



GROUPED PROJECTS FOR WATER PURIFIERS FOR CLIMATE AND COMMUNITY ACTION



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Carbon Check (India) Private Ltd

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Prepared By	Carbon Check (India) Private Ltd.
Contact	Regd. Off: 2071/38, 2nd Floor, Naiwala, Karol Bagh, New Delhi - 110005 Corporate off: Unit No. 1701, Logix City Centre Office Tower, Plot No. BW-58, Sector 32 Noida, Uttar Pradesh Tel: +91 120 4373114 Email: projects@carboncheck.co.in URL: https://carboncheck.co.in
Approved By	Amit Anand (CEO)
Work Carried Out By	Ms. Nguyen Hong Ngoc Trang: Team Leader/Technical Expert Ms. Aparna Chaudhary: Team Member Mr. Indumathi C: Technical Reviewer

Summary:

- A brief description of the verification and the project**

Verification: Sustainability Investment Promotion and Development Joint Stock Company (SIPCO) has appointed Carbon Check (India) Private Ltd. to carry out the first verification of the VCS project “Grouped projects for water purifiers for climate and community action” in Viet Nam, VCS ID: 2557. And fall under the sectoral scope 03. The verification is based on the desk review of the Monitoring report /01/, latest version of VCS PD and the corresponding validation report, supporting emission reduction calculation spread sheets /02/ and other relevant supporting documents made available to the verification team by the project proponent accompanied by onsite audit and also onsite interviews. This verification involves the period of 01 November 2021 to 30 November 2022 (including both the days).

Project: The project “Grouped projects for water purifiers for climate and community action”, is a grouped project which employs CDM methodology AMS-III.AV. (Version 08.0) /B02/. The project involves distribution/construction of SDWPs in Viet Nam. The grouped project activity (“hereafter “proposed project activity”) involves the distribution of low greenhouse gas emitting safe drinking water purifier (SDWP) to provide clean drinking water to the households/communities/Small and Medium Enterprises (SMEs) (hereafter “users”) of Viet Nam. For this reason, this proposed project activity aims at reducing the wood fuel consumption of traditional stove users by distributing water purifiers to households and/or SMEs.

The grouped project activity reduces the use and demand for fossil fuels and non-renewable biomass that would have been used to boil water as a means to purify water in the absence of this project activity. This directly leads to reduced greenhouse gas emissions.

- The purpose and scope of validation and verification**

Purpose: The purpose of the verification is to review the monitoring results and verify that monitoring methodology was implemented according to monitoring plan and monitoring data, used to confirm the reductions in anthropogenic emissions by sources is sufficient, definitive and presented in a concise and transparent manner. In particular, monitoring plan, monitoring report and the project's compliance with relevant VCS, UNFCCC and host party criteria are verified in order to confirm that the project has been implemented in accordance with previously registered design and conservative assumptions, as documented.

The scope of the verification is:

- To verify the project implementation and operation with respect to the registered VCS PD
- To verify the implemented monitoring plan with the registered VCS PD and applied baseline and monitoring methodology.
- To verify that the actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that reported GHG emission data is sufficiently supported by evidence.

The verification shall ensure that the reported emission reductions are complete and accurate in order to be certified.

- **The method and criteria used for verification**

- (a) Desk review, involving:

- (i) Review of the data and information presented to verify their completeness;
 - (ii) Review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;
 - (iii) 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;

- (b) Onsite assessment involving:

- (i) Assessment of the implementation and operation of the proposed VCS grouped project activity as per the registered VCS PD;
 - (ii) Review of information flows for generating, aggregating and reporting the monitoring parameters;
 - (iii) Interview with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the registered VCS PD;
 - (iv) A cross-check between information provided in the monitoring report and data from other sources such as inventories, purchase records, or similar data sources;
 - (v) A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the registered VCS PD and the selected methodology;
 - (vi) Review of calculations and assumptions made in determining the GHG data and emission reductions;

- (vii) Identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

- **The number of findings raised during verification**

A risk-based approach has been followed to perform this verification. During the course of verification, a total of 16 findings were raised, which includes:

15 Corrective Action Request (CAR); 01 Clarification Requests (CLs).

All the raised findings were successfully resolved by the PP.

- **Any uncertainties associated with the verification**

The VCS MR /01/, emissions reduction calculations /02/ along with the supporting documents provided are considered to be in line with all the VCS requirements /B01/. The verification team has detected no further uncertainties or quality restriction.

- **Summary of the verification conclusion**

In CCIPL's opinion, the emission reductions reported for the "Grouped projects for water purifiers for climate and community action" in the monitoring report are fairly and correctly stated. CCIPL is therefore able to certify that the emission reductions from the "Grouped projects for water purifiers for climate and community action" during the period from 01/11/2021 to 30/11/2022, is amount 95,318 tCO2 equivalent.

CC IPL does not assume any responsibility towards the issuance and utilisation of VCU's hereby verified and certified. Request for issuance of VCU's shall be made by the project proponent to an approved VCS Program Registry based on the requirements set out under the most recent version of the VCS Program Guidelines clause on VCS Registration. The verification of reported emission reductions is based on the information made available to CCIPL and the engagement conditions detailed in this report. Hence, CCIPL cannot be held liable by any party for decisions made or not made based on this report.

CONTENTS

1	Introduction	7
1.1	Objective	7
1.2	Scope and Criteria	7
1.3	Level of Assurance.....	8
1.4	Summary Description of the Project	9
2	Verification Process.....	10
2.1	Method and Criteria.....	10
2.2	Document Review	11
2.3	Interviews	12
2.4	Site Visits	14
2.5	Resolution of Findings	15
2.5.1	Forward Action Requests	15
2.6	Eligibility for Validation Activities	15
3	Validation Findings.....	16
3.1	Participation under Other GHG Programs	16
3.2	Methodology Deviations.....	16
3.3	Project Description Deviations.....	16
3.4	Grouped Project	17
4	Verification Findings.....	24
4.1	Project Implementation Status	24
4.2	Safeguards	26
4.2.1	No Net Harm	26
4.2.2	Local Stakeholder Consultation	26
4.3	AFOLU-Specific Safeguards	26
4.4	Accuracy of GHG Emission Reduction and Removal Calculations	27
4.5	Quality of Evidence to Determine GHG Emission Reductions and Removals	48
4.6	Non-Permanence Risk Analysis.....	49
5	Verification OPINION.....	49
	APPENDIX 1: ABBREVIATIONS.....	54

APPENDIX 2: REFERENCE DOCUMENTS.....	55
APPENDIX 3: CERTIFICATES OF COMPETENCE	58
APPENDIX 4: FINDING LOGS.....	61

1 INTRODUCTION

1.1 Objective

Sustainability Investment Promotion and Development Joint Stock Company has appointed the VVB, Carbon Check (India) Private Ltd. to perform a verification of the VCS Grouped Project “Grouped projects for water purifiers for climate and community action”. This report summarizes the findings of verification of the project, performed on the basis of the VCS Program Guide (v4.2, updated 22/06/2022) /B01-b/, VCS Standard (v4.3, updated 22/06/2022) /B01-a/, Program Definitions (v4.2, updated 22/06/2022) /B01-e/, Registration & Issuance Process (v4.2, updated 22/06/2022) /B01-d/, VCS Validation and Verification Manual (v 3.2, dated 19/10/2016) /B01-c/. Verification is required for all VCS project activities intending to register a grouped project under the VCS program. This report contains the findings and resolutions from the verification of the grouped project. The purpose of a verification is to have a thorough and independent assessment of the proposed grouped project against the applicable VCS requirements, in particular, the project's baseline, monitoring plan and the project's compliance with relevant VCS and host Party criteria. These are verified in order to confirm that the monitoring report, as documented, is sound and reasonable and meets the identified criteria. Verification is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emission reductions, VCU's. The monitoring system is implemented and fully functional to generate emission reductions without any double counting, and the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reductions calculation.

1.2 Scope and Criteria

The verification of this project is based on the latest VCS Project Description /23/, the Monitoring Report of this monitoring period /01/, emission reduction calculation spread sheet /02/, supporting documents made available to the verifier and information collected through performing interviews and during the on-site assessment. Furthermore, publicly available information was considered as far as available and required.

CCIPL has employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generation of emission reductions.

The verification is carried out on the basis of the following requirements (latest available on VCS website at the time of verification), applicable for this project activity:

- VCS Program Guide version 4.2, updated 22/06/2022
- VCS Standard version 4.3, updated 22/06/2022
- Program Definitions version 4.2, updated 22/06/2022
- Registration & Issuance Process version 4.2 updated 22/06/2022

- VCS validation and verification manual version 3.2, dated 19/10/2016
- CDM Methodology: AMS-III. AV version 08.0 “Low greenhouse gas emitting safe drinking water production system”/B02/
- Other relevant rules, including the host country legislation

The scope of this verification, by independent checking of objective evidence, is as follows:

- To verify that the project is implemented as described in the project description.
- To assess the project's compliance with other relevant rules including the host country legislation.
- To assess the implementation of the monitoring plan content as mentioned in the latest VCS-PD /23/.
- To confirm that the monitoring system is implemented and fully functional to generate voluntary emission reductions (VERs/VCUs) without any double counting.
- To establish that the data reported are accurate, complete, consistent, transparent, and free of material error or omission by checking the monitoring records and the emissions reduction calculation /02/.
- To evaluate the GHG emissions reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emissions reduction data is free from material misstatement.
- To verify that reported GHG emissions data is sufficiently supported by evidence.
- The verification shall ensure that the reported emission reductions are complete and accurate to be certified.

The method and criteria used for verification consisted of the following phases:

- 1) Completeness check and desk review
- 2) On Site Visit
- 3) Resolution of outstanding issues and issuance of final verification report and applicable VCS Verification Deeds of Representation.

Carbon Check (India) Private Ltd. conducts all its work under strict rules to safeguard impartiality and ensure the independence of the verification team. The verification does not provide any consulting or recommendations for the client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring activities.

1.3 Level of Assurance

The verification report is based on the Monitoring report /01/, registered VCS PD and corresponding validation report /23/, supporting documents /03/-/28/ made available to the verifier and information collected through performing interviews.

The verification has been planned and organised to achieve a:

☒ Reasonable level of assurance

☐ Limited level of assurance

1.4 Summary Description of the Project

The project “Grouped projects for water purifiers for climate and community action”, is a grouped project which employs of the CDM methodology; AMS-III.AV: “Low greenhouse gas-emitting safe drinking water production systems”, version 08 /B02/. The grouped project involves distribution of safe drinking water purifier (SDWP)s in 30 provinces of Vietnam. The project activity targets households in rural communities with no previous water purifiers access. The geographical boundary is in 30 provinces of Viet Nam. Water purifiers are distributed free of cost to users as per registered VCS PD /23/.

The grouped project activity reduces the use and demand for fossil fuels and non-renewable biomass that would have been used to boil water as a means to purify water in the absence of this project activity. This directly leads to reduced greenhouse gas emissions.

As per the registered VCS PD /23/, the Project activity will promote the dissemination of Safe drinking water purifier with tank capacity 25 litres and removal of bacteria is 99.999%. Lifespan of SDWPs is 10 years. Each water purifier has been confirmed to the technology standards as per paragraph 4(b) of approved methodology AMS-III.AV Version 08. The outlet quality of water has been met microbes defined in QCVN 6-1:2010/BYT for drinking waters and meet the technology standards as per paragraph 4(b) of approved methodology AMS-III.AV Version 08.

