Verification report form for verification of Project Activity Gold Standard for Global Goals	
KEY PROJECT INFORMATION	
Title of the GS4GG Project	Solar water filtration units for rural areas in coastal Bangladesh
GS ID of Project	GS11075
Version number of the verification and certification report	2.0
Completion date of the verification and certification report	27/01/2025
Monitoring period number and duration of this monitoring period	2nd Monitoring period (1st Crediting period) Duration of MP: 09/11/2023 to 31/08/2024 (inclusive of both days)
Version number of the monitoring report to which this report applies	2.0 Dated: 22/01/2025
Crediting period of the project activity corresponding to this monitoring period	1st Crediting Period Duration: 09/11/2022 – 08/11/2027 (5 years, twice renewable)
Project Representative(s)	Value Network Venture Advisory Services Pte. Ltd.
Host Party	Bangladesh
Applied methodologies and standardized baselines	Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), Version 3.1 - 25/08/2017
Activity requirements applied	☒ Community Services Activities ☐ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A
Mandatory sectoral scopes	Sectoral Scope 3: Energy Demand
Product requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A

Sustainable Development Goals Targeted	SDG Impact	Amount Achieved	Units/ Products
13 Climate Action 13.2 Integrate climate change measures into national policies, strategies, and planning	13.2.2 Total greenhouse gas emissions per year Indicator: Amount of GHGs emissions avoided or sequestered	Total: 240,953 2023: 41,291 2024: 199,662	tCO_2e/ GS VERs
4 Quality Education 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university	4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex Indicator: Number of employees trained per year	281	Number
6 Clean Water and Sanitation 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all"	6.1.1 Proportion of population using safely managed drinking water services Indicator: Proportion of population using safely managed drinking water services	98.96	percentage
SDG 8 – Decent Work and Economic Growth 8.5- By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value 8.6- By 2020, substantially reduce the proportion of youth not in	8.5.1 Average hourly earnings of female and male employees, by occupation, age, and persons with disabilities 8.6.1 Proportion of youth (aged 15-24 years) not in education, employment, or training Indicator: a. Number of jobs created (male/female) by project activity b. Number of	a. 160 b. 9	numbers

employment, education or training	trainings provided (filtration plant maintenance)		
15 Life on Land 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	15.2.1 Progress towards sustainable forest management Indicator: Total non-renewable fuelwood saved per year by the project	1102.58	Tonnes of wood per annum per system

Name of the Gold Standard approved auditor (VVB)	Earthood Services Limited (Formerly known as Earthood Services Private Limited) E-0066
Name, position and signature of the approver of the verification and certification report	 Dr. Kaviraj Singh CEO

Section A: Executive Summary

A.1: Purpose of the PA

The project activity titled "Solar water filtration units for rural areas in coastal Bangladesh" (GS11075) a large-scale project activity registered under Gold Standard for Global Goals.

The project activity aims at providing safe drinking water to the low-income groups or in rural/coastal areas in Bangladesh through installation of water purification devices at community level. The treatment measures deployed under this PA are a combination of low GHG emitting technologies thereby reducing greenhouse gas (GHG) emissions from the burning of non-renewable woody biomass for boiling water. The project technologies, designed to reduce GHG emission and supply safe water to households meet the technology and measure requirements of the applied methodology "Methodology for Technology Practices to Displace Decentralized Thermal Energy Consumption", version 3.1/6/.

The Project activity is being implemented by Bangladesh Bondhu Foundation (BBF) which is also the project participant whereas Value Network Ventures Advisory Services Pte. Ltd is both project developer and project participant.

The assessment team confirms that the total annual average emission reductions during this monitoring period, from 09/11/2023 to 31/08/2024 (inclusive of both dates), amounted to 240,953 tCO_2e.

A.2: Scope of Verification

The verification is an independent and objective review for determination of the monitored reductions in GHG emissions and SDG outcomes by the VVB. The verification includes the implementation and operation of the PA and tests the data and assertions set out in the monitoring report prepared for this monitoring period, and it is based on review of the following:

- The registered GS PDD and monitoring plan/1/.
- The approved methodology TPDDTEC – "Technologies and Practices to Displace Decentralized Thermal Energy Consumptions", Version 3.1 /6/.
- GS4GG requirements.
- The GS Validation and Verification Standard (VVS) version 2.0/7/, the CDM Project Standard (PS) version 3.0/35/ and Site visit and Remote audit requirements and procedures version 2.0/8/.
- Relevant decisions, guidance, and clarifications of the CMP and CDM Executive Board and any other information and references relevant to the project activity's reported emission reductions.

The verification has considered both quantitative and qualitative aspects on stated/reported SDG outcomes achieved as part of GS4GG. The monitoring report and corresponding supporting documentation was assessed in accordance with the rules defined by UNFCCC and GS4GG, as appropriate to the PA. The verification is not meant to provide any consulting or recommendations to the PP/others. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring activities.

A.3: Verification Process

The verification process is conducted as per internal GS4GG Requirements, which includes the following steps:

a) Contract with CME and appointment of verification team and technical review team (refer Section B.1 and B.2 of this report)

b) Desk review (refer Section D.1 of this report) of Monitoring Report /4/ and corresponding ER sheet /5/ by verification team and remote site audit (including sampling approach (refer Section D.4 of this report) to be applied)
c) Remote audit (refer Section D.2 of this report) by verification team consistent of Team Leader and all Technical Experts, as a minimum.
d) Follow-up activities e.g., interviews (refer Section D.3 of this report)
e) Reporting and closure of findings (CARs/CLs/FARs) and preparation of draft verification report (refer Section D.5 of this report)
f) Independent technical review (refer Section B.2 of this report) of the draft verification report and final/revised documentation (e.g., Monitoring Report, corresponding ER sheet and evidence)
g) Reporting and closure of TR comments/findings (refer Section D.5 of this report) (CARs/CLs/FARs) and final approval for the decision made (refer Section G and H of this report).
h) Issuance of final verification report to contracted CME (or authorized representatives) and submission of request for issuance, as appropriate.

A.4: Conclusion

Based on the outcome of the verification process of the GS PA "Solar water filtration units for rural areas in coastal Bangladesh" for the monitoring period 09/11/2023 – 31/08/2024 (including both dates), the VVB confirms that the implementation of referenced registered PA is complying with applicable CDM and GS4GG rules and regulations as stated in the Monitoring Report Version 2.0, dated 22/01/2025. The GHG emission reductions were calculated in line with the approved baseline and monitoring methodology, TPDDTEC – "Technologies and Practices to Displace Decentralized Thermal Energy Consumptions", Version 3.1/6/ and the monitoring plan contained in the registered PDD/1/.

Earthood Services Limited (hereafter referred as "Earthood") is able to certify that the emission reductions from the registered PA (GS 11075) "Solar water filtration units for rural areas in coastal Bangladesh" for the monitoring period 09/11/2023 – 31/08/2024 (including both dates) amount to 240,953 tCO2e. Therefore, this is being submitted for request for issuance, as per GS4GG/7,9,10,11/ and UNFCCC procedures/13,35/.

Table 1: Sustainable Development Contributions

SUSTAINABLE DEVELOPMENT GOALS TARGETED	SDG IMPACT	VALUE	UNITS OR PRODUCTS
13 Climate Action 13.2 Integrate climate change measures into national policies, strategies, and planning	13.2.2 Total greenhouse gas emissions per year **Indicator:** Amount of GHGs emissions avoided or sequestered	**Total: 240,953** 2023: 41,291 2024: 199,662	tCO_2e/ GS VERs

4 Quality Education 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university	4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex **Indicator:** Number of employees trained per year	281	Number
6 Clean Water and Sanitation 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1 Proportion of population using safely managed drinking water services **Indicator:** Proportion of population using safely managed drinking water services	98.96	%
8 Decent Work and Economic Growth 8.5- By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value 8.6- By 2020, substantially reduce the proportion of youth not in employment, education or training	8.5.1 Average hourly earnings of female and male employees, by occupation, age, and persons with disabilities 8.6.1 Proportion of youth (aged 15-24 years) not in education, employment, or training **Indicator:** a. Number of jobs created (male/female) by project activity b. Number of trainings provided (filtration plant maintenance)	a. 160 b. 9	numbers

15 Life on Land 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	15.2.1 Progress towards sustainable forest management **Indicator:** Total non-renewable fuelwood saved per year by the project	1102.58	Tonnes of wood per annum per system

Section B: Verification team, technical review team and approver

B.1: Verification team member(s)

