



# Verified Carbon Standard

## GROUPED PROJECTS FOR WATER PURIFIERS FOR CLIMATE AND COMMUNITY ACTION PHASE 2



Document Prepared by

Carbon Check (India) Private Limited

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<b>Client</b>	Sustainability Investment Promotion and Development Joint Stock Company (SIPCO)
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## Summary:

Sustainability Investment Promotion and Development Joint Stock Company (SIPCO) has appointed Carbon Check (India) Private Ltd., to carry out the validation of the project “Grouped Projects For Water Purifiers For Climate And Community Action Phase 2”, with regards to the relevant requirements of VCS Standard Version 4.5 (dated 29/08/2023)/B01-1/.

The goal of the grouped project activity is to install low greenhouse gas emitting safe drinking water purifier (SDWP) in the households/communities (hereafter "users") of Viet Nam. As a result, the proposed project activity aims to reduce 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. This directly leads to reduced greenhouse gas. It is possible to help improve public health by reducing the use of wood fuel. Furthermore, the proposed project can help Viet Nam respond to climate change and develop sustainably.

The 1st project activity instance under this grouped project will provide “20,000” SDWP in “Yen Bai” Province for free to households in rural communities with no previous water purifiers access/12/ All of the project instances that will be included in this grouped project will be from Viet Nam. The annual average GHG emission reductions of the project activity 1 are estimated to be “40,156” tCO<sub>2</sub>e/annum.

The purpose of the validation is to have a thorough and independent assessment of the proposed project activity against the applicable VCS requirements, in particular, the project's baseline, monitoring plan and compliance with the relevant VCS and host Party criteria. These are validated in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Validation 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. Carbon Check’s objective is to perform a thorough, independent assessment of the validation of the project activity.

Validation scope is defined as an independent and objective review of the Project Description (PD). The PD is reviewed against the relevant criteria and guidance documents provided by VCS which include the following: VCS Program Guide (v4.4, dated 29/08/2023), VCS Standard (v4.5, dated 29/08/2023), Program Definitions (v4.4, dated 29/08/2023), Registration & Issuance Process (v4.4, dated 04/10/2023) VCS Validation and Verification Manual (v3.2, dated 19/10/2016)/B01/ applicable at the time in order to confirm that the project meets the applicability conditions of the selected baseline and monitoring methodology applied for this project is CDM approved small scale methodology - AMS – III.AV: “Low greenhouse gas-emitting safe drinking water production systems”, version 08./B02/, also assess the claims and assumptions made in the PD without limitation on the information provided by the project participants.

### The method and criteria used for validation

The validation consists of the following four phases:

- I. A desk review of the project description documents
  - A review of data and information.
  - Cross checks between information provided in PD and information from sources with all necessary means without limitations to the information provided by the project proponent.
- II. Interviews with project stakeholders
  - Interviews with relevant stakeholders in the host country with personnel having knowledge of the project development via telephone, email or direct on-site visits.

- Cross-checking between information provided by interviewed personnel with all necessary means without limitations to the information provided by the project proponent.
- III. Reference to available information relating to projects or technologies similar to project under validation and review based on the approved methodology being applied for the appropriateness of formulae and accuracy of calculations.
- IV. The resolution of outstanding issues and the issuance of the final validation report and opinion.

**The number of findings raised during the validation**

During the course of validation, a total of 28 findings were raised, which include:

20 Corrective Action Requests (CARs);

08 Clarification Requests (CLs);

00 Forward Action requests (FARs).

**Any uncertainties associated with the validation**

There are no uncertainties associated with the validation of the project activity. The validation has been done with a reasonable level of assurance.

**Summary of the validation conclusion**

Carbon Check (India) Private Ltd. concludes the validation with a positive opinion that the VCS Grouped Project “Grouped Projects For Water Purifiers For Climate And Community Action Phase 2” as described in the PD (version 04.5, dated 27/10/2023) /01/, meets all applicable VCS requirements, including those specified in the VCS Standard (v4.5, dated 29/08/2023)/B01-1/, relevant methodology, tools and guidelines.

- The selected baseline and monitoring methodology AMS-III.AV: “Low greenhouse gas-emitting safe drinking water production systems”, version 08 /B02/, is applicable to the project and correctly applied. Carbon Check (India) Private Ltd., therefore, requests the registration of the project as a VCS-grouped project, with a reasonable level of assurance.

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# 1 INTRODUCTION

## 1.1 Objective

Sustainability Investment Promotion and Development Joint Stock Company (SIPCO) has appointed the VVB, Carbon Check (India) Private Ltd. to perform a validation of the VCS Grouped Project “Grouped Projects For Water Purifiers For Climate And Community Action Phase 2”/11/. This report summarizes the findings of validation of the project, performed on the basis of the VCS Program Guide (v4.4, dated 29/08/2023), VCS Standard (v4.5, dated 29/08/2023), Program Definitions (v4.4, dated 29/08/2023), Registration & Issuance Process (v4.4, dated 04/10/2023), VCS Validation and Verification Manual (v3.2, dated 19/10/2016)./B01/ Validation 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 validation of the grouped project.

The purpose of a validation 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 validated in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Validation 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, VCs.

## 1.2 Scope and Criteria

The validation scope is defined as an independent and objective review of the Project Description (PD), project design, the project's baseline study and monitoring plan and other relevant documents. The PD is reviewed against the relevant criteria and decisions by the VCS Program, and against the approved baseline and monitoring methodology. Carbon Check has employed a risk-based approach in the validation, focusing on the identification of significant risks and the reliability of project monitoring and generation of emission reductions.

The validation is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for the improvement of the project design.

The validation is carried out on the basis of the following requirements, applicable for this grouped project:

- VCS Program Guide (v4.4, dated 29/08/2023)
- VCS Standard (v4.5, dated 29/08/2023)
- Program Definitions (v4.4, dated 29/08/2023)
- Registration & Issuance Process (v4.4, dated 04/10/2023)

- VCS Validation and Verification Manual (v3.2, dated 19/10/2016)
- AMS–III.AV: “Low greenhouse gas-emitting safe drinking water production systems”, version 08
- Other relevant rules, including the host country legislation.

### 1.3 Reasonableness of Assumptions

The approach used by VVB for validation of the project activity is built on a thorough understanding of the risk associated with reporting data on GHG emissions and the controls used to mitigate them. VVB conducted the validation by reviewing and substantiating all the evidence and other relevant information and explanations from sources to provide reasonable assurance that estimated GHG emissions reductions are fairly reported. Validation team checked the criteria of VCS Program guide/**B01-2/**, & VCS standard/**B01-1/**, criteria of applied methodology /**B02/** and compliances with relevant laws and regulations. The validation is planned and performed by obtaining evidence and other information and explanations that validation team considers necessary to give reasonable assurance that reported estimated GHG emission reductions are fairly stated and in compliance with the standards and guidelines of VERRA.

CCIPL has conducted an on-site audit for the project activity (explained in detail in section 2.4 below). All documentary evidence was checked, and a physical site visit was conducted with PP representatives, site personnel and consultants to arrive at a validation conclusion by the assessment team. Validation is carried out in conformity of all above-mentioned details and it is confirmed that information provided by project developer is accurate and estimated GHG emissions reductions are calculated appropriately on the basis of the approved baseline and monitoring methodology/**B02/** and VCS standard version 4.5/**B01-1/**

### 1.4 Summary Description of the Project

The project involves distribution of safe drinking water purifiers (SDWP) in Viet Nam. The SDWP disseminated through this project to households in rural communities with no previous water purifiers access in Republic of Viet Nam. The grouped project activity applied approved & baseline methodology, CDM approved small scale methodology - AMS–III.AV: “Low greenhouse gas-emitting safe drinking water production systems”, version 08/**B02/**.

Grouped project activity will distribute a total of 20,000 SDWP during the first project activity, free of cost to the households. /**12/** The grouped project activity started on 19/02/2023, which is also be the distribution date of 1st SDWP under this grouped project.

The crediting period for the grouped project activity is 10 years fixed. (19/02/2023 to 18/02/2033). The distribution of SDWP will achieve 40,156 tCO<sub>2e</sub> emission reductions annually and 401,560 tCO<sub>2e</sub> over the period of whole fixed crediting period for the first project activity.

## 2 VALIDATION PROCESS

### 2.1 Method and Criteria

Sustainability Investment Promotion and Development Joint Stock Company (SIPCO) has appointed the VVB, Carbon Check (India) Private Ltd. /11/, to carry out the validation of the project “Grouped Projects For Water Purifiers For Climate And Community Action Phase 2”, with regards to the relevant requirements of VCS Standard Version 4.5 (dated 29/08/2023)/B01-1/. The validation includes a thorough and independent assessment of the proposed grouped project against the applicable VCS requirements, in particular, the project's baseline, additionality, monitoring plan and the grouped project's compliance with relevant VCS and host party criteria. The validation involves assessment of the grouped project and to confirm that the grouped project meets the applicability conditions of the selected methodology, CDM approved small scale methodology - AMS-III.AV version 08b/B02/ and also assess the claims and assumptions made in the PD /01/ without limitation on the information provided by the project participants. The overall validation was conducted using Carbon Check'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 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 documented is sound and reasonable and meets the stated requirements and identified criteria.

The VCS project description/01/, emission reduction calculation spread sheet/02/ and supporting documents related to the project design and baseline were reviewed as per VCS standard version 04.5 /B01-1/ requirements. The desk review included:

- A review of the data and information presented to verify completeness and consistency in accordance with VCS standard version 04.5 requirements.
- A review of the grouped project description and monitoring methodology, paying particular attention to the applicability conditions of the methodology and baseline and additionality related requirements.
- A review of the monitoring plan and the grouped project's compliance with relevant VCS criteria.

Furthermore, the validation team used additional documentation by third parties like host-party legislation, technical reports referring to the project design or to the basic conditions and technical data.

The VCS PD version 02 dated 08/03/2023 /01/ was initially reviewed and CCIPL requested the PP to present the supporting information and documents. The documents reviewed by CCIPL are listed in Appendix 1 of the report. Through the process of validation, the revised VCS PD /01/ and the supporting



documents were evaluated to confirm the actions taken by the PP to address the CARs and CLs issued by the validation team.

The table in Appendix 1 outlines the documentation reviewed during the validation.

### 2.3 Interviews

The table below describes the onsite interview process and further identifies personnel, including their roles, who were interviewed and/or provided information additional to that provided in the project description /01/ and any supporting documents.

S.No	Date	Name	Organisation	Topic
1	21/05/2023	Ms. Anh Ngo	Sustainability Investment Promotion and Development Joint Stock Company	Project Design Project implementation status Project start date and Project Location Baseline Scenario Baseline Identification and Additionality Qualification and Training Monitoring and reporting documentation Quality assurance management and operating system Social and environmental impacts Local Stakeholders meeting process Compliance with relevant laws Roles and responsibility

2	21/05/2023	Nguyen Thi Bich Nhi Tran Thi Thans Tran The Cuong Phan Thi Hong Van	Women's Union	Information on distribution agreement  Methods of Grievance collection and redressal of grievances
3	21/05/2023	Nguyen Thi Hong Loan Hang Minh Huong Ha Thi Doa	Local Stakeholder Consultation	Baseline identification  Procedure of feedback  Procedure pf grievance submission and grievance redressal
4	21/05/2023	Hoang Thi Loan Ha Thi He Hoang Thi Doc Chao Ta May Tran Thi Nu Naguyen Thi Sinh Hoang Thi Nga Bac Thi Giang Hong Thi Tam Nong Thi Aon Aang Thi Tien	Household	Verification of baseline surveys, cross check of a sample of project participants' samples (Questionnaire, operation surveys/interviews).

## 2.4 Site Visits

Carbon Check has conducted an on-site inspection on 21/05/2023:

Validation Audit involves following:

- An assessment of the implementation and operation of the proposed grouped project through interviews with the representatives of project proponent.

- Confirmation of the pre-project scenario
- Confirmation of the applicability of the methodology and monitoring and controlling instruments and operational arrangements.
- Assessment of the project boundaries
- Assessment of the monitoring provisions by checking the monitoring arrangement

#### Sampling Approach:

PP has done baseline survey/08/ using 90/10 as confidence/precision. This is in line with the applied methodology /B02/ section 5.3 has the details included. The sample size for each parameter is determined following guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0 (EB86, Annex 4) /B05/. PP has surveyed 335 households. This is deemed appropriate to the validation team.

In line with paragraph 26 of the Sampling Standard, the validation team has applied acceptance sampling approach through remote interviews on the baseline survey as part of validation. The project participant had applied sampling approach to determine the baseline, a representative baseline survey/08/ was conducted by the representatives of Project participant. The validation team has chosen acceptance sampling in accordance with paragraph 28 of the sampling standard /B05/.

Applying paragraph 39 (c) of the sampling standard, version 09 /B05/, a sample size of 11 households was chosen (with no discrepant records). A sample size of 11 was determined, based on an AQL of 0.5% and UQL of 20%; producer risk and consumer risk of 10 % each in determining the DOE's sample size Acceptance number (c) thus determined for the sample is 0. However, VVB interviewed 11 households from the baseline survey done by project participants.

The information provided in the baseline survey /08/, has been cross-checked during the on-site inspection. As a part of acceptance sampling, the Validation team could confirm the baseline survey data /08/ with no discrepant records. Thus, PP's set of records has been accepted in line with § 33 of the CDM Standard Sampling and surveys for CDM project activities and programmes of activities, version 09 /B05/

## 2.5 Resolution of Findings

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

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

Corrective action requests (CARs) are issued, where:

- i. Mistakes have been made with a direct influence on project results requiring adjustment 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.

A total 20 CAR, and 08 CLs had been raised and successfully closed. Please refer to Appendix 2 of the report for the details of the CARs/CLs and their closure.

### 2.5.1 Forward Action Requests

No FARs are raised.

