TAB		
GS11259	12/01/2018	01/01/2021-31/12/2025	593	34	30,785	30,785
GS11260	04/09/2018	01/01/2021-31/12/2025	612	0	30,785	30,785
GS11261	01/01/2019	01/01/2021-31/12/2025	614	0	30,785	30,785
GS11262	20/02/2019	01/01/2021-31/12/2025	412	203	30,785	30,785
GS11263	25/04/2019	01/01/2021-31/12/2025	507	119	30,785	30,785
GS11264	02/07/2019	01/01/2021-31/12/2025	284	342	30,785	25,770
GS11265	23/05/2019	01/01/2021-31/12/2025	251	388	30,785	30,785
GS11266	10/06/2019	01/01/2021-31/12/2025	185	451	30,785	30,785
GS11267	18/06/2019	01/01/2021-31/12/2025	318	324	30,785	30,785
GS11268	09/07/2019	01/01/2021-31/12/2025	179	482	30,785	28,403
GS11269	31/07/2019	01/01/2021-31/12/2025	87	563	30,785	30,228
GS11270	07/08/2019	01/01/2021-31/12/2025	361	273	30,785	30,644
GS11271	03/09/2019	01/01/2021-	139	379	30,785	23,902

		31/12/2025				
GS11272	04/10/2019	01/01/2021-31/12/2025	16	555	30,785	26,701
GS11273	11/10/2019	01/01/2021-31/12/2025	16	619	30,785	29,860
GS11274	16/10/2019	01/01/2021-31/12/2025	27	599	30,785	27,686
GS11275	18/10/2019	01/01/2021-31/12/2025	10	645	30,785	30,591
GS11276	19/09/2019	01/01/2021-31/12/2025	12	662	30,785	29,607
GS11277	23/10/2019	01/01/2021-31/12/2025	20	656	30,785	30,785
GS11278	25/10/2019	01/01/2021-31/12/2025	78	573	30,785	30,115
GS11279	06/11/2019	01/01/2021-31/12/2025	261	399	30,785	30,785
GS11280	04/12/2019	01/01/2021-31/12/2025	98	578	30,785	30,574
GS11281	24/09/2019	01/01/2021-31/12/2025	27	642	30,785	28,426
GS11282	14/12/2019	01/01/2021-31/12/2025	9	648	30,785	26,827
GS11283	07/01/2020	01/01/2021-31/12/2025	617	30	30,785	29,570
GS11284	16/01/2020	01/01/2021-31/12/2025	617	9	30,785	28,031
GS11285	28/01/2020	01/01/2021-31/12/2025	589	39	30,785	27,744
GS11286	06/02/2020	01/01/2021-31/12/2025	390	263	30,785	23,360
GS11287	05/01/2019	01/01/2021-31/12/2025	386	72	30,785	17,233
GS11288	21/01/2020	01/01/2021-31/12/2025	325	320	30,785	30,785
Total WPS installed			8040	10867		
	As checked from the delivery notes/31/	Checked from the GS website	Checked from sales data base/28/	Checked from sales data base/28/	Checked from the ER sheet/15/	Checked from the ER sheet/15/

The start date of crediting period, inclusion dates of the VPAs were checked from the GS VPA DDs /10/. The first WPS Installation dates were checked from the screenshots of salesforce database/30/.

The implementation of the VPA as mentioned above is within the geographical boundary of PoA-DD /9/, which has been verified through review of lat-long data /27/, discussed already in Section E.2.1 above. Impact Carbon is the CME of the VPA, and Impact Water is the VPA Implementer.

In case of UltraFLO, it shall be noted that water is transported from primary water sources such as wells, surface water and boreholes through pipes to drinking water storage tanks in project schools. The Ultra-FLO systems are installed on these pipes which was found to be in-line to requirement set in the VPA-DDs/10/.

In the absence of a pipeline connection to the drinking water storage tanks, UltraTABs are provided to the schools, which are designed for non-piped applications. An UltraTAB pack consists of 10 strips of 10 tablets each (or 48 tablets in each trip for big pack), wherein the tablets can be directly put in

	<p>drinking water storage tank (@one tablet per 100L of water), thus, is feasible for un-piped applications</p> <p>During the on-site site audit survey conducted for the current issuance request, as well as, during the on-site audit survey conducted for previous batches, it was clearly noted by the verification team that UltraFLO systems have only been installed on pipeline connections, even when the primary water source is different from City Council / Government / Municipal water connection. Similarly, UltraTABS are administered only in un-piped applications even when the schools may have a piped connection (not connected to drinking water storage tank).</p> <p>Thus, all the systems have been implemented in line with the VPA DDs/10/.</p> <p>The implementation of the VPAs, as defined in the monitoring report, were assessed through document reviews and on-site survey. The VPAs covered in this PoA is within the geographical boundary of the PoA, which constitutes physical boundary as well. The water purification system (WPS) deployed under PoA is verified as follows.</p> <p>The verification team during the current verification has carried out interviews during the site visit with the CME/ VPA Implementers to understand and verify the VPA implementation and deviations in the monitoring, if any. It was observed that each has school has unique Institution Salesforce ID, each WPS unit distributed was assigned a unique product ID, which ensured that there is no double counting for the technologies distributed in the VPA. The unique product ID on each unit, personal information of unit owners and installation date and supply dates of unit was cross checked with the installation database and monitoring samples data provided in ER calculation sheet /15/ and audit sample data. The operation of the technology was confirmed through on-site interviews of the sampled institutions' representatives during the on-site audit.</p>
<b>Findings</b>	No findings were raised
<b>Conclusion</b>	<p>a) The verification team is of the opinion that physical features of the VPA have been implemented in accordance with the VPA-DDs /10/.</p> <p>b) No specific monitoring equipment had to be installed according to the monitoring plan.</p> <p>c) It is also confirmed, through the on-site audit survey and review of the supporting documentation that physical features of the component VPA have been implemented in accordance with the VPA-DDs /10/.</p> <p>d) The VPA was also found to be completely operational in line with the VPA-DDs /10/. However, CME has sought a temporary deviation during the current MP for the systems that were fully consumed/ discontinued prior to the start of the current monitoring period.</p> <p>e) The information provided in the relevant sections of the monitoring report appropriately describes the implementation and operational status of the PoA.</p>

**E.4. Post-design certification changes****E.4.1. Temporary deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline**

PD has sought deviation for the monitoring methodology (Dev 184) dated 07/12/2021. This has been included in B.2.1 section in the MR. The proposed deviation was related to conduct the project surveys for WPS stratifying each technology irrespective of their age, and by grouping more than 10 small scale VPAs together. As per the justification, the VPAs included in this PoA in each country are identical and as follow same management plan, operational plan, and technologies. This deviation was approved by GS, for the first crediting period of the VPAs GS11259 to GS11305, however put forward following two conditions:

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).

**E.4.2. Corrections**

Not Applicable

**E.4.3. Changes to start date of crediting period**

Not Applicable

**E.4.4. Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline**

Not Applicable

**E.4.5. Changes to project design of approved project**

Not Applicable

**E.5. Compliance of the monitoring activities with the registered monitoring plan**

<b>Means of verification</b>	The monitoring plan as contained in monitoring report /5/ were reviewed against the monitoring requirements of the applied methodology /8/ as well as PoA-DD and VPA-DDs /9,10/ with reference to the technology involved. Based on this review, it was found that the monitoring plan includes all the required parameters to be monitored in the context of the VPA design and description and allows proper determination of emission reductions in accordance with PoA-DD /9/ and applied methodology Emission reductions from Safe Drinking Water Supply, version 1.0/8/.
<b>Findings</b>	No findings were raised
<b>Conclusion</b>	The monitoring plan is in line with the approved methodology Emission reductions from Safe Drinking Water Supply, version 1.0/8/, that is included in the PoA-DD and VPA-DDs /9,10/.

**E.5.1. Data and parameters fixed ex ante or at renewal of crediting period****ABS<sub>Baseline</sub> Access to Basic Services (number of premises with at least one WPS distributed / installed under the baseline)**

<b>SDG Indicator</b>	1
<b>Means of verification</b>	The parameter represents number of premises with at least one WPS distributed / installed under the baseline. VPAs aim at distributing WPS to the institutions of Nigeria thereby replacing the baseline method of boiling of water for consumption. Thus, CME assumes the parameter value to be zero as none of the institutes were having WPS in the baseline scenario. The value of the parameter is sourced from

	the VPA DDs/10/. Moreover, none of the end users replied to be using an improved technology before the receiving the project water purification system.
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the PoA-DD /9/ and VPA-DDs /10/. The value applied is correct and justified.

**IH<sub>Baseline</sub> Good Health and Well Being**

<b>SDG Indicator</b>	3
<b>Means of verification</b>	The parameter referred to % of users reporting reduction in incidence of diarrhoea and water borne diseases etc. in baseline (improved health). CME assumes the parameter value to be zero as none of the institutes were having WPS in the baseline scenario. The value of the parameter is sourced from the VPA DDs/10/. Moreover, none of the end users replied to be using an improved technology before the receiving the project water purification system
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the PoA-DD /9/. The value applied is correct and justified.

**SWO<sub>Baseline</sub> Clean Water and sanitation**

<b>SDG Indicator</b>	6
<b>Means of verification</b>	The PoA distributed WPS to the institutions of Nigeria thereby replacing the baseline method of boiling of water for consumptions. The parameter refers to % Users reporting safe water quality in baseline. Thus, CME assumes the parameter value to be 4.71, however none of the institutes were having WPS in the baseline scenario. The value of the parameter is sourced from the VPA DDs/10/. Moreover, none of the end users declared to be using an improved technology before the receiving the project water purification system.
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the PoA-DD /9/. The value applied is correct and justified.