As per the registered VCS PD /23/, and interviews with the representative of project proponent, each SDWP under project is uniquely identifiable /10/ and would be assured that it is not part of any other VCS project. Each project activity instance is uniquely identifiable /10/ by unique system to avoid the double counting. The measures to avoid double counting is deemed acceptable to the verification team. Project proponent has also submitted declaration /17/ and /18/ to confirm the following:

- That the project is not creating any other form of environmental credit under any specific program.
- That the project has not or shall not claim carbon credits on any other scheme after Registration of the project under VCS.

The project proponent for the project activity is Sustainability Investment Promotion and Development Joint Stock Company, owns the rights to VERs /05/.

The scale of the “Grouped projects for water purifiers for climate and community action” is under project category and the total estimated volume of GHG emission reductions from project activity 1 is 29,955tCO₂/year as per the registered VCS PD and its corresponding validation report /23/. The net

emission reductions or removals for 30 project instances is 95,318 tCO₂e for this first monitoring period (01/11/2021 to 30/11/2022). The crediting period for the project activity is fixed type (10 years 00 months) is the life span of the water purifier. The start date of the crediting period is 01/11/2021 and the end date is 31/10/2031.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The method and criteria used for verification:

The verification consists of the following three phases:

1. Completeness check and desk review of the validation report, monitoring plan, monitoring report, monitoring methodology, VCS PD, applicable tools in particular attention to the frequency of measurements, quality of metering equipment including calibration requirements, QA/QC procedures and other relevant documents.
2. Onsite interviews (including follow-up interviews with project stakeholders, when deemed necessary). The onsite interviews include the following:
 - An assignment of implementation and operation of project activity with respect to validated VCS PD
 - Review of information flows for generating, aggregating, and reporting the monitoring parameters.
 - Interview with relevant personals to determine whether the operational and data collection procedures are implemented and in accordance with the monitoring plan of the validated VCS PD,
 - Cross check of information and data provided in the monitoring report with purchase records or similar data sources.
 - Review of assumptions made in calculating the emission reductions (if any).
 - Implementation of QA/QC procedure in-line with the VCS PD and methodology requirements.
3. Resolution of outstanding issues and the issuance of the final Verification report and as applicable the VCS Verification Deed of Representation

Sustainability Investment Promotion and Development Joint Stock Company has appointed the VVB, Carbon Check (India) Private Ltd. to carry out the verification of the project “Grouped projects for water purifiers for climate and community action”, with regards to the relevant requirements of VCS Standard Version 4.3 (updated 22/06/2022) /B01-a/.

The verification through the CCIPL includes a thorough and independent assessment of the proposed grouped project against the applicable VCS requirements, the project's used methodology AMS-III. AV. V.08.0, sampling and survey standard v09.0, Implementation of project status, Data and Parameters monitored, monitoring plan and the project's compliance with relevant VCS and host party criteria. The verification involves assessment of the project and to confirm that the project meets the applicability conditions of the selected methodology, AMS– III.AV: “Low greenhouse gas-emitting safe drinking water production systems”, version 08 /B02/ and assess the claims and compliance made in the MR /01/ without limitation on the information provided by the project participants.

The verification team of the CCIPL has applied a sampling approach, acceptance sampling for the onsite interviews as part of verification in accordance with the paragraph 26 of the Standard: Sampling and surveys for CDM project activities and programmes of activities, (Version 09.0). In accordance with the paragraph 28 of the sampling standard /B03a/, acceptance sampling has been chosen by the verification team and accordingly steps listed in paragraph 29 and 39 of the sampling standards shall be followed.

Verification team has opted for AQL of 0.5 % and UQL of 20 %; producer risk of 5 % and consumer risk of 10 % in determining the VVB's sample size. Accordingly, the sample size to be interviewed for the above-mentioned parameters are 11, with acceptance number (c) as 0. The overall verification was conducted using CCIPL's internal procedures.

2.2 Document Review

During the document review, CCIPL has applied standard auditing techniques including but not limited to document reviews and onsite interviews, review of the applicable/applied methodology and its underlying formulae and calculations to assess the quality of information provided.

This report contains the findings and resolutions from the validation and a validation opinion on the proposed grouped project thus confirming the project design as document is sound and reasonable and meets the stated requirements and identified criteria.

The VCS monitoring report /01/, emission reduction calculation spread sheet “02. Citi Water_ER calculation_30.01.23” /02/, sampling size calculation, survey summary, water quality, Py and m (fraction of functional appliances that are providing the SDWP), and supporting documents related to the project monitoring report for first verification and net emission reduction/removal were reviewed as per VCS standard version 4.3 /B01-a/ requirements. The desk review included:

- A review of the data and information presented to verify completeness and consistency in accordance with VCS standard version 4.3 requirements.

- A review of the Monitoring report /01/, data monitored and monitoring methodology, paying particular attention to the applicability conditions of the methodology, sampling plan and size, survey summary and net emission reduction for the considered monitoring period by the distribution of SDWPs in the 30 provinces of Viet Nam.
- A review of the monitoring plan and the project's compliance with relevant VCS criteria.
- An evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of ERs.

The monitoring report /01/ was initially reviewed, and CCIPL requested the PP to present the supporting information and documents /03/-/28/. The documents were reviewed by CCIPL. Through the process of the verification, the revised monitoring report and the supporting documents were evaluated to confirm the actions taken by the PP to the CARs and CLs issued by the verification team.

The list of documents referred during the course of this verification has been provided in Appendix 02.

2.3 Interviews

The table below describes the on-site interview process and further identifies personnel, including their roles, who were interviewed and/or provided information additional to that provided in the monitoring report /01/ and any supporting documents.

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Ngo	Viet Anh	SIPCO	28 & 29/12/2022	Project implementation and operation, monitoring procedure, data and information flow, Roles and responsibility, Quality Assurance – Management and operating system, Distribution records, Survey records, Training Qualification and Training, CER calculation and completeness of monitoring report, compliance of monitoring plan with monitoring methodology and latest PDD.	Nguyen H.N. Trang
2.	Nguyen	Thi Nhu Quynh	SIPCO	28 & 29/12/2022		
3.	Nguyen	Doan Thinh	SIPCO	28 & 29/12/2022		

4.	Luong	Thi Tan	End-user	28 & 29/12/2022	Cross-check of a sample of project participants' samples (Questionnaire, operation surveys/interviews) Including household size, public supply system, source of drinking water, amount of water used per day per family, treatment method, type of cookstove and fuel used for treating water. & (Questionnaire, operation surveys/interviews) m (Fraction of functional appliances that are meeting the SDWP Standard)	Nguyen H.N. Trang
5.	Tran	Thi Hien	End-user	28 & 29/12/2022		
6.	Mai	Thi Chinh	End-user	28 & 29/12/2022		
7.	Ha	Thi Phung	End-user	28 & 29/12/2022		
8.	Nguyen	Thi Khoa	End-user	28 & 29/12/2022		
9.	Nguyen	Thi Thom	End-user	28 & 29/12/2022		
10.	Nguyen	Thi Mai	End-user	28 & 29/12/2022		
11.	Pham	Thi Chuyen	End-user	28 & 29/12/2022		
12.	Nguyen	Thi Ty	End-user	28 & 29/12/2022		
13.	Le	Thi Huan	End-user	28 & 29/12/2022		
14.	Le	Thi Man	End-user	28 & 29/12/2022		
15.	Doan	Thi Giap	End-user	28 & 29/12/2022	Cross-check of a sample of project participants' samples (Questionnaire, operation	Nguyen H.N. Trang
16.	Nguyen	Ngoc Anh	End-user	28 & 29/12/2022		
17.	Nguyen	Thi Tuyen	End-user	28 & 29/12/2022		

18.	Nguyen	Thi Don	End-user	28 & 29/12/2022	surveys/interviews) for the parameter, quality of safe drinking water.	
19.	Nguyen	Thi Yen Nhi	End-user	28 & 29/12/2022		
20.	Pham	Dung Em	End-user	28 & 29/12/2022		
21.	Ale	Ho Rau	End-user	28 & 29/12/2022		

2.4 Site Visits

A site visit to the project activity was undertaken by local expert from 28/12/2022 to 29/12/2022 to assess the implementation and operation of the project activity and to review evidence, and interview key personnel to confirm evidence associated with the data generation, aggregation, and calculation and reporting of the monitoring parameters.

The site visit addressed:

- An assessment of the project implementation and operation as per the registered VCS PD /23/ (including physical inspection to confirm physical existence and operation of project components).
- Review of information flows for generating, aggregating, and reporting the monitoring parameters/data.
- Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the monitoring report /01/.

In line with paragraph 26 of the Sampling Standard, the verification team has applied acceptance sampling approach through on-site interviews on the sampling survey as part of verification. The project participant had applied sampling approach. A representative Monitoring survey /13/ was conducted by the representatives of Project participant. The verification team has chosen acceptance sampling in accordance with paragraph 28 of the sampling standard /B03a/.

Applying paragraph 39 of the sampling standard, version 09 /B03a/, a sample size of 11 households was chosen with acceptance number (c) as 0. A sample size of 11 was determined, based on an AQL of 0.5% and UQL of 20%, producer risk 10% and consumer risk 10%. Acceptance number thus determined for the sample is 0. In addition, VVB also interviewed 7 end users for parameters quality of safe drinking water, fixed ex-ante which is based on the baseline survey.

The information provided in the sampling survey data /07/, has been cross checked during the onsite interviews conducted. As a part of acceptance sampling, the verification team could confirm the User

habit survey data with no discrepant records. Thus, PP's set of records has been accepted in line with § 33 of the sampling standard, version 09 /B03a/.

The verification team carried out site interviews with representatives of PP in order to assess the information included in the project documentation and to gain additional information regarding the compliance of the project with the relevant criteria applicable for the VCS.

2.5 Resolution of Findings

This section summarizes the findings from the verification of the project activity. In this section the findings from the document review, assessments and onsite interviews are provided.

Material discrepancies identified in the course of the verification are addressed either as CARs, CLs or FARs.

Corrective action requests (CAR) are issued, where:

- i. Mistakes have been made with a direct influence on project results requiring adjustments of the VERs/VCUs monitoring report.
- ii. Applicable methodological specific requirements have not been met.

A Clarification request (CL) may be used where additional information is needed to fully clarify an issue or where the information is not transparent enough to establish whether a requirement is met.

The verification team identified 15 CARs and 01 CLs. All CARs and CLs raised by Carbon Check during this verification have been resolved. If this was not completed, the ERs cannot be certified and recommended for issuance to the VCS Registry.

2.5.1 Forward Action Requests

Forward Action Request (FAR) is to be raised when the monitoring and reporting require attention and/or adjustment for the next verification period. FARs does not relate to VCS requirements for issuance of ERs achieved during subject monitoring.

No Forward action request has been raised during the validation.

2.6 Eligibility for Validation Activities

Validation/Verification body (VVB), Carbon Check (India) Private Ltd. holds accreditation for verification for the relevant sectoral scope 03 and is eligible for validation/verification for the project activity.

Please refer to the link below.

<https://verra.org/project/carbon-check-india-private-ltd/>

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

N/A

It has been confirmed through the description in the registered VCS PD and its corresponding validation report /23/ and through interviews that the project activity “Grouped projects for water purifiers for climate and community action” does not participate under any emission trading program and other GHG Programs including renewable energy certificates (RECs). The project has applied only under VCS for registration and the same has been cross verified by the verification team by exploring /checking/visiting other GHG programs like, GS, CDM, GCC etc.

3.2 Methodology Deviations

N/A

The UNFCCC methodology of AMS-III.AV; “Low greenhouse gas- emitting safe drinking water production systems”, version 08 /B02/. And its related tools are applied as they are without any deviation from methodology. Hence, it is clear that the project activity “Grouped projects for water purifiers for climate and community action” does not participate in any GHG program other than that the VCS.