## 3 VALIDATION FINDINGS

### 3.1 Project Details

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Audit history	21-May-2023 (onsite visit date)
Sectoral scope	As per UNFCCC /B08/ this grouped project activity falls under Type II – Energy Efficiency Improvement Projects with Sectoral Scope 03 – Energy Demand.
AFOLU project category, if applicable	Not Applicable as the project is non-AFOLU activity
Project activity type	Type III Other projects activities not included in Type I or Type II that result in GHG emission reductions not exceeding 60,000 tCO <sub>2</sub> e per year in any year of the crediting period
General eligibility of the project to participate in the VCS Program	<p>As per the review of the section 1.4.1 of the PD /01/ the grouped project involves distribution of safe drinking water purifiers which is not in the excluded list of projects, as per the table 1, section 2.1.3, of the VCS standard v4.5.</p> <p>The grouped project was listed on the VERRA registry on the date 08/03/2023 and onsite visit was conducted on 21/05/2023. The grouped project is fulfilling the listing and pipeline requirements according to the VCS standard v4.5.</p>

	<p>The applied methodology applied, AMS III.AV v8.0 is eligible under the VCS program and is crosschecked from the VERRA website<sup>1</sup>.</p> <p>The project is a grouped project activity listed under the VERRA registry<sup>2</sup>, and is not a fragment of any larger project.</p>										
AFOLU project eligibility, if applicable	Not Applicable as the project is non-AFOLU activity.										
Transfer project eligibility, if applicable	Not applicable as the project is not a transfer project or CPAs seeking registration.										
Project design	<table border="1"> <thead> <tr> <th>S.No</th> <th>Eligibility criteria for the inclusion of new project activity instances</th> <th>Applicability</th> <th>Assessment by the validation team</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Meet the applicability conditions set out in the methodology applied to the project</td> <td>The project activity 1 will meet all applicability conditions listed in section 3.2 of PD.</td> <td>Safe drinking water purifier (SDWP) are planned to be distributed under this grouped project, there is no pre-existing distribution system for the SDWP. The outlet water quality meets the microbes defined in QCVN 6 1:2010/BYT /05/ for drinking waters as mentioned in the paragraph 4(b) of the approved methodology AMS III.AV Version 08/B02/. According to the manufacturer specifications the life span of the water purifier is 10 years/04/.Thus, the eligibility criteria have been met for the new</td> </tr> </tbody> </table>			S.No	Eligibility criteria for the inclusion of new project activity instances	Applicability	Assessment by the validation team	1.	Meet the applicability conditions set out in the methodology applied to the project	The project activity 1 will meet all applicability conditions listed in section 3.2 of PD.	Safe drinking water purifier (SDWP) are planned to be distributed under this grouped project, there is no pre-existing distribution system for the SDWP. The outlet water quality meets the microbes defined in QCVN 6 1:2010/BYT /05/ for drinking waters as mentioned in the paragraph 4(b) of the approved methodology AMS III.AV Version 08/B02/. According to the manufacturer specifications the life span of the water purifier is 10 years/04/.Thus, the eligibility criteria have been met for the new
S.No	Eligibility criteria for the inclusion of new project activity instances	Applicability	Assessment by the validation team								
1.	Meet the applicability conditions set out in the methodology applied to the project	The project activity 1 will meet all applicability conditions listed in section 3.2 of PD.	Safe drinking water purifier (SDWP) are planned to be distributed under this grouped project, there is no pre-existing distribution system for the SDWP. The outlet water quality meets the microbes defined in QCVN 6 1:2010/BYT /05/ for drinking waters as mentioned in the paragraph 4(b) of the approved methodology AMS III.AV Version 08/B02/. According to the manufacturer specifications the life span of the water purifier is 10 years/04/.Thus, the eligibility criteria have been met for the new								

<sup>1</sup> <https://verra.org/methodologies-main/#vcs-methodologies>

<sup>2</sup> <https://registry.verra.org/app/projectDetail/VCS/3835>

			project activity instances under this group project
2.	Use the technologies or measures specified in the project description	At this time and for project activity 1, no other project device type will be used, other than low greenhouse gas emitting technology.	PP has planned to distribute safe drinking water purifier (SDWP) for the 1 <sup>st</sup> project activity, and no other type of technology will be used. This is deemed appropriate to the Validation team. Thus, the eligibility criteria have been met for the new project activity instances under this group project
3.	Apply the technologies or measures in the same manner as specified in the project description.	The project activity 1 will only apply the low greenhouse gas emitting technology in section 1.1 of PD.	The Validation team through document review and interviews analyzed that PP will be using SDWP under this grouped project. This has also been mentioned in the PD. Thus, the eligibility criteria have been met for the new project activity instances under this group project
4.	Are subject to the baseline scenario determined in the project description for the specified project activity and geographic area.	The project activity 1 will be implemented in the households of Yen Bai Province in Viet Nam	The Validation team through document review and interviews analyzed that PP will distribute SDWP in the households of Yen Bai province of Viet Nam. This has also been mentioned in the PD. Thus, the eligibility criteria have been met for the new project activity instances under this group project
5.	Have characteristics with respect to additionality that are	The project activity 1 is eligible when the CME shall provide the confirmation that the SDWPs are distributed for	The validation team reviewed the documents and conducted PP interviews to establish how PP has demonstrated additionality in line with AMS III.AV (Version 08/B02/ section 5.2, which specifies “The

	<p>consistent with the initial instances for the specified project activity and geographic area.</p>	<p>free to the Users at community centers. The simple cost analysis has been used to demonstrate the additionality of the project activity is described in Section 3.5 of this PD</p>	<p>additionality of a project activity shall be demonstrated, according to the Methodological TOOL 01 “Tool for the demonstration and assessment of additionality”/B04-1/, and Methodological TOOL 21: “Demonstration of additionality of small-scale project activities” /B04-2/</p> <p>As mentioned in section 3.5.2 of the VCS PD, “As explained above, the instances of the grouped project shall demonstrate additionality by Simple cost analysis, by demonstrating the eligibility criteria that installation of SDWPs are free of cost to users.”. This has been cross verified with the confirmation letter by the PP /12/. Hence, this is in line with the paragraph 33 &amp; 34 of Tool 01 v7.</p> <p>Furthermore, the project activity meets every condition of the applicable methodology AMS III.AV Version 08/B02/ for applicability, provides free SDWP to end users, /12/ and generates all of its revenue through the sale of GHG credits, which is in line with the paragraph 10 (a) of TOOL 21 v13, mentioned in the section 5.2 in the methodology. As a result, the project qualifies for the positive list /B02/ and the requirements for the new project activity instances in this group project were met.</p>
	<p>6. Conditions that</p>	<p>Each SDWP in project</p>	<p>The validation team reviewed a copy of the</p>

	<p>avoid double counting of emission reductions.</p>	<p>activity instance is uniquely identifiable and not part of any other CDM registered project or CPA of other PoA. The SDWP will carry unique IDs comprised of the project instance number, SDWP number and household subscribed to each SDWP, such as WP2 - 001 - XXXX where:          -WP2 = Grouped project for water purifiers - Phase 2          001= Number of project instance          XXXX = continuous number of User from 00001 to 20,000 for each project instance</p>	<p>Evidence of SDWP unique Identification number /06/ which mentions the unique identification number for the SDWP that has been provided. Thus, avoiding any double counting.          Hence, by the review of the Evidence of SDWP unique Identification number, /06/ VVB team confirms that, no double counting will be performed for the given grouped project.</p>
	<p>7 Capacity Limit</p>	<p>The project activity 1 in Yen Bai satisfies the criteria. The emission reduction of the project activity 1 is 40,156 tCO<sub>2</sub>/year &lt;</p>	<p>The validation team reviewed the documents (VCS PD version 3 and ER sheet) and confirms that the estimated emission reduction by the project activity 1 is 40,156tCO<sub>2</sub>/year.</p>



		60,000 tCO <sub>2</sub> /year.	
	8	Target group	The Project activity 1 in Yen Bai satisfies the criteria. Each household must sign in a beneficiary agreement to commit that they are using wood or fossil fuel for boiling water  Based on the on site visit, document review the validation team confirms that the end users are using wood fuel and fossil fuel for boiling water. Thus, the eligibility criteria have been met for the (project activity 1) under this grouped project.
Project ownership	Sustainability Investment Promotion and Development Joint Stock Company (SIPCO) is the owner of the grouped project. SIPCO the Project Proponent (PP) which has ultimate operational management and ownership of the grouped project activity. This has been validated by the end user agreement to transfer all carbon credit rights to the PP /03/.		
Project start date	As per the VCS PD, the grouped project's start date is 19/02/2023, which will be the installation of the first SDWP. This is in line with § 3.8 of the VCS standard v4.5. /B01-1/		
Project crediting period	The crediting period of the grouped project start's from 19/02/2023 to 18/02/2033 (fixed 10 years). The project's crediting period start from the installation of first SDWP under the project activity, which is in line with the § 3.9.1 & 3.8 of the VCS Standard v4.5. /B01-1/		
Project scale	The project will lead to estimated annual reductions of 40,156 tCO <sub>2</sub> e which is less than 300,000 tCO <sub>2</sub> e per year. Thus, this project activity qualifies as a project, which is in line with the § 3.10.1, 2) of the VCS standard v4.5./B01-1/		
Likelihood of achieving estimated GHG emission reduction or removals	Positive		
Technologies and measures implemented by the project activity or activities	PP has planned to distribute safe drinking water purifier (SDWP) with a ceramic filter, it will provide filtered water that can be used for drinking without boiling for the 1st project activity, and no other type of technology will be used.		

<p>Implementation schedule of the project activity or activities</p>	<p>Based on the review of implementation schedule /14/ provided by the PP in the supporting document it is found that the implementation of the project activity is in line with the VCS standard v4.5. The start date of the project activity is 19/02/2023, which is also the distribution date for the first SDWP.</p> <p>Public comment period was open for one month from 20/03/2023 to 20/04/2023.</p>
<p>Project location</p>	<p>The project location is Socialist Republic of Viet Nam. The first project activity will be distributing the SDWP in the Yen Bai Province of Viet Nam.</p>
<p>Conditions prior to project initiation</p>	<p>The project activity's location is Socialist Republic of Viet Nam which encompasses the distribution and installation of SDWP. PP will distribute the SDWP that will reduce the quantity of non-renewable fuel as well as the emissions produced by wood burning used for boiling water to purify it. In the absence of this grouped project activity, the target population would have continued to use boiling as a method to purify water for drinking purposes, which would have ensured continuous use of non-renewable fuel wood.</p>
<p>Project compliance with applicable laws, statutes and other regulatory frameworks</p>	<p>There are no mandatory law or requirement in Viet Nam to foster the dissemination of water purifiers.</p> <p>The distribution and implementation of water purifier is not subject to any environmental impact assessment in accordance with:</p> <ol style="list-style-type: none"> <li>1. Viet Nameese Environmental Protection Law 2005. <sup>3</sup></li> <li>2. Decree No. 21/2008/ND-CP dated 28 February 2008 on amending and supplementing a number of articles of the Government's Decree No. 80/2006/ND-CP of 9 August 2006 detailing and guiding the implementation of a number of articles of the Law on Environmental Protection. <sup>4</sup></li> <li>3. Decree No. 18/2015/ND-CP dated on 14 February 2015 prescribing environmental protection master plan,</li> </ol>

<sup>3</sup> <https://haiduong.eregulations.org/media/Law%20on%20Enviroment.pdf>

<sup>4</sup> [https://binhdinh.eregulations.org/media/21\\_2008\\_ND-CP\\_77232.pdf](https://binhdinh.eregulations.org/media/21_2008_ND-CP_77232.pdf)

	strategic environmental assessment, environmental impact assessment and environmental protection plan. <sup>5</sup>
Double counting and participation under other GHG programs	The grouped project is not registered in any other GHG program, this is confirmed by the review of the Declaration /10/ provided by the PP in the supporting document stating that the grouped project is only registered as standalone VCS project activity and not registered anywhere else seeking any type of GHG or environmental credit from any other program. Validation team also checked the web sources and observed that the grouped project is not registered in any other GHG program.
No double claiming with emissions trading programs or binding emission limits	On checking the web sources and other emission trading programs, the validation team found that the grouped project is not registered in any other emission trading program and only listed on the VERRA registry and is not claiming emission reduction in any other emission trading program.
No double claiming with other forms of environmental credit	On checking the web sources and other emission trading programs, the validation team found that the grouped project is not registered in any other emission trading program and only listed on the VERRA registry and is not claiming any type or amount of environmental credit.
Supply chain (Scope 3) emissions double claiming	On the review of section 1.17.3 of the PD /01/ the validation team found that the PP is a buyer/seller of a product whose emission footprint is changed by the project activities. In the appendix of the PD /01/ validation team found the screenshot of the webpage of the PPs website that has a public statement that says “Carbon credits may be issued through Verified Carbon Standard project ID 3835 for the greenhouse gas emission reductions or removals associated with Ecozen – 25 water purifiers, manufactured by Viet Charcoal Production Company Limited in Di Su Commune, My Hao District, Hung Yen Province, Vietnam, distributed by Sustainability Investment Promotion and Development Joint Stock Company (SIPCO) whose emissions footprint is changed by the project activities” which is inline with the VCS program requirement.

<sup>5</sup> <https://thuvienphapluat.vn/van-ban/EN/Tai-nguyen-Moi-truong/Decree-No-18-2015-ND-CP-environmental-protection-planning-strategic-environmental-assessment/268489/tieng-anh.aspx>

## Sustainable development contributions

The grouped project activity will contribute to the following sustainable development in host country:

### 1. *Environmental sustainability:*

- The grouped project will help significantly reduce greenhouse gas emissions over its lifetime.
- The grouped project will help reduce the use of non-renewable biomass from forests, assisting the maintenance of existing forest stock, protecting natural forest eco-systems and wildlife habitats.
- The protection of standing forests will ensure the maintenance of watersheds that regulate water table levels and prevent flash flooding.

### 2. *Social benefits:*

- Purchasing or collecting firewood or fossil fuels to boil the water constitutes a significant expense for the very poorest households and communities. The grouped project will provide access to clean drinking water, which will reduce the cost for families and thereby improve attendance at school, increase productivity, and more generally give a sense of hope and opportunity.
- Micro-entrepreneurs: low greenhouse gas emitting water purification technologies offer scope for micro-entrepreneurs (Distributors/Installers), thereby creating jobs and supporting families.
- There is a direct incentive to ensure that the projects (instance) have a successful long term operation as this will ensure continued SDWP.
- Polluted indoor air due to open and uncontrolled combustion is a huge health concern. Low greenhouse gas emitting water disinfection technologies tackle this problem by reducing the combustion of wood/fossil fuels.
- The grouped project will alleviate the work burden of women and children as they have to spend less time to collect firewood for boiling water.