**AAC<sub>Baseline</sub> Affordable and Clean Energy**

<b>SDG Indicator</b>	7
<b>Means of verification</b>	The PoA distributed WPS to the institutions of Nigeria thereby replacing the baseline method of boiling of water for consumptions. The parameter refers to access to affordable and clean energy % of operating WPS units under baseline. Thus, CME assumes the parameter value to be zero as none of the institutes were having WPS in the baseline scenario. The value of the parameter is sourced from the VPA DDs/10/. Moreover, none of the end users replied to be using an improved technology before the receiving the project water purification system
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the PoA-DD /9/. The value applied is correct and justified.

**QE IG<sub>Baseline</sub> Decent Work and Economic Growth**

<b>SDG Indicator</b>	8
<b>Means of verification</b>	The PoA distributed WPS to the institutions of Nigeria thereby replacing the baseline method of boiling of water for consumptions. The parameter refers to Quantitative Employment and income generation (Number of person (male and female) hired under Baseline). Thus, CME assumes the parameter value to be zero as none of the institutes were having WPS in the baseline scenario. The value of the parameter is sourced from the VPA DDs/10/.Moreover, none of the end users replied to be using an improved technology before the receiving the project water purification system
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the PoA-DD /9/. The value applied is correct and justified.

**Project technological description, the detailed description of the planned project technology**

<b>SDG Indicator</b>	13															
<b>Means of verification</b>	<p>The value for this parameter has been verified from the Manufacturer's specifications /18/.</p> <table border="1"> <tr> <td>Description</td> <td>UltraFLO</td> <td>UltraTAB</td> </tr> <tr> <td>Manufacturer</td> <td>Medentech</td> <td>Medentech</td> </tr> <tr> <td>Product Name</td> <td>UltraFLO</td> <td>Big Pack, Small Pack</td> </tr> <tr> <td>Technology type</td> <td>Chlorination</td> <td>Chlorination</td> </tr> <tr> <td>Performance classification</td> <td>Complies with National standard</td> <td>Complies with National standard</td> </tr> </table> <p>The evidence /18/ shared by the CME has been reviewed and it was found that project technological description is correctly reported in monitoring report /5/.</p>	Description	UltraFLO	UltraTAB	Manufacturer	Medentech	Medentech	Product Name	UltraFLO	Big Pack, Small Pack	Technology type	Chlorination	Chlorination	Performance classification	Complies with National standard	Complies with National standard
Description	UltraFLO	UltraTAB														
Manufacturer	Medentech	Medentech														
Product Name	UltraFLO	Big Pack, Small Pack														
Technology type	Chlorination	Chlorination														
Performance classification	Complies with National standard	Complies with National standard														
<b>Findings</b>	No findings were raised.															
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the PoA-DD /9/. The value applied is correct and justified.															

**Regulatory framework for safe water supply, National, sub-national and local regulations or guidance for safe drinking water supply, operation, and maintenance, including any tariff requirements in host country Nigeria**

<b>SDG Indicator</b>	13
<b>Means of verification</b>	<p>The project VVBs not undermine or conflict with any national, sub-national and local regulations or guidance for safe drinking water supply, operation, and maintenance, including any tariff requirements. Further, the national standards and local regulations for safe drinking water supply do not impose any cap on parameters used by the methodology and therefore have no implications on emission reduction calculations.</p> <p>The VPAs are in line with all the local and national Safe Water guidelines such as National Action Plan (NAP), National Water Resources Bill- 2020, and Nigerian Standard for Drinking Water Quality (NSDQW).</p>
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the PoA-DD /9/. The value applied is correct and justified.

**Water resources in the project activity, Improved and Unimproved drinking water sources in Nigeria**

<b>SDG Indicator</b>	13																		
<b>Means of verification</b>	<p>Baseline survey of Schools</p> <table border="1"> <thead> <tr> <th>S.No</th> <th>Drinking water source</th> <th>% Premises</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Government/ Private piped connection</td> <td>3.53</td> </tr> <tr> <td>2.</td> <td>Surface water</td> <td>2.35</td> </tr> <tr> <td>3.</td> <td>Well, /Borehole</td> <td>94.12</td> </tr> </tbody> </table> <p>The value for this parameter is different for improved and unimproved drinking water sources in Nigeria. The value is sourced form baseline survey sheet /23/.</p> <p>PD has taken following values for other water sources as per annex 2 of the applied methodology.</p> <table border="1"> <thead> <tr> <th>S.No.</th> <th>Source of drinking water</th> <th>% Premises</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Improved sources</td> <td>97.65%</td> </tr> </tbody> </table>	S.No	Drinking water source	% Premises	1.	Government/ Private piped connection	3.53	2.	Surface water	2.35	3.	Well, /Borehole	94.12	S.No.	Source of drinking water	% Premises	1.	Improved sources	97.65%
S.No	Drinking water source	% Premises																	
1.	Government/ Private piped connection	3.53																	
2.	Surface water	2.35																	
3.	Well, /Borehole	94.12																	
S.No.	Source of drinking water	% Premises																	
1.	Improved sources	97.65%																	

	2.	Unimproved Sources	2.35%	
<b>Findings</b>	No findings were raised.			
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the VPAA-DD /10/. The value applied is correct and justified.			

**Stove technologies used in the project boundary; The proportion of different stove types used in premises in the geographical area of the project. If the project covers different types of end-users premises (e.g. households, institutions), then the stoves technologies should be determined for each premises type.**

<b>SDG Indicator</b>	13		
<b>Means of verification</b>	Baseline survey of Schools		
	S.no	Stove Technology	School/Institutions (%)
	1	Traditional / 3 Stone Fire	58.02
	2	Traditional Charcoal Pot	40.74
	3	Kerosene Stove	1.23
	Stove technologies used in the project boundary was found to be traditional 3 stone stoves, charcoal pots, or kerosene stove. The values are used to calculate baseline emission. The value is sourced from baseline survey sheet /23/.		
<b>Findings</b>	No findings were raised.		
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the VPA-DD /10/. The value applied is correct and justified.		

**Expected technical life of project technology, The expected technical life of an individual project technology shall be defined in the PDD. The details include both technology/device life and filter life, if a filter is used and it is replaceable.**

<b>SDG Indicator</b>	13		
<b>Means of verification</b>	The expected technical life of the project technology is in accordance with the manufacturer's specifications /18/ and has been correctly reported in monitoring report /5/.		
	Description	UltraFLO	UltraTAB
	Treatment Volume (Litres)	340,000	Big Pack: 48,000 Small Pack: 10,000
	Life Span / Expiry-filter	5 years	5 years
	Life Span / Expiry--system	30 years	30 years
<b>Findings</b>	No findings were raised.		
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the VPA-DD /10/. The value applied is correct and justified.		

**X<sub>i</sub>, The proportion of each different cooking fuel f used in the project boundary by end-users:**

<b>SDG Indicator</b>	13		
<b>Means of verification</b>	The fuel used in the project location are wood fuel, charcoal, and kerosene. The values are used to calculate baseline emission. The value is sourced from baseline survey sheet /23/.		
	S.no	Baseline Fuel Usage	School/Institutions (%)
	1.	Wood fuel	58.02
	2.	Charcoal	40.74
	3.	Kerosene	1.23
<b>Findings</b>	No findings were raised.		
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the VAA-DD /10/. The value applied is correct and justified.		

**EF<sub>b, f, CO2</sub>, CO2 emission factor from use of fuels**

<b>SDG Indicator</b>	13
<b>Means of verification</b>	Following are the values applied under this parameter Wood = 112 TcO2/TJ Charcoal = 165.22 TcO2/TJ (includes charcoal production emissions)  The value for this parameter is sourced from IPC default value for wood and charcoal: IPCC 2006 Guidelines for National Greenhouse gas inventories /24/.
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the PoA-DD /9/. The value applied is correct and justified.

**EF<sub>b, f, nonCO2</sub>, Non-CO<sub>2</sub> emission factor from use of fuels, in case the baseline fuel is biomass or charcoal**

<b>SDG Indicator</b>	13
<b>Means of verification</b>	Following are the values applied under this parameter AR5 GWP - Wood: 9.46 TcO2e/TJ - Charcoal: 44.83 TcO2e/TJ (includes production emissions of CH4 and N2O)  The value for this parameter is sourced from IPC default value for wood and charcoal: IPCC 2006 Guidelines for National Greenhouse gas inventories /24/.
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the VPA-DD /10/. The value applied is correct and justified.

 **$\eta_{wb}$ , Weighted average efficiency of the baseline water boiling devices.**

<b>SDG Indicator</b>	13																											
<b>Means of verification</b>	The parameter calculates the weighted average of the baseline water boiling devices.  <table border="1" data-bbox="448 1149 1441 1435"> <thead> <tr> <th>S.no</th> <th>Stove Technology</th> <th>School/Institutions (%)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Traditional / 3 Stone Fire</td> <td>58.02</td> </tr> <tr> <td>2</td> <td>Traditional Charcoal Pot</td> <td>40.74</td> </tr> <tr> <td>3</td> <td>Kerosene Stove</td> <td>1.23</td> </tr> <tr> <td colspan="3"> </td> </tr> <tr> <th>S.no</th> <th>Stove Technology</th> <th>% Efficiency</th> </tr> <tr> <td>1</td> <td>Traditional / 3 Stone Fire</td> <td>10</td> </tr> <tr> <td>2</td> <td>Traditional Charcoal Pot</td> <td>15</td> </tr> <tr> <td>3</td> <td>Kerosene Stove</td> <td>50</td> </tr> </tbody> </table> The value 12.53% used for calculation has been sourced from baseline survey data /23/.	S.no	Stove Technology	School/Institutions (%)	1	Traditional / 3 Stone Fire	58.02	2	Traditional Charcoal Pot	40.74	3	Kerosene Stove	1.23				S.no	Stove Technology	% Efficiency	1	Traditional / 3 Stone Fire	10	2	Traditional Charcoal Pot	15	3	Kerosene Stove	50
S.no	Stove Technology	School/Institutions (%)																										
1	Traditional / 3 Stone Fire	58.02																										
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1	Traditional / 3 Stone Fire	10																										
2	Traditional Charcoal Pot	15																										
3	Kerosene Stove	50																										
<b>Findings</b>	No findings were raised.																											
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the VPA-DD /10/. The value applied is correct and justified.																											