3.3 Project Description Deviations

There has a change in the sample size calculation for parameter m “fraction of functional appliances that are meeting the SDWP Standard” that is mentioned in section 5.3 of registered PD. The change is as described below.

Parameter m

As per Guideline “Sampling and surveys for CDM project activities and programmes of activities”, for the use of a single sampling plan covering a group of PAs, provided the homogeneity of population can be demonstrated, or differences are taken into account in the sample size calculation, a 95/10 confidence/precision is applied for annual sampling. For fraction of functional appliances that are providing the SDWP (m), this is proportion value so the equation that will be used is:

$$n \geq \frac{1.96^2 N \times p(1-p)}{(N-1) \times 0.1^2 \times p^2 + 1.96^2 p(1-p)}$$

Where:

n : Sample size

$N = N_y$: Population who consumes the purified water serviced by the project activity in year y

p	: Our expected proportion of the installed water purification systems will be in use and operating at the specified efficiency)
1.96	: Represents the 95 % confidence required
0.1	: Represents the 10 % relative precision

Substituting the values in above equation gives the value of N = [Number of users to be sampled] (rounded up).

At validation, the Implementer mentioned to distribute 28,000 SDWPs and will provide clean drinking water to 28,000 households in Tuyen Quang Province. So, the population size, N is taken as 28,000 persons.

It is expected at least 90% of households will be use drinking water from SDWPs, hence the expected proportion p for $N_{y,i,j}$ is taken as 0.9.

Based on the above assumptions, the resulting sampling size for a 95/10 confidence/precision is calculated as:

$$n \geq \frac{1.96^2 \times 28,000 \times 0.9 (1 - 0.9)}{(28,000 - 1) \times 0.12 \times 0.92 + 1.96^2 \times 0.9 (1 - 0.9)}$$

Which comes out to be

$$n \geq 42.62$$

$$n = 43$$

Therefore, in this case a sample size of 43 is to be sampled from each primary sampling unit.

In case the resulting sample size to achieve the desired confidence/precision levels is smaller than 30, a minimum sample size of 30 shall be chosen when the parameter of interest is a proportion. The sample size is 43.

The verification team of CCIPL assess the methodology application, application of formula as per the sampling standard and finds that the deviation mentioned by the CME is deemed appropriate as the sample size calculation of parameter m based on the formula of mean parameter while the parameter m is a proportional value, so the deviation is in compliance with the VCS rules.

3.4 Grouped Project

The grouped project (the project) is the dissemination of safe drinking water purifier (SDWP) to provide clean drinking water. A total of 282,089 SDWPs were distributed by the end of this monitoring period. As described in the registered VCS PD /23/, for each new instance (distribution of SDWPs under project activity) the eligibility criteria below are confirming the new project activity instances in the assessment below:

The number of new project activity instances added to the project in this verification period is 29 and i.e., PA2, PA3, PA4, PA5, PA6, PA7, PA8, PA9, PA10, PA11, PA12, PA13, PA14, PA15, PA16, PA17, PA18, PA19, PA20, PA21, PA22, PA23, PA24, PA25, PA26, PA27, PA28, PA29 and PA30: The sampling process for all is as per sampling standard v09.0 /B03a/. The eligibility criteria of the Project activity instance were established at the group project validation in the registered VCS PD /23/.

- Quality and completeness of evidence, data and documentation relating to the new project activity instances.

The assessment team has reviewed the evidence collected by the PP for each of the PA included in this verification and confirmed the following:

- Implementation and operational status of the PA
- Monitoring and data collection
- Flow of information; generating, aggregating and reporting of the monitoring parameters
- Conformance of the new project activity instances with the eligibility criteria set out in the project description.

The verification team assessed the appropriateness of new project activity instances (added to the grouped project) against the requirements of the following key elements defined in section 3.2.11 of the Validation and Verification Manual (version 3.2):

Table 1: Eligibility criteria for new project activity instances

No.	Eligibility criterion – Category	How the new project activity instances to comply	VVB Assessment
1.	Meet the applicability conditions set out in the methodology applied to the project.	The new project activity instance will meet all applicability conditions of AMS – III.A.V: “Low greenhouse gas emitting safe drinking water production systems”, version 08.0.	Verification team reviewed the registered VCS PD /23/ and MR of the project and confirms that all the applicability criteria as mentioned in the section 3.2 of the registered VCS PD /23/ is met by the new project activities and the same has been cross checked by interviewing the PP. Thus, the criteria have met for all the project activity instances added in this monitoring period.
2.	Use the technologies or measures specified	The water purification technologies include a low	On the basis of review of the MR, technical specification of the SDWP /04/ distributed in the new project activities and

	in the project description	greenhouse gas emitting technology	by interview with the PP and end-users, verification team confirms that the project device type used in the new project activity instances is a low greenhouse gas emitting technology which is also mentioned in the registered VCS PD /23/. Thus, this criterion is met for all the new project activities added in this monitoring period.
3.	Apply the technologies or measures in the same manner as specified in the project description	Technologies that use fossil fuels are not eligible. Technologies shall meet minimum criteria for specific instance type, as outline below: - Technologies shall be deployed Natural Osmosis systems with the components illustrated in section 1.11 of this PD - Technologies for community water consumption, with project emissions - Flow rate: 2 - 3l/hr Other key features of the design of the systems. Type of service, as well as performance specification based on, inter alia testing/certification: - Each unit must achieve water quality for microbes defined in QCVN 6-1:2010/BYT for drinking Water - Lifespan is 10 years	On the basis of review of the MR, technical specification of the SDWP /04/ distributed in the new project activities and by interview with the PP and end-users, verification team confirms that the project device type used in the new project activity instances is a low greenhouse gas emitting technology which is also mentioned in the registered VCS PD /23/. Thus, this criterion is met for all the new project activities added in this monitoring period
4.	Are subject to the baseline scenario determined in the project description for the specified project	The grouped project will only perform distribution water purifiers within the 30 provinces of Viet Nam.	On the basis of review of the MR and interview with the PP and end users it is clear to the verification team that the new project activities have been

	activity and geographic area.		implemented in the households of 30 Provinces of Vietnam under the geographical area as defined in the final PD. The detailed is as below and is well under the geographical area as defined in the final PD. PA 2: Nam Dinh Province PA 4: Dien Bien Province PA 5: Lao Cai Province PA 6: Son La Province PA 7: Quang Ninh Province PA 8: Bac Ninh Province PA 9: Ha Nam Province PA 10: Vinh Phuc Province PA 11: Quang Binh Province PA 12: Phu Yen Province PA 13: Dak Lak Province PA 14: Kon Tum Province PA 15: Lam Dong Province PA 16: Ha Tinh Province PA 17: Quang Tri Province PA 18: Gia Lai Province PA 19: Lang Son Province PA 20: Ha Giang Province PA 21: Hai Duong Province PA 22: Hung Yen Province PA 23: Thua Thien Hue Province PA 24: Quang Nam Province PA 25: Quang Ngai Province PA 26: Binh Thuan Province
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			PA 27: Khanh Hoa Province PA 28: Ninh Thuan Province PA 29: Dak Nong Province PA 30: Bac Kan Province Thus, the criteria is met for all the new project activities added.
5.	Have characteristics with respect to additionality that are consistent with the initial instances for the specified project activity and geographic area.	The additionality of the project activity is demonstrated by simple cost analysis that is in line with paragraph 10 (a) of Tool21 “Demonstration of additionality of small-scale project activities” (version 13.1) and paragraph 33 and 34 of TOOL01 “Tool for the demonstration and assessment of additionality”, Version 07.0. To demonstrate additionality by Simple cost analysis, each project instance shall confirm and demonstrate that the SDWPs are distributed for free to the Users.	Verification team has reviewed the MR. Evidence to demonstrate water purifiers as free cost /12/, SDWP distribution agreement and interviewed the PP confirms that SDWPs distributed under all the projects activities added during this monitoring period are distributed free of cost and the additionality of all the PAs is demonstrated by simple cost analysis /22/ and is in compliance with the final registered VCS PD.
6.	Conditions that avoid double counting of emission reductions.	The new project activity instances will: Apply a unique system (i.e. conformity letter) for SDWP in each project instance, assigning a unique ID to each SDWP and allowing to clearly identify each SDWP and to which project instance it belongs. Each SDWP installed will include project instance assignment and will have corresponding end user details (i.e. name, address). This data will be recorded as part of the	On the basis of review of the MR, SDWP distribution records /28/ and interview with the PP it is confirmed to the verification team that each Users have been provided a safe drinking water purifier (SDWP) with a unique identification number put on each SDWP, the label is as following below: PA02: WP-002-00001 to WP-002-00200 PA03: WP-003-00001 to WP-003-00100

		beneficiary agreement and Project database. The CME has an agreement in place with residents who use drinking water from SDWPs in the project instance in which the owner transfers the rights to the emissions reductions exclusively to the CME as part of the Carbon Rights Waiver within the Beneficiary agreement.	PA04: WP-004-00001 to WP-004-00100 PA05: WP-005-00001 to WP-005-14000 PA06: WP-006-00001 to WP-006-14000 PA07: WP-007-00001 to WP-007-00700 PA08: WP-008-00001 to WP-008-16000 PA09: WP-009-00001 to WP-009-09000 PA010: WP-010-00001 to WP-010-00260 PA011: WP-011-00001 to WP-011-18900 PA012: WP-012-00001 to WP-012-12000 PA013: WP-013-00001 to WP-013-12000 PA014: WP-014-00001 to WP-014-11780 PA015: WP-015-00001 to WP-12100 PA016: WP-016-00001 to WP-016-12150 PA017: WP-017-00001 to WP-017-00100 PA018: WP-018-00001 to WP-018-08710 PA019: WP-019-00001 to WP-019-06617 PA020: WP-020-00001 to WP-020-14600
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			PA021: WP-021-00001 to WP-021-10000 PA022: WP-022-00001 to WP-022-09000 PA023: WP-023-00001 to WP-023-12000 PA024: WP-024-00001 to WP-024-12000 PA025: WP-025-00001 to WP-025-11000 PA026: WP-026-00001 to WP-026-08000 PA027: WP-027-00001 to WP-027-12000 PA028: WP-028-00001 to WP-028-11000 PA029: WP-029-00001 to WP-029-15150 PA030: WP-030-00001 to WP-030-04622
7.	Capacity Limit	Each project instance will have a maximum capacity of 60,000 tCO ₂ e per year throughout the project instance crediting period.	The new project activities satisfy the criteria. The emission reduction of each Project activity is less than 60,000 tCO ₂ /year. (Detail in ER sheet)
8.	Target group	Each project instance will target end users which includes households who use traditional cookstove to boil water.	The new project activities satisfy the criteria. Each household in project activities must sign a beneficiary agreement to commit that they are using traditional cookstove to boil water. To satisfy this criteria PP has signed a distribution agreement with Women's Union and before

			starting the survey PP has conducted a feasibility check, through which proportion of using traditional cookstove to boil water is being confirmed as mentioned in section 3.3 of the MR/01 -d/, All the information has been verified by checking the supportive document includes the distribution agreement /15/. with Viet Nam Women Union, distribution database /28/ beneficiary agreement /6/, the new baseline surveys reports /7/ & interview with end-users during the onsite visit. In conclusion, the verifier can confirm that the new PAs are complied with this inclusion criteria.
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Based on the above assessment the verification team confirms that the inclusion of the project activity instances in the grouped project is valid.