S.NO.	FULL NAME	ROLE(S)	TYPE OF RESOURCE	TYPE OF ACTIVITY(IES) CARRIED OUT			
				Desk/document review	Remote site Audit	Interviews	Verification findings
1.	Sukanya Phukan	Team Leader, TA Expert (TA 3.1) and GS Approved Auditor	Internal	Y	Y	Y	Y
2.	Sukanya Phukan	Verifier	Internal	Y	Y	Y	Y
3.	Akkas Ali	Local Expert (Bangladesh)	External	N	Y	Y	N
4.	Dilna Jose	Trainee Verifier	Internal	Y	Y	Y	Y

B.2: Technical reviewer and approver of the verification report

S.NO.	FULL NAME	ROLE(S)	TYPE OF RESOURCE	AFFILIATION (e.g.name of central or other office of VVB or outsourced entity)
1.	Vishnu S Panicker	Technical reviewer	Internal	Central office
2.	Vishnu S Panicker	TA Expert to TR (TA 3.1)	Internal	Central office
3.	Kaviraj Singh	Approver	Internal	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 PP while recording the responses of users in relation to survey parameters	Medium	The survey is conducted for representative samples of population, which may impact the population significantly.	The verification team randomly selected the samples from the PP surveyed sampled WPS. The survey forms recorded by PP were checked by VVB. The verification team also interviewed the monitoring staff and checked their training records/27/.
2.	Error in transferring the recorded data to ER sheet	Medium	The procedure for transferring the recorded survey information sheet readings to the spreadsheet may lead to erroneous entries affecting the accuracy of the data. The personnel and PD representatives employ implemented internal QC procedures to ensure prevention of any such potential error thus minimizing the chances of error significantly in the prepared ER calculation sheet /5/.	The surveying and monitoring personnel assigned for PA implementation surveys have been trained. The interviews conducted during the remote audit confirm 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/18,31/. No discrepancies were reported due to data collection and recording.

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/6/, PDD/1/.

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 PA 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 /5/. There are no material errors, overestimation of ER, omission, or misstatement.

In accordance with GS VVS, Version 02.0 paragraph 9.6.3-point c. which states, "2 per cent of the emission reductions/removals for large-scale project activities achieving a total emission reduction of 300,000 tonnes of carbon dioxide equivalent per year or less;"/7/.

Particulars / Monitoring Report	**MR Version (Initial)**	**MR Version 2.0 (Revised/Final)**
Emission Reductions Achieved (tCO_2e) in this monitoring period	240,953	240,953
Applicable Threshold (%) as per GS VVS for v2.0	2%	2%

During the assessment all findings were closed and from the sample selected for verification, no systemic or systematic material errors were identified which would have an impact on total emission reductions from the entire population.

Section D: Means of Verification

D.1: Desk/Document Review

The verification is performed primarily as a desk review of the documents submitted at various stages of assessments. The review is performed by the assessment team using dedicated protocols (checklists). The assessment team cross-checks the information provided in the documents (MR)/4/ and information from sources other than those used, if available, and also conducts independent background investigations. Earthood conducted a desk review as under:

1. A review of the data and information presented to verify their completeness.
2. A review of the monitoring plan (as described in PDD) /1/, the monitoring methodology including applicable tool(s) and, where applicable/6/, the applied standardized baseline, paying particular attention to the frequency of measurements, and the quality assurance and quality control procedures
3. A review of calculations and assumptions made in determining the GHG data and emission reductions/5/.
4. 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 II of this report.

D.2: Remote site Inspection and list of Interviewees

According to the minimum physical site visit requirements outlined in the GS Site Visit and Remote Audit Requirements and Procedures – V2.0/8/, a physical site visit must be conducted once within every three years following the first physical site visit date. Since an on-site audit was completed during the previous monitoring period, a physical site visit is not necessary for the current monitoring period. The assessment involves verification of the project activity for the second monitoring period therefore the assessment team conducted a remote site visit followed by interviewing the project representatives on 09/10/2024 using online platforms like Microsoft team to reach a reasonable level of assurance on implementation status of the project activities.

Table 2: Details of the team that conducted remote-site inspection

DURATION OF REMOTE-SITE INSPECTION: 09/10/2024			
NAME	ROLE	REMOTE AUDITING MEANS/ METHODS	TOPICS COVERED
Sukanya Phukan	Technical Area Expert (TA 3.1) and GS Approved Auditor	Online platform like Microsoft team	Interviews with the end users, stakeholder interviews, reviewing the project implementation status
Akkas Aki	Local Expert		
Dilna Jose	Trainee Verifier		

Table 3: Assessment of risk associated with remote audit

Risk assessment stages	Assessment by VVB

1. Risks related to organizational and procedural aspects	The interview with the PD representatives, project participants and end users were conducted through online platforms such as Microsoft Team and WhatsApp calls. The internet quality was good, as participants had reliable network connectivity and access to smartphones. The verification team comprised of team leader, trainee verifier, and a local expert of Bangladesh (refer to Section B.1 of the report). The Competence statements of verification team are outlined in Appendix 2. During the remote audit, key documents were thoroughly reviewed, including end users details and the carbon transfer agreement.
2. Risks related to project activity and its configuration, which present project-specific risks	The verification team randomly selected the end users from the samples surveyed by the PD, and the location of the project activity was confirmed during the interview with the end users during the remote audit. The location reported by all the end-users was in line with the registered PDD and the location provided in the installation database.
3. Risks related to monitoring aspects	The monitoring parameters required for the project activity such as usage rate, water quality, and hygiene campaigns were verified by the end-user interviews. The physical aspects of the project activity were checked and verified during the first monitoring period and were also confirmed by the end users and field staff during the current monitoring period to check if there were any changes made after the previous verification. The data reported was consistent with the project documents.

All the clarification requests and corrective action requests raised for the project activity were resolved, and no additional round of remote inspection was needed.

Table 4: Details of the people interviewed by the team during remote site audit

S.NO	INTERVIEWEE		DATE	SUBJECT	TEAM MEMBER INVOLVED
	Name	Affiliation			
1.	Md Khaleq Uz zaman	Vice Chairman (BBF)	09/10/2024	Project Technology, Project Location, Project Implementation, Quality management system, Monitoring Plan and	Sukanya Phukan, Dilna Jose, Akkas Aki
2.	Ruman Mridha	Senior Communicatio n Officer (BBF)	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki

3.	Natasha Rathore	VNV Advisory	09/10/2024	data management, GHG emission reduction calculation, Maintenance, Compliance to regulatory requirements, Environmental and social issues, Projects contribution to sustainable development.	Sukanya Phukan, Dilna Jose, Akkas Aki
4.	Ritesh Kumar	CSIPL	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki
5.	Mohit Gupta	CSIPL	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki
6.	Ashutosh Parihar	CSIPL	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki
7.	Gaurav	Coordinating Engineer (BBF)	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki
8.	Mahmudul Hasan	Deputy Coordinator (BBF)	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki
9.	Osman Molla	Engineer and Surveyor (BBF)	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki

Usage Rate Sample List

1.	Nasrula	User location – Betkata	09/10/2024	Usage survey interviews	Sukanya Phukan, Dilna Jose, Akkas Aki
2.	Mrinal Mondol	Purbo Dottermeth	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki
3.	Abdur Rouf	Boksir Ghotichora	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki
4.	Uddok Chandro	Goribpur	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki
5.	Pachu Joddar	Chunkuri	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki
6.	Rofok	Khajuriya	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki
7.	Sahajalal	Badurtola	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki
8.	Molapi Sheikh	Hauli	09/10/2024		Sukanya Phukan, Dilna Jose, Akkas Aki

Water Quality Test Sample List

1.	Showhag Shek	location - Betkata	09/10/2024			Sukanya Phukan, Dilna Jose, Akkas Aki
2.	Kavita Rani Sikdar (Mother of Soykot Mohaldar)	Purbo dottermeth	09/10/2024			Sukanya Phukan, Dilna Jose, Akkas Aki
3.	Shajahan Master	Gotichora,	09/10/2024			Sukanya Phukan, Dilna Jose, Akkas Aki
4.	Nigda Mondal (Wife of Dipongor Mondol)	Goribpur	09/10/2024	Water Test interviews	Quality (WQT)	Sukanya Phukan, Dilna Jose, Akkas Aki
5.	Sumir Ray	Chunkuri	09/10/2024			Sukanya Phukan, Dilna Jose, Akkas Aki
6.	Arun Mondal (Father of Tejon Mondol)	Khajuriya	09/10/2024			Sukanya Phukan, Dilna Jose, Akkas Aki
7.	Raihan	East Badurtala	09/10/2024			Sukanya Phukan, Dilna Jose, Akkas Aki
8.	Udoy Mondol	Hauli	09/10/2024			Sukanya Phukan, Dilna Jose, Akkas Aki

Type of questions asked by VVB to Project Implementers:

a. Role and responsibilities of PD/Project Implementers in the implementation of Project
b. Monitoring mechanism
c. Frequency of training conducted for monitoring personnel.
d. Any grievance received during the current monitoring period.