### 3. *Economic benefits:*

- The project activity will help develop a section of Viet Nam rural economy through the installation and

	<p>maintenance of SDWPs, as well as work related to monitoring of the CDM activity.</p> <p>The proposed grouped project will deliver a long term, secure and simple contribution to sustainable development in Viet Nam that would not exist without carbon finance.</p>
<p>Additional information relevant to the project</p>	<p>Section 1.19.1 of the PD/01/ stated that the grouped project will only distribute new WP, used WPs won't be used in, relevant leakage related to NRB will be as per AMS I.E v13.0. BE<sub>y</sub> will be multiplied by the adjustment factor of 0.95 to account for leakages. The eligibility condition of the AMS I.E v13.0 is mentioned in the section 3.2 of the PD/01/ and the validation teams' assessment for the eligibility of the AMS I.E v13.0 is in the section 3.3.2 of this validation report.</p> <p>Based on the review of the section 1.19.2 of the PD/01/, no commercially sensitive information is excluded from the PD.</p>

## 3.2 Safeguards and Stakeholder Engagement

### 3.2.1 Stakeholder Engagement and Consultation

#### 3.2.1.1 Stakeholder Identification

Item	Evidence gathering activities, evidence checked, and assessment conclusion
<p>Stakeholder identification</p>	<p>In section 2.1.1 of the PD/01/, information on stakeholder identification is provided. A 3-step process has been mentioned to identify the stakeholders:</p> <p>Step 1: The first step is to identify the expected and unforeseen consequences of the project's activities. Once the outcomes are determined, the potential stakeholders affected by these impacts are identified.:</p> <p>Step 2: Following the holistic perspective on the overall benefits and co-benefits of the grouped project, stakeholder group identification is</p>

	<p>carried out as each stage of project implementation. The examination for stakeholder identification per different stages are as follows:</p> <ul style="list-style-type: none"> <li>• Project Initiation: stakeholders will include self-help groups such as Women Union or Youth Group who can assist the project initiator in understanding the project benefits and potential impediments, making ingress within the community...</li> <li>• Project Development: At this step, stakeholders include government representatives, community development organisations, investors, NGOs working in defined groups, etc</li> <li>• Project Implementation: End-users, implementing partners, stove manufacturers, training personnel. The PPs has signed contract with Provincial's women 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 boiling water and they can select the correct beneficiaries.</li> <li>• Project monitoring (validation and verification): surveyors, database developers, end-users involved in project monitoring.</li> </ul> <p>All of the stakeholders affected by grouped project activity identified in the step 2 by SIPCO.</p> <p>Step 3: Select representatives from each stakeholder identified in step 2 as the final step of the identification process.</p> <p>The final list of stakeholder includes end users, representative of Women Union, government authorities, local NGOs and business, local vendor, water purifier manufacturers. The full list of identified stakeholders has been provided to the VVB as a supportive document.</p> <p>On assessment of the stakeholder identification, the validation team concludes that the information provided by the PP is in line with the para 3.18.1 of the VCS standard v4.5/B01/.</p>
<p>Legal or customary tenure/access rights</p>	<p>This section is not applicable as the grouped project activity distributes SDWPs to households and it will not involve any legal or customary tenure/access rights to territories and resources.</p>
<p>Stakeholder diversity and changes over time</p>	<p>Based on the review of the section 2.1.1 of the PD/01/ the validation team found the following impacts on the stakeholders:</p>

	<ul style="list-style-type: none"> <li>- Water purifier user: there has been an unquantifiable improvement in their health, livelihood, wellbeing, and income as per exchange during onsite survey.</li> <li>- Women Union: No change in structure &amp; functionality or any organization values.</li> <li>- Local vender: Various local businesses supply wood in the project area. Project activity helps save wood in cooking so influence consumption of these products and could thus negatively affect vendor livelihoods.</li> <li>- Manufacturer: More jobs for their employees in manufacturing, transportation and maintains WPs.</li> <li>- Other governmental authority and NGOs: No change was observed in structure &amp; functionality.</li> </ul> <p>PD has shown positive impacts by the project activity to the SDWP users and manufacturers, no impacts to the Women Union, NGOs and other governmental authorities were not impacted by the grouped project activity. Sales of local vendors selling wood in the area might be affected by the reduction in wood usage by the introduction of SDWP. All the information provided in the PD is inline with the para 3.18.1 VCS standard v4.5/B01/</p>
<p>Expected changes in well-being</p>	<p>According to the section 2.1.1 of the PD/01/ the changes in the well-being are</p> <ul style="list-style-type: none"> <li>- The grouped project activity is contributing to the reduction in GHG emission due to reduction in use of non-renewable biomass and it can ensure natural recovery of forests and/or reforestation.</li> <li>- Community health issues such as chronic lung diseases, acute respiratory infections, cataracts, blindness, and adverse effects on pregnancy are decreasing due to improvemen of indoor air quality. The grouped project activity also help to prevent illness related to digestive system such as diarrhea, cholera, dysentery, typhoid fever from drinking contaminated water</li> <li>- The introduction of locally manufactured technology with improved energy efficiency helps in technological self-reliance in the area</li> </ul> <p>The information provided in the PD for expected changes is appropriate with respect to para 3.18.1 VCS standard v4.5/B01/.</p>
<p>Location of stakeholders</p>	<p>Based on the review of the PD/01/ the location of all the stakeholder is Viet Nam.</p>

Location of resources	<p>Based on the review of the PD/01/ there is no change in the location of the resources, information is provided by the PP in the section appropriately and in line with the para 3.18.1 VCS standard v4.5</p> <ul style="list-style-type: none"> <li>- WP user: they still freely access to local forest around their household to collect wood fuel.</li> <li>- Local vender: They still can supply wood in the project area.</li> <li>- Women Union and local NGOs and government: They have no change in structure &amp; functionality, they are still operating in Vietnam and access to the same resources</li> </ul>
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### 3.2.1.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder engagement process	<p>The stakeholder consultation meeting was held on 20/04/2023 at Duy Tan 2 Hotel, No.46 Tran Quang Khai Street, Hue City, Thua Thien Hue Province, Viet Nam.</p> <p>The validation 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 validation team confirms that the project proponent has taken due account of all input (no negative comments were received for the project). Hence the validation team deemed the local stakeholders meeting procedure including the inputs received as appropriate.</p>
Consultation outcome	<p>The key comments made by the local stakeholders were all answered during the local stakeholder consultation meetings and have also been provided in the section of 2.2 the PD/01/.The stakeholder meeting conducted by the PP have been listed in the section 2.2 of the PD/01/ summary of the local stakeholder participation has been provided. The local stakeholder consultation meetings with the list of participants have been provided to the validation team /07/.</p>
Ongoing communication	<p>Women union will provide detailed information about the issues regarding the use of water purifier, they will conduct meetings with the households in various regions to collect feedback regarding the SDWP. In case of any grievances, if required a meeting will be held by women union, as early as possible, depending upon the situation to discuss</p>



	any solutions. For all such meetings women union will give advance invitation to users will be given along with a public notice in the local village office. SIPCO will engage with various stakeholders through annual reports, records and SIPCO’s social media communication. Stakeholders can communicate via phone call (+84) 243 519 0955 or email info@carbonvietnam.com to communicate their grievances.
Stakeholder input	No negative comments were received during the consultation. Details of local stakeholder consultation/07/ are provided in the supporting documents.

### 3.2.1.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Obtaining consent	The beneficiaries of the SDWPs are free to choose to be part of the program or not. Prior and informed consent is taken before the installation of the SDWP. Agreements with the beneficiaries is also provided in the supporting document/12/.
Outcome of FPIC discussion	The grouped project involves distribution of SDWP, no land has been encroached and no one got relocated. Documents for proof of right to VERs /03/ and evidence to show the free distribution of SDWP/12/ is provided in the supporting documents.

### 3.2.1.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Development process	In section 2.1.4 of the PD/01/ the information on the grievance redress procedure is provided. The procedure is in line with the para 3.18.4 of the VCS standard v4.5 /B01/.
Grievance redress procedure	Based on the review of the Grievance redress process will be made available on the website of the PP.

### 3.2.1.5 Public Comments

The public commenting period for the grouped project was from 22/03/2023 to 21/04/2023. No public comments were received for the grouped project.

Comments received	Actions taken by the project proponent	Evidence gathering activities, evidence checked, and assessment conclusion
NA	NA	NA

## 3.2.2 Respect for Human Rights and Equity

### 3.2.2.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination and sexual harassment	PP has provided information on inclusion of equal number of women and members of other underrepresented groups get opportunity to work with the grouped project.
Management experience	PP has mentioned the policies related to management in the section 2.3.1 of the PD/01/.
Gender equity in labor and work	PP has mentioned in the section 2.3.1 about the gender equality, equal opportunity for women to apply in the grouped project, encouraging women to learn new skill and providing more opportunity to women through self-help groups and NGOs.
Human trafficking, forced labor, and child labor	Policies against the human trafficking, forced labor and child labor has been mentioned in the section 2.3.1 of the PD/01/.

### 3.2.2.2 Human Rights

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Human rights	Employment contracts/15/ for labours has been provided in the supporting document that shows the compliance with the labour laws.

### 3.2.2.3 Indigenous Peoples and Cultural Heritage

The grouped project activity is a SDWP distribution to individual households and does not involve any indigenous peoples and cultural heritage.

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Preservation and protection of cultural heritage	NA

### 3.2.2.4 Property Rights

The grouped project activity is a SDWP distribution to individual households and does not involve any property rights removal or relocation of property right holders.

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Rights to territories and resources	NA
Respect for property rights	NA

### 3.2.2.5 Benefit Sharing

The section is not applicable

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Process used to design the benefit sharing plan	NA

Summary of the benefit sharing plan	NA
Approval and dissemination of benefit sharing plan	NA

### 3.2.3 Risks to Local Stakeholders and the Environment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Risks to stakeholder participation	No risk is identified for stakeholder participation, according to the PD/01/ there is no negative impact or trade off to the beneficiaries and can be conformed by the evidence to show free SDWP distribution /12/.
Working conditions	No risk is identified, the working condition for employees are provided in the employment contract /15/.
Safety of women and girls	No risk is identified. With the grouped project activity time consumed in household works is reduced related to the collection of firewood and can be used to learn new skills.
Safety of minority and marginalized groups, including children	No risk identified. The PD/01/ includes information on human rights and anti-discrimination policies.
Pollutants (air, noise, discharges to water, generation of waste, release of hazardous materials)	No risk identified. The grouped project activity involves SDWP distribution that will reduce fuelwood consumption and lead emission reduction.

### 3.2.4 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	As per the PD/01/ the grouped project activity will reduce the fuel wood consumption in the area and will lead to reduction in deforestation rates in the area. Hence, there is no negative impact on the biodiversity and ecosystem.
Soil degradation and soil erosion	The grouped project activity is distributing SDWP and the PD/01/ states that the grouped project will reduce the fuelwood consumption and reduce deforestation, so the grouped project activity will not lead to any negative impacts on the soil quality of the area.
Water consumption and stress	Based on the review of the PD/01/ the grouped project involves SDWP distribution and will not affect water consumption in the area.
Usage of fertilizers	Based on the review of the PD/01/ the grouped project activity involves SDWP distribution and does not involve use or distribution of any type of fertilizer.

#### 3.2.4.1 Rare, Threatened, and Endangered species

Grouped project is not located adjacent to habits of rare, threatened or endangered species.

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Species and habitat	NA

#### 3.2.4.2 Introduction of Species

The grouped project is a SDWP distribution activity and does not involve introducing new species.

Species introduced	Evidence gathering activities, evidence checked, and assessment conclusion
NA	NA

Existing invasive species	Evidence gathering activities, evidence checked, and assessment conclusion
NA	NA

### 3.2.4.3 Ecosystem conversion

The grouped project is a SDWP distribution and does not involve ecosystem conversion.

Item	Evidence gathering activities and evidence checked
Ecosystem conversion	NA

## 3.3 Application of Methodology

### 3.3.1 Title and Reference

The Grouped Project provides for projects that use one of the CDM approved methodologies:

AMS III.A.V: “Low greenhouse gas emitting safe drinking water production systems”, version 08.0 /**B02/**

The associated tools and guideline documents in the Grouped Project include:

- AMS-I.E.: “Switch from non-renewable biomass for thermal applications by the user”, version 13.0 /**B03/**
- Standard for “Sampling and surveys for CDM project activities and programme of activities”, version 09.0/**B05-1/**
- CDM Guideline “Sampling and surveys of CDM project activities and programmes of activities” version 04.0 /**B05-2/**
- TOOL01 “Tool for the demonstration and assessment of additionality”, version 07.0. /**B04-1/**
- TOOL 21 - “Demonstration of additionality of small-scale project activities” (Version 13.1) /**B04-2/**
- TOOL30: Calculation of the fraction of non-renewable biomass, version 04.0 /**B06/**

### 3.3.2 Applicability

For each of the applied methodology’s applicability conditions, describe the steps taken to assess conformance of the grouped project with the applicability condition. Provide a conclusion with respect to each applicability condition.

Similarly, where the applied methodology provides the grouped project with a number of tools or modules to choose from, describe the steps taken to assess that the appropriate tool or module has been selected. Provide a conclusion with respect to each selected tool or module.

Provide an overall conclusion regarding the applicability of the methodology, and any tools or modules selected by the project proponent.