Overall, the verification team of CCIPL assesses the quality and completeness of evidence, data and documents of project description of project activity and finds all information in uniform manner.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The grouped project, “Grouped projects for water purifiers for climate and community action” in Viet Nam is submitted to Verra as a VCS project on (VCS project ID 2557) applying the CDM methodology AMS–III.AV: “Low greenhouse gas- emitting safe drinking water production systems”, version 08.

This is the first monitoring report for the project “Grouped projects for water purifiers for climate and community action” which is grouped and employs the VCS methodology, AMS – III AV, version 08 /B02/. The grouped project involves the distribution of safe drinking water purifier (SDWP) in Vietnam. The

project aims to distribute 28,000 SDWPs in Tuyen Quang Province in the project activity 1 and during this monitoring period 14,000 SDWPs under project activity 1 was distributed till 14/11/2022. Apart from the PA1 projects include PA02, PA03, PA04, PA05, PA06, PA07, PA08, PA09, PA10, PA11, PA12, PA13, PA14, PA15, PA16, PA17, PA18, PA19, PA20, PA21, PA22, PA23, PA24, PA25, PA26, PA27, PA28, PA29 and PA30 with total additional number of 268,089 SDWPs distributed till the current monitoring period. So in total 282,089 SDWPs has been distributed till the current monitoring period.

The SDWPs will reduce the amount of non-renewable biomass used for boiling the water. PP has considered each SDWP distributed as a project activity instance. The start date for the grouped project is 01/11/2021 /03/ which is the date of installation/registration of the first SDWPs in the grouped project.

The verification team confirms that there is no change from the registered VCS PD of the physical features which may impact the emission reductions of the project activity. This has been confirmed based on the review of equipment contract as evidence of the cost for Safe Drinking Water Purifiers /21/, and SDWP distribution agreement /15/, conducting interviews with representatives of PP as well as by carrying out onsite interviews with end users. Thus, the verification team concludes all the physical features of the VCS grouped project in the registered VCS PD /23/ are in place.

The verification team confirms that during the current monitoring period (01/11/2021 to 30/11/2022) the VCS grouped project has disseminated 282,089 SDWPs, this was confirmed based on the review of distribution database /28/ and further based on interviews with representatives of PP through on-site interviews.

During the on-site interviews verification, QA/QC procedures were identified which demonstrate that: operational and management system of the grouped project is in place; data were centralized; monitoring data were crosschecked with the sales records and confirmation that all operational staff were trained before taking up positions. The verification team thus confirmed that the monitoring of the project activity has been implemented in accordance with the monitoring plan in the registered VCS PD.

The registered VCS PD clearly describes the monitoring and responsibility of monitoring is done by PP. During the onsite interviews, monitoring, data collection and reporting procedures were confirmed with the relevant staff and through document review of samples of all relevant records.

The verification team confirms that the monitoring plan is in accordance with VCS approved methodologies AMS – III AV, version 08 /B02/. All data are collected and archived in accordance with the applied methodologies and included in the monitoring plan. This was confirmed based on the onsite interviews with representatives of PP and upon further review of samples of all relevant records.

All the ex-ante parameters which are used in the calculation of emission reductions are consistent with the registered VCS PD. It is confirmed that ex-ante parameters mentioned in section 4.1 of the MR /01/ are in line with the parameters mentioned in section 5.1 of the registered VCS PD. All the ex-post parameters have been monitored as per the monitoring plan and presented in section 4.2 of the MR /01/.

4.2 Safeguards

4.2.1 No Net Harm

Verification team has been observed that there is no net harm due to project activity “Grouped projects for water purifiers for climate and community action” this is confirmed by the on-site interview and the registered VCS PD /23/.

4.2.2 Local Stakeholder Consultation

As per the latest VCS PD /23/ and MR /01/ the consultation meeting was held on the 18/04/2021 which was prior to the project start date and current monitoring period.

Verification team Cross checked the Local stakeholders’ consultation meeting records /08/ and finds there were no negative feedback from the stakeholders.

As per the MR /01/, there is socio-economic and cultural barrier in the project area thus, to overcome with this situation SIPCO (PP) go through the informal consultation activity (direct community engagement) to introduce the project at each province. The consultation activities are done by the electronic means of communication by using participatory methods with previous, current, and prospective end user.

The verification team confirms on the procedure and method for engagement, method for documenting the outcomes of local stakeholders’ consultation and account of all inputs received. The verification team confirms that the project proponent has taken due account of all input (no negative comments were received for the project). Hence the verification team deemed the local stakeholders meeting procedure including the inputs received as appropriate.

Furthermore, on the basis of interview with the project developer during the audit, it confirms that the project has a stepwise mechanism for the ongoing communication. SIPCO engages with a number of stakeholders (Women’s Union) through annual reports, records and SIPCO’s social media communication. Women’s Unions are large organizations at all administrative levels (Commune, District, Province, State). The details of the steps along with the contact information for ongoing communication is mentioned in section 2.2 of the PD. The verification team confirms on the ongoing communication by reviewing the annual report prepared Women Union /27/, 2 records sent to donor in 2022 /27/ & interview with stakeholders during onsite visit. There are several feedbacks was seen in the annual reports & records sent to donor, however, those were just questions to clarify on the implementation procedure such as changing ceramic core, water quality testing. No negative comment was received. Some local end-users would like to buy the water purifier also. All has been addressed by SIPCO in their answer forms /29/ sent back to Woman Union so they can feedback to local stakeholder properly. This has been verified by reviewing all the form and confirmed this has been reported correctly in the MR.

4.3 AFOLU-Specific Safeguards

N/A

Because the project is not an AFOLU project.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The equations and choices provided in the methodology and all other methodological tools are correctly quoted in the MR /01/. The emission reductions of the project instances of the grouped project and project activity instance are calculated using the formulae mentioned in the applied methodologies; AMS-III.AV low greenhouse gas emitting safe drinking water production systems (Version 08.0) /B02/. The verification team has reviewed the emission reduction spread sheets (ER sheets) and checked all the formulae and found they are correct and are in accordance with the monitoring plan of the PD and the applied monitoring methodology.

According to applied methodology AMS- III.AV (Version 08.0) /B02/ the emissions are calculated as below:

Baseline Emission

$$BE_y = QPW_y \times m \times X_{boil} \times SEC \times \sum_i (BL_{fuel,i} \times f_i \times EF_{projected\ fossilfuel,i} \times 10^{-9})$$

Where:

BE_y	: Baseline emissions during the year y in (tCO ₂ e)
QPW_y	: Total quantity of purified water by the project in year y (litres).
m	: Fraction of functional appliances that are meeting the SDWP standards (%). Only project appliances that (i) use technologies that meet the technology standards as per paragraph 4(b) and (ii) are operating or replaced by an equivalent in service appliance and (iii) deliver microbiologically safe drinking water, are counted for emission reductions.
X_{boil}	: Fraction of the population served by the project activity for which the common practice of water purification is or would have been water boiling. This shall be determined ex-ante through surveys.
SEC	: Specific energy consumption required to boil one litre of water (kJ/L) to be calculated according to paragraphs below
$BL_{fuel,i}$	: Proportions of baseline fuel type I (NRB and/or fossil fuels) used in the absence of the project activity (fraction)
f_i	: Fraction of non-renewable fuel type i used in the absence of the project activity in year y. For biomass it is the fraction of woody

biomass that can be established as non-renewable biomass (fNRB). If the baseline fossil fuel, the value to be applied is 1

$EF_{\text{projected fossil fuel}, i}$: Emission factor of the fossil fuel substituted (tCO₂/TJ).

Project Emission: No project emission has been considered for the project and it is in compliance with the applied methodology.

Leakage: Where relevant leakage relating to the non-renewable woody biomass shall be assessed as per the relevant procedures of AMS-I. E version 12.0 explained below:

B_y will be multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required.

So, the leakage emission is calculated as below:

$$LE_y = BE_y \times (1 - 0.95)$$

If the equipment currently being utilized is transferred from outside the boundary to the project boundary, leakage is to be considered. This is in compliance with the applied methodology.

Net Emission Reduction are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y$$

Sampling approach: The sampling plan implemented by the PP is in accordance with the applied approved monitoring methodology /B02/ and the registered VCS PD /23/. The CME has appropriately performed stratified random Sampling procedure, reliability levels were set at 95% confidence and 10% precision in line with the applied methodology AMS- III.AV (Version 08.0) /B02/. As the VCS PD /23/ mentions the option for stratified random Sampling procedure, it is acceptable to the verification team.

The sampling surveys have been carried out by the well-trained personnel /16/.

Monitoring parameters Py: The number of SDWPs still in operation during the monitoring period. Visual inspection of the premises to see if SDWP is operational and in use. Interview with end user if required to verify that SDWP is still in use (Yes/No).

Monitoring parameter m For fraction of functional appliances that are meeting the SDWP Standard, P_y Population who consumes the purified water serviced by the project activity in year y and Quality of safe drinking water are the parameters through monitoring sample surveys. Monitoring of the parameters ensures compliance with the applied methodology AMS- III.AV Version 08.0 /B02/. Verification team has checked the survey records /7/ and sample size calculation /13/.

PP has applied sampling for the current monitoring period. A confidence/precision level of 95/10 has been used by the PP for all the monitoring parameters determined through applying simple random sampling. Survey has been carried out. This is in accordance with the sampling plan provided in the registered VCS PD /23/. The sample size calculations for each of the monitoring parameters monitored through the sampling have been provided in the table below. The calculated sample size for the

parameter Py is 43 while taking in view for the outliers and nonresponse CME calculated an additional 20% of the sample to be surveyed. A total of 54 samples were selected. However, for the parameter m there is a deviation in sample size calculation as mentioned in section 3.2.2 of the MR. The sample size for the parameter as calculated by PP is 43.

For the parameter quality of safe drinking water, the calculated sample size (for parameter of interest is a numeric mean value) is less than 30 samples, the Student's t-distribution will be used to calculate the sample size (in accordance with paragraph 13 of standard: sampling and survey for CDM project activities and programmes of activities (version 09.0). The adjusted sample size obtained after applying Student's t-distribution is 7. While taking in view for the outliers and nonresponse CME calculated an additional 20% of the sample to be surveyed, so a total of 9 samples were selected.

The resultant applied sample size by the PP are summarized below:

Parameters	Py	m	Quality of safe drinking water
Sample size	54	43	9
Precision achieved	0%	0%	0%

The verification team of the DOE applied a sampling approach for on-site visits as part of verification in accordance with the paragraph 26 of the Standard: Sampling and surveys for CDM project activities and programmes of activities, Version 09.0. In accordance with the paragraph 28 of the sampling standard, acceptance sampling has been chosen by the verification team and accordingly steps listed in paragraph 29 of the sampling standard/B03a/ shall be followed. The verification team has opted for AQL of 0.5% and UQL of 20%; producer risk and consumer risk of 10% in determining the DOE's sample size. Accordingly, we plan to do the interview for 11 households across the PA from the PP's sample size for the parameter Py and m of project activity for the monitoring period with acceptance number C) as 0. And the sample size by DOE for the parameter m and the safe quality of water is same as PP sample size that is 7). It was observed that out of the 11 samples, all the 11 SDWPs were found to be operational, and meeting the SDWP standard and this matched with the PP's records and hence no discrepant records were observed with the MR /01/ and ER sheet /02/ and thus c=0. Thus, PP's set of records has been accepted in line with § 33 of the sampling standard, version 09 /B03a/. Verification team has cross verified these sample documents.

As per paragraph 25 of the Sampling Standard, version 09 /B03a/, the verification team has to verify whether the project participants entity have implemented the sampling and surveys according to the sampling plan in the registered monitoring plan. The verification includes determining:

- Whether the required confidence/precision has been met.
- Whether the selected sample was representative of the population.