PD representatives and Project Implementers explained the monitoring and operational process of the Project. Monitoring personnel interviewed during the remote audit described the monitoring systems. The data collection procedure followed during monitoring consists of collecting details of the end-users other related to monitoring parameters. All the details collected were found correct and inline to the monitoring plan described in the monitoring report /4/.

Type of questions asked by the Verification Team to the end users:

No.	Questions asked by Team member as part of Project Monitoring Survey	Assessment by VVB

1.	Is clean water available at the dispensing station	VVB confirms that the onsite observations were found to be consistent with the data included in the monitoring survey conducted by the PP. Parameters such as source of water used by the end users were duly noted by the assessment team and were compared with the PD survey results. Each of these parameters has been assessed under section E.3.4.2 of this report.
2.	Number of members in premise using purified water	
3.	What is the primary source of water?	
4.	How was water purified in baseline?	
5.	Feasibility for using the WPP services.	
6.	Do you use any other alternative water purification means?	
7.	How do you store treated water?	
8.	Hygiene indicators and details Hygiene awareness campaigns conducted?	
9.	Incidence of Diarrhea/ other water borne diseases in last 6 months	
10.	Grievance Mechanism Awareness?	
11.	Was monitoring conducted at the premises?	

No.	Additional questions asked by the team members as part of the Water Quality Test conducted
1.	Was the Water Quality Test conducted at the premise?
2.	When was the test conducted?
3.	Was the test result conveyed?

All the end-users confirmed that they perceive an improvement in drinking water quality. All the end users also reported that they are aware of the grievance mechanism by BBF. While no adverse or negative responses were received regarding the usage or accessibility/sufficiency related issues.

D.3: Sampling Approach

D.3.1: PD's Sampling Approach

PD has applied sampling for conducting the Usage survey and WQTs as per the Guideline: Sampling and surveys for CDM project activities and programme of activities/14/ and Standard of Sampling and surveys for CDM project activities/13/ and applied methodology/6/.

Usage survey: A total of 148 usage surveys (out of the total group size of 44,229) have been conducted to determine the usage rate, and quantity of safe water boiled in the project scenario at the beneficiary premise considering the 95/10 confidence/precision.

WQT: A total of 161 WQTs have been conducted to determine the quality of treated water considering the 90/10 confidence/precision for annual sampling for WQTs at beneficiary level.

This sampling approach undertaken by PD is described in detail under section D.4 of MR /4/, which has been assessed by the verification team and found to be correct and in line with the registered monitoring plan/1/.

D.3.2: VVB's Sampling Approach

In order to meet the requirements of Standard for Sampling and surveys for CDM project activities and programmes of activities version 9.0/13/, the verification team applied acceptance sampling in the verification (in accordance with para 28). The verification team selected random samples of PP's sampled records, checked the acceptability (or otherwise) of the data for each such record with PP's sample records, and then based on the number of records where there is agreement, determined if the PP's sample records meet the requirements.

As per para 39 of CDM project activities and programmes of activities version 9.0/13/, DOE may select a different sample size than the one indicated in paragraph 32, either by choosing a different value for the consumer risk and producer risk (e.g., 20 per cent for the consumer risk) when applying acceptance sampling or by using another approach, if the project activity or the PoA is located in a least developed country. Since Bangladesh is a LDC/36/ therefore the verification team has determined the sample size of 8 from each sampling frame for the monitored parameters. A total of 16 samples (8 each for both the sampling frames i.e. usage survey and WQTs) are drawn for acceptance sampling by evaluating the following, using its own professional judgement and guidance in the Standard 'Sampling and Surveys for CDM project activities and programme of Activities' version 9.0/13/.

Sample Size:

PA Ref no.	AQL	UQL	Producer Risk	Consumer Risk	Sample Size; Min	Acceptance No.
GS 11075	1.0%	20%	10%	20%	08	0

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/8/. Prior to the remote site audit, VVB applied randomizer to the monitored data and generated the random numbers for the required 08 samples. The samples were randomly picked up to ensure that the selected samples were representative of the entire monitored population. In addition, 03 extra samples were taken from the randomized dataset to propose backup samples.
According to the requirement, 08 end users were surveyed for the usage survey and 08 households were surveyed by the assessment team for Water Quality Tests. The assessment team confirmed that all details are correct, and no discrepancies were found in the monitoring data.

D.4: Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Areas of verification of compliance	No. of CL	No. of CAR	No. of FAR
General	-	-	-
Compliance of the monitoring report with the GS4GG monitoring report form	-	-	-
FAR raised during previous verification	-	-	-
Project activities	-	-	-

Compliance of the implementation of the program with the registered PDD	-	-	-
Implementation and operation of the management system	-	-	-
Post-design certification changes	-	-	-
Compliance of the monitoring activities with the registered monitoring plan	-	-	-
Data and parameters fixed ex ante or at renewal of crediting period	-	-	-
Data and parameters monitored	-	CAR 01	-
Comparison of monitored parameters with last monitoring period	-	-	-
Implementation of the sampling plan	-	-	-
Assessment of data and calculations of net emission reductions or removals	-	-	-
Calculations of baseline value of each SDG Impact	-	-	-
Calculations of project value of each SDG Impact	-	-	-
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	-	-	-
Total	00	01	00

Section E: Verification Assessment

E.1: Compliance of the monitoring report with the monitoring report form

Means of verification	VVB checked from the Gold Standard website that the prescribed form has been used for preparing the Monitoring Report/4/. The PD used the Gold Standards for Global Goals latest MR template version 1.1/3/ available on the GS webpage and all the details were filled as per the MR template filling guidelines/3/.
Findings	No findings raised.
Conclusion	The verification team confirms the compliance of the monitoring report with the latest version of the GS monitoring report template and the

	instructions therein for filling out the form.

E.2: Remaining forward action requests from validation and/or previous verifications

No FARs were raised from previous verification, hence not applicable.

E.3: Compliance of the programme implementation with the registered programme design document

Means of verification	The project activity aims to provide safe drinking water to the low-income groups or in rural/coastal areas in Bangladesh. The project activity is developed by "Value Network Venture Advisory Services Pte. Ltd." and the project is implemented by "Bangladesh Bondhu Foundation" (BBF). The boundary of the project activity referred in this report is confined to the geographical boundary of Bangladesh, as a host country.

GS ID of PA	GS 11075
Title of PA	Solar water filtration units for rural areas in coastal Bangladesh
Project Developer	Value Network Venture Advisory Services Pte. Ltd.
Project Owner	Bangladesh Bondhu Foundation

Location:

The WPP plants included under the project activity is located within the geographical boundary of the host country Bangladesh and geocoordinates of the location lie between 20°34' to 26°38' north latitude and between 88°01' to 92°41' east longitude. The location of these WPPs and associated beneficiaries is recorded in the installation database/16/.

Technology:

The project activity aims to provide safe drinking water through a combination of low GHG technologies, the technologies deployed are selected dependent on the quality of water available. The water can be purified by using single/combination of the following methods:

1. Pre-treatment section (multi-media filter, addition of alum, activated carbon filter).
2. Chemical disinfection (chlorination)

These WPP units work on solar energy. The capacity of the water purification system is determined based on the type of technology employed (chlorine/filters) and can be replenished by resupplying/replacing as required. The capacity for each system is duly recorded in the installation database/16/ The systems will be able to operate if the required maintenance and replacement of the consumables (multi-media filter, activated carbon filter and chlorine) will be in place as per the

	maintenance plan. The verification team has conducted remote surveys of 8 end users to verify the results of WQTs and 8 end-user premises to verify the results obtained through usage surveys. It was observed from the remote survey that each WPP has unique identification number. The unique identification number on each WPP and their operation start date were cross checked with the database provided with the PD. The households were asked various questions to confirm identity of the end user, operational status of the WPPs, sufficiency and quality of water, presence, and usage of baseline technologies, among others. Ownership: The ownership of the VERs generated lies with Bangladesh Bondhu Foundation as verified through the carbon waiver agreements signed by the end-users/20/ **Grievance Mechanism** The grievance mechanism includes grievance expression books located at each WPP. The end-users confirmed that they have contact information for the maintenance engineer/caretaker of the concerned plant and can reach out to them if required. No grievances were received during the current monitoring period.
Findings	No findings raised.
Conclusion	The verification team can confirm that all physical features (technology, project equipment, monitoring, and metering equipment) of the registered project were in place and that the PD operated the project activity in accordance with the registered PDD/1/ during the current monitoring period and based on the information verified through the remote site audit and interviews/31/. During the current monitoring period, emissions were reduced by 240,953 tCO_2e.