Methodology ID	Applicability condition	Assessment and conclusion
AMS III.AV	<p>This methodology comprises introduction of low greenhouse gas emitting water purification systems to provide safe drinking water (SDWP). Water purification technologies that involve point-of use (POU) or point-of-entry (POE) treatment systems for residential or institutional applications such as systems installed at a schoolschool, or a community centrecenter are included. The examples include, but are not limited to, water filters (e.g. membrane, activated carbon, ceramic filters), solar energy powered ultraviolet (UV) disinfection devices, solar disinfection techniques, photocatalytic disinfection equipment, pasteurization appliances, chemical disinfection methods (eg. chlorination), combined treatment approaches (eg. Flocculation plus disinfection). The methodology is also applicable to water kiosks that treat water using one or more of the following disinfection. In case the water kiosk is using solar disinfection powders and solar implement measures to prevent recontamination (e.g.</p>	<p>The Validation team through documents review /04/, /05/ &amp;/10/ and interviews with PP confirmed that the SDWP will be distributed in the households thereby confirming the methodology applicability condition of the applied CDM methodology /B03/.</p>

	<p>disinfecting containers, sealing containers and hygiene trainings).</p>	
AMS III.AV	<p>Soil filtration schemes (boreholes, wells) that include container disinfection (e.g. chlorination) may be applied. Project proponents shall demonstrate ex ante that rehabilitation and/or construction of the wells complies with relevant national and/or international standards and that measures are taken to ensure that water and well are not contaminated.</p>	<p>This is not applicable for this proposed grouped project , as the grouped project does not include soil filtration schemes (boreholes, wells) that include container disinfection (e.g. chlorination) in the grouped project and is distributing .SDWP that uses ceramic filters as mentioned in the technical specifications /04/.</p>
AMS III.AV	<p>Prior to the implementation of the project activity, a public distribution network supplying SDWP) to the project boundary does not exist.</p>	<p>The Validation team through document review and PP interviews confirmed that there are no existing distribution network present this information is confirmed by review of SDWP Distribution agreement/13/.</p>
AMS III.AV	<p>It shall be demonstrated based on laboratory testing or official notifications (for example notifications from the national authority on health) that the application of the project technology/equipment achieves compliance either with: (i) the “interim” performance target as per “Evaluating household water treatment options: Health based targets and microbiological performance</p>	<p>The validation team reviewed the Microbiological test report/05/ that states that PP has conducted the test.</p> <p>This is deemed appropriate to the Validation team. Thus, the eligibility criteria have been met for the new project activity instances under this grouped project.</p>



	<p>specifications” (WHO, 2011); and “International Scheme to Evaluate Household Water Treatment Technologies” (WHO, 2014) or (ii) an applicable national standard or guideline. Applicable national standard should be based on laboratory efficacy testing that, at a minimum, includes quantitative microbial measures of pre- and post-treatment challenge waters<sup>6</sup> that are representative of potential drinking water sources, and that includes measured reductions based on at least one pathogen class (bacteria, viruses, protozoa).</p>	
<p>AMS III.AV</p>	<p>In cases where the life span of the water treatment technologies is shorter than the crediting period of the project activity, there shall be documented measures in place to ensure that end users have access to replacement purification systems of comparable quality.</p>	<p>The validation team reviewed the Manufacturers specification/04/ that states that the lifespan of the SDWP is 10 years, the same as the crediting period.</p> <p>This is deemed appropriate to the Validation team. Thus, the eligibility criteria have been met for the new project activity instances under this grouped project.</p>
<p>AMS III.AV</p>	<p>It should be demonstrated that the project appliances use technologies that meet the technology standards as per paragraph 4(b) of approved methodology AMS-III.AV Version 08, and that</p>	<p>The validation team reviewed the Microbiological test report/05/ that states that PP has conducted the test.</p> <p>This is deemed appropriate for the Validation team. Thus, the eligibility criteria have</p>

	they deliver microbiologically safe drinking water.	been met for the new project activity instances under this grouped project.
AMS III.AV	The use of this methodology in a project of activity under a Grouped project is legitimate if the leakage is estimated and accounted for as per the relevant provisions of AMS-I. E under the section for grouped project.	<p>According to the methodology AMS III.AV Version 08/B02/ leakage is assessed as per the procedures of AMS-I. E version 13.0, /B03/ which is “By is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required.”</p> <p>This is deemed appropriate to the Validation team. Thus, the eligibility criteria have been met for the new project activity instances under this grouped project.</p>
TOOL01 “Tool for the demonstration and assessment of additionality”.	The use of the “Tool for the demonstration and assessment of additionality” is not mandatory for project participants when proposing new methodologies. Project participants may propose alternative methods to demonstrate additionality for consideration by the Executive Board. They may also submit revisions to approved methodologies using the additionality tool.	On the basis of document review, the verification team confirms that the grouped project is not introducing a new methodology. Hence this tool is applicable to the project activity.
TOOL01 “Tool for the demonstration and assessment of additionality”.	Once the additionally tool is included in an approved methodology, its application by project participants using this methodology is mandatory.	The grouped project is implementing AMS-III.AV version 8, which uses tool 1 for assessing the additionality of the grouped project. Hence, this tool is applicable

		to this project activity under this grouped project.
TOOL 21 - “Demonstration of additionality of small-scale project activities	The use of the methodological tool “Demonstration of additionality of small-scale Project activities” is not mandatory for project participants when proposing new methodologies. Project participants and coordinating/managing entities may propose alternative methods to demonstrate additionality for consideration by the Executive Board.	On the basis of document review, the verification team confirms that the grouped project is not introducing a new methodology. Hence this tool is applicable to the project activity.
TOOL 21 - “Demonstration of additionality of small-scale project activities	Project participants and coordinating/managing entities may also apply “TOOL19: Demonstration of additionality of microscale project activities” as applicable.	On the basis of document review, the verification team confirms that the grouped project is small scale, so this tool is not applicable to the project activity under this grouped project
TOOL30: Calculation of the fraction of non-renewable biomass	This tool may be used by: (a) DNAs to submit region/country-specific default $f_{NRB}$ values, following the procedures for development, revision, clarification and update of standardized baselines (SB procedures); or (b) Project proponents to calculate project or PoA-specific $f_{NRB}$ values.	On the basis of the document review the verification team confirms that the project uses Tool 30 to calculate project specific value of $f_{NRB}$ in line with the option (b) of the applicability condition 1 of tool 30. It was cross checked by the validation team on the basis of review of the $f_{NRB}$ report prepared by C4

		<p>Ecosolutions (Pty) Ltd, submitted to VVB by PP. Thus, the eligibility criteria have been met for the new (project activity 1)</p> <p>under this group project</p>
<p>TOOL30: Calculation of the fraction of non-renewable biomass</p>	<p>For project or PoA specific <math>f_{NRB}</math> values, project proponents shall assess the area where biomass is sourced and justify the selection of the area in CDM project design documents.</p>	<p>On the basis of document review the verification team confirms that the area where the biomass is sourced is described by the PP and the same is reviewed from the <math>f_{NRB}</math> report submitted by the PP.</p> <p>Hence, the eligibility criteria have been met for the project activity 1</p>
<p>AMS-I.E.: “Switch from non-renewable biomass for thermal applications by the user”.</p>	<p>The use of this methodology in a project of activity under a grouped project is legitimate if the leakage is estimated and accounted for as per the relevant provisions of AMS I.E under the section for grouped project.</p>	<p>On the basis of document review the verification team observed, leakage is assessed as per the procedures of AMS-I. E version 13.0, /B03/ which is “By is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required.”</p> <p>This is deemed appropriate to the Validation team. Thus, the eligibility criteria have been met for the project activity instance under this grouped project.</p>
<p>Guidelines for sampling and surveys for CDM project activities and programs of activities</p>	<p>This document describes common types of sampling approaches and includes a recommended outline for a</p>	<p>On the basis of the document review, the verification team observed that the Project activity is using</p>

	<p>sampling plan, recommended practices for unbiased estimates of sampled parameters and recommended evaluation criteria for designated operational entity (DOE) validation besides several best practice examples covering large and small scale project activities and PoAs. It also provides examples for checking the reliability of data collected through sample surveys</p>	<p>representative sampling to monitor parameters “<math>N_{y,i,j}</math> and <math>B_y</math>”. Hence the guideline is applicable to the project activity instance.</p>
<p>Guidelines for sampling and surveys for CDM project activities and programs of activities</p>	<p>Furthermore, it covers the following items:</p> <p>(a) Methods, if any, to deal with missed reliability targets without compromising conservative estimates for emission reduction</p> <p>(b) Best-practice examples for DOE validation/verification for sampling and surveys.</p>	<p>On the basis of the document review, the verification team observed that the Project activity is using The single sampling plan covering a grouped project is undertaken applying 95/10 confidence/precision for the sample size calculation.</p> <p>Hence the guideline is applicable to the grouped project.</p>
<p>Standard Sampling and surveys for CDM project activities and programs of activities v09</p>	<p>This document specifies the reliability requirements and describes appropriate sampling methods and what is expected to be provided in a sampling plan. The general requirements shall be applicable to both small-scale and large-scale CDM project activities and PoAs, with any requirements specified in the</p>	<p>On the basis of the document review, the verification team observed that the Project activity is using representative sampling for monitoring <math>P_y</math>, check the SDW public distribution network, <math>m</math> and water quality.</p> <p>Hence, the standard is applicable to the project activity.</p>

	<p>applied methodologies taking precedence. This document also provides sampling-related requirements pertaining to validation and verification, including the sampling approach to be undertaken by the validating/verifying DOEs.</p>	
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### 3.3.3 Project Boundary

The project boundary is accurately established in the VCS PD/**01/** and follows the applied methodology/**B02/**, **/B03/**. The Grouped Project boundary is defined as per the methodology AMS-III.AV (Version 08.0) The sources of greenhouse gas identified in the PD/**01/** are deemed to be appropriate and assessed below:

The project boundary for the grouped Project consists of the physical, geographical locations of the distributed SDWP limited to within the Viet Nam.

### 3.3.4 Baseline Scenario

The grouped project activity uses methodology AMS-III.AV (Version 08.0)/**B02/**. This methodology is the most recent version of the UNFCCC CDM methodology at the time of validation. According to the methodology “The emissions are calculated based on the energy demand for boiling water”. Baseline described in the PD complies with the methodology. Validation team based on review of the VCS PD **/01/** confirms that the documentary evidence i.e. baseline survey conducted in Yen Bai province of Viet Nam **/08/** used in determining the above baseline scenarios are relevant, and correctly quoted and interpreted in the project description. The baseline scenario for the applied methodology **/B02/** was also confirmed through interviews with the end users of technologies and representatives of PP. The validation team confirms that the baseline scenario opted by the project activity is in accordance with the requirements of the applied methodology **/B02/** and is justified.

### 3.3.5 Additionality

PP has used AMS III.AV (Version 08.0) as the methodology for the grouped project, according to the methodology “the additionality of a project activity shall be demonstrated, according to the Methodological TOOL 01 “Tool for the demonstration and assessment of additionality” or Methodological TOOL 21: “Demonstration of additionality of small-scale project activities”.

In accordance with the rules and requirements regarding regulatory surplus set out in the latest version of the VCS Standard and it can be confirmed that the grouped project is not mandated by any law, statute, or other regulatory framework, or for UNFCCC non-Annex I countries, any systematically enforced law, statute or other regulatory framework. The grouped project demonstrates the existence of an Investment

Barrier. Procuring, installing SDWPs requires capital, which is a barrier to the end user of the Project due to difficulties in accessing capital, a wide dissemination of such technology in the Host Country is unlikely. The actions under the Grouped project will alleviate these barriers by distributed free SDWPs to households. Furthermore, the project activity 1 and the grouped project meets all the applicability conditions of the applied methodology AMS-III.AV: Version 08 and distributes SDWP at zero cost to the end-users and has no other source of revenue other than the sale of GHG credits. Hence, in line with paragraph 33 and 34 TOOL01 “Tool for the demonstration and assessment of additionality”, the project faces an investment barrier and is additional. Validation team confirms that simple cost analysis is deemed acceptable on the basis of review of the above-mentioned tools, monitoring report and the equipment contract as documentary evidence to show the cost of SDWPs /21/. The conclusion of the simple cost analysis is that there is a cost of SDWPs and their distribution (free of cost), and the grouped project activity could not be done without the revenues generated by the sales of GHG credits, The end users also require capital to procure SDWP and it is unlikely that there will be a SDWP dissemination program in the host country, to overcome these financial barriers revenue generated from GHG credits are essential for the project activity 1 to occur. Therefore, the validation team confirms that the project activity 1 and the grouped project is additional, and all the project activity instances that will be included in the grouped project will meet the eligibility criteria. Distribution of Safe drinking water purifiers in Viet Nam is additional – the emission reductions achieved by the project would be below those that would have occurred without the implementation of the project.

The additionality has also been included in the eligibility criteria in the PD. Each project activity instance shall meet the requirements of eligibility criteria in order to be included in the grouped project.

### 3.3.6 Quantification of GHG Emission Reductions and Carbon Dioxide Removals

#### Quantification of baseline emissions

As per the applied CDM small scale methodology AMS-III.AV: “Low greenhouse gas-emitting safe drinking water production systems”, version 08 §5.3 equation 01 /B02/ emissions are calculated based on the energy demand for boiling water, and in case of displacement of NRB the baseline emissions are corrected for the fraction of the biomass that can be demonstrated to be non-renewable. Only purified water consumed for drinking purposes can be used in the baseline calculation.

#### Quantification of project emissions

As per the applied CDM small scale methodology AMS-III.AV: “Low greenhouse gas-emitting safe drinking water production systems”, version 08 §5.5 /B02/ If the operation of the project water purification system involves consumption of fossil fuels and/or electricity, CO<sub>2</sub> emissions from on-site consumption of fossil fuels and electricity due to the grouped project activity shall be accounted for as project emissions. According to the PD § 4.2/01/ the SDWP does not operate on electricity or fossil fuel, hence, there are no emissions from implementation of project implementation.

#### Quantification of leakage

As per the applied CDM small scale methodology AMS-III.AV: “Low greenhouse gas-emitting safe drinking water production systems”, version 08 §5.4/**B02/** where relevant leakage relating to the non-renewable woody biomass shall be assessed as per the relevant procedures of AMS-I.E. §5.5/**B02/** By is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required.