**C<sub>b</sub>, Proportion of project end-users who in the baseline were already using safe water, either from an improved water source, or from a water treatment method other than boiling.**

<b>SDG Indicator</b>	13
<b>Means of verification</b>	The value 4.71% applied in this parameter is the proportion of project end-users who in the baseline were already using safe water, either from an improved water source, or from a water treatment method other than boiling. The value has been sourced form baseline survey data /23/.
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the VPA-DD /10/. The value applied is correct and justified.

**q<sub>i</sub>, Capacity of the household or institutional water treatment technology**

<b>SDG Indicator</b>	13
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<b>Means of verification</b>	This parameter is referred to capacity of the household or institutional water treatment technology.		
	Description	UltraFLO	UltraTAB
	Dosage rate (Treatment Capacity (Ltrs))	340,000 L/ Cartridge	Big Pack: 48,000 L/ Cartridge Small Pack: 10,000 L/ Cartridge
	The value has been sourced from technological specifications data provided by CME /18/.		
<b>Findings</b>	No findings were raised.		
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the VPA-DD /10/. The value applied is correct and justified.		

**$f_{nr,b,f,y}$ , Fractional non-renewability status of woody biomass fuel during year y, in case the baseline fuel is biomass or charcoal**

<b>SDG Indicator</b>	13
<b>Means of verification</b>	This parameter is referred to fractional non-renewability status of woody biomass fuel during year y in case the baseline fuel is biomass or charcoal. The value applied is 96% which is confirmed from the C4 EcoSolutions report shared by CME /25/.
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the VPA-DD /10/. The value applied is correct and justified.

**QPW<sub>p</sub>, Volume of drinking water per person per day for premises type p**

<b>SDG Indicator</b>	13		
<b>Means of verification</b>	The value of this parameter has been applied as per the applied methodology /8/.		
	Type of Premises	Default value	Applicability
	Full-day premises	4 L /person / day	Premises like households etc.
	Boarding school	4 L /person / day	-
	Half time premises	3 L /person / day	Premises like day schools, offices etc.
<b>Findings</b>	No findings were raised.		
<b>Conclusion</b>	The value in the monitoring report /5/ and ER calculation sheet /15/ are consistent with the VPA-DD /10/. The value applied is correct and justified.		

**E.5.2. Data and parameters monitored**

**ABS<sub>Project</sub> Access to Basic Services (number of premises with at least one WPS distributed / installed under the project)**

Means of verification	Criteria/Requirements	Assessment/Observations
	SDG Indicator	1
	Measuring /Reading /Recording frequency	Continuous
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	NA
	How were the values in the monitoring report verified?	18,907

		<p>The verification team confirmed the value from installation database provide in Installation database of ER sheet and found it correct /15/.</p> <p>The institutions selected during through acceptance sampling were also checked for the details mentioned for these schools in the database. The information was found to be consistent between the database and the VVB survey.</p>
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	NA
	In case project participants have deviation from gold standard?	Yes, please see section E.4.
<b>Findings</b>	No findings were raised.	
<b>Conclusion</b>	The parameter has been monitored appropriately, in accordance with the monitoring plan /9/ and applied methodology /8/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/9/.	

**IH<sub>Project</sub> % of users reporting reduce in incidence of diarrhoea and water borne diseases etc. (improved health) in project**

Means of verification	Criteria/Requirements	Assessment/Observations
	SDG Indicator	3
	Measuring /Reading /Recording frequency	Annual/Biennial
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes.
	Monitoring equipment	NA
	How were the values in the monitoring report verified?	<p>95.33%</p> <p>This parameter accounts for % Of users reporting reduction in incidence of diarrhoea and water borne diseases etc. in project (improved health). The parameter is determined through surveys and the frequency of monitoring is annual or biennial.</p> <p>Surveys forms/21/ were checked and found to be consistent with the ER sheet (worksheet : monitored samples)/15/.</p> <p>VVB has conducted acceptance sampling to verify the CME survey results.</p> <p>The institution heads interviewed during on-site site survey(11 samples) confirmed that none of school staff or students reported cases of diarrhoea and water borne diseases and provided their positive feedback to the WPS technology installed at the school. The information was found to be consistent between the CME survey and the VVB survey.</p>
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The CME staff conducting the surveys are trained as confirmed from the training records/20/.
	In case project participants have deviation from gold standard?	Yes, please see section E.4.

<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The parameter has been monitored appropriately, in accordance with the monitoring plan /9 / and applied methodology /8/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/9/.

**SWO<sub>Baseline</sub> % WPS distributed / installed providing safe drinking water to beneficiaries in project**

Means of verification	Criteria/Requirements	Assessment/Observations
	SDG Indicator	6
	Measuring /Reading /Recording frequency	Annual/ Biennial
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	NA
	How were the values in the monitoring report verified?	95.33%  The frequency of monitoring is annual or biennial. The value obtained from water quality test is correctly calculated and reported in sample size calculation worksheet of ER sheet /15/. The tests were conducted by the trained staff of CME and results were evaluated in the central office.  Test reports for 11 samples were checked/21,34/ and found to be consistent with the survey results were presented in ER sheet(monitored survey)/15/.
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, CME has employed 17 personnel that has been trained to conduct monitoring surveys and water quality test. Training records and HR records were reviewed.
	In case project participants have deviation from gold standard?	Yes, please see section E.4.
<b>Findings</b>	No findings were raised.	
<b>Conclusion</b>	The parameter has been monitored appropriately, in accordance with the registered monitoring plan /9/ and applied methodology /8/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/9/.	

**AAC<sub>Project</sub> Access to affordable and clean energy (% of operating WPS units under Project)**

Means of verification	Criteria/Requirements	Assessment/Observations
	SDG Indicator	7
	Measuring /Reading /Recording frequency	Annual/ Biennial
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	NA
	How were the values in the monitoring report verified?	91.46 %  The value is correctly calculated and reported in sample size calculation worksheet of ER sheet /15/.  The parameter is determined through annual surveys.  Surveys forms/21/ were checked and found to

		<p>be consistent with the ER sheet)worksheet : monitored samples)/15/.</p> <p>VVB has conducted acceptance sampling to verify the CME survey results.</p> <p>11 samples were checked and found to be consistent with the survey results were presented in ER sheet(monitored survey)/15/.</p>
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The staff conducting the surveys are trained as confirmed from the training records/20/.
	In case project participants have deviation from gold standard?	Yes, please see section E.4.
<b>Findings</b>	No findings were raised.	
<b>Conclusion</b>	The parameter has been monitored appropriately, in accordance with the registered monitoring plan /9/ and applied methodology /8/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/9/.	

**QE IG<sub>project</sub> Quantitative Employment and income generation (Number of person (male and female) hired under project)**

Means of verification	Criteria/Requirements	Assessment/Observations
	SDG Indicator	8
	Measuring /Reading /Recording frequency	Annual/ Biennial
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	NA
	How were the values in the monitoring report verified?	<p>Total number of employees hired during this monitoring period is 17.</p> <p>This parameter represents quantitative Employment and income generation (Number of person (male and female) hired under project). The value has been confirmed from statement of employees at impact Water document /36//.</p>
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	NA
	In case project participants have deviation from gold standard?	NA
<b>Findings</b>	No findings were raised.	
<b>Conclusion</b>	The parameter has been monitored appropriately, in accordance with the registered monitoring plan /9/ and applied methodology /8/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/9/.	

**M<sub>q,y</sub> Ongoing water quality indicated as the fraction of the samples that pass microbial quality standard**

Means of verification	Criteria/Requirements	Assessment/Observations
	SDG Indicator	13
	Measuring /Reading /Recording frequency	Annually or more frequently
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes

	Monitoring equipment	NA
	How were the values in the monitoring report verified?	0.9533 The value of this parameter is obtained from water quality test. Water quality testing of the project devices was conducted on sampling basis. The samples of treated water collected from project devices and tested using field testing kits. Institution heads interviewed during on-site audit confirmed that representative from VPA Implementers had visited recently to collect water sample. This was cross-checked from the photographic evidence of sampled data /21/ submitted for the verification.
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The staff conducting the test are trained as confirmed from the training records/20/.
	In case project participants have deviation from gold standard?	Yes, please see section E.4.
<b>Findings</b>	No findings were raised.	
<b>Conclusion</b>	The parameter has been monitored appropriately, in accordance with the registered monitoring plan /9/ and applied methodology /8/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/9/.	

**Water hygiene education campaigns— Hygiene campaigns carried out among project safe water end users**

Means of verification	Criteria/Requirements	Assessment/Observations
	SDG Indicator	13
	Measuring /Reading /Recording frequency	Annually
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	NA
	How were the values in the monitoring report verified?	117 samples monitored Water hygiene education campaigns is conducted annually. The verification team reviewed Hygiene Awareness Campaign Report /22/ and the questionnaire used for project monitoring that consists of questions related to hygiene. Surveys forms/21/ were checked and found to be consistent with the ER sheet) worksheet: monitored samples)/15/.  VVB has conducted acceptance sampling to verify the CME survey results.  The institution heads interviewed during on-site site survey(11 samples) confirmed hygiene campaigns were conducted at the school. The information was found to be consistent between the CME survey and the VVB survey.
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The staff conducting the surveys are trained as confirmed from the training records/20/.