E.3.1: Implementation and operation of the management system

Means of verification	The monitoring plan, as explained in section C of the monitoring report, is found in compliance with the requirements of the applied methodology /6/. The project participant "BBF" is responsible for QA/QC of the data, analysis and reporting into the monitoring report. For survey data, a monitoring team has been organized by the PD consisting of trained monitoring staff, who conducted the surveys/18/and WQTs/19/. The following data were recorded during monitoring: a. Name of Beneficiary b. Address/location of the beneficiary c. type of user (domestic / institution/Commercial) d. unique identifier e. Date of accessing safe water f. Other relevant information as deemed appropriate. Management Committees (MC) were formed by the PD to support the BBF since the initial stages of planning, site selection, selection of route for pipeline and installation of systems. These MC were responsible for the management of assigned plants. The BBF staff was interviewed, and training records/27/ were checked to confirm that they were trained for conducting the surveys/31/ and WQTs/19/.

Findings	No findings raised.
Conclusion	The verification team assessed the management systems in place to implement the monitoring of the PA. This included the roles and responsibilities, data collection, transfer and aggregation procedures, data storage and archiving for the monitoring system. The roles and responsibilities of data collection, transfer and aggregation procedures, data storage and archiving for the monitoring system have been provided in the MR/4/. The verification team confirms that the monitoring management system of the project is in place with the responsibilities properly identified and established as per the revised approved PDD/1/.

E.3.2: Post Registration Changes

E.3.2.1: Corrections

Not Applicable

E.3.2.2: Inclusion of a monitoring plan

Not Applicable

E.3.2.3: Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents

Not Applicable

E.3.2.4: Changes to the programme design

Not Applicable

E.3.2.5: Change of coordination/managing entity

Not Applicable

E.3.2.6: Changes specific to afforestation and reforestation activities

Not Applicable

E.3.3: Compliance of the registered monitoring plan with applied methodologies and standardized baselines

Means of verification	The monitoring plan as contained in the PDD/1/ was reviewed against the monitoring requirements of the applied methodology, Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1/6/ with reference to the technologies involved. Based on this review, it was found that monitoring plan contained in PDD/1/ includes all required parameters to be monitored in the context of the

	project design and allows for proper determination of emission reductions in accordance with the PDD/1/, and applied methodology Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1/6/. The review of applied methodology and monitoring plan establishes that the monitoring plan is consistent with the applied methodology.
Findings	No findings were raised.
Conclusion	The monitoring plan is in line with the approved methodology, Gold Standard Simplified Methodology Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 3.1 /6/, that is included in the registered PDD/1/. The monitoring plan is in accordance with the applied methodology /6/.

E.3.4: Compliance of monitoring activities with the registered monitoring plan

E.3.4.1: Data and parameters fixed ex ante or at renewal of crediting period

$W_{b,y}/W_{p,y}$: Quantity of fuel in tons required to treat 1 litre of water using technologies representative of baseline scenario b

SDG Indicator	13
Means of verification	The value applied for the Quantity of fuel required to treat 1 litre of water is 0.0004 tonnes/litre for woody biomass The default value applied for the parameter is sourced from to be the default from "Application of TPDDTEC methodology to safe water supply projects" Dated – 03/05/2021/6/.
Findings	No findings were raised
Conclusion	The value mentioned in the Monitoring Report /4/ and Emission Reduction Spreadsheet /5/ are consistent with the registered PDD/1/. The applied value is correct and justified.

$EF_{b,wood,CO_2}$ /$EF_{p,wood,CO_2}$: CO_2 emission factor arising from use of fuels in baseline/project scenario

SDG Indicator	13
Means of verification	The values applied for the CO2 emission factor arising from use of fuel in baseline/ project scenario is: Wood: 112 tCO2/TJ The value of parameter has been sourced from IPCC 2006, Volume 2 (Energy), Chapter 2 (Stationary Combustion), Table 2.5/32/.
Findings	No findings were raised
Conclusion	The value mentioned in the Monitoring Report /4/ and Emission Reduction Spreadsheet /5/ are consistent with the registered PDD/1/. The applied value is correct and justified

$EF_{b,wood,nonCO_2}$/$EF_{p,wood,nonCO_2}$:Non-CO2 emission factor arising from use of fuels in baseline/project scenario

SDG Indicator	13
Means of verification	The values applied for the non-CO2 emission factor arising from use of fuel in baseline/project scenario is: Wood = 9.46 tCO2/TJ The value of parameter has been sourced from IPCC 2006, Volume 2

	(Energy), Chapter 2 (Stationary Combustion)/32/.
Findings	No findings were raised.
Conclusion	The value mentioned in the Monitoring Report /4/ and Emission Reduction Spreadsheet /5/ are consistent with the registered PDD/1/. The applied value is correct and justified

$NCV_{b,wood}$ / $NCV_{p,wood}$:Net calorific value of the fuel is used in the baseline/ project scenario

SDG Indicator	13
Means of verification	The values applied for the Net calorific value of the fuel is used in the baseline/project scenario i.e., Fuelwood is 0.0156 TJ/ton The value of parameter has been sourced from IPCC 2006, Volume 2 (Energy), Chapter 2 (Stationary Combustion)/32/.
Findings	No findings were raised.
Conclusion	The value mentioned in the Monitoring Report /4/ and Emission Reduction Spreadsheet /5/ are consistent with the registered PDD/1/. The applied value is correct and justified

$f_{NRB,i,y}$, Non-renewability of woody biomass fuel during year y

SDG Indicator	13
Means of verification	The Fraction of non-renewability has been fixed ex-ante for the entire crediting period. The value applied is 0.843 which is fixed at ex-ante as confirmed from the registered PDD/1/.
Findings	No findings were raised.
Conclusion	The value in the monitoring report /4/ and ER calculation sheet /5/ are consistent with the PDD /1/. The value applied is correct and justified.

C_j: Portion of users of project technology who were already in baseline consuming safe water without boiling it

SDG Indicator	13
Means of verification	The parameter has been sourced from Bangladesh Multiple Indicator Cluster Survey 2019/34/and fixed ex-ante for the entire crediting period. The verified value is 6.6%.
Findings	No findings raised.
Conclusion	The value in the monitoring report /4/ and ER calculation sheet /5/ are consistent with the PDD /1/. The value applied is correct and justified.

$Q_{p,y,capped}$: Quantity of safe water in litres consumed in the project scenario p and supplied by project technology per person per day

SDG Indicator	13
Means of verification	The parameter is fixed ex-ante to determine the upper cap to the amount of water consumption/p/day. The value applied for, Full-time premises: 7 Litres per person per day Half-time premises: 5.5 Litres per person per day
Findings	No findings raised.
Conclusion	The values are confirmed from the registered PDD and are consistently applied in the ER sheet to calculate the quantity of water consumed in project scenario.

E.3.4.2: Data and parameters monitored

SDG13- Litres of purified water supplied by the project activity in year y, QPW_y, litres

Relevant SDG Indicator	**SDG13: Climate Action**	
Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	Annual
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the registered PDD /1/
	Monitoring equipment	The total water treated by the project system has been measured using flowmeters.
	Calibration frequency /interval:	Not applicable
	How were the values in the monitoring report verified?	The quantity of water supplied by each WPP is measured through a flow meter. The flow meter recording at the start and the end of the MP are recorded in the installation tab/5/. The value is capped as per ex-ante on, • fixed treatment capacity per day and number of persons served or • the max treatment capacity of the WPP per day. The value obtained for the current monitoring period is: 2023: 68,920,880.23 2024: 333,265,851.28 Total: 402,186,731.51 The VVB reviewed the ER sheet "installation summary"/5/ and confirmed that the most conservative value obtained is determined as the quantity of purified water by each WPP. Thus, the value is found acceptable
	If applicable, has the reported data been cross-checked with other available data?	Not Applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The QA/QC processes were deemed to be appropriate and trustworthy.
	In case project participants	Not Applicable

	have deviation from gold standard?	
Findings	CAR#01 was raised and resolved.	
Conclusion	The parameter has been calculated appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/6/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.	

SDG13-Number of persons consuming water supplied by project scenario p through year y, Np,y, Person-days

Relevant SDG Indicator	**SDG13: Climate Action**	
Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	Annually
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the registered PDD /1/
	Monitoring equipment	Not applicable
	Calibration frequency /interval:	Not Applicable
	How were the values in the monitoring report verified?	The verified value for the number of persons consuming water supplied by project scenario is: 2023:10,962,116.25 2024: 53,286,576.45 Total: 64,248,692.70 The end-user agreement/20/ is signed with each beneficiary and the total number of people served by each WPS are recorded in the installation database, the VVB interviewed the end users on sampling basis and confirmed their association with the WPS as per the installation database records/16/. The end users confirmed that they were consuming water supplied by project installations. Thus, this value was found acceptable
	If applicable, has the reported data been cross-checked with other available data?	Not applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Not Applicable as the data is based on interviews with the beneficiaries

	In case project participants have deviation from gold standard?	Not Applicable
Findings	No findings raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/6/. The monitoring results were recorded consistently as per the frequency in the monitoring plan/1/.	