**Summary of net GHG emission reductions or removals**

As per the applied CDM small scale methodology AMS-III.AV: “Low greenhouse gas-emitting safe drinking water production systems”, version 08 equation 1, /**B02/**

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

Where:

BE<sub>y</sub> = Baseline emissions during the year y in (t CO<sub>2</sub>e)

QPW<sub>y</sub> = Total quantity of water purified by the project in year y (L)

m = Fraction of functional appliances that are providing the SDW (%). 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<sub>boil</sub> = Fraction of the population served by the project activity for which the common practice of water treatment is or would have been water boiling. It is 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<sub>fuel,i</sub> = Proportions of baseline fuel type i (NRB and/or fossil fuels) used in the absence of the project activity (fraction)

f<sub>i</sub> = 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 (f<sub>NRB</sub>). If the baseline fuel is fossil fuel, the value to be applied is 1

EF<sub>projected\_fossilfuel,i</sub> = Emission factor of the fuel type i substituted (t CO<sub>2</sub>/TJ)

The following parameters are determined ex-ante and mentioned in section 5.1 of the PD

S.no	Parameter	Unit	Value	Assessment
1	QPW <sub>pp</sub>	Litres	5.04	Fixed ex-ante Calculated based on survey Records
2	LS	Years	10	Fixed ex-ante Manufacturer’s Specification
3	n <sub>wb</sub>	%	10.9%	Fixed ex-ante



				From data/parameter table 3, section 5.8 of the CDM approved small scale methodology AMS III. A.V. Version 08 /B02/..
4	$BL_{fuel,i}$	Fraction	$BL_{Fuel,NRB}$ : 0.9821 $BL_{Fuel,NRB}$ : 0.0179	Fixed ex-ante Survey records, the baseline survey establish that 98.21% of the population uses NRB, and 1.79% uses fossil fuel to boil water in the absence of the project activity.
5.	$f_i$	Fraction	$f_{nrB}$ : 0.8813 $f_{nrB}$ : 1	Fixed ex-ante Survey records Methodology AMS – III.AV (Version 08.0), /B02/
6.	$EF_{projected\_fossil\ fuel}$	tCO <sub>2</sub> /TJ	$EF_{nrB}$ : 85.7 $EF_{nrB}$ : 63.1	Fixed ex-ante AMS – III.AV, Version 08.0/B02/ IPCC, chapter 2, table 2.2
7	$X_{boil}$	%	100%	Fixed ex-ante Survey

### Assessment of $f_{NRB}$

PP has contracted an independent party “C4EcoSolutions (Pty) Limited” /09/ for a study and calculation of  $f_{NRB}$  as per CDM Methodological Tool: “Calculation of fraction of non- renewable biomass” (v04.0).

PP has contracted an independent party “C4Ecosolutions” for a study and calculation of  $f_{NRB}$  as per CDM Methodological Tool: “Calculation of fraction of non- renewable biomass” (v04.0). Validation team confirms that it has checked  $f_{NRB}$  calculation spread sheet /09/ prepared by C4Ecosolutions. As per the applied methodological tool, In the case of ex ante calculation of  $f_{NRB}$ , the parameter  $f_{NRB}$  shall be estimated using the most recent historical year for which data is available. Review of  $f_{NRB}$  report /09/ prepared by C4 Eco Solution (Pty) Limited revealed that all the data used for the calculation is latest available data at the time of validation, 21/05/2023.

Review of  $f_{NRB}$  calculation spread sheet /09/ prepared by C4Ecosolutions reveals that total woody biomass consumption in a country comprises its domestic, non-domestic energy and non-domestic non-energy consumption.

Domestic woody biomass consumption is estimated by multiplying the 2020 per capita consumption rates for wood fuel—determined by dividing the 2020 consumption from the UN Data with the 2020 population—with Viet Nam’s total population in 2021. This approach accounts for non-users as the consumption rate of wood fuel is estimated by dividing the total consumption of wood fuel in 2020 by the total population in 2020. Accordingly, the total domestic woody biomass consumption is conservatively estimated to be 5,415,879 t/yr.

The non-domestic woody biomass consumption is estimated using 2020 per capita consumption rates determined from UN Data and disregards the deforestation likely occurring because of the conversion of land for agricultural use and informal or illegal harvesting, as available data for these activities are scarce. Non-domestic energy consumption is reported as the quantity of fuelwood for transformation in charcoal plants, and non-domestic non-energy consumption is reported as the quantity of wood used for

manufacturing, construction and the non-fuel industry and wood used for agriculture, forestry and fishing. The per capita consumption rates were multiplied by the national 2021 Viet Nameese population for each consumption category and the required units' conversions completed. Viet Nam's non-domestic energy and non-domestic non-energy consumption values are estimated to be 1,901,809 t/yr and 29,335,601 t/year, respectively. Viet Nam's total woody biomass consumption is the sum of domestic, non-domestic, non-energy and non-domestic energy consumption, estimated to be 36,653,289 t/yr. The total woody biomass consumption for Viet Nam is as per the third party *f*NRB report and calculation sheet /09/ prepared by C4 Eco Solution (Pty) Limited is calculated as per the equation 3 of tool 30 v04, /B04/ thus, it is deemed appropriate to the VVB.

In Viet Nam there are seven ecological zone has been found and the same was verified by referring the Global ecological zones for FAO forest reporting: 2010 Update. The resulting average mean annual increment (MAI) estimates for Viet Nam are 0.85, 0.52, 1.29, 0.84, 0.27, 1.31 & 1.21 t/ha/year for the subtropical humid forest, subtropical mountain system, tropical dry forest, tropical moist forest, tropical mountain system, tropical rainforest and tropical shrubland respectively. Table below provides the validated total, protected and remote forest cover extent, mean annual increment and renewable biomass by ecological zone for Viet Nam.

Ecological Zone	Total forest cover (ha)	Protected area cover (ha)	Remote area cover (ha)	MAI(t/ha/yr)	Annual growth (t/yr)
Subtropical humid forest	449,647	13,536	112,574	0.85	274,021
Subtropical mountain system	74,563	327	16,967	0.52	29,494
Tropical dry system	428,482	61,861	131,524	1.29	304,114
Tropical moist system	5,105,505	1,236,174	1,373,969	0.84	2,096,596
Tropical Mountain system	1,807,758	224,585	786,494	0.27	211,188
Tropical rainforest	3,179,349	501,257	1,598,386	1.31	1,413,108
Tropical shrubland	172,131	28,234	84,494	1.12	66,711
Total	11,217,436	2,065,975	4,104,408		4,395,232

The quantity of renewable biomass (RB) for Viet Nam as per the verified *f*NRB report and calculation sheet /09/ is estimated to be 4,395,232 t/yr. The calculation is based on the equation -04 of tool 30 v04. /B04/, checked and deemed appropriate by the VVB.

The difference between woody biomass consumption and renewable biomass is considered to be non-renewable. Non-renewable biomass utilisation in Viet Nam is, therefore, validated as 32,258,057t/yr. The fraction of non-renewable biomass is the quotient of the non-renewable and the total biomass. The fraction of non-renewable biomass for Viet Nam is, therefore, validated as 0.88. From the review of this report/spread sheet /09/ and interviews with the CME and C4 EcoSolutions (Pty) Ltd, validation team confirms the following:

The report has been prepared by an independent party (i.e., C4 EcoSolutions (Pty) Ltd.), who is experienced in conducting such study.

The detailed methodology (including the calculation) of conducting the study has been provided in the report /spread sheet /09/.

The study has been done in accordance with the CDM Methodological Tool: “Calculation of fraction of non- renewable biomass” (v4.0) /B06/ including the equation used and the data source as required by the tool.

All the reference and data source used for the calculation/study has been listed and assessed by the VVB

The resulting non-renewable biomass (NRB) was compared to the top-down product of average above-ground biomass (62.71 t/ha) and the most recent annual deforestation data (207,461 ha/yr). NRB, as calculated in this report according to the CDM Tool 30 v4.0 2022, was found to be 32,258,057t/yr, which is greater than the cross-check results based on deforestation (13,009,879 t/yr). It is expected that the cross-check estimate of biomass loss from deforestation could underestimate the extent of non-renewable biomass as it only considers the average biomass stocks from completely deforested areas. Unsustainable wood harvesting resulting in forest degradation and substantial reductions in biomass stocks, but not complete deforestation is not considered in the cross-check. Consequently, the estimate of NRB is considered applicable for this study given that the guidance provided by CDM Tool 30 v4.0 /B06/ was followed.

The fraction of non-renewable biomass is the quotient of the non-renewable and the total biomass (Equation 1 of the tool 30). The fraction of non-renewable biomass for Viet Nam is, therefore, estimated to be 0.88; checked and confirmed by the VVB.

In line with §6 of tool 30 v4 /B04/,  $f_{NRB}$  value has been compared with the peer reviewed literature such as “The carbon footprint of traditional wood fuels” by Bailis and colleagues using the WISDOM method”. It has also been observed by the VVB that the resulting value is higher than the expected as per the cited peer reviewed literature. While direct comparisons between the WISDOM and CDM methodologies are only sometimes appropriate, given the different approaches of the methodologies, the following factors can contribute to variations in the  $f_{NRB}$  estimates between the two methods:/09/

1. More recent population statistics (2021) for Viet Nam were used in the present study. The more recent data represents an increase in population numbers since the 2009 data utilised in the study by Bailis and colleagues.
2. Updated 2019 FAO forest products statistics were used in the present study, whereas the study conducted by Bailis and colleagues used 2013 FAO forest products statistics.
3. The approach used to determine the amount of forest that is accessible yields lower estimates in the present study when compared to the study by Bailis and colleagues. This results in a lower estimated RB and consequently increased NRB and  $f_{NRB}$ .
4. In the present study, MAIs were calculated using a weighted average based on the forest area of three categories (i.e., primary forests, above 20-year secondary forest, below 20- year secondary

forest). Data from the 2019 Refinement of the 2006 IPCC Guidelines was used in combination with extrapolating the observed forest gain extents between 2000 and 2012 to a future 20-year period. As per the study by Bailis and colleagues, MAI values were derived from a combination of field observations and IPCC values, followed by a different estimation of growth rates as a percentage of standing stock. This approach often yields higher MAIs and may lead to higher estimations of RB and subsequently, lower estimations of NRB and *f*NRB.

On the basis of the review of the tool 30 version 4 /B06/, and the *f*NRB report provided by the PP /09/ the above information is deemed acceptable. Thus, in the opinion of the validation team, the calculation of *f*NRB is correct and in line with the CDM Methodological tool 30 : Calculation of the fraction of non-renewable biomass (v4.0) /B06/ and thus acceptable to the validation team.

### 3.3.7 Methodology Deviations

No methodology deviation have been applied to the grouped project activity.

### 3.3.8 Monitoring Plan

The grouped project employs baseline and monitoring methodology namely AMS-III.AV: version 8.0 /B02/. According to section 5.1 and 5.2 of PD /01/ the parameters to be monitoring ex post as per the requirements of the methodology are given below;

Parameters monitored ex-post

S.no	Parameter	Unit	Description
1	$P_y$	Number	Description: - Population who consumes the purified water serviced by the project activity in year y. Monitoring Method and Frequency of monitoring: - A survey shall be conducted annually
2	$QPW_y$	Litres	Description:- Quantity of purified water in year y Monitoring Method and Frequency of monitoring: - This parameter can be calculated based on equation: $QPW_y = P_y \times \min(QPW_{pp}; 5.5) \times 365$ This parameter will be monitored annually.
3	m	Fraction	Description: - Fraction of functional appliances that are providing the SDWP Monitoring Method and Frequency of monitoring: - Every year, SWD need to be tested on a sample basis (through a statistically representative sample) by an accredited Laboratory to ensure the following conditions that:  (a) They only use technologies that are meeting the SDWP Technology standards as per paragraph 4(b) (b) They are still operating or are replaced by an equivalent in service appliance. 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) as per “Objective measures of functionality and use of project appliances” describe in the Appendix (c) They are delivering microbiologically safe drinking water and shall met the Microbiological parameters required by QCVN 6-1:2010/BYT

			for drinking water to deliver treated water verified to be <1cfu/100 ml E.Coli, using methods for measurement with a lower detection limit (LDL) of 1cfu E.Coli per 100 ml sample.  Emission reductions cannot be claimed if over 10% of appliances in the project activity fail to meet the final water quality requirements mentioned above.
4	Check for SDWP public distribution network		Description: - Annual check if there is a public distribution network supplying SDWP is installed Monitoring Method and Frequency of monitoring: - Monitoring shall include annual check if there is public distribution network supplying SDWP
5	Quality of safe drinking water		Description: - The quality of the safe drinking water Monitoring Method and Frequency of monitoring: - At least every two years, SWDs need to be tested by accredited Laboratory on a sample basis.

As per the applied methodology AMS III A.V. v8.0 /B02/ all records and documents will be kept in a secure and retrievable manner for at least two years after the end of the project crediting period. The data collecting and management methods as provided in section 5.3 of the VCS PD /01/ are acceptable to the validation team. The entire database will be kept protected by PP for a period of at least two years after the crediting period. In addition, a sample of unique identification number of WPs /06/ were studied and was found to contain information in compliance with the monitoring requirements of the methodology AMS III A.V. v8.0 /B02/.

The validation team considers that the means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the proposed grouped project therein can be reported ex post and verified. In addition, the sampling plan mentioned in the section 5.3 of the VCS PD /01/, meets the requirements of the monitoring methodology AMS III A.V. v8.0 /B02/ and the Standard of Sampling and Surveys of CDM project activities and Programme of Activities (version 09.0) /B05/ and Guidelines for sampling and surveys for CDM project activities and Programme of Activities (version 04) /B05/.

**Sampling plan:**

Sampling plan is made according to the CDM Standard Sampling and surveys for CDM project activities and programmes of activities, version 9/B05/ and CDM Guidelines: Sampling and Survey for CDM project activities and programmes of activities, version 4/B05/ to estimate monitored parameter values used in the ER calculations. Sampling is applicable to two monitored parameters as given below:

Parameter	Description of parameter	Monitoring frequency
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P <sub>y</sub>	Population who consumes the purified water serviced by the project activity in year y	At least annually
Check for SDW public distribution network	Annual check if there is a public distribution network supplying SDW is installed	At least annually
m	Fraction of functional appliances that are meeting the SDWP Standard	At least annually
Quality of safe drinking water	The quality of the safe drinking water	At least every two year

The validation team confirms that the sampling plan complies with the requirements of the methodology AMS III A.V. v8.0 /B02/, and the CDM Guidelines: Sampling and Survey for CDM project activities and programmes of activities, version 4 /B05/

Validation team confirms that the overall monitoring plan complies with the requirements of the methodology AMS III A.V. v8.0 /B02/, the monitoring arrangements describes in the monitoring plan are feasible within the project design and the project proponents will be able to implement the described monitoring plan.

### 3.4 Non-Permanence Risk Analysis

This is not applicable to the project activity as the Project is not an AFOLU (Agriculture, Forestry and Other Land Use) project.

## 4 VALIDATION OPINION

### 4.1 Validation Summary

The Project Participant, Sustainability Investment Promotion and Development Joint Stock Company (SIPCO) has commissioned the VVB, Carbon Check (India) Private Ltd. to perform an independent validation of the VCS Grouped Project Activity “Grouped Projects For Water Purifiers For Climate And Community Action Phase 2”. This report summarizes the findings of the validation of the grouped project, performed based on VCS criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The validation process was performed based on all guidance and criteria as provided in VCS Standard version 4.4/**B01-1/**, VCS Program Guide version 4.3/**B01-2/**, VCS Validation and Verification Manual version 3.2/**B01-3/** and Registration & Issuance Process version 4.0/**B01-4/**

The VVB team has performed the validation of the respective project in line with the section 7 of the ISO 14064-3:2019 guidelines.