	In case project participants have deviation from gold standard?	Yes, please see section E.4.
<b>Findings</b>	CAR#02 was raised and successfully closed.	
<b>Conclusion</b>	The parameter has been monitored appropriately, in accordance with the registered monitoring plan /9/ and applied methodology /8/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/9/.	

**X<sub>cleanboil,y</sub> Proportion of project end-users that boil safe (treated, or from safe supply) water after installation of project technology**

Means of verification	Criteria/Requirements	Assessment/Observations
	SDG Indicator	13
	Measuring /Reading /Recording frequency	Annually
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	NA
	How were the values in the monitoring report verified?	<p>The parameter accounts for Proportion of project end-users that boil safe (treated, or from safe supply) water after installation of project technology.</p> <p>Surveys forms/21/ were checked and found to be consistent with the ER sheet)worksheet : monitored samples)/15/.</p> <p>VVB has conducted acceptance sampling to verify the CME survey results.</p> <p>The institution heads interviewed during on-site audit(11 samples) confirmed that none of the school boil water for drinking purpose and they only consume water purified from installed WPS unit in the school. The information was found to be consistent between the CME survey and the VVB survey.</p>
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The staff conducting the surveys are trained as confirmed from the training records/20/.
	In case project participants have deviation from gold standard?	Yes, please see section E.4.
<b>Findings</b>	No findings were raised.	
<b>Conclusion</b>	The parameter has been monitored appropriately, in accordance with the registered monitoring plan /9/ and applied methodology /8/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/9/.	

**HN<sub>p,y</sub> Number of individuals per premises type p in the project boundary in year y**

Means of verification	Criteria/Requirements	Assessment/Observations
	SDG Indicator	13
	Measuring /Reading /Recording frequency	Continuous
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	NA
	How were the values in the monitoring	414

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	report verified?	The parameter represents the number of individuals per premises in the project boundary. The value reported is the average value across all the VPAs covered in the monitoring period.  The number of individuals in each of the schools covered under the sampled data(acceptance sampling) was cross-checked during on-site survey and found correct. The verification team confirms that value reported in the ER sheet is correct.
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The staff conducting the surveys are trained as confirmed from the training records/20/.
	In case project participants have deviation from gold standard?	Yes, please see section E.4.
<b>Findings</b>	No findings were raised.	
<b>Conclusion</b>	The parameter has been monitored appropriately, in accordance with the registered monitoring plan /9/ and applied methodology /8/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/9/.	

**$N_{p,y}$  Accumulated number of premises type p with at least one individual project technology in year y**

Means of verification	Criteria/Requirements	Assessment/Observations
	SDG Indicator	13
	Measuring /Reading /Recording frequency	Annually
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	NA
	How were the values in the monitoring report verified?	18,907 The parameter calculates the total number of premises with at least one individual technology type. The verification team confirms that each WPS unit distributed in schools were given unique product ID and it was ensured that there is no double counting.
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, CME has employed 17 personnel that has been trained to conduct monitoring surveys and water quality test. Training records and were reviewed.
	In case project participants have deviation from gold standard?	NA
<b>Findings</b>	No findings were raised.	
<b>Conclusion</b>	The parameter has been monitored appropriately, in accordance with the registered monitoring plan /9/ and applied methodology /8/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/9/.	

**$U_{p,y}$  Usage rate of the project technology by premises type p during year y**

Means of verification	Criteria/Requirements	Assessment/Observations
	SDG Indicator	13
	Measuring /Reading /Recording frequency	Annually
	Is measuring and reporting frequency in accordance with the monitoring plan and	Yes

	monitoring methodology? (Yes / No)	
	Monitoring equipment	NA
	How were the values in the monitoring report verified?	<p>91.46 % The value is correctly calculated and reported in monitoring report and ER calculation sheet. /5,15/</p> <p>The CME has determined the value of the parameter through usage surveys.</p> <p>Surveys forms/21/ were checked, and the details were found to be consistent with the ER sheet worksheet: monitored samples/15/.</p> <p>VVB has conducted acceptance sampling to verify the CME survey results.</p> <p>The institution heads interviewed during on-site audit (11 samples) confirmed that the device installed in their school is active. The information was found to be consistent between the CME survey and the VVB survey</p>
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Surveys have been conducted by trained staff/20/.
	In case project participants have deviation from gold standard?	Yes, please see section E.4.
<b>Findings</b>	No findings were raised.	
<b>Conclusion</b>	The parameter has been monitored appropriately, in accordance with the registered monitoring plan /9/ and applied methodology /8/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/9/.	

**$DP_{p,y}$  Average days the project technology is present for end-users in the premises p in year y**

Means of verification	Criteria/Requirements	Assessment/Observations
	SDG Indicator	13
	Measuring /Reading /Recording frequency	Annually
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	NA
	How were the values in the monitoring report verified?	<p>The number of operational school days in the monitoring period is 109, excluding weekends, holidays and term-breaks, as applicable for boarding and non-boarding premises.</p> <p>The school academic calendar/32/ for Nigeria was checked to confirm that the number of days has been calculated correctly removing the holidays.</p>
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	NA
	In case project participants have deviation from gold standard?	Yes, please see section E.4.
<b>Findings</b>	CAR 02 was raised and resolved	

<b>Conclusion</b>	The parameter has been monitored appropriately, in accordance with the registered monitoring plan /9/ and applied methodology /8/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/9/.
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**$DN_{p,y}$  Average number of individual project technologies in each project premises type p in year y**

Means of verification	Criteria/Requirements	Assessment/Observations
	SDG Indicator	13
	Measuring /Reading /Recording frequency	Annually
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
	Monitoring equipment	NA
	How were the values in the monitoring report verified?	The total number of individual project units by each project premise type in each specific VPA is recorded in the database and monitored annually through surveys.  The number of units were checked during the VVB sampling and institution heads were asked during on-site audit about the total number of units installed in each school and their response was cross-checked from the installation database provided in ER calculation sheet /15/.
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	NA
	In case project participants have deviation from gold standard?	Yes, please see section E.4.
<b>Findings</b>	No findings were raised.	
<b>Conclusion</b>	The parameter has been monitored appropriately, in accordance with the registered monitoring plan /9/ and applied methodology /8/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan /9,10/.	

**E.5.3. Comparison of monitored parameters with last monitoring period**

Means of verification	Data/Parameter	Value obtained in this monitoring period	Value obtained last monitoring period
	ABS <sub>Project</sub>	18,907	18,694
	IH <sub>Project</sub>	95.37	94.44
	SWQ <sub>Project</sub>	95.37	94.44
	AAC <sub>Project</sub>	92.30	93.20
	QE IG <sub>Project</sub>	17	19
	$M_{q,y}$	0.9533	0.9444
	Water hygiene education campaigns	117 samples monitored	117 samples monitored
	$X_{cleanboil,y}$	0%	0%
	$HN_{p,y}$	414	418
	$N_{p,y}$	18,907	18,694
	$U_{p,y}$	91.46	93.20
	$DP_{p,y}$	109	224
	$DN_{p,y}$	1.106	1.10
<b>Findings</b>	No findings were raised.		
<b>Conclusion</b>	This is second monitoring period of verification of PoA. The verification team confirms that all the values of monitoring parameters obtained in this monitoring period is accurately calculated and reported in monitoring report and ER sheet /5,15/.		