SDG13-Usage rate in project scenario p during year y, $U_{p,y}$, %

Relevant SDG Indicator	**SDG13: Climate Action**	
Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	Annually
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the registered PDD /1/
	Monitoring equipment	Not Applicable
	Calibration frequency /interval:	Not Applicable
	How were the values in the monitoring report verified?	The usage rate is determined through usage survey conducted by the PP/18/. The results of the usage survey have been checked on a sampling basis. The VVB interviewed the end-users to confirm that they were consuming water from the project WPS, all the end-users responded positively. Thus, the value is found acceptable. The verified value of the usage rate is 98.96%
	If applicable, has the reported data been cross-checked with other available data?	Not applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The QA/QC processes were deemed to be appropriate and trustworthy.
	In case project participants have deviation from gold standard?	Not Applicable
Findings	No findings were raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the	

	registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology /6/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.

SDG13- % Installations providing safe quality treated water, Quality of treated water, %

Relevant SDG Indicator	**SDG13: Climate Action**	
Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	Quarterly
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the registered PDD/1/
	Monitoring equipment	Not applicable
	Calibration frequency /interval:	Not Applicable
	How were the values in the monitoring report verified?	The VVB has checked the WQT reports /19/for tests conducted at 161 beneficiary premises and confirmed that the treatment plants were supplying safe drinking water.
	If applicable, has the reported data been cross-checked with other available data?	Not applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The QA/QC processes were deemed to be appropriate and trustworthy. WQT protocols have been duly adhered to by the laboratory conducting the test.
	In case project participants have deviation from gold standard?	Not Applicable
Findings	CAR 01 was raised and resolved.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology /6/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

SDG13- Leakage in the project scenario p through year y

Relevant SDG Indicator	**SDG13: Climate Action**

Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	The parameter is updated at least once every two years (biennial)
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the registered PDD /1/
	Monitoring equipment	Not Applicable
	Calibration frequency /interval:	Not Applicable
	How were the values in the monitoring report verified?	Not applicable during the current MP, the leakage assessment was conducted during validation as confirmed through PDD/1/and is due until end of second year of crediting period i.e., 2024 and shall be undertaken in the next verification.
	If applicable, has the reported data been cross-checked with other available data?	Not Applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The QA/QC processes were deemed to be appropriate and trustworthy.
	In case project participants have deviation from gold standard?	Not Applicable
Findings	No findings raised.	
Conclusion	The parameter has been calculated appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/6/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.	

SDG 13-Hygiene campaigns carried out among project technology users

Relevant SDG Indicator	**SDG 13: Climate Action**	
Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	Annually
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the registered PDD /1/

	Monitoring equipment	Not Applicable
	Calibration frequency /interval:	Not Applicable
	How were the values in the monitoring report verified?	The VVB has reviewed the hygiene campaign report/33/ and confirmed the awareness campaigns have been conducted by the PD amongst the project beneficiaries. This was further cross-checked through interviews with beneficiaries who confirmed that they have been informed of the WASH practices and safe storage practices. Thus, this VVB confirms that annual hygiene campaign has been conducted.
	If applicable, has the reported data been cross-checked with other available data?	Not Applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The QA/QC processes were deemed to be appropriate and trustworthy.
	In case project participants have deviation from gold standard?	Not Applicable
Findings	No findings were raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology /6/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

SDG13- Treatment capacity of the project system i/day, Litre per day

Relevant SDG Indicator	**SDG 13: Climate Action**	
Means of verification	**Criteria/Requirements**	**VVB Assessment**
	Measuring /Reading /Recording frequency	-
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency is in line to the GS4GG rules/9/ and PDD /1/.
	Monitoring equipment	Not applicable
	Calibration frequency /interval:	Not applicable

	How were the values in the monitoring report verified?	The capacity of each WPP is fixed at the time of commissioning based on the technology installed. The PD has shared the capacity declaration /23/ statement for each WPP and the same has been consistently reported in the installation database. This parameter is used as the upper limit cap for each WPP to determine the quantity of safe drinking water.
	If applicable, has the reported data been cross-checked with other available data?	Not Applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The QA/QC processes were deemed to be appropriate and trustworthy.
	In case project participants have deviation from gold standard?	Not applicable
Findings	No findings were raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology /6/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan	

SDG13- Quantity of safe (treated, or from safe supply) water boiled in the project scenario p, after installation of project technology, $Q_{p,cleanboil,y}$, Litres per person per day

Relevant SDG Indicator	**SDG 13: Climate Action**	
Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	This parameter is measured on annual basis
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the registered PDD/1/
	Monitoring equipment	Not Applicable
	Calibration frequency /interval:	Not Applicable
	How were the values in the monitoring report verified?	The parameter is determined through annual survey usage survey, the VVB verified the same on sampling basis. All the 8

		interviewed end-users confirmed/31/ that they are no longer boiling water sourced from the project treatment plants. Thus, this value is found acceptable.
	If applicable, has the reported data been cross-checked with other available data?	Not Applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The QA/QC processes were deemed to be appropriate and trustworthy.
	In case project participants have deviation from gold standard?	Not Applicable
Findings	No findings raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology /6/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

SDG 6- Proportion of population using safely managed drinking water services, Clean Water and Sanitation, %

Relevant SDG Indicator	**SDG 6: Clean water and Sanitation**	
Means of verification	**Criteria/Requirements**	**VVB Assessment**
	Measuring /Reading /Recording frequency	Annual
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency in line to the PDD /1/.
	How were the values in the monitoring report verified?	The assessment team has reviewed the WQT reports/19/ for the tests conducted at beneficiary level/19//24/ and the treatment plant level and confirmed that the water supplied by all the beneficiaries meets the applicable WQT standards/25/. Thus, this value is found acceptable. The verified value is: 98.96 %.
	If applicable, has the reported data been cross-checked with other available data?	Not Applicable

	In case project participants have deviation from gold standard?	The QA/QC processes were deemed to be appropriate and trustworthy.
Findings	No findings raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology /6/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

SDG8- Number of employments provided and Number of trainings provided (filtration plant maintenance)

Relevant SDG Indicator	**SDG8: Decent Work and Economic growth**	
Means of verification	**Criteria/Requirements**	**VVB Assessment**
	Measuring /Reading /Recording frequency	Annual
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency is in line to the GS4GG rules/9/ PDD /1/.
	Monitoring equipment	Not applicable
	Calibration frequency /interval:	Not applicable
	How were the values in the monitoring report verified?	The assessment team has reviewed the PP's records and confirms that a total of 160 people have been provided employment under this project activity. A declaration for the same is submitted by the PP/28/. The training records and attendance sheets have been reviewed by the VVB/27/, the training details were further confirmed during the interviews with the field staff and the responses were found satisfactory. Thus, the value is found acceptable.
	If applicable, has the reported data been cross-checked with other available data?	Not Applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The QA/QC processes were deemed to be appropriate and trustworthy.

	In case project participants have deviation from gold standard?	Not applicable
Findings	No findings raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology /6/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

SDG15- Total non-renewable fuelwood saved per year by the project, Tonnes of wood per annum per system

Relevant SDG Indicator	**SDG 15: Life on Land**	
Means of verification	**Criteria/Requirements**	**VVB Assessment**
	Measuring /Reading /Recording frequency	Annual
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency is in line to the GS4GG rules/9/ and PDD /1/.
	Monitoring equipment	Not applicable
	Calibration frequency /interval:	Not applicable
	How were the values in the monitoring report verified?	The verified value for this parameter is 1102.58 Tonnes of wood per annum per system. Total non-renewable fuelwood saved per year by the project is calculated based on the end user's response to the parameter $Q_{p,cleanboil,y}$: usage of firewood to boil water during the project scenario, since no end-user reported that they were boiling water therefore the total quantity of safe water generated per WPP is used to calculate and equivalent amount of wood fuel saved. The calculations in the ER sheet have been reviewed by the VVB and are found correct. Thus, this value was found acceptable.
	If applicable, has the reported data been cross-checked with other available data?	Not Applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The QA/QC processes were deemed to be appropriate and trustworthy.