As per the applied methodology AMS- III.AV low greenhouse gas emitting safe drinking water production systems (Version 08.0) and the registered VCS PD for the grouped project /23/. The necessary confidence / precision of 95/10 each of the parameters are met. This has been cross verified by the verification team from the supporting documents submitted /13/.

Emission reductions have been calculated in accordance with the applied methodology AMS- III.AV version 08 /B01/, and registered VCS PD /23/. The PP has used monitored data and ex-ante fixed data including default values as mandated/permitted by the applied methodology. The values used for calculation of GHG emission reductions have been thoroughly checked by the verification team and was found appropriate and correct.

Baseline survey

PP coordinated with Provincial Woman Union has conducted baseline surveys for each area of new project instance to determine parameter QPW_{pp} , X_{boil} , $BL_{fuel,l}$ and P_h . The sampling plan implemented for baseline survey is in accordance with the applied approved monitoring methodology /B02/ and the registered VCS PD /23/. The CME has appropriately performed Simple Random Sampling procedure, reliability levels were set at 90% confidence and 10% margin of error in line.

The calculation of sample size using the equation:

$$n \geq \frac{1.96^2 N \times p \times (1 - p)}{(N - 1) \times 0.1^2 \times p^2 \times 1.96^2 p \times (1 - p)}$$

Where,

n : Sample size

N : Population size (Total number of households/ICS)

p : Expected proportion

1.645 : Represents the 90% confidence required

0.1 : Represents the 10% relative precision.

The summary result of sample size for each PA is as below:

Project activity	Population	Calculated sample size	Actual sample size (additional 20%)
PA 1	28,000	269	330
PA 2	12,000	265	332
PA 3	12,000	265	332
PA 4	11,000	265	332
PA 5	14,000	266	333
PA 6	14,000	266	333

PA 7	7,000	261	327
PA 8	16,000	267	333
PA 9	9,000	263	329
PA 10	12,000	265	332
PA 11	18,900	268	335
PA 12	12,000	265	332
PA 13	12,000	265	332
PA 14	11,780	265	332
PA 15	12,100	265	332
PA 16	12,150	265	332
PA 17	12,100	265	332
PA 18	8,710	263	329
PA 19	12,000	265	332
PA 20	19,110	269	337
PA 21	10,000	264	330
PA 22	9,000	264	329
PA 23	12,000	265	332
PA 24	12,000	265	332
PA 25	11,000	265	332
PA 26	8,000	262	328
PA 27	12,000	265	332
PA 28	11,000	265	332
PA 29	15,150	266	332
PA 30	12,000	263	329

On the basis of review of the baseline survey reports & records/7/ for each area of new project instances, the verifier can confirm that the numbers of sample size have been correctly calculated. The baseline survey was sufficiently implemented to ensure the survey result is representative of the entire population. The dissimilarity (such as village, individuals...) were chosen randomly so that each element of the population has the same probability of being selected. The survey method was used is in-person interview by questionnaires to ensure reliability and validity of information. Provincial Woman Union's staff at local level (hamlet, village, etc) who has been trained to conduct the survey oversaw the interviews with selected household, to make sure informants who have limited education fully understanding of the questions before making answers. The list of interviewed households and survey records were

transparently reported in each of baseline surveys reports which can be verified and allow for the replication of the survey result calculation.

Table 2: Parameter Determined ex-ante.

The following parameters are determined ex-ante and mentioned in section 5.1 of the registered VCS PD /23/:

Parameter	Unit	Value		Assessment
QPW _{pp}	Liters	PA	QPW _{pp}	- Fixed ex-ante The value has been calculated from the baseline survey records and is in compliance with the applied methodology and is used for the baseline emissions
		PA 1	5.0	
		PA 2	4.98	
		PA 3	5.05	
		PA 4	5.04	
		PA 5	5.12	
		PA 6	5.02	
		PA 7	4.6	
		PA 8	4.82	
		PA 9	4.82	
		PA 10	5.12	
		PA 11	5.15	
		PA 12	5.04	
		PA 13	4.95	
		PA 14	4.88	
		PA 15	5.15	
		PA 16	4.95	
		PA 17	4.99	
		PA 18	5.06	
		PA 19	5.12	
		PA 20	5.10	
		PA 21	5.05	
		PA 22	4.98	
		PA 23	5.02	
		PA 24	5.12	
		PA 25	4.88	
		PA 26	4.45	

		<table><tr><td>PA 27</td><td>4.85</td></tr><tr><td>PA 28</td><td>5.05</td></tr><tr><td>PA 29</td><td>5.13</td></tr><tr><td>PA 30</td><td>5.08</td></tr></table>	PA 27	4.85	PA 28	5.05	PA 29	5.13	PA 30	5.08	
PA 27	4.85										
PA 28	5.05										
PA 29	5.13										
PA 30	5.08										
LS	Years	10	- Fixed ex-ante The valued has been taken from the manufacturer's specifications in compliance with the applied methodology								
n_{wb}	%	10	- Fixed ex-ante - Default values from based on the option b as detailed in the applied methodology. PPs signed a distribution contract with the provincial Women's Union, this is an agency with all levels from central to local (village, hamlet), they are close the households and can know exactly these households who are using the traditional cookstove for cooking and boil water and they can select the correct beneficiaries. Before starting the distribution of water purifiers at new area, PP conduct a feasibility check (through baseline survey, using random sample) through which the proportion using traditional cookstove to boil water is being confirmed. If the proportion of using other cook stove to boil water is significant, PPs would be conservatively excluded households using fossil fuels and combination of fuels from the								

			proportion of households using the wood to calculate ER. At the time of distribution, households were also checked again also for eligibility criteria 8. Households indicating as their primary fuel anything else than woody biomass were ineligible for the carbon programme. This was ensured before household receiving the water purifier as the households have to commit and sign the beneficiary agreement with PP /6/. In case of there were still households using other fossil fuel to boil water, the ER created from them would be discarded. All the information has been verified by checking the supportive document: the distribution agreement /15/. with Viet Nam Women Union, beneficiary agreement /6/, the new baseline surveys reports /7/ & interview with end-users during the onsite visit. Thus the verifier can confirm that the activity to ensure the compliance with criteria 8 has been implemented. In conclusion, the value is verified as PP complies with the criteria 8 as mentioned in section 3.3 of the MR./01-d/.										
BL _{fuel,i}	Fraction	<table> <tr> <th>PA</th> <th>BL_{fuel,i}</th> </tr> <tr> <td>PA 1</td> <td>0.9485</td> </tr> <tr> <td>PA 2</td> <td>0.9638</td> </tr> <tr> <td>PA 3</td> <td>0.9608</td> </tr> <tr> <td>PA 4</td> <td>0.9819</td> </tr> </table>	PA	BL _{fuel,i}	PA 1	0.9485	PA 2	0.9638	PA 3	0.9608	PA 4	0.9819	- Fixed ex-ante The value is determined from the baseline survey records and is in compliance with the applied methodology and is used for the baseline emissions. In line with
PA	BL _{fuel,i}												
PA 1	0.9485												
PA 2	0.9638												
PA 3	0.9608												
PA 4	0.9819												

		PA 5	0.976	the requirement mentioned in PD page 40, PP has conducted the feasibility check in 30 provinces where the distribution has been done during the current monitoring period. Verification team has cross checked the result from the baseline survey submitted by PP /7/.
		PA 6	0.985	
		PA 7	0.9266	
		PA 8	0.9459	
		PA 9	0.9544	
		PA 10	0.9548	
		PA 11	0.9612	
		PA 12	0.9669	
		PA 13	0.9759	
		PA 14	0.9578	
		PA 15	0.9669	
		PA 16	0.9789	
		PA 17	0.9759	
		PA 18	0.9726	
		PA 19	0.9458	
		PA 20	0.9674	
		PA 21	0.9424	
		PA 22	0.9392	
		PA 23	0.9699	
		PA 24	0.9518	
		PA 25	0.9578	
		PA 26	0.9634	
		PA 27	0.9398	
		PA 28	0.9459	
		PA 29	0.9729	
		PA 30	0.9666	
f_i	Fraction	0.9403		- Fixed ex-ante The value is established using as per the methodological Tool30 "Calculation of fraction of non-renewable biomass" version 03.0. As per "TOOL30: Calculation of the fraction of non-renewable biomass". The analysis was independently

			completed by C4 Ecosolutions (Pty) Ltd based on the survey records /19/.	
EF _{projected fossil fuel}	tCO ₂ /TJ	85.7	- Fixed ex-ante The value is default value from the AMS-III.AV, Version 08.0 and IPCC, Chapter 2, table 2.2 and used to determined baseline emissions.	
X _{boil}	%	PA	X _{boil}	- Fixed ex-ante The value is determined from the baseline survey and is used to calculate the baseline emissions.
		PA 1	0.9909	
		PA 2	1	
		PA 3	1	
		PA 4	1	
		PA 5	1	
		PA 6	1	
		PA 7	1	
		PA 8	1	
		PA 9	1	
		PA 10	1	
		PA 11	1	
		PA 12	1	
		PA 13	1	
		PA 14	1	
		PA 15	1	
		PA 16	1	
		PA 17	1	
		PA 18	1	
		PA 19	1	
		PA 20	0.9970	
		PA 21	1	
		PA 22	1	
		PA 23	1	
		PA 24	1	

		PA 25	1	
		PA 26	1	
		PA 27	1	
		PA 28	1	
		PA 29	0.9969	
		PA 30	1	
P _h	Fraction	PA	P _h	- Fixed ex-ante. Value is determined from the survey records and is used for the baseline emission calculation.
		PA 1	4.5	
		PA 2	4.42	
		PA 3	4.54	
		PA 4	4.61	
		PA 5	4.52	
		PA 6	4.62	
		PA 7	4.51	
		PA 8	4.52	
		PA 9	4.52	
		PA 10	4.81	
		PA 11	5.01	
		PA 12	4.85	
		PA 13	4.63	
		PA 14	4.83	
		PA 15	4.68	
		PA 16	4.65	
		PA 17	4.48	
		PA 18	4.41	
		PA 19	4.56	
		PA 20	4.62	
		PA 21	4.50	
		PA 22	4.55	
		PA 23	4.64	
		PA 24	4.44	
		PA 25	4.48	
		PA 26	4.7	
		PA 27	4.54	

		PA 28	4.58	
		PA 29	4.72	
		PA 30	4.81	

The spread sheet submitted by the PP clearly and transparently mentions values of the data parameters used for calculation of emission reductions. The input values have been verified from the reliable and authentic sources including monitoring survey records /13/, MR /01/, and applied methodology /B02/. The emission reductions calculated were compared with the emission reduction spread sheet /02/ and found to be correct. No significant reporting risks have been identified for the data reported.