## 4.2 Validation Conclusion

The grouped project activity provides the information in PD/**01/** as required by the VCS Standard /**B01-1/** and Validation and Verification Manual /**B01-3/** and in Carbon Check’s opinion meets the requirements of the applied baseline and monitoring methodology, monitoring methodology applied for this grouped project is AMS–III.AV: version 8.0/**B02/**and is likely to achieve the estimated emission reductions. The validation has been performed using a risk- based approach, as described above. The expected annual average emission reductions from the project activity instances are 40,156 tCO<sub>2e</sub> and the total for the crediting period is 401,560tCO<sub>2e</sub> for project activity 1.

Carbon Check (India) Private Ltd concludes the validation with a positive opinion that the VCS Project Activity “Grouped Projects For Water Purifiers For Climate And Community Action Phase 2”, as described in the latest revised PD /**01/**, meets all the applicable VCS requirements, including those specified in the VCS Project Standard /**B01-1/**, relevant methodology, tools, and guidelines.

The selected baseline and monitoring methodology (AMS–III.AV: version 8.0)/**B02/** is applicable to the grouped project and correctly applied. Carbon Check (India) Private Ltd therefore requests the registration of the grouped project as a VCS project activity.

**Crediting period:** From 19-February-2023 to 18-February-2033


**Validated estimated GHG emission reductions and carbon dioxide removals for the project activity 1 throughout the crediting period:**

Vintage period	Estimated baseline emissions (tCO <sub>2e</sub> )	Estimated project emissions (tCO <sub>2e</sub> )	Estimated leakage emissions (tCO <sub>2e</sub> )	Estimated reduction VCUs (tCO <sub>2e</sub> )	Estimated removal VCUs (tCO <sub>2e</sub> )	Estimated total VCUs (tCO <sub>2e</sub> )
19-Feb-2023 to 31-Dec-2023	36,596	0	1,830	34,766	0	34,766
01-Jan-2024 to 31-Dec-2024	42,270	0	2,114	40,156	0	40,156
01-Jan-2025 to 31-Dec-2025	42,270	0	2,114	40,156	0	40,156
01-Jan-2026 to 31-Dec-2026	42,270	0	2,114	40,156	0	40,156

01-Jan-2027 to 31-Dec-2027	42,270	0	2,114	40,156	0	40,156
01-Jan-2028 to 31-Dec-2028	42,270	0	2,114	40,156	0	40,156
01-Jan-2029 to 31-Dec-2029	42,270	0	2,114	40,156	0	40,156
01-Jan-2030 to 31-Dec-2030	42,270	0	2,114	40,156	0	40,156
01-Jan-2031 to 31-Dec-2031	42,270	0	2,114	40,156	0	40,156
01-Jan-2032 to 31-Dec-2032	42,270	0	2,114	40,156	0	40,156
01-Jan-2033 to 18-Feb-2033	5,674	0	284	5,390	0	5,390
<b>Total</b>	<b>422,700</b>	<b>0</b>	<b>21,140</b>	<b>401,560</b>	<b>0</b>	<b>401,560</b>



# APPENDIX 1: COMPETENCE CERTIFICATES OF TEAM



**Carbon**  
CHECK

**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:*

<input checked="" type="checkbox"/> Validator	<input checked="" type="checkbox"/> Verifier	<input checked="" type="checkbox"/> Team Leader	<input checked="" type="checkbox"/> Technical Expert
<input type="checkbox"/> Technical Reviewer	<input type="checkbox"/> Health Expert	<input type="checkbox"/> Gender Expert	<input type="checkbox"/> Plastic Waste Expert
<input checked="" type="checkbox"/> SDG+	<input checked="" type="checkbox"/> Social no-harm(S+)	<input checked="" type="checkbox"/> Environment no-harm(E+)	<input type="checkbox"/> CCB Expert
<input type="checkbox"/> Financial Expert	<input checked="" type="checkbox"/> Local Expert for India		

*in the following Technical Areas:*

<input checked="" type="checkbox"/> TA 1.1	<input checked="" type="checkbox"/> TA 1.2	<input type="checkbox"/> TA 2.1	<input checked="" type="checkbox"/> TA 3.1	<input type="checkbox"/> TA 4.1
<input type="checkbox"/> TA 4. n	<input type="checkbox"/> TA 5.1	<input type="checkbox"/> TA 5.2	<input type="checkbox"/> TA 7.1	<input type="checkbox"/> TA 8.1
<input type="checkbox"/> TA 9.1	<input type="checkbox"/> TA 9.2	<input type="checkbox"/> TA 10.1	<input checked="" type="checkbox"/> TA 13.1	<input checked="" type="checkbox"/> TA 13.2
<input type="checkbox"/> TA 14.1	<input type="checkbox"/> TA 15.1			

<p><b>Issue Date</b> 03<sup>rd</sup> May 2023</p>	<p><b>Expiry Date</b> 04<sup>th</sup> May 2024</p>
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 <hr style="width: 80%; margin: 0 auto;"/> <p><b>Mr. Vikash Kumar Singh</b> Compliance Officer</p>	 <hr style="width: 80%; margin: 0 auto;"/> <p><b>Mr. Amit Anand</b> CEO</p>
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CCIPL\_FM 7.9 Certificate of Competency\_V2.1\_012023



## Carbon Check (India) Private Limited

### Certificate of Competency

**Ms. 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:*

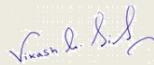
- |   |  |  |  |
|---|--|--|--|
| <input checked="" type="checkbox"/> Validator | <input checked="" type="checkbox"/> Verifier                 | <input checked="" type="checkbox"/> Team Leader  | <input checked="" type="checkbox"/> Technical Expert |
| <input type="checkbox"/> Technical Reviewer   | <input type="checkbox"/> Health Expert                       | <input type="checkbox"/> Gender Expert           | <input type="checkbox"/> Plastic Waste Expert        |
| <input type="checkbox"/> SDG+                 | <input type="checkbox"/> Social no-harm(S+)                  | <input type="checkbox"/> Environment no-harm(E+) | <input type="checkbox"/> CCB Expert                  |
| <input type="checkbox"/> Financial Expert     | <input checked="" type="checkbox"/> Local Expert for Vietnam |  |  |

*in the following Technical Areas:*

- |                                  |  |                                  |                                  |                                  |
|----------------------------------|--|----------------------------------|----------------------------------|----------------------------------|
| <input type="checkbox"/> TA 1.1  | <input checked="" type="checkbox"/> TA 1.2 | <input type="checkbox"/> TA 2.1  | <input type="checkbox"/> TA 3.1  | <input type="checkbox"/> TA 4.1  |
| <input type="checkbox"/> TA 4. n | <input type="checkbox"/> TA 5.1            | <input type="checkbox"/> TA 5.2  | <input type="checkbox"/> TA 7.1  | <input type="checkbox"/> TA 8.1  |
| <input type="checkbox"/> TA 9.1  | <input type="checkbox"/> TA 9.2            | <input type="checkbox"/> TA 10.1 | <input type="checkbox"/> TA 13.1 | <input type="checkbox"/> TA 13.2 |
| <input type="checkbox"/> TA 14.1 | <input type="checkbox"/> TA 15.1           |                                  |                                  |                                  |

**Issue Date**  
1<sup>st</sup> January 2023

**Expiry Date**  
31<sup>st</sup> December 2023



**Mr. Vikash Kumar Singh**  
Compliance Officer



**Mr. Amit Anand**  
CEO



## 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/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

*for the following functions and requirements:*

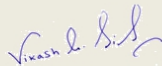
- Validator
- Verifier
- Team Leader
- Technical Expert
- Technical Reviewer
- Health Expert
- Gender Expert
- Plastic Waste Expert
- SDG+
- Social no-harm(S+)
- Environment no-harm(E+)
- CCB Expert
- Financial Expert
- Local Expert for India and Sri Lanka

*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**  
1<sup>st</sup> January 2023

**Expiry Date**  
31<sup>st</sup> December 2023



**Mr. Vikash Kumar Singh**  
Compliance Officer



**Mr. Amit Anand**  
CEO

## APPENDIX 2: REFERENCED DOCUMENTS

S.No	Referenced Documents
/01/	1- VCS PD “Grouped Projects For Water Purifiers For Climate And Community Action Phase 2” Version 4.5 dated 27/10/2023
/02/	ER estimated spreadsheet “ER estimated spread sheet_WP_Viet Nam” corresponds to the PD
/03/	Proof of right of relinquishment of VERs from the end users to the project proponent(Sample), between SIPCO & end users
/04/	Technical Specifications of SDWP including lifetime – SDWP – Viet Charcoal Production Company Limited, dated 12/08/2021
/05/	Microbiological test report, by Viện Hàn lâm Khoa học và Công nghệ (Viet Nam Academy of Science and Technology) dated 17/06/2021
/06/	Evidence for unique identification of SDWP
/07/	Local stakeholders meeting evidences 1- Invitation letter 2- LSC MoM 3- LSC presentation 4 - LSC _attendance sheet-Viet Nam Project 1 5- LSC Pictures
/08/	Baseline Survey conducted by PP in Yen bai province, dated September 2022.
/09/	1 - $f_{NRB}$ calculation sheet 2 - $f_{NRB}$ report by third party (C4EcoSolutions (Pty) Limited (Pty) Limited ) dated 12/05/2023
/10/	Declaration by PP on avoidance of double counting dated, 16/05/2023
/11/	Countersigned contract signed between PP and Carbon Check (India) Private Limited dated, 03/03/2023
/12/	Evidence to show SDWP will be distributed free of cost – Confirmation letter by PP dated 16/05/2023
/13/	SDWP distribution agreement between SIPCO and Women’s Union dated 13/01/2022
/14/	Implementation Schedule
/15/	Employment records
/16/	Training Plan
/17/	Survey questionnaire

### Background Documents

S.No	Referenced Documents
/B01/	1. VCS Standard, version 04.4 2. VCS Program Guide version 04.3 3. VCS Validation and Verification Manual, version 03.2 4. Registration and Issuance Process v4.3 5. VCS Program Definitions version 04.3
/B02/	AMS–III.AV: “Low greenhouse gas-emitting safe drinking water production systems”, version 08.

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/B03/	AMS-I.E.: “Switch from non-renewable biomass for thermal applications by the user”, version”. Version 13.0
/B04/	1- CDM, TOOL01 “Tool for the demonstration and assessment of additionality”, version 07.0. 2- CDM, TOOL 21 - “Demonstration of additionality of small-scale project activities” (Version 13.1)
/B05/	1- CDM, Standard for Sampling and surveys for CDM project activities and programmes of activities version 9.0 2- CDM, Guideline for Sampling and surveys for CDM project activities and programmes of activities version 4.0
/B06/	CDM Methodological Tool 30: Calculation of the fraction of non-renewable biomass v4
/B07/	VCS Project Description template v4.2
/B08/	CDM Glossary: CDM Terms version 11.0

## APPENDIX 3: ABBREVIATIONS

BE	Baseline Emission
CDM	Clean Development Mechanism
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Limited
CDM	Clean Development Mechanism
CL	Clarification Request
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> E	Carbon Dioxide Equivalent
CME	Coordinating & Managing Entity
ER	Emission Reduction
FAO	Food and Agriculture Organization
FAR	Forward Corrective Action
FVR	Final Validation Report
GHG	Green House Gases
ICS	Improved Cookstove
IPCC	Intergovernmental Panel On Climate Change
MAI	Mean Annual Increment
NA	Not Applicable
PD	Project Description
PP	Project Proponent
QC/QA	Quality Control/Quality Assurance
SIPCO	Sustainability Investment Promotion And Development Joint Stock Company
SDWP	Safe Drinking Water Purifier
TR	Technical Review
UNFCCC	United Nations Framework Convention On Climate Change
VCS	Verified Carbon Standard
VCU	Verified Carbon Units
VER	Verified Emission Reductions
VVB	Verification Validation Body
WP	Water Purifier

# APPENDIX 4: FINDING LOG

**TABLE 1: CORRECTIVE ACTION REQUESTS (CARs) AND CLARIFICATION REQUESTS (CLs)**

Finding	CL 01		
<b>Classification</b>	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	<p>PP is requested to address following points and revise PD with reference to emission reduction sheet:</p> <ol style="list-style-type: none"> <li>Under section 1.1 PP is requested to clarify the number of distributions to be done during first project activity instance and the expected annual emission reduction for project activity 1.</li> <li>Under section 1.10 the estimated Emission reduction table is not consistent with the ER Sheet</li> <li>Under section 4.4 the table showing 'baseline estimated emission or removals and estimated emission reduction' are not consistent with the ER sheet</li> </ol>		
<p><b>Corrective Action or clarification #1</b>  <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i></p>	<ol style="list-style-type: none"> <li>There are total of 300 WPs have been distributed so far in first project activity of this grouped project. This information and the expected annual emission reduction of project activity 1 has been provided in section 1.1 of revised PD, version 03</li> <li>The estimated emission reduction table has been revised to consistent with the ER sheet</li> <li>The table showing 'baseline estimated emission or removals and estimated emission reduction' has been revised to consistent with ER sheet in revised PD,version 03</li> </ol>		
<p><b>VVB Assessment #1</b>  <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></p>	<ol style="list-style-type: none"> <li>Based on the review of section 1.1 of the VCS PD version 3.0, the number of SDWPs distribution is in line with the ER Sheet provided</li> <li>Under section 1.10 of VCS PD version 3.0 the emission reductions (14,156 tCO<sub>2</sub>e per annum) are not in line with the ER sheet (14,157 tCO<sub>2</sub>e per annum), PP is requested to clarify this discrepancy.</li> <li>Under section 4.4 of VCS PD version 3.0 the emission reductions (14,156 tCO<sub>2</sub>e per annum) are not in line with the ER sheet (14,157 tCO<sub>2</sub>e per annum), PP is requested to clarify this discrepancy.</li> </ol>		

	Thus CL01 remains open
<b>Corrective Action or clarification #2</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	2,3. The emission reduction of project activity is 14,156. The value in updated ER sheet has been rounded down for conservative and match to revised PD
<b>VVB Assessment #2</b> <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>	Based on the review of the section 1.10 and section 4.4 of VCS PD version 3 and the updated ER sheet provided by the PP, the value of emission reduction is correct.  Thus, CL01 is closed.
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed

Finding	CL 02		
<b>Classification</b>	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	In the section 1.11 of the VCS PD dimensions of SDWP is mentioned as '280mmx305mmx390mm', in the technical specification provided the dimensions are '330mm x 330mm x 330mm'. PP is requested to revise the value throughout the PD and bring consistency among PD and Technical specification.		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The dimensions of new SDWP are 330mm x 330mmx330mm in the technical specification is correct. This information has been updated throughout in the revised PD, version 03		
<b>VVB Assessment #1</b> <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>	Based on the review of section 1.11 VCS PD version 3.0, the dimension of the SDWP are in line with the technical specification provided by the PP.  Thus, CL02 is closed.		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		



Finding	CL 03		
<b>Classification</b>	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	Under section 4.1.1 value of 'QPW <sub>pp</sub> ' is '5.05', under section 5.1 the value 'QPW <sub>pp</sub> ' is '5.02'. Provide clarification for this discrepancy.		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	We expected will distribute first batch of WPs in Hà Tĩnh Province. However, there are some reason so the first batch has been distributed in Yen Bai Province. Therefore, some of parameter have been changed and uploaded through of revised PD, version 03.		
<b>VVB Assessment #1</b> <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>	<p>Based on the review of section 4.1.1 in the VCS PD version 3.0 the value of QPW<sub>pp</sub> mentioned is "5.5" which is not in line with the value of QPW<sub>pp</sub> mentioned in the ER sheet provided by the PP. In section 5.1 of the VCS PD version 3.0, the value of QPW<sub>pp</sub> is 5.04, which is in line with the value of QPW<sub>pp</sub> mentioned in the ER sheet provided by the PP.</p> <p>Moreover, in the ER sheet provided by the PP, the unit and source of the QPW<sub>pp</sub> is not mentioned, PP is requested to update this information in the ER sheet.</p> <p>Thus CL03 remains open</p>		
<b>Corrective Action or clarification #2</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	<p>Section 4.1.1 in the VCS PD version 3.0 show that the value of QPW<sub>pp</sub> is min (QPW<sub>pp</sub>;5.5), not mention is 5.5. The value of QPW<sub>pp</sub> of 5.04 is less than the maximum quality of drinking water person per day of 5.5l/day as per methodology.</p> <p>The unit and source of the QPW<sub>pp</sub> has been provided in the revised of ER sheet, version 02, dated 27.07.23</p>		
<b>VVB Assessment #2</b> <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>	<p>Based on the review of the section 4.1.1 of VCS PD version 3, the value of QW<sub>pp</sub> is correct.</p> <p>Thus, CL03 is closed.</p>		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CL 04		
<b>Classification</b>	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR

<b>Description of finding (VVB)</b>	As per the on-site inspection project activity 1 is implemented in Yen Bai Province, which is also consistent with the Baseline Survey provided by PP. However, in section 1.1 of PD v2, project activity 1 is conducted in 'Ha Tinh Province', PP is requested to clarify this discrepancy.
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	We expected will distribute first batch of WPs in Hà Tĩnh Province. However, there are some reason so the first batch has been distributed in Yen Bai Province. All of related information has been updated in revised PD, ver 03.
<b>VVB Assessment #1</b> <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>	Based on the review of section 1.1 of VCS PD version 3.0, the project location mention is in line with the baseline survey provided by the PP.  Thus, CL04 is closed.
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed

Finding	CL 05		
<b>Classification</b>	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	In the section 2.3 PP has mentioned environmental impacts of the project, according to the PD template, version 4.2, in section 2.3 PP should summarize EIA done if applicable		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	Paragraph 1, Article 18, Chapter IV of Decree No.18/2015/ND-CP lists activities/projects that must prepare the environmental report which is detailed in Appendix 2 of this Decree. The distribution of water purifiers in households is not included in the list. This information has been added in section 2.3 of revised PD, version 03		
<b>VVB Assessment #1</b> <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>	Based on the review of section 2.3 of the VCS PD version 3.0, the reference given for applicability of EIA is correct and distribution of SDWP does not require EIA, and this is in line with the PD template, version 4.2. Thus, CL05 is closed.		

<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed
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Finding	CL 06		
<b>Classification</b>	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	In section 3.5.1 for the question “Are the project activities mandated by any law, statute, or other regulatory framework” both the options “yes and no” checkboxes are checked, PP is requested to clarify this discrepancy.		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	There is no mandated by any law, statute, or other regulatory framework in host country so checkbox the option “no” are check. The revised PD has been updated accordingly		
<b>VVB Assessment #1</b> <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>	PP has changed the section accordingly.  Hence, CL06 is closed.		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CL 08		
<b>Classification</b>	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	In section 5.2, for the parameters “Check for SDWP public distribution network” and for “Quality of safe drinking water” the value applied is given as 1, PP is requested to clarify the how the of value “1” is determined in both these parameters.		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The source of the parameters “Check for SDWP public distribution network” is survey. At validation, the result of survey show that all of end user have not assessed to the public distribution network. And this parameter will check annually to calculate emission reduction.		

	For parameter quality of safe drinking water, the estimated value is 1 because at validation, the water quality after filter by project devices is meet drinking water standard of host country. The value will be monitored at least once every two years by sampling.
<b>VVB Assessment #1</b> <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>	<p>In section 5.2, for the parameters “Check for SDWP public distribution network” and for “Quality of safe drinking water”, these two parameters are not quantifiable, PP is requested to update the section accordingly.</p> <p>Hence, CL08 remains open.</p>
<b>Corrective Action or clarification #2</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The value of parameters “check for SDWP public distribution network” and “quality of safe drinking water” have been updated in revised PD
<b>VVB Assessment #2</b> <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>	<p>PP has updated the values for the parameters “Check for SDWP public distribution network” and for “Quality of safe drinking water”. The values of both the parameters are in line with the methodology.</p> <p>Hence, CL08 is closed</p>
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed

Finding	CAR 01		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	PP is requested to address following points and revise PD as per VCS Project template v4.2:  The version of template used for making of this PD in not the latest version i.e ‘v4.2’.		

	<p>In the cover table the date format should be DD-Month-YYYY. PP has mentioned it as DD-MM-YYYY.</p> <p>Update section 2.2 'Local Stakeholders Consultation' with reference to the information available in supporting document.</p> <p>Update section 2.4 'public comments' as per the template, as public comments period is over.</p>
<p><b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i></p>	<ol style="list-style-type: none"> <li>1. The latest version 4.2 of PD template has been updated in revised PD, version 03</li> <li>2. The format of the date has been revised to DD-Month – YYYY in the cover table</li> <li>3. Information of local stakeholders' consultation has been updated in section 2.4 of revised PD, version 03</li> <li>4. The public comments has been updated in the revised PD, version 03</li> </ol>
<p><b>VVB Assessment #1</b> <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></p>	<ol style="list-style-type: none"> <li>1. Based on the review of VCS PD version 3.0, the version of the VCS PD template is updated to the latest version.</li> <li>2. Based on the review of the cover table in the VCS PD version 3.0 the format of the date is in line with the VCS PD template version 4.2.</li> <li>3. Based on the review of section 2.2 of VCS PD version 3.0, local stakeholder consultation section is updated and is in line with the VCS PD template version 4.2.</li> <li>4. Based on the review of section 2.4 of VCS PD version 3.0, Public comments section is updated and is in line with the VCS PD template version 4.2.</li> </ol> <p>Thus, all points in CAR01 are closed.</p>
<p><b>Conclusion</b> <i>Tick the appropriate checkbox</i></p>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed

Finding	CAR 02		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	PP is requested to update or mention the version of the tools, methodologies, standards and guidelines to the latest version.		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further</i>	The latest version of tools, methodologies, standards and guidelines has been updated in the revised PD, version 03		

<p>information for clarification as per finding)</p>	
<p><b>VVB Assessment #1</b>  <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></p>	<p>Based on the review of VCS PD version 3.0, in the sections 4.3 Leakage, 3.1 Title and Reference of Methodology the version of AMS-I.E is mentioned as version 12.0, PP is requested to update the version of the above mentioned methodology to the latest version.</p> <p>For section 1.8 project start date, the version for VCS standard is mentioned as “4.1”, while the latest version of VCS standard is 4.4, PP is requested to update it.</p> <p>Thus CAR02 remains open.</p>
<p><b>Corrective Action or clarification #2</b>  <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i></p>	<p>The latest version 13.0 of AMS I.E and VCS Standard version 4.4 have been updated in whole of revised PD, dated 27.07.23</p>
<p><b>VVB Assessment #2</b>  <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></p>	<p>Based on the review of the section 4.3, section 3.1, and section 1.8 of VCS PD version 3, all the methodologies, tools and standards are mentioned with the correct version number.</p> <p>Thus, CAR02 is closed.</p>
<p><b>Conclusion</b>  <i>Tick the appropriate checkbox</i></p>	<p><input type="checkbox"/> To be checked during the next periodic verification  <input type="checkbox"/> Outstanding finding (not closed)  <input checked="" type="checkbox"/> The finding is closed</p>

Finding	CAR 03		
<p><b>Classification</b></p>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<p><b>Description of finding (VVB)</b></p>	<p>Following links mentioned for reference are not working, PP is requested to update the references:</p> <ol style="list-style-type: none"> <li>1. Page 13, ref 2</li> <li>2. Page 14, ref 3</li> <li>3. Page 25, ref 5 and ref 6</li> </ol>		
<p><b>Corrective Action or clarification #1</b>  <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i></p>	<p>The updated links has been updated in revised PD, version 03</p>		

<p><b>VVB Assessment #1</b>  <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></p>	<p>Based on the review of VCS PD version 3.0, the reference number 2 mentioned on page 13, and reference number 4 mentioned on page 28, the links provided as reference are not working, PP is requested to update the references.</p> <p>Thus CAR03 remains open.</p>
<p><b>Corrective Action or clarification #2</b>  <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i></p>	<p>The link for reference number 2 and number 4 has been replaced by the report which will be provided to DOE for reviewing.</p>
<p><b>VVB Assessment #2</b>  <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></p>	<p>Based on the review of the VCS PD version 3, reference mentioned in PD are correct.</p> <p>Thus, CAR03 is closed</p>
<p><b>Conclusion</b>  <i>Tick the appropriate checkbox</i></p>	<p><input type="checkbox"/> To be checked during the next periodic verification  <input type="checkbox"/> Outstanding finding (not closed)  <input checked="" type="checkbox"/> The finding is closed</p>

Finding	CAR 04		
<p><b>Classification</b></p>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<p><b>Description of finding (VVB)</b></p>	<p>PP is requested to address following typing errors:</p> <ol style="list-style-type: none"> <li>1. Spelling of 'WORLD BANK' in Table 4.2</li> <li>2. In section 5.2, for 'Py' purpose of data will be 'calculation of baseline emission' instead of 'Calculation the baseline emission'.</li> </ol>		
<p><b>Corrective Action or clarification #1</b>  <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i></p>	<p>The typo has been corrected in table 4.2 and section 5.2 of revised PD, version 03</p>		
<p><b>VVB Assessment #1</b>  <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></p>	<p>Based on the review of section 4.2 and section 5.2 of VCS PD version 3.0, both the typos are corrected. Thus, CAR04 is closed.</p>		
<p><b>Conclusion</b>  <i>Tick the appropriate checkbox</i></p>	<p><input type="checkbox"/> To be checked during the next periodic verification  <input type="checkbox"/> Outstanding finding (not closed)  <input checked="" type="checkbox"/> The finding is closed</p>		

Finding	CAR 05		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	PP is requested to address the discrepancy with the value of fNRB in following sections of PD with reference of fNRB calculation sheet – <ul style="list-style-type: none"> <li>Section 4.1.2</li> <li>Table 4.2,</li> <li>Table 4.3</li> <li>Table4.4</li> </ul>		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The updated fnrb is calculated as per version 04 of tool 30, this value of fnrb has been updated through of revised PD, version 03		
<b>VVB Assessment #1</b> <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>	Based on the review of section 4.1.2, table 4.2, table 4.3, and table4.4 of VCS PD version 3.0, the value of fNRB is in line with the fNRB calculation sheet.  Thus, CAR05 is closed.		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		



Finding	CAR 06		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	PP is requested to update the Section 1.8 “Project start date” because the expected date (01-01-2023) has already passed. Moreover, PP is requested to provide evidence for (first distribution records).		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The date of first WP was distributed is 19/02/2023 which is updated in section 1.8 of revised PD, ver 03. The first distribution records has been provided to DOE in supporting documents.		
<b>VVB Assessment #1</b> <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>	Based on the review of section 1.8 project start date of VCS PD version 3.0, the 3 <sup>rd</sup> paragraph “The project activity is a non-AFOLU project and first SDWP under the project has been expected operating from 19/02/2023. Thus, the project start date is expected as 18/02/2033.” Is not clear, PP is requested to rephrase this text.  CAR06 remains open.		
<b>Corrective Action or clarification #2</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	This text has been rephrased to “The project activity is a non-AFOLU project and first SDWP under the project has been operating from 19/02/2023” in revised PD, dated 27.07.23		
<b>VVB Assessment #2</b> <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>	Based on the review of section 1.8 project start date of VCS PD version 3.0, the section is appropriately describing the start date of the project.  Thus, CAR06 is closed.		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CAR 07		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	As per the applied methodology, in section 5.1 “Data and Parameters Available at Validation”. Value of $n_{wb}$ as selected should be “10.0%” or “0.10” not “10.67%”.		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The target population of grouped project is household use both wood fuel and fossil fuels to boil water so the efficiency of the efficiency of baseline stove is calculated as per proportion in applied methodology. (0.1 for traditional stove, 0.2 for improved stove use woodfuel and 0.5 for stove use fossil fuels) so the efficiency of baseline stove is 10.9%.		
<b>VVB Assessment #1</b> <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>	<p>Based on the review of section 5.1 of VCS PD version 3.0, the value of <math>n_{wb}</math> should be “10.0%” or “0.10” according to the source of data for <math>n_{wb}</math> mentioned in the methodology AMS-III.AV. version 8.0, which states that “Use one of the options below:</p> <p>(a) The efficiency of the water boiling system shall be established using representative sampling methods or based on referenced literature values (fraction), use weighted average values if more than one type of system is encountered;</p> <p>(b) 0.10 default value may be optionally 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 lacking improved combustion air supply mechanism and flue gas ventilation system that is without a grate as well as a chimney; for the rest of the systems using woody biomass 0.2 default value may be optionally used;</p> <p>(c) 0.5 default value may be used if the replaced system or the system that would have been used is a fossil fuel combusting system”</p> <p>Based on the review of section 1.1 of VCS PD version 3.0, and onsite inspection, the baseline scenario provided by the PP is “<i>The scenario existing prior to the implementation of the project is the actual baseline scenario which is equal to the existing common practice by the households i.e. in absence of the project activity the equivalent amount of thermal energy generated using firewood in three stone open fires to meet the boiling water demand</i>” according to this the value of <math>n_{wb}</math> should be “10.0%” or “0.10”. PP is requested to review this parameter accordingly.</p> <p>CAR 07 remains open.</p>		