	In case project participants have deviation from gold standard?	Not applicable
Findings	No findings raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology /6/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.3.4.3: Implementation of sampling plan

Means of verification	The sampling plan was implemented by the PD in accordance with the CDM Guidelines for sampling and surveys for CDM project activities and programmes of activities (Version 04.0)/14/, Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities/13/ and the Gold Standard methodology Technologies and Practices to Displace Decentralized Thermal Energy Consumption"- Version 3.1/6/. The surveys were conducted across the project boundary to ensure uniform distribution. The PD has opted for representative and random sampling due to the homogenous nature of the technologies deployed under the project activity. According to the pertinent sampling standards in the "Guidelines for sampling and surveys for CDM project activities and programme of activities," a statistically valid sample was utilized to calculate the parameter values. A stratified random sampling approach has been applied to select the samples for survey as verified through supportive for random number generator/17/. The PD has conducted following kinds of surveys: • Project usage Survey- 148 samples have been covered and a minimum 95% confidence interval and 10% error margin have been attained. • Water Quality Test- 161 samples have been covered at the beneficiary level and a minimum 90% confidence interval and 10% error margin have been attained. **Monitoring survey (by PD) Duration:** The monitoring survey (field survey / tests) was carried out by PD representatives between the following duration for the current monitoring period. The survey dates were reviewed from the project survey sheet/18/ and WQT reports /19/

Type of Survey	Survey dates
Project Survey	June 2024
WQT tests	October 2023 – August 2024

The assessment team has confirmed that the WQT protocols have been duly adhered to by the laboratory conducting the test. VVB has reviewed the test reports and confirms all the WPPs are supplying adequate safe water. The requirement to conduct the WQTs quarterly has been met as confirmed from the water quality test reports/19/.

	Reliability and precision calculation: The verification team has verified the ER calculation spreadsheets /5/ with the monitoring survey results/5.b/, 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. All parameters of interest are included in the ER spreadsheet/5/. These were checked for the input values as well as formula applied and were found consistent. The reliability calculation was checked, and a precision of 95/10 was achieved for usage rate and 90/10 for water quality test. Thus, the verification team confirms that in all cases the reliability has been demonstrated and the results are reliable.
Findings	No findings raised.
Conclusion	The verification team confirmed that the sampling plan and the parameter values are in accordance with the monitoring plan provided in PDD/1/

E.4: Assessment of data and calculation of emission reductions or net removals

E.4.1: Calculation and assessment of each SDG Impact

Means of verification	a) **SDG-4: Quality Education:** The PP has undertaken training programmes for engineers and caretakers of the plant, thereby skilling them, 281 people have been trained under this project activity as confirmed from the training records/27/ and interviews during the remote audit. b) **SDG 6 – Clean Water and Sanitation:** In the baseline situation, there existed a risk of waterborne diseases, as well as elevated smoke levels resulting from the combustion of fuelwood, primarily through open fire practices. Through the implementation of the project activity, a significant number of individuals gained access to safe drinking water through low GHG emitting WPPs leading to emissions reductions when contrasted with the baseline use of fuelwood for combustion. Clean drinking water, by default, is a vital nutrient for the human body, consequently promoting improved health outcomes in comparison to the baseline conditions. c) **SDG 8 – Decent Work and Economic Growth:** Job creation is a result of the implementation of the carbon project activity and a total of 160 people were employed during the current monitoring period as verified from the employment records and declaration on the same has been provided by the PP/28/. 9 training sessions have been conducted for plant maintenance trainings as well /27/ d) **SDG 13 – Climate Action:** The equations used were found consistent with the PDD/1/, MR/4/ and the applied methodology /6/ For calculation of emission reduction, the following equation has been used: $ER_y=(\sum BE_{b,y} - \sum PE_{p,y}) * U_{p,y} - \sum LE_{p,y}$ Where the baseline emissions $BE_{b,y}$ is given by: $BE_{b,y} = B_{b,y} * ((f_{NRB,b,y} * EF_{b,fuel,CO2}) + EF_{b,fuel,nonCO2}) * NCV_{b,fuel}$

Where:
$BE_{b,y}$: Emissions for baseline scenario b during the year y in tCO2e
$B_{b,y}$: Quantity of fuel consumed in baseline scenario b during year y, in tons, as per by-default factors
$f_{NRB,y}$: Fraction of biomass used during year y for the considered scenario that can be established as non-renewable biomass
$NCV_{b,fuel}$: Net calorific value of the fuel that is substituted or reduced (IPCC default for wood fuel, 0.0156TJ/ton)
$EF_{b,fuel,CO2}$: CO2 emissions factor of the fuel that it substituted or reduced. 112 tCO2/TJ for Wood/Wood waste, or the IPCC default value of the relevant fuel
$EF_{b,fuel,nonCO2}$: Non-CO2 emissions factor of the fuel that is substituted or reduced. 9.46 tCO2/TJ for Wood/Wood waste, or the IPCC default value of the relevant fuel
$U_{p,y}$: Cumulative usage rate for technologies in project scenario p during year y, based on cumulative installation rate and drop off rate.

Baseline Scenario Fuel Consumption Calculations:

$B_{b,y}$ = Number of person-days * Total Safe Water consumed in project scenario (L/p/d) * Baseline Fuel used to Treat Water (T/L)

$B_{b,y} = [(1-C_j) * QPW_y] * W_{b,y}$

Where:
QPW_y: Quantity of safe drinking water consumed in year y
C_j : Expressed as a percentage, this is the portion of users of the project technology j who in the baseline were already consuming safe water without boiling it
$W_{b,y}$: Quantity of fuel in tons required to treat 1 litre of water using technologies representative of baseline scenario b during project year y, as per Baseline Water Boiling Test

The following approach will be used for determining water consumption (QPW_y):
QPWy =Minimum $\{\{(\sum_{i=1}^{n} \text{Number of person serviced by system } i * Q_{p,y,capped} * 346.75),$
$(\sum_{i=1}^{n} \text{Total treatement capacity of system } i \text{ /day} * 346.75),$
$\sum_{i=1}^{n} \text{Monitored water supplied by project system } i\}$

Where,
$N_{p,y}$: Number of person-days consuming water supplied by project scenario p through year y $(\sum_{i=1}^{n} \text{Number of person serviced by system } i * 346.75)$.
$Q_{p,y,capped}$: Quantity of safe water in litres consumed in the project scenario p and supplied by project technology per person per day (7 ltr/person/day cap from methodology).

	Project emissions $PE_{p,y}$ is given by: $PE_{p,y} = B_{p,y} * ((f_{NRB,p,y} * EF_{p,fuel,CO2}) + EF_{p,fuel,nonCO2}) * NCV_{p,fuel}$ Project Scenario Fuel Consumption Calculation $B_{p,y}$ = Number of person-days * Total volume of water boiled in project scenario (L/p/d) * Project Fuel used to boil water (T/L) $B_{p,y} = [(1-C_j) * N_{p,y} * (Q_{p,cleanboil,y})] * W_{p,y}$ Where: $B_{p,y}$: Quantity of fuel consumed in project scenario p during the year y in tons $Q_{p,cleanboil,y}$: Quantity of safe water boiled in the project scenario p per person per day $W_{p,y}$: Quantity of wood fuel or fossil fuel in tons required to treat 1 litre of water per day using technologies representative of the project scenario p during project year y e) SDG 15 – Life on Land: - In the project scenario, the amount of fuelwood used to boil water been determined using usage surveys which was found to be 0 Tonnes of wood since people reported discontinuation of boiling practice, after the implementation of the project activity. The project activity leads to avoidance of wood fuel burning to boil water, which was a common practice in baseline scenario, during the current monitoring 1102.58 tonnes of wood is saved per system per annum, by the WPP supplying safe drinking water. The calculation provided as a sample in MR/4/ has been reviewed and is found consistent with actual calculations applied in ER calculation sheet/5/. The calculations presented in the Monitoring Report/4/ and the corresponding ER sheet/5/ were found appropriate and complying with provisions prescribed in the registered monitoring plan of the PDD/1/ and applied methodology/6/.
Findings	No findings were raised
Conclusion	The verification team verified that: a) A complete set of data for the monitoring period was available and the verification of each monitoring parameter is elaborated under Section E.3.4.2 of this report. The complete monitoring data is also presented in the corresponding ER calculations sheet /5/ of final Monitoring Report /4/. b) 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.3.4.2 of this report. c) The calculations of baseline emissions as presented in the corresponding ER calculations sheet /5/ of final Monitoring Report /4/ were checked and found to be consistent with the formulae and methods described in the monitoring plan of PDD/1/ and the applied methodology/6/. d) All assumptions used in the emission calculations were found appropriate and therefore justified. e) Appropriate emission factors, IPCC default factors and other reference values have been correctly applied. This has also been elaborated

	under Section E.3.4.1 of this report. f) No standardized baseline was prescribed in the registered PDD /1/.