The details of monitoring parameters used for calculation of emission reductions are provided below:

Monitoring Parameter Requirement	Assessment/ Observation by the VVB			
Data / Parameter: (as in monitoring plan of VCS PD):	Population who consumes the purified water serviced by the project activity in year y P_y			
Measuring frequency/Time Interval:	Annual			
Reporting frequency:	Annual			
Reported value:	PA	N_y	P_h	$P_y = N_y \times P_h$
	1	14,000	4.5	63,000
	2	200	4.42	884
	3	100	4.54	454
	4	100	4.61	461
	5	14,000	4.52	63,280
	6	14,000	4.62	64,680
	7	700	4.51	3,157
	8	16,000	4.52	72,320
	9	9,000	4.52	40,680

	10	260	4.81	1,251
	11	18,900	5.01	94,689
	12	12,000	4.85	58,200
	13	12,000	4.63	55,560
	14	11,780	4.83	56,897
	15	12,100	4.68	56,628
	16	12,150	4.65	56,498
	17	100	4.48	448
	18	8,710	4.41	38,411
	19	6,617	4.56	30,174
	20	14,600	4.62	67,452
	21	10,000	4.50	45,000
	22	9,000	4.55	40,950
	23	12,000	4.64	55,680
	24	12,000	4.44	53,280
	25	11,000	4.48	49,280
	26	8,000	4.7	37,600
	27	12,000	4.54	54,480
	28	11,000	4.58	50,380
	29	15,150	4.72	71,508
	30	4,622	4.81	22,232

	Total	282,089		1,305,513
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes			
Details of monitoring equipment:	Value obtained from monitoring survey of samples /13/ and data base /28/.			
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data in MR has been compared with monitoring survey records /13/ and the ER sheet /02/. The total number of SDWPs has been cross checked with the database /28/ and evidence to demonstrate water purifier as free of cost to the user /12/ as provided by the PP.			
How were the values in the monitoring report verified?	NA			
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place.			
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA			

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of VCS PD):	Quantity of purified water in year y QPW _y
Measuring frequency/Time Interval:	Annual

Reporting frequency:	Annual	
Reported value:	PA	QPW _y
	1	27,937,980
	2	1,012,534
	3	447,077
	4	520,451
	5	1,295,974
	6	4,650,076
	7	1,898,259
	8	36,600,694
	9	3,779,940
	10	941,252
	11	16,496,189
	12	21,673,273
	13	19,900,134
	14	11,222,339
	15	11,318,299
	16	14,456,141
	17	498,521
	18	6,915,741
	19	6,457,625

	20	12,658,920
	21	29,088,000
	22	24,834,264
	23	13,975,680
	24	2,820,913
	25	35,395,226
	26	19,130,616
	27	2,276,324
	28	21,660,309
	29	12,322,301
	30	1,967,734
	Total	364,152,785
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes	
Details of monitoring equipment:	NA, value is based on the equation: $QPW_y = P_y \times QPW_{PP} \times \text{Number of operating days}$	
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data in MR has been compared with monitoring survey records /13/ and the ER sheet /02/. The total number of SDWPs has been cross checked with the database /28/ and evidence to demonstrate water purifiers as free cost /12/ as provided by the PP.	
How were the values in the monitoring report verified?	The value has been verified by the distribution records and by checking the calculations from ER sheet	

Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of VCS PD):	m, Fraction of functional appliances that are providing the SDWP
Measuring frequency/Time Interval:	Annual
Reporting frequency:	Annual
Reported value:	1
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	NA
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data in MR has been compared with Microbiological testing certificate /11/ and the ER sheet /02/. Verification team confirms that the Microbiological testing certificate of Department of Environmental Quality Analysis (Institute of Environmental Technology) is a third party who conducted the test and the Center's laboratories have been recognized by VILAS in accordance with international standards ISO/IEC 17025 since 2021 and continue to be accredited until now /26/ which also

	comes under Ministry Of Science and Technology Bureau. This satisfies the requirement of of para. 4 (c) of Data/Parameter table 11 and Box 3 of AMS-III.AV, v.08.0. As per explanation in section 4.1 of MR, the sampling plan has included the provision to collect information for records of replacement of appliances, filters, and maintenance in accordance with registered VCS PD /23/. The people in charge of sampling are also required to collect information and records of replacement of appliances, filters and maintenance of sampled end-user if any. In addition, during the distribution PP has instructed end-users whenever they suspect any damaged or defective of the SDWPs, end-users will inform PP immediately so PP can conduct maintenance or replacement of the components of SDWP. The replacement/ maintenance records are signed by end-user and archived & recorded in the database system and traceable base on SDWP serial number. This was used by PP to cross check with the information collect onsite. During this monitoring period, all the sampled SDWP are in good condition, and there was no maintenance & replacement activity was recorded. This information has been verified by checking the database /28/, interviewed with end-users during onsite visit.
How were the values in the monitoring report verified?	The value has been verified by microbiological testing report an interview with the PP.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in	NA

accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of VCS PD):	Check for SDWP public distribution network
Measuring frequency/Time Interval:	Annual
Reporting frequency:	Annual
Reported value:	No public distribution network supplying SDWP is installed at project area
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	NA
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data in MR has been compared with the confirmation from local authorities, which is the provincial Women's Union /25/. Women's Union is an agency with all levels from national to local (village, hamlet). The provincial Women's Union through their network at village & hamlet can know exactly if there is any public distribution network supplying SDW in that area or not. So, before distributing at new area, PP required the provincial Women Union to send an official letter to confirm that the WP distribution locations are places that do not have access to clean water. This confirmation /25/ has been verified by DOE. The random survey by questionnaires for end user were also used to check if there is a public distribution network supplying SDW is installed also.

	Thus, verification team through checking the confirmation and interview with end-user during onsite visit can confirm that the monitoring of this parameter complies with the requirements detailed in Data / Parameter table 13 of AMS-III.AV, v.08.0.
How were the values in the monitoring report verified?	The value has been verified by interviewing the end users during the site visit to cross check the information provided in the monitoring survey records and also by interviewing the PP.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of VCS PD):	Quality of safe drinking water
Measuring frequency/Time Interval:	Once every two years
Reporting frequency:	Once every two years
Reported value:	-
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	NA

If applicable, has the reported data been cross-checked with other available data?	Quality of safe drinking water is confirmed by Third party annually. 09 samples for grouped project were sampled and tested. All treated water samples are confirmed to meet the Viet Nam Drinking water Standard and the same has been crosschecked by the microbiological testing report /11/ and by interviewing all 07 samples and PP during the site visit.
How were the values in the monitoring report verified?	The value has been verified by interviewing all the 07 end users during the site visit to cross check the information provided in the monitoring survey records and also by interviewing the PP.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

The verifier based on the above verified equations and the parameter values to replicate the annual emission reductions calculation as table below:

PA	QPW _y	m	X _{Boil}	BL _{fuel,i}	SEC	Fi	EF _{fossilfuel,i}	BE _y	LE _y	ER _y
PA 1	27,937,980	1	0.9909	0.9485	3574.8	0.9403	85.7	7,564	378	7,186
PA 2	1,012,534	1	1	0.9638	3574.8	0.9403	85.7	281	14	267
PA 3	447,077	1	1	0.9608	3574.8	0.9403	85.7	124	6	118
PA 4	520,451	1	1	0.9819	3574.8	0.9403	85.7	147	7	140
PA 5	1,295,974	1	1	0.976	3574.8	0.9403	85.7	364	18	346
PA 6	4,650,076	1	1	0.985	3574.8	0.9403	85.7	1,319	66	1,253
PA 7	1,898,259	1	1	0.9266	3574.8	0.9403	85.7	506	25	481
PA 8	36,600,694	1	1	0.9459	3574.8	0.9403	85.7	9,973	499	9,475
PA 9	3,779,940	1	1	0.9544	3574.8	0.9403	85.7	1,039	52	987
PA 10	941,252	1	1	0.9548	3574.8	0.9403	85.7	259	13	246
PA 11	16,496,189	1	1	0.9612	3574.8	0.9403	85.7	4,568	228	4,339
PA 12	21,673,273	1	1	0.9669	3574.8	0.9403	85.7	6,037	302	5,735

PA 13	19,900,134	1	1	0.9759	3574.8	0.9403	85.7	5,594	280	5,315
PA 14	11,222,339	1	1	0.9578	3574.8	0.9403	85.7	3,096	155	2,942
PA 15	11,318,299	1	1	0.9669	3574.8	0.9403	85.7	3,153	158	2,995
PA 16	14,456,141	1	1	0.9789	3574.8	0.9403	85.7	4,077	204	3,873
PA 17	498,521	1	1	0.9759	3574.8	0.9403	85.7	140	7	133
PA 18	6,915,741	1	1	0.9726	3574.8	0.9403	85.7	1,938	97	1,841
PA 19	6,457,625	1	1	0.9458	3574.8	0.9403	85.7	1,759	88	1,671
PA 20	12,658,920	1	0.9970	0.9674	3574.8	0.9403	85.7	3,517	176	3,341
PA 21	29,088,000	1	1	0.9424	3574.8	0.9403	85.7	7,897	395	7,502
PA 22	24,834,264	1	1	0.9392	3574.8	0.9403	85.7	6,719	336	6,383
PA 23	13,975,680	1	1	0.9699	3574.8	0.9403	85.7	3,905	195	3,710
PA 24	2,820,913	1	1	0.9518	3574.8	0.9403	85.7	773	39	735
PA 25	35,395,226	1	1	0.9578	3574.8	0.9403	85.7	9,766	488	9,278
PA 26	19,130,616	1	1	0.9634	3574.8	0.9403	85.7	5,309	265	5,044
PA 27	2,276,324	1	1	0.9398	3574.8	0.9403	85.7	616	31	585
PA 28	21,660,309	1	1	0.9459	3574.8	0.9403	85.7	5,902	295	5,607
PA 29	12,322,301	1	0.9969	0.9729	3574.8	0.9403	85.7	3,443	172	7,186
PA 30	1,967,734	1	1	0.9666	3574.8	0.9403	85.7	548	27	521

In conclusion, all data and values used by the PP for calculation of emission reduction are verified from reliable and authentic sources including monitoring survey records /13/, MR /01/, and applied methodology /B02/. The emission reductions calculated were compared with the emission reduction spread sheet /02/ and found to be correct. All estimates of the baseline emissions, leakage emissions can be replicated using the data and parameter values provided in the MR. No significant reporting risks have been identified for the data reported.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

CCIPL verification team was able to confirm that the calculations are based on authentic data and the Emission reduction spreadsheets /02/ used to calculate the VCU calculations and all figures were tracked, checked, and found to be consistent.

The quality of supporting evidence submitted to the VVB for verification is adequate and found to be verifiable. The transfer of carbon rights and other supporting documents related to quality and maintenance were checked by the verification team during the on-site audit to confirm the authenticity of the documents and to check the correctness of the calculation.

When verifying the reported emission reductions, CCIPL ensured that there was a clear audit trail that contained the evidence and records that validate the stated figures. All source of documents that form the basis for assumptions and other information underlying the GHG data were checked by the verification team.

When assessing the audit trails, CCIPL also examined:

1. Whether sufficient evidence was available, both in terms of frequency and in covering the full monitoring period
2. The source and nature of the evidence.
3. If comparable information was available from sources other than that used in the monitoring report, CCIPL cross-checked the monitoring report against the other sources to confirm that the stated figures were correct.

CC IPL also assessed that the data collection system met the requirements of the monitoring plan as per the applied methodology /B02/.

Proper data management inclusive of data acquisition and aggregation, data management system is being followed for the project activity.

4.6 Non-Permanence Risk Analysis

N/A

5 VERIFICATION OPINION

Carbon Check (India) Private Ltd., (the VVB) has performed the first (1st) emission reduction verification of the registered VCS project activity “Grouped projects for water purifiers for climate and community action” having VCS ID; 2557. The scope of the activities covers the verification and certification of GHG emissions reductions reported in latest monitoring report /01/. And this report summarizes the findings of the verification of the project, performed on the basis of VCS criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The project activity falls under the group project which involves the distribution of safe drinking water purifiers (SDWPs) in rural communities with no previous water purifiers access. The verification process was performed on the basis of all guidance and criteria as provided in VCS Standard version 4.3 /B01-a/, VCS Program Guide version 4.2 /B01-b/, VCS Validation and Verification Manual version 3.2 /B01-c/ and Registration & Issuance Process version 4.2 /B01-d/.