## E.6. Implementation of sampling plan

<b>Means of verification</b>	<p>The CME as per the monitoring plan has followed CDM Guidelines for sampling and surveys for CDM project activities and programmes of activities /13/ to design the sampling plan for the VPAs in line with the applied methodology are Emissions reduction from Safe Drinking Water Supply, Version 1.0/8/. The CME has applied across VPA sampling for all the 30 VPAs covered under this PoA. As per the sampling plan stated in the monitoring report /5/, a minimum 95% confidence interval and a 10% margin of error requirement is achieved for the sampled parameters.</p> <p>PD has provided random number generator screenshots /37/ to substantiate the process of sampling process. VVB has checked the shared evidence and confirmed that the PD has done random sampling and the samples were chosen randomly for monitoring.</p> <p>Parameters determined through sampling</p> <table border="1" data-bbox="440 607 1439 813"> <thead> <tr> <th>Data/ Parameter</th> <th>Description of parameter</th> </tr> </thead> <tbody> <tr> <td><math>M_{q,y}</math></td> <td>Ongoing water quality indicated as the fraction of the samples that pass microbial quality standard</td> </tr> <tr> <td><math>U_{p,y}</math></td> <td>Usage rate of the project technology by premises type p during year y</td> </tr> </tbody> </table> <p>Other parameters:</p> <table border="1" data-bbox="440 875 1439 1686"> <thead> <tr> <th>Data/Parameter</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td><math>ABS_{Project}</math></td> <td>Access to Basic Services (number of premises with at least one WPS distributed / installed under the project)</td> </tr> <tr> <td><math>IH_{Project}</math></td> <td>% of users reporting reduce in incidence of diarrhoea and water borne diseases etc. (improved health) in project</td> </tr> <tr> <td><math>SWQ_{Project}</math></td> <td>% WPS distributed / installed providing safe drinking water to beneficiaries in project</td> </tr> <tr> <td><math>AAC_{Project}</math></td> <td>Access to affordable and clean energy (% of operating WPS units under Project)</td> </tr> <tr> <td><math>QE\ IG_{Project}</math></td> <td>Quantitative Employment and income generation (Number of person (male and female) hired under project)</td> </tr> <tr> <td>Water hygiene education campaigns</td> <td>Hygiene campaigns carried out among project safe water end users</td> </tr> <tr> <td><math>X_{cleanboil,y}</math></td> <td>Proportion of project end-users that boil safe (treated, or from safe supply) water after installation of project technology</td> </tr> <tr> <td><math>HN_{p,y}</math></td> <td>Number of individuals per premises type p in the project boundary in year y</td> </tr> <tr> <td><math>N_{p,y}</math></td> <td>Accumulated number of premises type p with at least one individual project technology in year y</td> </tr> <tr> <td><math>U_{p,y}</math></td> <td>Usage rate of the project technology by premises type p during year y</td> </tr> <tr> <td><math>DP_{p,y}</math></td> <td>Average days the project technology is present for end-users in the premises p in year y</td> </tr> <tr> <td><math>DN_{p,y}</math></td> <td>Average number of individual project technologies in each project premises type p in year y</td> </tr> </tbody> </table> <p>The target population is institutions of Nigeria. All the VPAs i.e., GS11259 to GS11288 (VPA 01 to VPA 30) is implemented in the same physical location of Nigeria with same baseline scenario and technology and therefore the CME has chosen to apply across VPA sampling.</p> <p>The CME has applied stratified random sampling for determining the usage rate of units distributed based on age as project technologies age over time and/or are replaced and accordingly calculate the sample size.</p> <p>The CME requested for the deviation from GS/26/ with regards to the monitoring requirement of the WPS and the requirements of the methodology which got approved on 07/12/2021.</p>	Data/ Parameter	Description of parameter	$M_{q,y}$	Ongoing water quality indicated as the fraction of the samples that pass microbial quality standard	$U_{p,y}$	Usage rate of the project technology by premises type p during year y	Data/Parameter	Description	$ABS_{Project}$	Access to Basic Services (number of premises with at least one WPS distributed / installed under the project)	$IH_{Project}$	% of users reporting reduce in incidence of diarrhoea and water borne diseases etc. (improved health) in project	$SWQ_{Project}$	% WPS distributed / installed providing safe drinking water to beneficiaries in project	$AAC_{Project}$	Access to affordable and clean energy (% of operating WPS units under Project)	$QE\ IG_{Project}$	Quantitative Employment and income generation (Number of person (male and female) hired under project)	Water hygiene education campaigns	Hygiene campaigns carried out among project safe water end users	$X_{cleanboil,y}$	Proportion of project end-users that boil safe (treated, or from safe supply) water after installation of project technology	$HN_{p,y}$	Number of individuals per premises type p in the project boundary in year y	$N_{p,y}$	Accumulated number of premises type p with at least one individual project technology in year y	$U_{p,y}$	Usage rate of the project technology by premises type p during year y	$DP_{p,y}$	Average days the project technology is present for end-users in the premises p in year y	$DN_{p,y}$	Average number of individual project technologies in each project premises type p in year y
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	<p>The CME has sought deviation for the current crediting period. Though the applied methodology para 4.2.2./8/ allows only 10 VPAs to be grouped together for across VPA sampling, CME has clubbed 30VPAs under current verification. Moreover, the sample size has been determined through 95/10 C/P, but the CME has applied maximum limit of 100 for the sample size in line with para 4.2.3. of the applied methodology/8/. The deviation form was checked to confirm the above/26/.</p> <p>Detail of approved deviation:</p> <p>Reference: Dev_184</p> <p>Title: Deviation from ageing-based survey for WPS</p> <p>Date of approval: 07/12/2021</p> <p>Link: <a href="https://platform.sustain-cert.com/public-project/2487">https://platform.sustain-cert.com/public-project/2487</a></p> <p>The deviation was also requested for no units-based scale limit and lifespan of the units to be considering the renewal of cartridges/tablets. Thus, also removing the factor of aging of the product over the time.</p> <p>CME requested to have project surveys for WPS stratifying each technology irrespective of their age and by grouping more than 10 small scale VPAs together. This was approved by GS as WPS system are not affected by ageing over time. The functioning of the WPS is dependent on filters/cartridges. Once the cartridges or filters are fully consumed and replaced with a completely new one reviving their lifetime again.</p> <p>The collection of monitoring data is done by trained personnel appointed by CME team. Usage related surveys and collection of water samples for water quality test has been done by the monitoring team. For the current monitoring period the Surveys and Water Quality Tests were conducted from 04/07/2022 to 03/08/2022 /21/. During the previous monitoring period i.e., MP 1, the monitoring was conducted from 13/09/2021 to 22/09/2021/39/, therefore no gap was observed.</p> <p>The sampling approach undertaken by CME is duly explained under section D.4 of the monitoring report /5/, which has been assessed by the verification team and found to be correct and in-line to the standard /13/.</p> <p><b>Reliability and precision calculation:</b></p> <p>The verification team has verified the ER calculation spreadsheets /15/ with the monitored data, where the actual achieved precision is calculated against the Guidelines outlined under “Standard for sampling and surveys for CDM project activities and Programme of Activities” v9.0 /13/ and confirms that the calculation of achieved reliability was done correctly.</p> <p>All parameters of interest are included in the ER spreadsheet for the VPAs. These were checked for the input values as well as formula applied and were found consistent. The reliability (demonstration of precision achieved after the survey results) is depicted in the ER calculation sheets/15/ corresponding to final Monitoring Report /5/, which were also found correct.</p> <p>Thus, the verification team confirms that in all cases the reliability has been demonstrated and the results are reliable.</p>
<b>Findings</b>	No findings were raised
<b>Conclusion</b>	Sampling plan followed in the PoA and reported in monitoring report, ER sheet /5,15/ is in line with CDM guidelines for sampling and surveys /13/ and applied methodology /8/.

E.7. Assessment of data and calculations of emission reductions or net removals

E.7.1. Calculations of baseline value of each SDG Impact

<b>Means of verification</b>	The targeted SDG and its corresponding baseline estimate are given below:			
	Sustainable Development Goals Targeted	SDG Impact	Parameter description	Baseline estimate
	SDG 1	No Poverty	Number of premises with at least one WPS distributed / installed under the baseline	0
	SDG 3	Good Health and Well-Being	% Of users reporting reduction in incidence of diarrhoea and water borne diseases etc. in baseline (improved health)	0
	SDG 6	Clean Water and Sanitation	% Users reporting safe water quality in baseline	4.71
	SDG 7	Affordable and Clean Energy	Access to affordable and clean energy (% of operating WPS units under Baseline)	0
	SDG 8	Decent Work and Economic Growth	Quantitative Employment and income generation (Number of person (male and female) hired under Baseline)	0
	SDG 13	Climate Action	VERs	868,999
<p>For SDG 13. Climate Action, baseline emissions are calculated as follows:</p> $EF_b = SE_{w,b,y} * \sum(x_f * (EF_{b,f,CO2} * f_{NRB,f,y} + EF_{b,f,nonCO2})) \div 10^9$ <p>Where:</p> <p><math>EF_b</math> = Emission factor for the use of fuel to obtain safe water in the baseline (TcO2e/L)  <math>SE_{w,b,y}</math> = Specific energy required to boil water (KJ/L), to be calculated as per the paragraph below  <math>x_f</math> = Proportion of fuel f used in the baseline (fraction determined based on an energy basis)  <math>EF_{b,f,CO2}</math> = CO2 emission factor from use of fuel f (TcO2/TJ)  <math>EF_{b,f,nonCO2}</math> = non-CO2 emission factor arising from use of fuel f, when the baseline fuel f is biomass or charcoal (TcO2e/TJ). This parameter is omitted when f is a fossil fuel.  <math>f_{NRB,f,y}</math> = Fractional non-renewability status of woody biomass fuel during year y (fraction). For biomass, it is the fraction of woody biomass that can be established as non-renewable. This parameter is omitted when f is a fossil fuel.  f = Index for baseline fuel</p> <p>Calculations of specific energy required to boil water using the baseline technology (<math>SE_{w,b,y}</math>) is as follows:</p> $SE_{w,b,y} = 360.83/\eta_{wb}$ <p>Where:  360.83 = Default amount of energy required to obtain 1 L of water after 5 minutes of boiling from a first principles approach KJ/l  <math>\eta_{wb}</math> = Efficiency of the stoves for baseline water boiling (%). Weighted average of baseline stove types.</p> <p>The baseline emissions shall be calculated as follows:</p>				

	<p><math>BE_y = EF_b \times (1 - C_b - X_{cleanboil,y}) \times Q_y \times M_{q,y}</math>  Where:  <math>BE_y</math> = Baseline emissions from the use of fuel to obtain safe water in the baseline (TcO2e)  <math>C_b</math> = Proportion of project end-users who in the baseline were already using a safe water supply that did not require boiling (%)  <math>X_{cleanboil,y}</math> = Proportion of project end-users that boil safe water in the project year y (%)</p> <p><math>Q_y</math> = Quantity of safe drinking water provided by the project in year y (L)  <math>M_{q,y}</math> = Modifier for the water quality in year y</p> <p>In the case of IWT, the quantity of safe drinking water provided by the project <math>Q_y</math> is determined as follows</p> $Q_y = \sum N_{p,y} \times U_{p,y} \times QPW_{hh,p,y} \times DP_{p,y}$ <p>Where:  <math>N_{p,y}</math> = Number of premises type p with at least one project technology in year y  <math>U_{p,y}</math> = Usage rate of the project technology by premises type p during year y (%)  <math>QPWhh,p,y</math> = Volume of drinking water per premises p per day in year y (L)  <math>DP_{p,y}</math> = Days the project technology is present for end-users in the premises p in year y</p> <p>The volume of drinking water per premises is determined by considering whether the capacity of the project device is sufficient to provide at least the default amount of drinking water, as follows:</p> $QPWhh,p,y = \min ((q_i \times DN_{p,y}), (QPW_p \times HN_{p,y}))$ <p>Where:  <math>q_i</math> = Capacity of the HWT or IWT individual project technology (L)  <math>DN_{p,y}</math> = Average number of individual project technologies in each project premises type p in year y  <math>HN_{p,y}</math> = Number of individuals per premises type p (e.g. household, school) in year y  <math>QPW_p</math> = Volume of drinking water per person per day for premises type p (L) * average number of operational days in the year  Applied the default value or monitored value through water consumption field tests in the project scenario, capped at 5.5 L per person per day</p> <p>The calculation of the baseline has been verified from the ER calculation sheet and was found correct and consistent.</p>
<p><b>Findings</b></p>	<p>No findings were raised.</p>
<p><b>Conclusion</b></p>	<p>The verification team verified that</p> <ol style="list-style-type: none"> <li>A complete set of data for the monitoring period was available and the verification of each monitoring parameter is elaborated under Section E.5 of this report. The complete monitoring data is also presented in the corresponding ER calculations sheet /15/ of final Monitoring Report /5/.</li> <li>The information provided in the monitoring report was cross checked with other sources, wherever appropriate and available, and such information is also included under Section E.5 of this report.</li> <li>The calculations of baseline emissions as presented in the corresponding ER calculations sheet /15/ of final Monitoring Report /5/ were checked and found to be consistent with the formulae and methods described in the registered monitoring plan of VPA-DD/10/, registered PoA-DD /9/ and the applied methodology /8/.</li> <li>All assumptions used in the emission calculations were found appropriate and therefore justified</li> <li>Appropriate emission factors, IPCC default factors and other reference values have been correctly applied. This has also been elaborated under Section E.5 of this report.</li> </ol>