<p><b>Corrective Action or clarification #2</b>  <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i></p>	<p>The scenario existing prior to the implementation of the project is the actual baseline scenario which is equal to the existing common practice by the households i.e. in absence of the project activity the equivalent amount of thermal energy generated using non-renewable biomass (NRB) and fossil fuel to boil water. This description has been updated in the revised PD, dated 27/07/2023.</p> <p>The target population of project activity are these households who are using fossil fuel and NRB to boil water, so the efficiency of the water boiling systems being replaced is calculated by weight average value of 03 type stove are used according to proportion in baseline survey</p>
<p><b>VVB Assessment #2</b>  <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></p>	<p>The weighted efficiency of the water boiling system is in line with the baseline survey. However, PP is requested to provide reference to the efficiency and rate of the type of stove being used in the Excel sheet “ER estimated spread sheet WP Vietnam” for the cross-verification of the weighted average of water boiling system efficiency.</p>
<p><b>Corrective Action or clarification #3</b>  <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i></p>	<p>The reference to the efficiency and rate of the type of stove being used have been provided in the revised excel sheet</p>
<p><b>VVB Assessment #3</b>  <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></p>	<p>Based on the review of section 5.1 of VCS PD version 3.0, ER sheet, AMS-III A.V version 8, and baseline survey provided by the PP, the value and calculation of <math>n_{wb}</math> is in line with the AMS-III A.V version 8.</p> <p>Thus, CAR07 is closed.</p>
<p><b>Conclusion</b>  <i>Tick the appropriate checkbox</i></p>	<p><input type="checkbox"/> To be checked during the next periodic verification  <input type="checkbox"/> Outstanding finding (not closed)  <input checked="" type="checkbox"/> The finding is closed</p>

Finding	CAR 08		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	PP is requested to add information about women's union involvement in the distribution as observed during the On Site Visit.		
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 of women's union has been added in section 1.1 of revised PD, version 03		
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>	Based on the review of section 1.1 of VCS PD version 3.0, PP has mentioned the role of Women's union in the section.  Thus, CAR08 is closed.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CAR 09		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	In the section 1.2, Audit History, the period written is incomplete, PP is requested to update 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>	The period for crediting period of grouped project has been updated in the period of Audit history of revised PD, version 06		
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>	According to the PD template version 4.3, section 1.2 "Audit History" states that "For the project validation, state the validation date in the Period column". PP is requested to include the period of validation in the period column.  Hence, CAR09 is open.		

<p><b>Corrective Action or clarification #2</b>  <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i></p>	<p>The validation date of grouped project has been updated in section 1.2 of revised PD</p>
<p><b>VVB Assessment #2</b>  <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></p>	<p>PP updated the section 1.2, and now the section is in line with the PD template v4.3.   Hence, CAR09 is closed.</p>
<p><b>Conclusion</b>  <i>Tick the appropriate checkbox</i></p>	<p><input type="checkbox"/> To be checked during the next periodic verification  <input type="checkbox"/> Outstanding finding (not closed)  <input checked="" type="checkbox"/> The finding is closed</p>

Finding	CAR 10		
<p><b>Classification</b></p>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<p><b>Description of finding (VVB)</b></p>	<p>According to the section 1.4.1 PD template "Provide information to demonstrate that the project meets requirements related to the pipeline listing deadline, the opening meeting with the validation/verification body, and the validation deadline.   Demonstrate that the applied methodology is eligible under the VCS Program. Where applying a methodology with scale and/or capacity limits, demonstrate that the project is not a fragmented part of a larger project or activity that would otherwise exceed such limits. If applicable, demonstrate that no single cluster of project activity instances exceeds the capacity limit. ". PP is requested to explain these points in detail as instructed in the PD template</p>		
<p><b>Corrective Action or clarification #1</b>  <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i></p>	<p>The general eligibility of VCS standard has been provided section 1.4.1 of revised PD, version 6</p>		
<p><b>VVB Assessment #1</b>  <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and</i></p>	<p>PP has provided the required information and revised the section.   Hence, CAR10 is closed</p>		

<p>VVB assessments (#2, #3, etc.) shall be added.</p>	
<p><b>Conclusion</b> Tick the appropriate checkbox</p>	<p><input type="checkbox"/> To be checked during the next periodic verification  <input type="checkbox"/> Outstanding finding (not closed)  <input checked="" type="checkbox"/> The finding is closed</p>

Finding	CAR 11		
<p><b>Classification</b></p>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<p><b>Description of finding (VVB)</b></p>	<p>PP is requested to address the following typos and grammatical error in the PD:</p> <p>In the section 1.14, para 4 there is a grammatical error “each the instance under the grouped project will achieve emission reductions below 60,000 tCO2e per annum”. PP is requested to remove this grammatical error.</p> <p>In section 2.1.1, in the ‘stakeholders diversity and changes over time section’ for the ‘SDWP manufacturer’ category PP has mentioned ‘maintains’, PP is requested to rectify this typo.</p> <p>In section 4.1.2 PP has written “Fnrb” and at all other places it is written as “fNRB”, PP is requested to keep the representation of parameters consistent throughout the PD</p>		
<p><b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i></p>	<p>All of typos and grammatical error have been revised in updated PD, version 06</p>		
<p><b>VVB Assessment #1</b> <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></p>	<p>PP has removed all the typos. Hence, CAR11 is closed.</p>		

<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed
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Finding	CAR 12		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	PP has mentioned ICS at many places  In section 2.1.1- stakeholder identification, stakeholder diversity and changes over time and the location of resources section  Section 2.1.2- consultation outcome section  Section 3.5.2- last para		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The ICSs has been revised to WPs in updated PD, version 06		
<b>VVB Assessment #1</b> <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>	PP has removed all the typo.  Hence, CAR12 is closed.		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CAR 13		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	<p>In the section 3.2, applicability of the methodology, some of the justifications are not appropriate, and are mentioned below:</p> <ol style="list-style-type: none"> <li>1. In section 3.2, PP has mentioned “Under this grouped Project, low greenhouse gas emitting water purification will be distributed to households. Detail of technology has been detailed in section 1.11 of this grouped VCS.” PP is requested to use the appropriate reference for the information in the second line of this justification.</li> <li>2. In section 3.2, for the first applicability condition of tool 21, the PP has mentioned “Complies. The project faces an investment barrier. Therefore, Tool21 is applied.” This justification doesn’t seem to be complete, as it does not justify the applicability condition. PP is requested to provide a justification that is in line with the applicability condition.</li> <li>3. For tool 01, the justification provided by PP for the first applicability condition “Complies. Simple cost analysis in Tool 01 is applied to demonstrate and assessment of additionality for each instance of grouped project.” is misleading, as PP is clearly using approved CDM methodology. Thus, PP is requested to rephrase it for better understanding.</li> <li>4. The para 12 of the applied methodology states that “<i>The additionality of a project activity shall be demonstrated, according to the Methodological TOOL 01 “Tool for the demonstration and assessment of additionality” or Methodological TOOL 21: “Demonstration of additionality of small-scale project activities” or the Methodological TOOL 19: “Demonstration of additionality of microscale project activities.”</i> Here, PP is using Tool 1 and tool 21 as well. Whereas, justification provided by PP i.e., “Complies. The additionally tool is not included in approved methodology.” which is quite contradictory to project outline. PP is requested to revise the justifications accordingly.</li> </ol>		
<b>Corrective Action or clarification #1</b>	<ol style="list-style-type: none"> <li>1. Detail of technology has been detailed in section 1.12 of this grouped VCS.” The appropriate</li> </ol>		



<p><i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i></p>	<p>reference for the information has been revised in update PD, version 06.</p> <ol style="list-style-type: none"> <li>2. The sentence has been revised to “Complies. The investment barrier according to para 10a of Tool21 is applied to demonstrate the additionally” in revised PD, version 06</li> <li>3. The para has been rephrased to “Not applicable. The project activity applied the CDM methodology AMS III AV, version 08, do not apply a new methodology” in updated PD, ver 06</li> <li>4. The additionally tool is included in approved methodology. This sentence has been rephrased in revised PD, version 06.</li> </ol>
<p><b>VVB Assessment #1</b>  <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></p>	<ol style="list-style-type: none"> <li>1. PP has updated the justification for the first applicability condition of the applied methodology and provided the correct reference. Hence CAR13 part 1 is closed.</li> <li>2. The justification provided for tool 21 applicability condition first is appropriate, CAR13 part 2 is closed.</li> <li>3. PP has updated the justification for first condition for tool 01. Hence, CAR13 part 3 is closed.</li> <li>4. PP has updated the justification for the second applicability condition for tool 01 appropriately. Hence, CAR 13 part 4 is closed.</li> </ol>
<p><b>Conclusion</b>  <i>Tick the appropriate checkbox</i></p>	<p> <input type="checkbox"/> To be checked during the next periodic verification  <input type="checkbox"/> Outstanding finding (not closed)  <input checked="" type="checkbox"/> The finding is closed         </p>

Finding	CAR 14		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	<p>In section 3.5.2 PP has referred to para 10(a) of tool 21 and para 33 and 34 of tool 01 in the line “Hence in line with paragraph 10 a) of Tool21, version 13.1 and Paragraph 33 and 34 TOOL01 “Tool for the demonstration and assessment of additionality”, version 07.0 the project faces an investment barrier and is additional.”. As referred from the tool 21 para 10(a) “Investment barrier: a financially more viable alternative to the project activity would have led to higher emissions;”, PP is requested to add alternative to the project activity. For tool 01 para 33 and 34 PP is requested to add the information as required by the referred paragraphs that is</p> <p>“33. Document the costs associated with the CDM project activity and the alternatives identified in Step 1 and demonstrate that there is at least one alternative which is less costly than the project activity.</p> <p>34. “If it is concluded that the proposed CDM project activity is more costly than at least one alternative then proceed to Step 4 (Common practice analysis)”.”</p>		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	<p>The distribution of SDWPs require capital. The proposed project will distribute SDWPs free of cost to users which means no money shall be charged to users for the distribution of SDWPs; hence there is no financial return from the project other than revenue from the sale of GHG credits. The project activity will not occur in absence of GHG credits revenue. Hence in line with para 10 a) of tool 21, version 13.1, the project activity 1 faces investment barrier and its additional. Information of para 33 and 34 of tool01 has been removed to avoid confusing in revised PD, ver 06</p>		
<b>VVB Assessment #1</b> <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>	<p>The justification provided by the PP is in line with the Tool 21 requirements. Thus, CAR 14 is closed.</p>		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<p><input type="checkbox"/> To be checked during the next periodic verification</p> <p><input type="checkbox"/> Outstanding finding (not closed)</p> <p><input checked="" type="checkbox"/> The finding is closed</p>		

Finding	CAR 15		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	In section 3.4, "Baseline scenario" PP is requested to provide information about the baseline survey conducted like sampling approach, procedure to select the target population, precision/confidence levels achieved, result of sampling, in accordance with the instruction in the PD template version 4.3 for the above mentioned section that says "Explain and justify key assumptions, rationale, and methodological choices. Provide all relevant references."		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The information about the baseline survey has been added in revised PD, version 06		
<b>VVB Assessment #1</b> <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>	PP has included the information required in the section. Hence, CAR15 is closed.		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CAR 16		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	<p>In section 5.1 for the parameter <math>X_{boil}</math> the value is written as 1 and unit is % in the PD. In the applied methodology AMS III A.V. the % and in the section 4.1.6 it is mentioned that the “100% of the households being interviewed say that they boil water before drinking. So, <math>X_{boil} = 1</math>”. PP is requested to mention the values according to the instruction of the methodology.</p>		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	<p>The value of <math>X_{boil}</math> has been revised to the instruction of methodology in PD, version 06</p>		
<b>VVB Assessment #1</b> <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>	<p>The value has been updated. Hence, CAR16 is closed.</p>		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CAR 17		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	In section 5.2 for the parameter “m” PP has written “lover detection limit (LDL)” instead of “lower detection limit (LDL)”. PP is requested to rectify this typo.		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The typo has been corrected in revised PD, version 06		
<b>VVB Assessment #1</b> <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>	Section has been updated accordingly.  Hence CAR17 is closed.		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CAR 18		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	In section 5.3, the version number of AMS III A.V. mentioned is not correct. PP is requested to mention the latest version number of the applied methodology.		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The version number of AMS III.A.V has been revised to ver 08.0 in updated PD, version 06		
<b>VVB Assessment #1</b> <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>	Section has been revised accordingly.  Hence, CAR18 is closed.		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CAR 19		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	In section 5.3, in the table for sampled parameters in the PD, the monitoring frequency of the parameter “Check for SDWP public distribution network” is not mentioned, PP is requested to mention the monitoring frequency for the parameter.		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The monitoring frequency of parameter “Check for SDWP public distribution network” has been provided in revised PD, version 06		
<b>VVB Assessment #1</b> <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>	Section has been revised.  Hence, CAR19 is closed.		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CAR 20		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	PP is requested to provide employment records, if employment is generated.		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The employee contracts has been provided to DOE in supporting documents		
<b>VVB Assessment #1</b> <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>	Employment records not found in the supporting document, PP is requested to provide employment records.		
<b>Corrective Action or clarification #2</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The employment contract has been provided to DOE for review		
<b>VVB Assessment #2</b> <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>	PP has provided the employment records.  Hence CAR20 is closed.		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

**TABLE 2: FORWARD ACTION REQUESTS**

No FAR has been raised.

Finding	FAR XX		
<b>Classification</b>	<input type="checkbox"/> CAR	<input type="checkbox"/> CL	<input checked="" type="checkbox"/> FAR
<b>Description of finding (VVB)</b>	NA		
<b>Corrective Action or clarification #1</b> <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>			

<b>VVB Assessment #1</b> <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>	
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input type="checkbox"/> The finding is closed