The component project activities (PA1, PA2, PA3, PA4, PA5, PA6, PA7, PA8, PA9, PA10, PA11, PA12, PA13, PA14, PA15, PA16, PA17, PA18, PA19, PA20, PA21, PA22, PA23, PA24, PA25, PA26, PA27, PA28, PA29 and PA30) were correctly implemented according to selected monitoring methodology, monitoring plan and the registered VCS PD /23/ for the group project activity. The monitoring system was installed, maintained in a proper manner, while collected monitoring data allowed for the verification of the amount of achieved GHG emission reductions. Through the review and on-visit the verification team confirms that the project activity has resulted in emission reductions of 95,318 tCO₂e during the first (01) monitoring period 01/11/2021 to 30/11/2022 as per MR /01/.

CCIPL as a DOE is able to issue a positive verification opinion expressed in the attached Certification statement. And as the result of verification of the project activity of this grouped project, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. Carbon Check (India) Private Ltd. herewith confirm that the project has achieved emissions reductions in the below mentioned reporting period as follows. The project complies with the verification criteria for projects and their GHG emissions reductions or removal set out in VCS criteria. Verified GHG emission reductions and removals in the above verification period:

Table of net emissions reduction during the current monitoring period for overall grouped project activity

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2021 (01/11/2021 - 31/12/2021)	37	0	2	35
2022 (01/01/2022 - 30/11/2022)	100,296	0	5,013	95,283
Total	100,333	0	5,015	95,318

Table is for the details of emission reduction of each project activity as below.

Project activity	Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
PA 1	2021 (01/11/2021 - 31/12/2021)	37	0	2	35
	2022 (01/01/2022 - 30/11/2022)	7,527	0	376	7151
PA 2	2022 (15/04/2022 - 30/11/2022)	281	0	14	267
PA 3	2022 (20/05/2022 - 30/11/2022)	124	0	6	118
PA 4	2022 (21/04/2022 - 30/11/2022)	147	0	7	140
PA 5	2022 (18/11/2022 - 30/11/2022)	364	0	18	346

PA 6	2022 (17/05/2022 – 30/11/2022)	1,319	0	66	1,253
PA 7	2022 (05/07/2022 – 30/11/2022)	537	0	27	510
PA 8	2022 (04/05/2022 – 30/11/2022)	9,973	0	499	9,475
PA 9	2022 (21/07/2022 – 30/11/2022)	1,039	0	52	987
PA 10	2022 (07/07/2022 – 30/11/2022)	259	0	13	246
PA 11	2022 (05/06/2022 – 30/11/2022)	4,568	0	228	4,339
PA 12	2022 (14/06/2022 – 30/11/2022)	6,037	0	302	5,735
PA 13	2022 (07/04/2022 – 30/11/2022)	5,594	0	208	5,315
PA 14	2022 (09/05/2022 – 30/11/2022)	3,096	0	155	2,942
PA 15	2022 (09/05/2022 – 30/11/2022)	3,153	0	158	2,995
PA 16	2022 (18/04/2022 – 30/11/2022)	4,077	0	204	3,873
PA 17	2022 (22/04/2022 – 30/11/2022)	140	0	7	133
PA 18	2022 (09/05/2022 – 30/11/2022)	1,938	0	97	1,841
PA 19	2022 (24/05/2022 – 30/11/2022)	1,759	0	88	1,671
PA 20	2022 (12/05/2022 – 30/11/2022)	3,517	0	176	3,341
PA 21	2022 (22/07/2022 – 30/11/2022)	7,897	0	395	7,502

PA 22	2022 (08/06/2022 – 30/11/2022)	6,719	0	336	6,383
PA 23	2022 (23/06/2022 – 30/11/2022)	3,905	0	195	3,710
PA 24	2022 (23/04/2022 – 30/11/2022)	773	0	39	735
PA 25	2022 (24/05/2022 – 30/11/2022)	9,766	0	488	9,278
PA 26	2022 (24/06/2022 – 30/11/2022)	5,309	0	265	5,044
PA 27	2022 (20/06/2022 – 30/11/2022)	616	0	31	585
PA 28	2022 (22/06/2022 – 30/11/2022)	5,902	0	295	5,607
PA 29	2022 (09/05/2022 – 30/11/2022)	3,443	0	172	3,271
PA 30	2022 (21/09/2022 – 30/11/2022)	548	0	27	521
Total		100,333	0	5,015	95,318

Year	Ex-ante emissions reductions/re movals	Achieved emissions reductions/re movals	Percent difference	Justification for the difference
PA1 (01/11/2021 – 31/12/2021)	9,724	35	99.64%	- The project planned to distribute 28,000 SDWPs in in the project activity 1, but during this period only 100 SDWPs was distributed under project activity 1. - Not all the SDWPs was distributed/ operated from the start date of the Grouped project.
PA1 (01/01/2022 – 30/11/2022)	53,966	7151	86.75%	- The project planned to distribute 28,000 SDWPs in in the project activity 1, but during this period only total

				14,000 SDWPs was distributed under project activity 1. - Not all the SDWPs was distributed/operated from the start date of the Grouped project.
Total	64,014	7,186	88.77%	

APPENDIX 1: ABBREVIATIONS

AQL	Acceptable Quality Level
BAU	Business As Usual
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Ltd.
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO₂	Carbon Dioxide
CO_{2e}	Carbon Dioxide Equivalent
DOE	Designated Operational Entities
DVR	Draft Validation Report
EB	CDM Executive Board
EF	Emission Factor
FA	Final Approval
FAR	Forward Action Request
FVR	Final validation Report
GHG	Greenhouse gas(es)
GWh	Giga Watt Hour
IPCC	Intergovernmental Panel on Climate Change
MW	Megawatts
MWh	Mega Watt Hour
OSV	On Site Visit
QC/QA	Quality control/ Quality assurance
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
UQL	Unacceptable Quality Level
VCS	Verified Carbon Standard
VVB	Validation / Verification Body

APPENDIX 2: REFERENCE DOCUMENTS

Ref	Document
/01/	1. Monitoring report for Grouped projects for water purifiers for climate and community action (version 01; dated: 16/12/2022) 2. Monitoring report for Grouped projects for water purifiers for climate and community action (version 02; dated: 09/01/2023) 3. Monitoring report for Grouped projects for water purifiers for climate and community action (version 03; dated: 30/01/2023) 4. Monitoring report for Grouped projects for water purifiers for climate and community action (version 04. Dated: 20/04/2023) 5. Monitoring report for Grouped projects for water purifiers for climate and community action (version 05. Dated: 25/05/2023)
/02/	ER calculation spread sheet correspond to /01-a/ "02. Water Purifiers 2557_ER calculation_20.04.23"
/03/	Evidence for the start date of project activity 1 and the grouped project.
/04/	Technical specifications of the SDWP from manufacturer including the life span
/05/	Proof of right of relinquishment of VERs from the end users to the project proponent
/06/	Beneficiary agreement confirming that the traditional wood stoves were used for boiling water in the baseline situation
/07/	Baseline survey records (for the parameters QPWpp, BLfuel,l, Xboil) implemented
/08/	Local stakeholders' consultation meeting records.
/09/	Project implementation schedule.
/10/	Evidence of unique identification system of the SDWP.
/11/	Microbiological test report from an accredited laboratory.
/12/	Evidence to demonstrate water purifiers as free of cost to the users.
/13/	Sample survey or reference literature used to determine the types of stoves and fuel used in the baseline scenario.
/14/	Monitoring survey questionnaire template
/15/	SDWP distribution agreement
/16/	Training plan/ records of personnel appointed for surveys.
/17/	Declaration from the project proponent that the project is not creating any other form of environmental credit under any specific program.

/18/	Declaration from the project proponent that the project has not or shall not claim carbon credits on any other scheme after Registration of the project under VCS.
/19/	f _{NRB} calculation report from a third party.
/20/	Evidence for the values used for the ex-ante VER calculation.
/21/	Equipment contract as evidence of the cost for Safe Drinking Water Purifiers.
/22/	Documents for simple cost analysis for each project activity.
/23/	Latest VCS Project Document and its corresponding Validation Report
/24/	Random generator
/25/	Confirmation about safe drinking water system for 30 provinces in the project
/26/	Certificate of accreditation of third-party laboratory who conducted the Microbiological test
/27/	Annual reports by Women Union to SIPCO & by SIPCO to donor
/28/	Database & distribution records
/29/	Grievance form and response from PP

Background Documents

Ref	Document
/B01/	VCS Requirements - VCS Standard (v4.4, updated 17/01/2023) - VCS Program Guide (v4.3, updated 17/01/2023) - VCS Validation and Verification Manual version (v3.2, dated 19/10/2016) - Registration & Issuance Process (v4.3, updated 17/01/2023) - VCS Program Definitions (v4.3, updated 21/12/2022) - VCS Verification template (v4.2, updated 21/12/2022)
/B02/	Applied baseline and monitoring methodology AMS-III. AV version 08.0 “Low greenhouse gas emitting safe drinking water production system”
/B03/	“Standard for sampling and surveys for CDM project activities and programme of activities” (version 09.0) - Guidelines for sampling and surveys for CDM project activities and Programme of Activities (version 04)
/B04/	Website and links: - IPCC (http://www.ipcc-nggip.iges.or.jp) http://cdm.unfccc.int

	3. http://www.verra.org
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APPENDIX 3: CERTIFICATES OF COMPETENCE



Carbon Check (India) Private Limited

Certificate of Competency

Mr. Nguyen Hong Ngoc Trang

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC 14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ SDG+	☐ Social no-harm(S+)	☐ Environment no-harm(E+)	☐ CCB Expert
☐ Financial Expert	☒ Local Expert for Vietnam		

in the following Technical Areas:

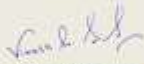
☐ TA 1.1	☒ TA 1.2	☐ TA 2.1	☐ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☐ TA 13.1	☐ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date

1st January 2023

Expiry Date

31st December 2023



Mr. Vikash Kumar Singh
Compliance Officer



Mr. Amit Anand
CEO

CCIRL_FMA 7.9 Certificate of Competency_V2.1_012023



Carbon Check (India) Private Limited

Certificate of Competency

Ms. Aparna Choudhary

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC 14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	☐ CCB Expert
☒ Financial Expert	☒ Local Expert for India		

in the following Technical Areas:

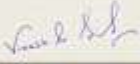
☐ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☐ TA 13.1	☐ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date

1st January 2023

Expiry Date

31st December 2023



Mr. Vikash Kumar Singh
Compliance Officer



Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023



Carbon Check (India) Private Limited

Certificate of Competency

Ms. Indumathi C

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC 14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☒ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	☐ CCB Expert
☒ Financial Expert	☒ Local Expert for India and Sri Lanka		

in the following Technical Areas:

☒ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☒ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date

1st January 2023

Expiry Date

31st December 2023



Mr. Vikash Kumar Singh
Compliance Officer



Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

APPENDIX 4: FINDING LOGS

Table 1. CLs from this verification

Finding	CL 01		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding (VVB)	Please provide the “simple cost analysis” for each new project activity to cross-check the justification for inclusion in criteria No.5.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The simple cost analysis for each project activity has been added in section 3.3. of revised PD		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR, PP has include the justification that PP distributed SDWPs free of cost to users i.e. households, hence there is no financial return from the programmes other than revenue from sale of GHG credits. As each SDWP has costs associated with the purchase and distribution of the SDWPs, these new project activity instances will not occur in absence of the GHG credits revenue. The action is not financially viable without the support of revenues from the sale of GHG credit. As the end-user doesn't benefit from a direct financial return and procuring SDWPs requires capital, which is a barrier to rural consumers due to difficulties in accessing capital, a wide dissemination of SDWPs in the Host Country is unlikely. The new project activity instances will alleviate these barriers by promoting free distribution of ICSs to end-users. Hence in line with para 10 a) of tool 21, version 13.1, the new project activity instances face investment barrier and its additional. The verification team has reviewed the simple cost analysis and cross-check with different supporting documents as well as interview with end-user onsite and found that this is correct.		
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Table 2. CARs from this verification

Finding	CAR 01		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	In table 1 of Section 1.1, the numbers of water purifiers distributed on 10/2022 & 11/2022 are inconsistent with the numbers distributed provided in ER calculation sheet & database. The PP is requested to review the figures reported.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The numbers distributed in 10&11/2022 in ER calculation sheet has been revised, amount of ER has been updated accordingly.		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR, it is clear that PP has revised the mistake. The number of water purifiers distributed on 10/2022 and 11/2022 have been revised in ER sheet. Ver 02 and found to be consistent with MR.		
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 02		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	Throughout the whole MR, the PP is requested to use the consistent format for the date		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	Format of the date has been updated in the whole MR		
VVB Assessment #1	On the basis of review of the updated MR, it is clear that PP has revised the mistake.		