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### E.7.2. Calculations of project value of each SDG Impact

<b>Means of verification</b>	The targeted SDG and its corresponding project estimate are given below:			
	Sustainable Development Goals Targeted	SDG Impact	Parameter description	Project estimate
	SDG 1	No Poverty	Number of premises with at least one WPS distributed / installed under the project	18,907
	SDG 3	Good Health and Well-Being	% Of users reporting reduction in incidence of diarrhoea and water borne diseases etc. in project (improved health)	95.33%
	SDG 6	Clean Water and Sanitation	% Users reporting safe water quality in project	95.33%
	SDG 7	Affordable and Clean Energy	Access to affordable and clean energy (% of operating WPS units under Project)	91.46%
	SDG 8	Decent Work and Economic Growth	Quantitative Employment and income generation (Number of person (male and female) hired under Project)	17
	SDG 13	Climate Action	VERs	0
	For SDG 13. Climate Action, the project estimate is 0 as the project technology involves chlorination which VVBs not require any fuel/ electricity use. The assessment team has reviewed the equations used in line with the VPA-DD and applied methodology. The calculation of the baseline has been verified from the ER calculation sheet /15/ and was found correct and consistent.			
<b>Findings</b>	No findings were raised.			
<b>Conclusion</b>	The verification team verified that <ul style="list-style-type: none"> <li>a) A complete set of data for the monitoring period was available and the verification of each monitoring parameter is elaborated under section of this verification report. Also, the monitoring has been provided for the review in the ER calculation sheet /15/.</li> <li>b) The information provide in the monitoring report /5/ was cross-checked with other source, wherever appropriate.</li> </ul>			

### E.7.3. Calculation of leakage GHG emissions

<b>Means of verification</b>	The verification team reviewed section B.6.1 of the VPA-DD/10/ and found that no potential leakage is present. The leakage assessment has been done in line with the methodology "Emission reductions from Safe Drinking Water Supply" Version 1.0. As reported, the leakage shall be reassessed after the end of second year of crediting period since, the monitoring frequency for leakage is "every two years".
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	Leakage assessment was found to be done in line to the applied methodology and verified from VPA-DD /8,10/.

### E.7.4. Calculations of net benefits for each SDG Impact

<b>Means of verification</b>	Net benefits achieved under each SDG Impact are tabulated below:				
	SDG	SDG Impact	Baseline estimate	Project estimate	Net benefit
	1	No Poverty	0	18,907	18,907

	3	Good Health and Well Being	0	95.33%	95.33%
	6	Clean Water and Sanitation	4.71	95.33%	90.62%
	7	Affordable and Clean Energy	0	91.46%	91.46%
	8	Decent Work and Economic Growth	0	17	17
	13	Climate Action	863,907tC O <sub>2</sub> e	0	863,907tC O <sub>2</sub> e
<p>Below are the equations used for calculating net benefits for each SDG Impact</p> <p>Net Benefit (SDG 1) = ABS<sub>Project</sub> – ABS<sub>Baseline</sub>                  Net Benefit (SDG 3) = IH<sub>USERS,Project</sub> – IH<sub>Baseline</sub>                  Net Benefit (SDG 6) = SWQ<sub>Project</sub> – SWQ<sub>Baseline</sub>                  Net Benefit (SDG 7) = AAC<sub>Project</sub> – AAC<sub>Baseline</sub>                  Net Benefit (SDG 8) = QE IG<sub>Project</sub> – QE IG<sub>Baseline</sub></p> <p>The emission reductions are calculated as follows:</p> $ER_y = BE_y - PE_y - LE_y$ <p>Where:</p> <p>ER<sub>y</sub> = Emission reductions in year y (t CO<sub>2</sub>e/yr)                  BE<sub>y</sub> = Baseline emissions in year y (t CO<sub>2</sub>e/yr)                  PE<sub>y</sub> = Project emissions in year y (t CO<sub>2</sub>e/yr)                  LE<sub>y</sub> = Leakage emissions in year y (t CO<sub>2</sub>e/yr)</p>					
<b>Findings</b>	No findings were raised.				
<b>Conclusion</b>	The verification team verified that <ol style="list-style-type: none"> <li>The complete data was available and is duly reported;</li> <li>The description with regards to cross-check of reported data is included under respective parameters and its assessment has been done in section E.5 of this report</li> <li>Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals, project emissions and leakage emissions were followed</li> <li>The total number of ERs achieved during the current monitoring period is 863,907tCO<sub>2</sub>e</li> </ol>				

**E.8. Comparison of actual GHG ER value achieved during this monitoring period with estimated value**

<b>Means of verification</b>	The value estimated in ex ante calculations of approved PoA-DD and VPA-DDs /9,10/ for the monitoring period and the actual values achieved during this monitoring period has been report in section E.5 of the monitoring report /5/.		
	SDG	Values estimated in ex ante calculation of approved PDD for this monitoring period (TcO <sub>2</sub> e)	Actual values achieved during this monitoring period (TcO <sub>2</sub> e)
	13-GS11259	30,785	30,785
	13-GS11260	30,785	30,785
	13-GS11261	30,785	30,785
	13-GS11262	30,785	30,785
	13-GS11263	30,785	30,785
	13-GS11264	30,785	25,770
	13-GS11265	30,785	30,785

13-GS11266	30,785	30,785
13-GS11267	30,785	30,785
13-GS11268	30,785	28,403
13-GS11269	30,785	30,228
13-GS11270	30,785	30,644
13-GS11271	30,785	23,902
13-GS11272	30,785	30,785
13-GS11273	30,785	26,701
13-GS11274	30,785	29,860
13-GS11275	30,785	27,686
13-GS11276	30,785	30,591
13-GS11277	30,785	29,607
13-GS11278	30,785	30,785
13-GS11279	30,785	30,115
13-GS11280	30,785	30,785
13-GS11281	30,785	30,574
13-GS11282	30,785	28,426
13-GS11283	30,785	26,827
13-GS11284	30,785	29,570
13-GS11285	30,785	28,031
13-GS11286	30,785	27,744
13-GS11287	30,785	23,360
13-GS11288	30,785	17,233
<b>Total</b>	<b>923,550</b>	<b>863,907</b>

The emission reductions have been correctly calculated in accordance with the applied methodology /8/. The ER calculation sheet /15/ were reviewed and all the values report in monitoring report is consistent with the ER sheet.

**Verified and certified emission reductions as per commitment period:**

Commitment period	Amount achieved
01/01/2022 – 30/06/2022	863,907 tCO <sub>2e</sub>

<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The verification team confirms that <ol style="list-style-type: none"> <li>The actual values of achieved ERs during this monitoring period has been correctly reported in the monitoring report.</li> <li>The total number of ERs achieved during the current monitoring period is 863,907tCO<sub>2e</sub>.</li> </ol>

### E.9. Safeguarding principles

<b>Means of verification</b>	There was no safeguarding principle assessed 'Yes' or 'Potentially' and added to this monitoring plan.
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	Not applicable.

### E.10. Stakeholder Inputs and Legal Disputes

<b>Means of verification</b>	During the current monitoring period only one inputs/ grievances were received via phone call, which is consistently reported under section G.1 of the MR,VVB confirmed that the system under breakdown was not taken into accounting for ER calculation/15/. CME collects feedback on a regular basis and during the on-site survey with end-users no further issues were identified. PD confirmed in section G.3 of the MR that the activity is in compliance with the Host Country's legal, environmental, ecological, and social regulation and has not reported any challenges related to the same in the concerned monitoring period. There were no legal disputes with respect to the project activity.
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<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The validation team confirms that the PoA receives no negative feedback on the WPS units distributed to institutions.

### E.11. Continuous input and grievance mechanism

<b>Means of verification</b>	The CME has provided various means through which the end-users can contact them. The continuous Input or Grievance Expression Process Book/40/ is part of the project implementation and has been made available at office of Impact Water in Nigeria. The stakeholder also has the option of contacting the CME via post or email to details provided below: <b>Impact Carbon Nigeria</b> Global Impact H2O Innovations, Ltd. Plot 61, Adekunle Fajuyi Street, G.R.A. Ikeja, Lagos Nigeria. GS Contact (mandatory): <a href="mailto:help@goldstandard.org">help@goldstandard.org</a> Contact no.: +256 790 911 934 Email: <a href="mailto:info@impactcarbon.org">info@impactcarbon.org</a>
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The validation team confirms that the PoA receives no negative feedback on the WPS units distributed to institutions. The validation team confirms the expression book which is available in all sites & a working email ID, reflects the good practice in the host countries.

### SECTION F. Internal quality control

The draft verification report prepared by the verification team was reviewed by an independent technical review team to confirm if the internal procedures established and implemented by Earthood were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable GS rules/requirements. The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team were independent of the verification team.

The technical review process may accept or reject the verification opinion or raise additional findings in which case these must be resolved before requesting for registration. The technical review process is recorded in the internal documents of Earthood, and the additional findings gets included in the report. The final report approved by the technical reviewer is authorized by Managing Director and issued to the CME and/or submitted for request for registration, as appropriate on behalf of Earthood Services Private Limited.

### SECTION G. Verification opinion

The verification of PoA "Improved Cookstove and Safe Water Programme" was performed based on rules and requirements defined by GS4GG Principles and Requirements and UNFCCC for the CDM program of activities. The purpose of this project activity is to provide safe and clean drinking water through dissemination of low GHG water purification technologies (WPS) to schools and other institutions in Nigeria. Earthood Services Private Limited (Earthood), contracted by Impact Carbon, has performed the independent verification of the emission reductions for the GS PoA "Improved Cookstove and Safe Water Programme" (GSID: 11189) for the second monitoring period 01/01/2022 – 30/06/2022 (Inclusive of both days) as reported in the Monitoring Report, version 2.0 dated 09/11/2022.

Earthood confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. Project representatives 'Impact Carbon' and 'Impact Water' are responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity.

The verification activities were conducted in accordance with ESPL's CDM Quality Manual System as per the steps indicated under Section A of this report. The verification process has resulted in conclusion that the monitoring report is in compliance with applicable CDM and GS rules and regulations and in accordance with applied methodology, Emission reductions from Safe Drinking Water Supply version 1.0.

As a result, it is confirmed that the emission reductions achieved from the implementation of GS PoA "Improved Cookstove and Safe Water Programme" are correctly reported in the GS Monitoring Report, version 2.0 dated 09/11/2022 and corresponding ER calculation sheets for the monitoring period 01/01/2022 – 30/06/2022 which is amounting to 863,907tCO<sub>2</sub>e

**SECTION H. Certification statement**

Earthood Services Private Limited (Earthood), contracted by Impact Carbon, has performed the independent verification of the emission reductions for the GS PoA “Improved Cookstove and Safe Water Programme” (GSID: 11189) for the second monitoring period 01/01/2022 – 30/06/2022 (Inclusive of both days) as reported in the Monitoring Report, version 2.0 dated 09/11/2022.

Project representatives ‘Impact Carbon’ and ‘Impact Water’ are responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the programme of activity. It is our responsibility to express an independent verification statement on the reported GHG emission reductions from the project activity.

In our opinion, the GHG emissions reductions reported for the project activity for the period 01/01/2022 – 30/06/2022 (Inclusive of both days) are fairly stated in the Monitoring Report, version 2.0 dated 09/11/2022. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology Emission reductions from Safe Drinking Water Supply version 1.0/8/ and the monitoring plan contained in the PoA-DD version 5.0 dated 25/05/2022. Earthood Services Private Limited is able to certify that the GS PoA “Improved Cookstove and Safe Water Programme” (GSID: 11189) during the monitoring period 01/01/2022 – 30/06/2022 has achieved emission reductions amount to 863,907tCO<sub>2e</sub>

**Verified and certified emission reductions as per commitment period:**

Commitment period	Amount achieved
01/01/2022 – 30/06/2022	863,907tCO <sub>2e</sub>

Start Dates	End Dates	Amount Achieved					
		VERs (tCO <sub>2e</sub> )	ABS (SDG1)	IH (SDG3)	SWQ (SDG6)	AACS (SDG7)	QE IG (SDG8)
01/01/2021	31/12/2021	863,907	18,907	95.33%	90.62%	91.46%	17

## Appendix 1. Abbreviations

Abbreviations	Full texts
<b>General</b>	
ACM	Approved Consolidated Methodology
AM	Approved Methodology
BE	Baseline Emission
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CME	Coordinating and Managing Entity
CL	Clarification Request
CO2	Carbon dioxide
CP	Crediting Period
DR	Desk Review
EB	Executive Board
EI	External Individual
ESPL	Earthood Services Private Limited
FAR	Forward Action Request
GHG	Green House Gas
GSC/GSP	Global Stakeholder Consultation Process
IPCC	Intergovernmental Panel on Climate Change
IR	Internal Resource
KP	Kyoto Protocol
LSC	Local Stakeholder Consultation Process
MoC	Modalities of Communication
MoV	Means of Verification
MP	Monitoring Plan
ODA	Official Development Assistance
PA	Project Activity
PCP	Project Cycle Procedure
PD	Project Developer
PDD	Project Design Document
PE	Project Emission
PoA	Programme of Activities
PoA DD	Programme of Activities Design Document
PS	Project Standard
RCP	Renewal of Crediting Period
RFR	Request for Registration
TcO2e	tonnes of Carbon di Oxide equivalent
TPH	Tonnes Per Hour
TR	Technical Reviewer
UNFCCC	United Nations Framework Convention on Climate Change
V	Version
VPA	Verified Project Activity
VVB	Validation and Verification Body
VVS	Validation and Verification Standard
<b>Project Specific</b>	
GS4GG	Gold Standard for Global Goals
LSC	Local Stakeholder Consultation
MoV	Means of Verification
SDG	Sustainable Development Goals
WPS	Water Purification System technology

## Appendix 2. Competence of team members and technical reviewers

Competence Statement			
<b>Name</b>	Deepika Mahala		
<b>Country</b>	India		
<b>Education</b>	M. Sc. (Environment Management), GGSIP University B.Sc. Hons. (Chemistry), Sri Venkateshwar College, DU		
<b>Experience</b>	5 Years +		
<b>Field</b>	Climate Change		
Approved Roles			
<b>Team Leader</b>	YES		
<b>Validator</b>	YES		
<b>Verifier</b>	YES		
<b>Methodology Expert</b>	ACM0002, AMS.I.D., AMS.I.A, AMS.III.AV, AMS.II.G		
<b>Local expert</b>	YES (India)		
<b>Financial Expert</b>	NO		
<b>Technical Reviewer</b>	YES		
<b>TA Expert</b>	YES (TA 1.2 & TA 3.1)		
<b>Reviewed by</b>	Shreya Garg	<b>Date</b>	15/04/2021
<b>Approved by</b>	Anshika Gupta	<b>Date</b>	15/04/2021

Competence Statement			
<b>Name</b>	Kumden Nanbal Luka		
<b>Country</b>	Nigeria		
<b>Education</b>	B.tech. in Urban and Regional Planning		
<b>Experience</b>	1+ years		
<b>Field</b>	Environment; Urban-Rural planning		
Approved Roles			
<b>Team Leader</b>	No		
<b>Validator</b>	No		
<b>Verifier</b>	No		
<b>Methodology Expert</b>	No		
<b>Local expert</b>	Yes (Nigeria)		
<b>Financial Expert</b>	No		
<b>Technical Reviewer</b>	No		
<b>TA Expert</b>	No		
<b>Reviewed by</b>	Shreya Garg	<b>Date</b>	23/11/2018
<b>Approved by</b>	Anshika Gupta	<b>Date</b>	23/11/2018

Competence Statement			
<b>Name</b>	Anjali Chaudhary		
<b>Education</b>	Bachelor of technology in Civil Engineering		
<b>Experience</b>	NA		
<b>Field</b>	Civil Engineering		
Approved Roles			
<b>Team Leader</b>	NO		
<b>Validator</b>	NO		
<b>Verifier</b>	NO		
<b>Methodology Expert</b>	NO		
<b>Local expert</b>	NO		
<b>Financial Expert</b>	NO		
<b>Technical Reviewer</b>	NO		
<b>TA Expert (X.X)</b>	NO		
<b>Trainee</b>	YES		
<b>Reviewed by</b>	Shifali Guleria, Quality Manager	<b>Date</b>	25/05/2022
<b>Approved by</b>	Deepika Mahala, Technical Manager	<b>Date</b>	25/05/2022

Competence Statement			
<b>Name</b>	Ashok Gautam		
<b>Country</b>	India		
<b>Education</b>	M. Sc. (Environmental Sciences) M. Tech. (Energy & Environmental Management)		
<b>Experience</b>	16 Years +		
<b>Field</b>	Energy, Climate Change & Environment		
Approved Roles			
<b>Team Leader</b>	YES		
<b>Validator</b>	YES		
<b>Verifier</b>	YES		
<b>Methodology Expert</b>	AMS-I.D., AMS-I.A., AMS-I.C., AMS-I.E, AMS-II.D., AMS-II.G., AMS-III.E., AMS-III.H., AMS-III.Q, AMS-III.Z., AMS-III.AV., AMS III.AR, AM0029, AM0025, AM0056, ACM0001, ACM0002, ACM0004, ACM0012, ACM0006, AM0018, ACM0009, AM0034, AMS.I.B, ACM0016		
<b>Local expert</b>	YES (India)		
<b>Financial Expert</b>	YES		
<b>Technical Reviewer</b>	YES		
<b>TA Expert</b>	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1)		
<b>Reviewed by</b>	Deepika Mahala	<b>Date</b>	13/01/2022
<b>Approved by</b>	Kaviraj Singh	<b>Date</b>	13/01/2022

### Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1.	GS	GS Principle & Requirements	Version 1.2	Others
2.	GS	GS Validation & Verification Body Requirements	Version 2.0	Others
3.	UNFCCC	Standard: CDM PS for PoA	Version 3.0	Others
4	UNFCCC	Standard: CDM VVS for PoA	Version 3.0	Others
5	CME	Monitoring report	version 2.0 dated: 09/11/2022	CME
6	GS	Monitoring report template	Version 1.1	Others
7	GS	Template Guide Monitoring report	Version 1.1	Others
8	GS	Emission Reductions from Safe Drinking Water Supply	Version 1.0	Others
9	CME	PoA-DD	Version 5.0 dated 25/05/2022	CME
10	CME	VPA-DDs GS11259, GS11260, GS11261, GS11262, GS11263, GS11264, GS11265, GS11266, GS11267, GS11268, GS11269, GS11270, GS11271, GS11272, GS11273, GS11274, GS11275, GS11276, GS11277, GS11278, GS11279, GS11280, GS11281, GS11282, GS11283, GS11284, GS11285, GS11286, GS11287, GS11288	Version 5.0 dated 10/06/2022	CME
11	GS	GS Programme of Activities requirements	Version 1.2	Others
12	GS	Community Services Activity requirements	Version 1.2	Others
13	UNFCCC	Standard for Sampling and surveys for CDM project activities and programmes of activities	Version 9.0	Others
14	GS	COVID 19: Interim measures	-	Others
15	CME	ER calculation sheet	version 2.0, dated: 09/11/2022	CME
16	CME	Table 2.1.1, Nigeria Demographic and Health Survey 2018, Report	October 2019	CME
17	CME	Nigeria Multiple Indicator Cluster Survey 2016-17	February 2018	CME
18	Medentech	Manufacturer's specifications documents	13/05/2021	CME
19	CME	WQT Training certificates	30/06/2022	CME
20	CME	Training attendance records	30/06/2022	CME
21	CME	Filled Monitoring survey forms	04/07/2022 to 03/08/2022	CME
22	CME	Hygiene Awareness Campaign Report	October 2022	CME
23	CME	Baseline survey sheet	-	CME
24	IPCC	IPCC default value for wood and charcoal: IPCC 2006 Guidelines for National Greenhouse gas inventories	2006	Others
25	C4 EcoSolutions	C4 EcoSolutions. Calculations of the fraction of non-renewable biomass ( $f_{NRB}$ ) Nigeria	-	CME
26	GS	Deviation request form	07/12/2021	CME
27	Google	Google maps	-	Other
28	CME	WPS Installation Database	-	CME

29	CME	Purchase order	-	CME
30	CME	Salesforce residual capacity calculator	-	CME
31	CME	Delivery notes	-	CME
32	CME	School academic calendar	-	CME
33	CME	Photo of UID on WPS unit	-	CME
34	CME	Photo of water quality test	-	CME
35	CME	VPA implementer and CME contract	30/06/2021	CME
36	VPA Implementer	Statement of Employees at Impact Water	30/06/2022	VPA Implementer
37	CME	Random number generator screenshots	-	CME
38	GS	Performance Review (corresponding to 1 <sup>st</sup> MP from 01/01/2021 to 31/12/2021)	-	CME
39	CME	Verification report for MP 1 (01/01/2021-31/12/2021)	Version: 1.2 Dated:17/10/2022	Others
40	CME	Grievance Mechanism records	-	CME

## Appendix 4. Clarification requests, corrective action requests and forward action requests

**Table 1. Remaining FAR from validation and/or previous verification**

<b>FAR ID</b>	01	<b>Section no.</b>		<b>Date</b> : 07/11/2022
<b>Description of FAR</b>				
<p>PD to transparently demonstrate in the next Monitoring period and subsequent monitoring periods in the excel sheet how previously carried over treated capacity is allocated in the current monitoring period and subsequent monitoring period for cases where institutions were supplied with large quantities of UltraTab or UltraFlo. The continuous use of treated water and VER allocation from one monitoring period to the next must be transparent and traceable.</p>				
<b>Project participant response</b>				<b>Date</b> : 09/11/2022
<p>The treatment capacity carried over from previous monitoring period is specified in column Z of the tab: Installation database. This matches exactly with the capacity left at the end of previous monitoring period (column AR of tab: Installation database, CP1 MP1 final ER calculator version 4.0 dated 05082022). Thus, the carry forward of the treatment capacity from previous monitoring period to current monitoring period is accurate and correct.</p> <p>Further for each supply made for a given school, the information on the delivery (date of delivery, quantity and product id) is already specified in the ER calculator, tab: Installation Database, columns AB:AE, columns AH:AK and columns AN:AQ. Additionally for all the monitoring samples, sample delivery notes for the concerned monitoring period have been submitted to VVB already.</p> <p>Lastly, the ER model has an inherent calculation logic built in, which calculates the treated water quantity (column AT) as minimum of capacity supplied and the treatment capacity demand (based on number of students, default consumption / day and operational days of a given school in the monitoring period). Also, if there is gap/delay in supply the model automatically discounts the ERs for days the schools is constrained by available/supplied capacity.</p> <p>Thus, the FAR is already addressed in the ER calculator.</p>				
<b>Documentation provided by project participant</b>				
NA				
<b>VVB assessment</b>				<b>Date</b> : 10/11/2022
<p>The ER calculator has been assessed by the verification team and it was found that no gap is observed in the balance of the capacity from the previous monitoring period. Cross-checks were performed from the same from the sample delivery notes share by the PD.</p> <p><b>Thus, the finding is closed</b></p>				

**Table 2. CL from this verification**

<b>CL ID</b>	01	<b>Section no.</b>	E.5.2	<b>Date</b> : 28/10/2022
<b>Description of CL</b>				
PD is requested to provide the following documents for the current monitoring period (01/01/2022-30/06/2022):				
1. HR records/ Sales and marketing records as supportive of SDG 8				
2. Hygiene Awareness Campaign Report				
3. Random generator screenshot				
4. Grievance logbook				
5. Training records				
<b>Project participant response</b>				<b>Date</b> : 09/11/2022
All requested documents are being submitted.				
<b>Documentation provided by project participant</b>				
Enumerator Training Records (training event pictures, training event attendance sheet and sample training certificate submitted to participants)				
Random No. Evidence (Random number generator snapshots for UltraTab and UltraFlo)				
Grievance Mechanism_GS11189 Nigeria CP1 MP2_examples				
HR Record - Nigeria number of employees				
Hygiene Awareness Campaign Report_2022 CP1 MP2 v2.0.				
<b>VVB assessment</b>				<b>Date:</b> 10/11/2022
PP has shared the documents requested by the VVB; the assessment team has reviewed the document as were the same were found to be appropriate.				
<b>Thus, the finding is closed</b>				

<b>CL ID</b>	02	<b>Section no.</b>	E.5.2	<b>Date</b> : 28/10/2022
<b>Description of CL</b>				
The emission reductions asserted in the MR do not match the emission reductions calculated in the submitted ER calculator. CME shall clarify.				
<b>Project participant response</b>				<b>Date</b> : 09/11/2022
The inconsistency in the MR has been rectified.				
<b>Documentation provided by project participant</b>				
GS11189 VPA 01-30 Nigeria WPS - MP2 MR v2.0 09112022.docx				
GS11189 VPA 01-30 Nigeria WPS - MP2 ER sheet v2.0 09112022.xlsx				
<b>VVB assessment</b>				<b>Date:</b> 10/11/2022
The emission reduction mentioned in the MR are now found to be consistent with those in the ER sheet				
<b>Thus, the finding is closed</b>				

**Table 3. CAR from this verification**

<b>CAR ID</b>	01	<b>Section no.</b>	E.1.1	<b>Date</b> : 28/10/2022
<b>Description of CAR</b>				
1. PD is requested to add the Date of project design certification and Date of Last Annual Report under KPI in the MR inline MR template guidelines.				
2. PD is requested to add the relevant FARs from the Deviation Request Form (dated 07/12/2021) for the current monitoring period under section B.1.1 of the MR.				
<b>Project participant response</b>				<b>Date</b> : 09/11/2022
1. Date of design certification has now been added under KPI in MR. <i>As per section 5.1 of the Principles and Requirements, annual reports are due until the end of next calendar year for which the verification is not completed.</i>				
The end date of last MP(MP1) is 31/12/2021. Hence, the annual report submission is due on 31/12/2022. Since the verification and performance review has already been concluded for MP1 hence no Annual report was submitted for MP1. Therefore, the date of the last annual report is not applicable.				
2. All relevant FARs from from the Deviation Request Form (dated 07/12/2021) have now been added in section B.1.1 of the monitoring report				
<b>Documentation provided by project participant</b>				
GS11189 VPA 01-30 Nigeria WPS - MP2 MR v2.0 09112022.docx				
<b>VVB assessment</b>				<b>Date:</b> 10/11/2022

The revised MR is now found to be in-line with the guidelines of the applicable template.  
**Thus, the finding is closed**

<b>CAR ID</b>	02	<b>Section no.</b>	E.5.2	<b>Date :</b> 28/10/2022
<b>Description of CL</b>				
Under section D.2 of the MR, the source of the parameter, DN <sub>p,y</sub> is stated as “Refer tab “Installation database” column Q of the ER sheet”. However, Column Q, tab “Installation database” of the ER sheet is Supply / Installed Quantity, whereas DN <sub>p,y</sub> is column R .				
<b>Project participant response</b>				<b>Date :</b> 09/11/2022
Reference to column Q as the source of parameter DN <sub>p,y</sub> is a typographical error. Correct column(column S) has been referred now in the monitoring report.				
<b>Documentation provided by project participant</b>				
GS11189 VPA 01-30 Nigeria WPS - MP2 MR v2.0 09112022.docx				
<b>VVB assessment</b>				<b>Date:</b> 10/11/2022
The typographical error is now corrected, and the correct column S is now referred in the monitoring report as well.				
<b>Thus, the finding is closed</b>				

**Table 4. FAR from this verification**

<b>FAR ID</b>	xx	<b>Section No.</b>		<b>Date :</b> DD/MM/YYYY
<b>Description of FAR</b>				
<b>Project participant response</b>				<b>Date :</b> DD/MM/YYYY
<b>Documentation provided by project participant</b>				
<b>VVB assessment</b>				<b>Date:</b> DD/MM/YYYY