E.4.2: Calculation of project value or estimation of project situation of each SDG Impact

Means of verification	The GS PDD/1/ and applied monitoring methodology/6/ does not prescribe any project emissions to be considered. The remote site visit/31/ conducted, and project design also did not reveal any potential source to be considered in this regard.
Findings	No findings were raised
Conclusion	The verification team verified that: a) A complete set of data for the monitoring period was available and the verification of each monitoring parameter is elaborated under Section E.3.4.2 of this report. The complete monitoring data is also presented in the corresponding ER calculations sheet /5/ of final Monitoring Report /4/. b) 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.3.4.2 of this report.

E.4.3: Calculation of Leakage

Means of verification	The leakage assessment was conducted during validation as confirmed through PDD/1/and is due until end of second year of crediting period i.e., 2024 and shall be undertaken in the next verification.
Findings	No findings raised.
Conclusion	The leakage assessment is conducted every two years; thus, this is not applicable during the current MP.

E.4.4: Calculation of net benefits or direct calculation for each SDG Impact

Means of verification

SDG	SDG Impact	Baseline estimate	Project estimate	Net benefit
SDG 13	GHG Emission Reduction	240,953 tCO2e	0 tCO2e	240,953 tCO2e
SDG 4	Quality Education	0	281	281
SDG 6	Clean water and Sanitation	0	98.96 %	98.96 %

	SDG 8	Decent Work and Economic Growth Indicator: Number of people employed/year	0	160	160
	SDG 8	Decent Work and Economic Growth Indicator: Number of training sessions/year	0	9	9
	SDG 15	Life on Land	0	1102.58 Tonnes of wood per annum per system	1102.58 Tonnes of wood per annum per system
	The calculation methods applied for all the SDG impacts were checked with the registered PDD/1/ and MR/4/. The verification team confirms that the stated figures were checked and found acceptable.				
Findings	No findings raised.				
Conclusion	The verification team confirms that. a) The complete data was available and is duly reported. b) As indicated above, the description with regard to cross-check of reported data is included under respective parameter (refer Section E.3 of this report). c) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals, project emissions and leakage emissions were followed. d) Appropriate emission factors, IPCC default factors and other reference values were correctly applied. e) The total number of GS VERs achieved during the current monitoring period is 240,953 tCO2e.				

E.4.5: Comparison of actual SDG Impacts with estimates in approved PDD

Means of verification

The table below gives a comparison between the values estimated in the revised PDD/1/ and the values achieved during the current monitoring period in the MR/4/.

SDGs Target & Impact	Values estimated in ex ante calculation of approved PoA-DD for this monitoring period	Actual values achieved during this monitoring period
SDG 13 Climate Action	512,445 tCO2e	240,953 tCO2e

	<table><tr><td>SDG 4 – Quality Education</td><td>200 number</td><td>281 number</td></tr><tr><td>SDG 6 Clean Water and Sanitation</td><td>100%</td><td>98.96%</td></tr><tr><td>SDG 8 Decent Work and Economic Growth</td><td>8.5.1 - 300 peoples 8.6.1 – 20 training sessions</td><td>8.5.1 - 160 peoples 8.6.1 – 9 training sessions</td></tr><tr><td>SDG 15 Life on Land</td><td>1230.78 Tonnes of wood per annum per system</td><td>1102.58 Tonnes of wood per annum per system</td></tr></table> Explanation of calculation of value estimated ex ante calculation of approved PDD for this monitoring period For period of 09/11/2023 to 31/08/2024 For Ex-ante ERs = Ex-ante ER as per PDD (section B.6.4) *(Number of Days monitored/ No. of days in a year) = 629,773*(297/365) = 512,445 As per registered PDD 512,445 tCO2e was expected to be reduced within the time frame of 09/11/2023 to 31/08/2024 (both days inclusive)/1/. However, based on monitoring data, actual emission reductions so far are only 240,953 tCO2e during this monitoring period. <table><tr><th>Monitoring period</th><th>Amount (Tco2e)</th></tr><tr><td>09/11/2023 to 31/12/2023</td><td>41,291</td></tr><tr><td>01/01/2024 to 31/08/2024</td><td>199,662</td></tr><tr><td>Total</td><td>240,953</td></tr></table> The actual SDG targets against the anticipated values in the PDD is lower for all the SDGs as tabulated above.
Findings	No findings raised.
Conclusion	The actual emission reductions achieved in the current monitoring period for the PA is lower than the emission reductions as well as for other SDG targets stated in the PDD/1/. Therefore, it has been accepted by the verification team.

E.4.6: Remarks on increase in achieved SDG Impacts from estimated value in approved PDD

Means of verification	The Monitoring Report /4/ and corresponding ER calculations sheet /5/, show that the number of employees trained during the current monitoring period are higher to those estimated in PDD /1/. The value was verified from the training records provided by the PD/27/ and the value was found to be acceptable.
Findings	None
Conclusion	SDG4 exceeded the ex-ante value, which was verified through the training records provided by the PD, and was found to be acceptable.

E.5: Stakeholder Inputs and Legal Disputes

Means of	The PD has provision of grievance mechanism in place so as to capture

verification	the inputs or comments from the stakeholders as confirmed during the remote audit/31/. A grievance expression process book/29/ has been placed at project location to allow the stakeholders to share their feedback. The end users have also been provided with the contact numbers of the project implementer of Bangladesh to submit their grievances. This is deemed appropriate and acceptable to the verification team.
Findings	No findings were raised
Conclusion	Since there were no negative comments reported in the Grievance mechanism for the current period. This section is not applicable.

Section F: Internal Quality Control

The draft verification report that is prepared by the verification team is reviewed by an independent technical review team (one or more members) 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 GS4GG requirements. The technical review team is collectively required to possess technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of the technical review team are independent of the verification team.
During the technical review process, additional findings may be identified, or the closed-out findings may be opened, which needs to be satisfactorily resolved before the request for issuance is submitted to Gold Standard. The independent technical reviewer may either approve the report as such or reject/return the same in such case providing the comments/findings/issues that need to be resolved by the verification team. The decision taken by the Technical Reviewer is final and is authorized on behalf of Earthood Services Private Limited.

Section G: Verification Opinion

Earthood has performed the independent verification of the emission reductions for the Project activity GS11075 "Solar water filtration units for rural areas in coastal Bangladesh" in the host country "Bangladesh" for the monitoring period 09/11/2023 to 31/08/2024 (both dates inclusive), as reported in the Monitoring Report, Version 2.0 dated 22/01/2025. The PD 'Value Network Ventures Advisory Services Pte. Ltd.' And project participant 'BBF' are responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity. Earthood commenced the verification against the baseline and monitoring methodology "TPDDTEC – "Technologies and Practices to Displace Decentralized Thermal Energy Consumptions, Version 3.1", the monitoring plan contained in the PDD/1/ and Monitoring Report Version 2.0 dated 22/01/2025.

VVB's verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. Earthood planned and performed the verification by obtaining evidence and other information and explanations that Earthood considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

The verification team confirms that:

- The PA was found completely implemented as per the description given in the PDD.
- The actual operation conforms to the description in the registered PDD.

In our opinion, the GHG emissions reductions reported for the project activity are fairly stated in the Monitoring Report (final) Version 2.0 dated 22/01/2025. Earthood, based on outcome of

verification activities, certifies in writing that, during the monitoring period 09/11/2023 to 31/08/2024 (inclusive of both the dates), the registered GS PA "Solar water filtration units for rural areas in coastal Bangladesh" achieved the verified amount of 240,953tCO2e reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the PA.

Verified and certified emission reductions as per commitment period:

Monitoring period	**Amount**
09/11/2023– 31/12/2023	41,291 tCO_2e
01/01/2024 to 31/08/2024	199,662 tCO_2e
Total	**240,953 tCO2e VERs**

Appendix I: Abbreviations

Abbreviations	Full texts
AQL	Acceptable Quality Level
CAR	Corrective Action Request
CDM PCP	Clean Development Mechanism Project Cycle Procedure
CDM PS	Clean Development Mechanism Project Standard
CDM VVS	Clean Development Mechanism Validation and Verification Standard
CER	Certified Emission Reduction
CH4	Methane
CL	Clarification Request
CMP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
CO2	Carbon dioxide
COV	Coefficient of Variance
CPA	Component Project Activity
CP	Crediting period
DNA	Designated National Authority
EB	Executive Board
ER	Emission Reductions
ESL	Earthood Services Limited
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GS4GG	Gold Standard for Global Goals
GPS	Geographical Positioning System
HH	Household
ID	Identity
IR	Internal Resource
IPCC	Intergovernmental Panel on Climate Change
Kg	kilogram
MR	Monitoring Report
NCV	Net Calorific Value
PD	Project Developer
PDD	Project Design Document
PoA	Programme of Activities
QA/QC	Quality Assurance/ Quality Control
RMP	Registered monitoring plan
RSV	Remote site Visit
TA	Technical Area (within Sectoral Scope)
TR	Technical Review/er
TJ	Terra Joule
VCR	Verification and Certification report
VER	Verified Emission Reduction
VVS	Validation and Verification Standard
UNFCCC	United Nations Framework Convention on Climate Change
UQL	Unacceptable Quality Level
VPA/VPA-DD	VPA is for 'Verified Project Activity' (whereas DD stands for Design Document)
VVB	Validation and Verification Body
UNFCCC	United Nation Framework Convention on Climate change
WPS	Water Purification System
WPP	Water Purification Plant

Appendix II: Documents Reviewed

No.	Author	Title	References to the document	Provider
1.	PD	PDD	Version 6.0 Dated 23/01/2023	PD
2.	PD	Validation Report	Version 3.0 Dated 01/02/2023	Others
3.	GS4GG	Monitoring report and template Guide	Version 1.1, published on 14/10/2020	Others
4.	PD	Monitoring report	Version 2.0 Dated 22/01/2025	PD
5.	PD	ER calculation sheet consisting of a) Installation Database b) Monitoring survey c) Sample size calculator d) WQT results e) Beneficiary database f) SDG parameters assessment	Version 2.0 dated 07/01/2025	PD
6.	GS4GG	Technologies and Practices to Displace Decentralized Thermal Energy Consumption	Version 3.1 Dated 25/08/2017	Others
7.	GS4GG	Validation and Verification Standard	Version 2.0 Dated: 12/11/2024	Others
8.	GS4GG	Site visit and Remote audit requirements and procedures	Version 2.0 Dated: 30/05/2023	Others
9.	GS4GG	Principles and requirements	Version 2.0 Dated: 12/11/2024	Others
10.	GS4GG	Community Services Activity Requirements	Version 1.2 Dated: October 2019	Others
11.	GS4GG	GHG Emission Reductions and Sequestration Product Requirements	Version 2.1	CME
12.	GS4GG	Stakeholder consultation and engagement requirements	Version 2.1 Dated 14/06/2022	CME
13.	UNFCCC	Standard for Sampling and surveys for CDM project activities and programmes of activities	Version 9.0	Others
14.	UNFCCC	CDM guidelines for Sampling and surveys for CDM project activities and programmes of activities	Version 4.0	Others
15.	PD	Plant Maintenance Plan	-	PD
16.	PD	Installation Database sheet	-	PD
17.	PD	Random No generator records	-	PD
18.	PD	Monitoring survey record forms	June 2024	PD
19.	PD	WQT reports	October 2023 –	PD

		a) Beneficiary report b) Dispenser report c) Plant report	August 2024	
20.	PD	End-user agreement samples	-	PD
21.	PD	Start date declaration	27/01/2023	Others
22.	PD	No calibration requirement confirmation for flow meters by Rural sun power for a) model 2022-07 of brand M.B water meter b) model 21V of brand Amico Meter	14/09/2022	Others
23.	Earthood	Capacity declaration for 123 WPP by BBF	20/12/2023	PD
24.	Others	Water Quality Testing Protocol 2015 by WaterAid Bangladesh	January 2015	PD
25.	Others	Water quality parameters: allowable limits by Department of Public Health Engineering, Dhaka	-	PD
26.	PD	Academic calendars	2023 & 2024	Others
27.	PD	Training records and attendance sheets for engineers and caretakers	Various	Others
28.	PD	Employment declaration for 160 people under GS11075 by BBF	06/10/2024	Others
29.	PD	Grievance Expression Process book	-	Others
30.	Gold Standard	Verification report & Performance review for MP 1	Version 3.0 Dated:13/05/2024	Others
31.	VVB	Remote audit records	09/10/2024	VVB
32.	Others	2006 IPCC Guidelines for National Greenhouse gas Inventories 2.1 https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf	Volume 2	Others
33.	PD	Hygiene Awareness Campaign Report	-	PD
34.	Others	Multiple indicator cluster survey 2019 https://www.unicef.org/bangladesh/media/3281/file/Bangladesh%202019%20MICS%20Report_English.pdf	-	Others
35.	Others	CDM project standard for project activities	Version 3.0	Others
36.	Others	List of least developed countries by UNFCCC https://unfccc.int/topics/resilience/workstreams/national-adaptation-programmes-of-action/ldc-country-information	-	Others

Appendix III: Competence Statements of the team

Competence Statement			
Name	Sukanya Phukan		
Education	M.Sc (Environmental Science and Technology) B.Sc (Zoology)		
Experience	2+ year		
Field	Environment Science		
Approved Roles			
Team Leader	YES (VM only)		
Validator	YES (VM only)		
Verifier	YES (VM only)		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (X.X)	YES (VM TA 1.2, 3.1)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	26/08/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	26/08/2024

Competence Statement			
Name	Dilna Jose		
Education	MTech in Environmental engineering BE in Civil Engineering		
Experience	9 months as Air Quality Engineer 10 months as Assistant professor		
Field	Green Tech & teaching		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	YES		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	25/09/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	25/09/2024

Competence Statement			
Name	Akkas Aki		
Education	MBA in Sustainable Development and Management		
Experience	4 years		
Field	Sustainability		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	YES (Bangladesh)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	05/05/2023
Approved by	Deepika Mahala (Technical Manager)	**Date**	05/05/2023

Competence Statement			
Name	Vishnu S Panicker		
Education	M.Sc (Sustainable Development and Environment Management) B.Sc (Forestry)		
Experience	2.5+ years		
Field	Forestry and Environment		
Approved Roles			
Team Leader	Yes (VM)		
Validator	Yes (VM)		
Verifier	Yes (VM)		
Local expert	Yes (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (X.X)	Yes (TA 1.2, 3.1)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	19/04/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	19/04/2024

Appendix IV: Findings

TABLE 3. REMAINING FAR FROM PREVIOUS VERIFICATION

FAR ID	NA	**Section no.**		**Date :** DD/MM/YYYY
Description of FAR				
Project participant response				**Date :** DD/MM/YYYY
Documentation provided by project participant				
VVB assessment				**Date:** DD/MM/YYYY

TABLE 4. CL FROM THIS VERIFICATION

CL ID	NA	**Section no.**		**Date :** DD/MM/YYYY
Description of CL				
Project participant response				**Date :** DD/MM/YYYY
Documentation provided by project participant				
VVB assessment				**Date:** DD/MM/YYYY

TABLE 5. CAR FROM THIS VERIFICATION

CAR ID	01	**Section no.**	D.2	**Date :**18/10/2024
Description of CAR				
1. The value used for the parameter in calculation of 'QPWy' is applicable for 1 year, however, for the current monitoring period the value should be less than 346.75 as the number of days in the monitoring period is less than a year. Further, in the ER sheet (tab 'Installation Summary', column P and Q), for the calculation of the parameter 'QPWy', the value of 'Days of operation' is incorrectly mentioned. 2. PD is requested provide the Water Quality Test report of the 161 samples collected during the monitoring period.				
Project participant response				**Date :** 07/01/2025
1. The parameter "*liters of purified water supplied by the project activity in year y*" (QPW_y), has been determined as the minimum of the following: i. Quantity of treated water supplied, monitored through flow meter ii. maximum treatment capacity of each plant per day iii. Capped treated water consumption per person per day. For the calculation of the maximum treatment capacity, the "Days of operation" for a year were initially fixed ex-ante at 346.75 days, incorporating a 5% discount for maintenance purposes. However, as the current monitoring period is less than a year, the "Days of operation" has been recalculated based on the actual duration of the monitoring period (i.e., 297days), and the 5% maintenance discount has been applied accordingly. Hence the resultant "Days of operation" for the monitoring period is 282.15 days. This adjustment has now been applied in Column P and Q of the Tab: Installation summary of the ER sheet. 2. The *Water Quality test (WQT) reports have now been submitted.*				
Documentation provided by project participant				
Water Quality test reports				
VVB assessment				**Date:** 13/01/2025

1. The Calculation for the parameter "*liters of purified water supplied by the project activity in year y*" (QPW_y)," has been updated as per the appropriate days of operation in the ER sheet.
2. The Water Quality Test report was reviewed by the verification team and was found to be consistent with the monitoring report.

CAR#01 is CLOSED

TABLE 6. FAR FROM THIS VERIFICATION

FAR ID	NA	**Section No.**		**Date :** DD/MM/YYYY
Description of FAR				
Project participant response				**Date :** DD/MM/YYYY
Documentation provided by project participant				
VVB assessment				**Date:** DD/MM/YYYY