<i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 03		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	In section 4.1: - Parameter QPW_{pp}, why the values reported in the table inconsistent with the values in ER calculation sheet - Parameter $BL_{fuel, I}$, why the values reported in the table inconsistent with the values in ER calculation sheet - Parameter X_{boil}, why the values reported in the table inconsistent with the values in ER calculation sheet - Parameter P_h, why the values reported in the table inconsistent with the values in ER calculation sheet Please review & revise.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The value of parameter QPW_{pp}, $BL_{fuel, I}$, X_{boil}, and P_h in revised MR have been updated to consistent with ER sheet		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR, it is clear that PP has revised the mistake. The verification team has reviewed all the values reported in the MR and cross-checked with different supportive documents and confirmed that all are consistent now.		
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding		CAR 04	
Classification	☒ CAR ☐ CL ☐ FAR		
Description of finding (VVB)	In section 4.2: - The values of QPW_y reported are not consistent with the numbers calculated in ER sheet. - The values of N_y reported are not consistent with the numbers calculated in ER sheet Please review & revise.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The values of QPW_y and N_y has been updated in revised MR for consistency with ER sheet		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR, it is clear that PP has revised the mistake., the value of QPW_y was found to be consistent with number in ER sheet now.		
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding		CAR 05	
Classification	☒ CAR ☐ CL ☐ FAR		
Description of finding (VVB)	In section 4.3: - The calculation of sample size for parameter m is not consistent with the calculation in ER sheet Please review & revise.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	Parameter m is a proportion value, the updated equations and sample size for parameter m have been updated in MR. Moreover, the change in sampling size calculation of the parameter m is mentioned in the project description deviation sections of MR. The total sample size of para m is 43 samples		

VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR, it is clear that there is a deviation with the project description in the registered VCS PD, it has been revised and found to be accurate now.
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 06		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	In section 5.4: - The total emission reduction reported in the MR is not consistent with the number in ER sheet Please review & revise.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The total emission reduction has been updated In revised MR and ER sheet.		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR, it is clear that PP has revised the mistake., the value of total Emission reduction was found to be consistent with number in ER sheet now.		
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 07		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	In Section 2.2 of the MR, PP described the planned actions to be taken to communicate with the local stakeholders, however,		

	lacks clarity on whether any real action has been taken during the monitoring period.
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	All the planned actions have been implemented as per procedure explained in Section 2.2. For better understanding, all of feedbacks from stakeholders and households have been described in mechanism for ongoing communication of section 2.2 of revised MR, version 04, dated 20/04/2023.
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR & supportive document included annual reports & records, the VVB verifier confirmed that PP has implemented ongoing consultation procedure as per registered VCS PD. All the feedback received during the ongoing consultation procedure has been included properly in the MR. The verifier has reviewed all the feedback & supportive documents and confirmed that only positive feedbacks, no negative comment. All has been addressed by SPCO in their answer forms sent back to Woman Union so they can feedback to local stakeholder properly.
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 08		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	Section 5.1 of the monitoring report refers to baseline surveys conducted in order to calculate, for each new project instance added in this monitoring period, the values of: QPW_{pp} , $BL_{fuel,l}$, X_{boil} and Ph . However, there is no information on these baseline surveys (such as entity that conducted them, number of samples taken how it has been ensured that they are representative, how the values have been measured, etc).		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The information on these baseline surveys including entity conduct them, number of samples and how it has been ensured that they are representative, and the measuring of value has been provided in section 5.1 of revised MR, version 04, dated 20/04/2023.		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR & supportive document included baseline survey & records /7/ provided during the verification, the VVB verifier confirmed that numbers of sample size have been correctly calculated. The baseline survey was sufficiently implemented to ensure the survey result is representative of the entire population. The dissimilarity (such as village, individuals...) were chosen randomly so that each element of the population has the same probability of being selected. The survey method was used is in-person interview by questionnaires to ensure reliability and validity of information.		

	Provincial Woman Union's staff at local level (hamlet, village, etc) who has been trained to conduct the survey oversaw the interviews with selected household, to make sure informants who have limited education fully understanding of the questions before making answers. The list of interviewed households and survey records were transparently reported in each of baseline surveys reports which can be verified and allow for the replication of the survey result calculation.
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 09		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	The monitoring report, Section 5.2 states that the source of data used to check if there is a public distribution network supplying SDW is the confirmation from local authorities. However, it remains unclear which local authority was consulted and how the confirmation was obtained for each of the new areas included in the project instances.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	1. Before distribution at new area, the provincial Women Union send an official letter confirming that the WP distribution locations are places that do not have access to clean water. This confirmation has been provided to DOE for checking in supporting documents. 2. The random survey by questionnaires for end user were used to check if there is a public distribution network supplying SDW is installed. If the household accessed to safe drinking water, the emission reduction will be discarded (according to proportion). The explained information has been added in the "Description of measurement method and procedures to be applied" in monitoring table of para "check for SDWP public distribution network" in section 4.2. of updated MR, ver 04, dated 20/04/2023.		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR & supportive document included confirmation from local authority /25/ & interview with local end-users during onsite visit, the VVB verifier confirmed that the information was correctly provided in the MR. Provincial Woman Union is the authority who provided the confirmation on water distribution network. This is an agency with all levels from central to local (village, hamlet). The provincial Women's Union through their network at village & hamlet can know exactly if there is any public distribution		

	network supplying SDW in that area or not. Thus, the verifier accepted it.
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 10		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	The project applies a default factor of 0.10 for the efficiency of the water boiling system being replaced (n_{wb}), which can be used if the replaced system or the system that would have been used is a three stone fire or a conventional system for woody biomass. Further, Section 3.3 of the monitoring report states that: "Each household in project activities must sign a beneficiary agreement to commit that they are using traditional cookstove to boil water", when demonstrating that each household complies with the eligibility criteria number 8 and the use of a default value of 0.10 for the efficiency of the water boiling system being replaced (n_{wb}). However, this statement refers to planned activities and does not demonstrate how each activity instance complies with the described requirements.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	PPs have signed a distribution contract with the provincial Women's Union, this is an agency with all levels from central to local (village, hamlet), they are close the households and can know exactly these households who are using the traditional cookstove for cooking and boil water and they can select the correct beneficiaries. Before starting the distribution of water purifiers at new area, PP conduct a feasibility check (through baseline survey, using random sample) through which the proportion using traditional cookstove to boil water is being confirmed. If the proportion of using other cook stove to boil water is significant, PPs will be conservatively excluded households using fossil fuels and combination of fuels from the proportion of households using the wood to calculate ER. At the time of distribution, households are checked for eligibility criteria 8. Households indicating as their primary fuel anything else than woody biomass are ineligible for the carbon programme. This shall be ensured before household receiving the water purifier as the households have to commit and sign the beneficiary agreement with SIPCO. In case of there are still households using other fossil fuel to boil water, the ER is created from them will be discarded.		

	The distribution contract with Viet Nam Women Union and the new baseline surveys reports for new areas were distributed to DOE in validation period. The detail explanation for using of a 0.1 default value for nwb have been added in section 3.3. of updated MR, dated 20/04/2023.
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR & supportive document included confirmation from local authority /15/ & interview with local end-users during onsite visit, the VVB verifier confirmed the activity to ensure the compliance with criteria 8 has been implemented. The details have been included properly in the updated MR for clarity.
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 11		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB) 	As per page 40 of the project description, for the monitoring of parameter m, the use of appliances shall be monitored through self-report measures (survey data from respondents) as well as physical signs that are observable (e.g. wetness of the unit, water in storage receptacle, functionality of parts) in line with the “Objective measures of functionality and use of project appliances” described in the Appendix of AMS-III.AV, v.08.0. Further, the sampling plan shall also include provisions to collect information for records of replacement of appliances, filters, and maintenance. This information is not included in the monitoring report.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The information about the monitoring of parameter m, the use of appliances shall be monitored through survey questionnaires as well as physical signs that are observable (e.g. wetness of the unit, water in storage receptacle, functionality of parts). All of sample has been tested by Department on Environmental Quality Analysis Institute of Environmental Technology. This is the third party that conducted the test during monitoring period. Furthermore, the information for records of replacements of appliances, filter and maintenance have been add in the table of parameter m in section 4.2 of the updated MR, version 04, dated 20/04/2023.		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of</i>	On the basis of review of the updated MR & supportive document included database records & interview with local end-users during onsite visit, the VVB verifier confirmed in line with		

<i>non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	the “Objective measures of functionality and use of project appliances” described in the Appendix of AMS-III.AV, v.08.0. The sampling plan also include provisions to collect information for records of replacement of appliances, filters, and maintenance. It has been clearly explained in the revised MR. The verifier has cross-checked by interview with end-users during the onsite visit.
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 12		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	The monitoring reports do not indicate which was the third party that performed the quality of safe drinking water and the microbiological tests and its accreditation entity.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	Department on Environmental Quality Analysis Institute of Environmental Technology is the third party that performed the quality of safe drinking water and the microbiological tests during this monitoring period. The Laboratories has been assessed and found to conform with the requirements of international standards ISO/IEC 17025:2017 in accordance Certificate of Accreditation of Ministry of Science and Technology Bureau of Accreditation (BoA). This information has been provided in revised MR, dated 20/04/2023. The certification of accreditation of third party have been provided to DOE for checking.		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR & supportive document includes Certificate of Accreditation of laboratories conducted the test, the verifier confirmed that all information has been provided correctly in the revised MR.		
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 13		
Classification	☒ CAR	☐ CL	☐ FAR

Description of finding (VVB)	The monitoring report, Section 5.3 does not include the leakage calculation required as per para. 21 of AMS-III.AV, v.08.0.
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The calculation about leakage has been added in section 5.3 of revised MR, version 04, dated 20/04/2023.
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR & supportive document includes calculation spreadsheet, the verifier confirmed that the calculation of leakage has been included correctly in the revised MR.
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 14		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	The table in Section 1.1 of the monitoring report does not include the information related to the validation of the project activity.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	Information about validation has been provided in table of section 1.1 of revised MR, version 04, dated 20/04/2023.		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR & supportive document, the verifier confirmed that the validation of the project activity has been correctly included in the revised MR		
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 15		
Classification	☒ CAR	☐ CL	☐ FAR

Description of finding (VVB)	The table in Section 5.4 of the monitoring report does not specify breakdown of GHG emission reductions and removals by calendar year.
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The detail of calculation of each the project activity components has been provided in section 5.4 of revised MR, version 04, dated 20/04/2023
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR & supportive document includes calculation spreadsheet, the verifier confirmed that the breakdown of GHG emission reduction by calendar year has been included correctly in the revised MR.
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed