



**Verified Carbon
Standard**

GROUPED PROJECTS FOR VIET NAM COOKSTOVE PROGRAM



Document Prepared by

Carbon Check (India) Private Ltd

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Report Title	Grouped Projects for Viet Nam Cookstove Program
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Summary:

Brief description of the validation and the project

Validation: Sustainability Investment Promotion and Development Joint Stock Company has appointed Carbon Check (India) Private Ltd., to carry out the validation of the project “Grouped Projects for Viet Nam Cookstove Program”, with regards to the relevant requirements of VCS Standard Version 4.3 (dated 22/06/2022).

Project: The project “Grouped Projects for Viet Nam Cookstove Program”, is a grouped project which employs VCS methodology VMR0006 “Methodology for installation of High efficiency firewood cookstoves”, version 1.1 /B02/. The project involves distribution/installation of energy efficient Improved Cooking Stove (ICS) in the households (hereafter “users”) of Vietnam. The proposed project activity aims at reducing the wood fuel consumption of traditional stove users by distributing/installation of energy efficient Improved Cooking Stove (ICS)households.

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

Purpose: The purpose of a 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 grouped project activity.

Scope: 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 (v4.2, updated 22/06/2022), VCS Standard (v4.3, updated 22/06/2022), Program Definitions (v4.2, dated 22/06/2022), Registration & Issuance Process, VCS Validation and Verification Manual applicable at the time in order to confirm that the project meets the applicability conditions of the selected baseline and monitoring methodology VMR0006: Methodology for installation of high efficiency firewood cookstoves, 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. Remote interviews with project stakeholders
 - Interviews with relevant stakeholders in host country with personnel having knowledge with 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 validation

During the course of validation, a total of 23 findings were raised, which include:

18 Corrective Action Requests (CARs).

05 Clarification Requests (CLs).

00 Forward Action requests (FARs).

All the raised findings have been successfully closed by the Project Proponent.

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 Viet Nam Cookstove Program” as described in the PD (version 07, dated **23/11/2022**) /01-f/, meets all applicable VCS requirements, including those specified in the VCS Standard (v4.3, dated 22/06/2022), relevant methodology, tools, and guidelines.

The selected baseline and monitoring methodology VMR0006: Methodology for installation of high efficiency firewood cookstoves (Version 1.1), 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 has appointed the VVB, Carbon Check (India) Private Ltd. to perform a validation of the VCS Grouped Project “Grouped Projects for Viet Nam Cookstove Program”, with regards to the relevant requirements of VCS Standard Version 4.3 (dated 22/06/2022). This report summarizes the findings of validation of the project, performed on the basis of the VCS Program Guide (v4.2, updated 22/06/2022), VCS Standard (v4.3, updated 22/06/2022), Program Definitions (v4.2, dated 22/06/2022), Registration & Issuance Process, VCS Validation and Verification Manual. 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, VCU's.

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 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 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 (v4.2, updated 22/06/2022)
- VCS Standard (v4.3, updated 22/06/2022),

- Program Definitions (v4.2, dated 22/06/2022),
- Registration & Issuance Process (v4.0, dated 19/09/2019)
- VCS Validation and Verification Manual (v 3.2, dated 19/10/2016)
- VCS Methodology: VMR0006.: Methodology for Installation of High Efficiency Firewood Cookstoves” (Version 1.1).
- Other relevant rules, including the host country legislation

1.3 Level of Assurance

☒ Reasonable level of assurance

☐ Limited level of assurance

1.4 Summary Description of the Project

The project “Grouped Projects for Viet Nam Cookstove Program” is a grouped project which employs of the VCS methodology; VMR0006 version 1.1/B02/. The grouped project involves distribution of fuel-efficient improved cook stoves (ICS) in Viet Nam. The project proponent aims to disseminate 10,000 ICS in Lao Cai Province in the first project activity of this grouped project. The TK90 stove will reduces the amount of nonrenewable biomass used for cooking. PP has considered each ICS distributed as a project activity instance. The start date for the grouped project is 07/01/2022 /03/ which is the date of installation of the first stove in the grouped project for first project activity/Instance.

The project proponent for the project activity is Sustainability Investment Promotion and Development Joint Stock Company, owns the rights to VERs /05//12/.

The total estimated GHG emission reductions expected from the grouped project activity are 604,268tCO₂e for the ten years fixed crediting period and average of 60,426CO₂e/year.

2 VALIDATION PROCESS

2.1 Method and Criteria

Grouped Projects for Viet Nam Cookstove Program has appointed the VVB, Carbon Check (India) Private Ltd., to carry out the validation of the project “Grouped Projects for Viet Nam Cookstove Program”, with regards to the relevant requirements of VCS Standard Version 4.3 (dated 22/06/2022)/B01-a). The validation includes a thorough and independent assessment of the proposed grouped project against the applicable VCS requirements the project's baseline, additionality, monitoring plan and the project's

compliance with relevant VCS and host party criteria. The validation involves assessment of the project and to confirm that the project meets the applicability conditions of the selected methodology, VMR0006, version 1.1 /B02/ and assess the claims and assumptions made in the PD /01-e/ 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 remote interviews, review of the applicable/applied methodologies and its underlying formulae and calculations to assess the quality of information provided.

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

The VCS project description, emission reduction calculation spread sheet and supporting documents related to the project design and baseline were reviewed as per VCS standard version 04.3 /B01/ requirements. The desk review included:

- A review of the data and information presented to verify completeness and consistency in accordance with VCS standard version 04.3 requirements.
- A review of the 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 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 18/04/2022 /01-a/ was initially reviewed and CCIPL requested the PP to present the supporting information and documents. The documents reviewed by CCIPL are listed below in Appendix 1. Through the process of the validation, the revised VCS PD and the supporting documents were evaluated to confirm the actions taken by the PP to 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 remote interview process and further identifies personnel, including their roles, who were interviewed and/or provided information additional to that provided in the project description /01b/ and any supporting documents.

SR. No.	Date	Name	Organization	Topic
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/1/	06/06/2022	Mr. Hoang Anh Dung and Viet Anh Ngo (Ms)	SIPCO	• Project Design • Project Implementation status • Project start date and Project Location • Baseline Scenario • Baseline Identification and Additionality of the project • Qualification and Training • Monitoring and reporting documentation • Quality Assurance – Management and operating system • Social and Environmental Impacts • Local Stakeholders meeting process and Mechanism for ongoing communication. • Compliance with relevant laws • Roles and responsibility • Assuring the ownership of the project. • Assuring the avoidance of double counting and cross checking the unique ID concept as mentioned in PD
/2/	06/06/2022	1. Do Thi Nghanh 2. Tran Thi Hai 3. Diep Thi Binh 4. Dinh Van Pho 5. Pham Thi Hai 6. Luong Thi Lieng 7. Ha Thi Ngan 8. Nguyen MinhHien 9. Tran Thi Diu 10. Tran Van Hung 11. Duong Thi Ha	End users	Cross-check of a sample of project participants' samples (Questionnaire, operation surveys/interviews) for quantity of woody biomass consumption during baseline survey, that would have been used in the household in the absence of the project activity to generate useful thermal energy equivalent to that provided by the project devices) The value of the woody consumption has been cross checked by the acceptance sampling of the survey done by the PP. Discussion with the end users on the additionality part specifically end users were questioned about the cost of project stove paid by them (if any).

Sampling Approach:-

PP has done baseline survey/18/ using 95/10 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) /B03/. PP has surveyed 482 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/19/ was conducted by the representatives of Project participant. The validation team has chosen acceptance sampling in accordance with paragraph 28 of the sampling standard /B03/.

Applying paragraph 39 (c) of the sampling standard, version 09 /B03/, 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 sample from the baseline from the survey done by project participants.

2.4 The information provided in the baseline survey /19/, has been cross checked during the remote interviews. As a part of acceptance sampling, the Validation team could confirm the baseline survey data /19/ with no discrepant records. Thus, PP's set of records has been accepted in line with § 33 of the sampling standard, version 09 /B03/.Site Inspections

Carbon Check has not conducted an on-site inspection due to the recent pandemic COVID19 and due to its related policy measures created restrictions all over the world impacting travel activities on an international level and even for in-country travel. A reasonable level of assurance has been maintained through the alternative means used for the purpose of validation as follows:

- An assessment of the implementation and operation of the proposed grouped project through remote 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.

2.5 Resolution of Findings

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

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

Corrective action requests (CAR) are issued, where:

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

A Clarification request (CL) may be used where additional information is needed to fully clarify an issue or where the information is not transparent enough to establish whether a requirement is met. A total 18 CAR, and 05 CLs had been raised and successfully closed. Please refer to Appendix 4 below for the details of the CARs/CLs and their closure

2.5.1 Forward Action Requests

The validation team finds there is no (00) FAR raise at the time validation.

A forward action request (FAR) should be issued, where:

- i. the actual project monitoring and reporting practices requires attention and /or adjustment for the consecutive verification period, or
- ii. an adjustment of the MP is recommended.

In the context of FARs, risks have been identified, which may endanger the delivery of high-quality emissions reductions in the future, i.e., by deviations from standard procedures as defined by the MP. Therefore, such aspects should receive a special focus during the consecutive verification. A FAR may originate from lack of data sustaining claimed emission reductions.

3 VALIDATION FINDINGS

3.1 Project Details

The project “Grouped Projects for Viet Nam Cookstove Program” is a grouped project which employs baseline and monitoring methodology; VRM0006 version 1.1 /B02/. The grouped project involves distribution of fuel-efficient improved cook stoves (ICS) in Vietnam. The project proponent aims to disseminate 10,000 ICS in Lao Cai Province in the first project activity of this grouped project. The project results in reducing the amount of non-renewable biomass used for cooking. Through reduction in non-renewable biomass consumption, the program will decrease greenhouse gas emissions. The TK90 stove will burn the wood efficiently, which improves the thermal energy direct to the pot, so conserving

nonrenewable biomass. Section 1.1. of the VCS PD contains a clear summary description of the projects. The completeness and accuracy of the project description was validated through remote interviews.

The project proponent is Sustainability Investment Promotion and Development Joint Stock Company which will be holding the carbon credits generated from the project activity /05//12/.

The start date for the grouped project is 07/01/2022 /03/ which is the date of installation of first stove under this project activity.

The crediting period starts on 07/01/2022 /03/, which coincides with the starting date of the project activity, and last for 10 years, fixed. This is in accordance with paragraph 3.8.1 of the VCS standard version 4.3 /B01-a/ for non-AFOLU projects.

The indication of the project activity instance location and the geographic boundaries is provided in section 1.12. of the VCS PD. They are in accordance with paragraph 3.10.1 of the VCS Standard and can confirm that the project activity boundary is uniquely defined. The grouped project location and geographic boundaries of the project are those of Vietnam, while the project activity 1 under this grouped project will be distributed in Lao Cai Province of Vietnam. This is in accordance with paragraph 3.5.8 of the VCS standard version 4.3 /B01-a/, which requires grouped projects to have one or more clearly defined geographic areas within which new project activity instances may be developed.

The VCS PD clearly indicates the project scope, which is scope 3: Energy demand, and more specifically demand -side energy efficiency project. The project is a grouped project, this is indicated in section 1.2. of the VCS PD.

The proposed grouped project is an energy efficiency project activity and is in a non-Annex I country. Therefore, the ER generated would not be part of an emission trading program, nor it is in a jurisdiction or sector with binding limits. The project proponent intends to claim carbon credits under the VCS programme only for the emission reductions achieved. The PP states in the VCS PD that the emission reductions generated by this project will not be used for compliance with an emission-trading program or to fulfil binding commitments. In fact, at the time of validation, no binding targets have been set by Vietnam under the Kyoto protocol, as indicated in the UNFCCC website /B04/.

The project proponent has declared that the project is not in registration under any other GHG program. The validation team has checked the UNFCCC database of registered projects or projects under validation and was able to confirm that the listed projects are not the proposed project activity.

The proposed project activity instances do not generate another form of environmental credit. The project proponent indicates in the VCS PD that the project does not intend to generate any other form of GHG related environmental credit other than those claimed under this VCS project.

ICS reduces non -renewable consumption and emissions savings but also has many other benefits for the household. It contributes to sustainable development in Vietnam through:

Environmental Well-being:

- The project activity will contribute 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.
- The project activity will lead to reduction in indoor air pollutants from wood smoke and avoid smoke related health disorders It helps stimulate economic empowerment by creating jobs and entrepreneurs in construction of ICS.
- The reduction in non-renewable biomass consumption for cooking and boiling water through efficient use leads to improved ecological balance.
- The project activity will support fire prevention in the household kitchen. Socio Economic benefits
- employment opportunities for people involved with installation, maintenance and distribution of these household biomass-based cookers.
- The project will alleviate the work burden of women and children as they must spend less time to collect firewood for cooking improvement in the status of living of the households
- Health benefits to the end users

Technological Benefit

- The introduction of locally manufactured technology with improved energy efficiency helps in technological self-reliance in the area

Table 1: Eligibility criteria of the grouped project activity

Sl. 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 instance 1 will meet all applicability conditions listed in section 3.2.	The efficiency of the ICS model TK 90 and Ecozen planned to be distributed under this grouped project is based on the WBT test conducted by a third-party laboratory (Institute of Technology Cambodia) /11/ using international testing standards (Water Boiling Test - Version 4.2.3) as listed by Clean Cooking Alliance The validation team checked the stove efficiency test /10/ and also the manufacturer specification /04/ which confirms that the ICS distributed to the end users has thermal efficiency more

			than 25% i.e., 38.44% for Ecozen and 30.25% for TK90. 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.
2.	Use the technologies or measures specified in the project description.	Only TK90 cookstove, with the efficiency is 30.25% to be adopted in the project activity instance 1.	The Validation team through document review and remote interviews analyzed that PP will be using only TK 90 and Ecozen stove and no other stove model 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.
3.	Apply the technologies or measures in the same manner as specified in the project description.	Both TK90 and Ecozen Cookstove with efficiency of 30.25% and 38.44% respectively will be included in the grouped project. But only TK90 cookstove, to be adopted in the project activity instance 1 and it will replace traditional cookstoves in household.	The Validation team through document review and remote interviews analyzed that PP will be using only TK90 stove and Ecozen stoves no other stove model will replace the baseline traditional cookstoves in the household, under this grouped project. Which is 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 instance 1 will be implemented in the households of Lao Cai Province in Viet Nam.	The Validation team through document review and remote interviews analyzed that the baseline is demonstrated in the section 3.4 of the PD. PP will install only TK90 stove and Ecozen stoves within the project boundary of Vietnam and only TK90 in the Lao Cai Province in Vietnam for project activity instance 1 and will replace the baseline cookstoves. 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 consistent with the initial instances for the specified project activity and geographic area.	All new project activity instances will use the activity method for demonstration of additionality. Step 1: Regulatory Surplus There is no mandated government programme or policy in host country of this project ensuring the distribution of new project activity instances. Step 2: Positive List The inclusion of new project activity instances will comply with positive list as it satisfies criterion 1 where it meets all the applicability conditions of the methodology. The project activity instance 1 is eligible when the CME shall provide the confirmation that the ICSs are distributed for free to the Users at community centers	The Validation team through document review and remote interviews analyze that PP has demonstrated additionality as per the methodology VMR0006 version 1.1 section 7 which states that activity method to demonstrate the additionality. This has been mentioned in the PD. PP has demonstrated regulatory surplus 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 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. Furthermore, the project activity meets all the applicability conditions of the applied methodology VMR0006, version 1.1 and distributes stoves at zero cost to the end-users and has no other source of revenue other than the sale of GHG credits. Validation team on the basis of document review, remote interviews and review of signed declaration letter provided by the PP/18/ and the beneficiary agreement /12/, confirms that the project is to free distribution of ICSs to the Household, the PP has no other income from VER revenue. Hence the project qualifies under positive list and deemed additional.

			Thus, the eligibility criteria have been met for the new project activity instances under this group project.
6.	Conditions that avoid double counting of emission reductions	The new project activity instances will: 1. Apply a unique system (i.e., conformity letter) for ICS in each project instance, assigning a unique ID to each ICS and allowing to clearly identify each ICS and to which project instance it belongs. 2. Each ICS installed will include project instance assignment and will have corresponding end user details (i.e., name, address). This data will be recorded as part of the beneficiary agreement and Project database. The CME has an agreement in place with residents who use ICS in the project instance in which the owner transfers the rights to the emissions reductions exclusively to the CME as part of the Carbon Rights Waiver within the Beneficiary agreement.	Each ICS in project activity instance is uniquely identifiable and not part of any other CDM registered project or CPA of other PoA. The ICS will carry unique IDs comprised of the project instance number, ICS number and household subscribed to each ICS. The same has been crosschecked by the beneficiary agreement/17/ and document referring unique identification of each of the Stove provided by the PP/09/ Thus, the eligibility criteria have been met for the new project activity instances under this group project
7.	Capacity Limit. Where a capacity limit applies to a project	The energy saving of project activity instance 1 in Lao Cai Province is 145.790 which do not	PP has considered each ICS as a project activity instance which is deemed acceptable

	activity included in the project, no project activity instance shall exceed such limit. Further, no single cluster of project activity instances shall exceed the capacity limit, determined as follows: 1) Each project activity instance that exceeds one percent of the capacity limit shall be identified. 2) Such instances shall be divided into clusters, whereby each cluster is comprised of any system of instances such that each instance is within one kilo meter of at least one other instance in the cluster. Instances that are not within one kilometres of any other instance shall not be assigned to clusters. 3) None of the clusters shall exceed the capacity limit and no further project activity instances shall be added to the project that would cause any of the clusters to exceed the capacity limit.	exceed the applicable limit, which is 180 GWhth/y. The expected annual energy saving for each ICS of project activity instance 1 is 0.0146 GWhth/y which is below 1% of the limit. Therefore, no project activity instance is identified and divided into clusters and thus the limit does not apply to the proposed grouped project.	as per the VCS Program Definitions and VCS Standard /B01e/. Since the annual energy saving per ICS is approximately 0.0146 GWhth/y, the capacity of project activity instance is well below the 1% of the threshold limit. Therefore, it is not required to divide any project activity instance into clusters. This criterion is deemed appropriate, and it can be verified from the energy saving per ICS included in the grouped project.
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8.	Target group	Each project instance will target end users which includes households who use traditional cookstove to cook meal. The project activity 1 in Lao Cai satisfies the criteria. Each household in project activity instance 1 must sign a beneficiary agreement to commit that they are using traditional cookstove to cook meal	Under the project activity instance 1 in Lao Cai province, the ICS are distributed to the households who use traditional cookstove to cook meal and this was crosschecked by interview with the PP and review of the beneficiary agreement/17/
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3.2 Safeguards

3.2.1 No Net Harm

As identified by PP project has no negative impact. The potential negative environmental and socio-economic impacts identified by the project proponent and have been listed in section 2.1 of the PD.

Every additional project activity instance to be added to this Grouped Project will summarize any potential negative environmental and socio-economic impacts and the steps taken to mitigate them.

The validation team confirms that for the project does not pose any potential negative environmental and socio-economic impacts. A local stakeholders meeting was conducted for the project and there was no negative feedback.

3.2.2 Local Stakeholder Consultation

The validation team cross check the information provided in the PD/01/ through the Invitation letter, MoM of LSC and LSC Project Introduction presentation report/04/ and confirms PP follows all the steps for LSC and finds there is no negative stakeholder input received during the local stakeholder consultation, there is no negative feedback from the local stakeholder.

The LSC meeting conducted at 07th Jan 2022 at the headquarter of Lao Cai Women Union as per the PD/01/ and confirmed by crosschecking the MoM Report/04/ and validation team finds positive social, economic and environmental impact of the subject project.

Furthermore, on the basis of interview with the project developer during the audit, it confirms that the project has a stepwise mechanism for the ongoing communication. SIPCO engages with a number of stakeholders (Women's Union) through annual reports, records and SIPCO's social media communication. Women's Unions are large organizations at all administrative levels (Commune, District,

Province, State). The details of the steps along with the contact information for ongoing communication is mentioned in section 2.2 of the PD.

3.2.3 Environmental Impact

As there is no negative environmental impact due to the grouped project so no EIA has been performed. The validation team also cross check the paragraph 1, Article 18, Chapter IV of Decree No.18/2015/ND-CP, lists activities/projects that must prepare the Environmental Impact Assessment report which is detailed in Appendix 2 of this Decree in which installation of ICS in households is not included in the list. Therefore, validation team the Environmental Impact Assessment (EIA) is not required for the project. The subject project activity will reduce deforestation and forest degradation in Viet Nam through involvement of stakeholders in discontinuing the use of firewood for boiling water. Also contribute in improving the quality of life of households in particular and of Vietnam in general by reducing the time and money spent on collecting firewood and improving indoor air pollution - The project activity will lead to reduction in indoor air pollutants from wood smoke and avoid smoke related health disorders. - The project activity will be as part of the fire prevention in the household kitchen.

3.2.4 Public Comments

The validation team finds only one public comment as per the PD/01/.

The comment is

Dear Verra Registry,

“Please check carefully the efficiency and lifespan of Ecozen and TK90 cookstoves model which are showed in the grouped project. They are unreasonable. Which agencies review and verify for the efficiency lifespan of the products? What are the Registered Number of WIPO for the products? The project developer, SIPCO, dung hoang are liars and scammers”.

Respond by Project Participant

The efficiency test for the Ecozen and TK 90 cookstove model introduced in the grouped projects are 38.44% and 30.25%, the efficiency were conducted by a thermal efficiency specialized Laboratory, GERES Biomass and Energy Laboratory (G-BEL), recommended by the Clean Cooking Alliance¹ (United Nations run organization), the full test report and certification have been provided to the VVB for verifying.

The lifespan of the Ecozen and TK 90 cookstove model have been confirmed by the manufacturer as the lifespan test report provided to VVB which is compliance with the applied methodology.

For the registered number of WIPO for the products, the ECOZEN cookstove has been certified for its exclusive industrial design by the Intellectual Property Office of Vietnam No. 33069 dated 01/07/2021,

¹ <https://cleancooking.org/sector-directory/geres-biomass-energy-lab-g-bel>

the certificate has been provided to the VVB (The Intellectual Property Office of Vietnam is a member of WIPO²). The TK90 cookstove model has been granted the WIPO Gold Medal No.1990, the WIPO certificate for TK90 cookstove model has been provide to the VVB.

In other hand, for the cross check with recently listing cookstove projects for comparison of efficiency and lifespan, the following results have been found:

No.	Registry ID	Host country	Cookstove Model	Efficiency	Life time	Type of cookstove
1	2533	India	Green Jumbo	38%	7 years	Steel stove
2	2505	South Africa	Zama Zama Rocket stove	38.3%	5 years	Steel stove
3	2473	India	Agneekaa Eco Mini Stove	32.19%	7 years	Steel stove
4	2372	Malawi	TLC-CQC	34.5%	10 years	Clay stove
5	2523	Viet Nam	Kuniokoa	48%	10 years	Steel stove
6	2409	Cambodia	SSM-S32-13	38.5%	10 years	Steel stove
7	2409	Cambodia	Prime Square Granular Regular	39%	5 year	Steel stove
8	2636	Congo	OBEN	32.1%	8 years	Clay stove

The validation team cross check the above statements has been mentioned in the PD/01/ and documents/04/provided by the PP and finds consistency between them and confirm that the PP has been taken due account of the above comment. There are no changes in the PD due to the comment and PP provides the efficiency test reports for both Ecozen and TK 90 cookstoves and their model with lifespan certificates which is deemed to be correct so, the validation team finds the PP's responses are appropriate.

3.2.5 AFOLU-Specific Safeguards

Not Applicable

² <https://ipvietnam.gov.vn/wipo-ip-hub>

3.3 Application of Methodology

3.3.1 Title and Reference

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

- VMR0006. “Methodology for Installation of High Efficiency Firewood Cookstoves, (Version 1.1)”.

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

- CDM Guideline “Sampling and surveys of CDM project activities and programmes of activities” version 04.0
- CDM Standard “Sampling and surveys for CDM project activities and programmes of activities” version 09.0
- CDM TOOL 30 “Calculation of the fraction of non-renewable biomass” version 03.0
- AMS-I.E.: “Switch from non-renewable biomass for thermal applications by the user”.

3.3.2 Applicability

The project applies VCS methodology; VMR0006, version 1.1 /B02-a/. Applicability criteria for the baseline line methodology are assessed by the validation team by means of document review and interview. Validation team confirms that the project activity meets the criteria of the applied methodology.

Table 2: Applicability Criteria as per the VMR006 version 1.1

No.	Relevant applicability condition	Justification by PP on compliance with project activity	Means of validation
1	Project activities shall be implemented in domestic premises or in community-based kitchen	The proposed project involves deployment of ICS only in households.	The Validation team through document review and remote interviews can confirm that the ICS TK90 and Ecozen stove will only be distributed in the households thereby confirming the methodology applicability condition.
2	The project stove shall have specified high-power thermal	The TK90 stoves planned to be installed under this project are single pot wood cookstoves that have an efficiency of	The efficiency of the ICS model TK 90 and Ecozen planned to be distributed

No.	Relevant applicability condition	Justification by PP on compliance with project activity	Means of validation
	efficiency of at least 25% per the manufacturer's specifications and shall exclusively use woody biomass and can be single pot or multi-pot;	30.25 % as per the manufacturer's specifications.	under this project instance (project activity instance 1) is based on the WBT test conducted by a third-party laboratory (Institute of Technology Cambodia) /11/ using international testing standards (Water Boiling Test - Version 4.2.3) as listed by Clean Cooking Alliance The validation team based the stove efficiency test /10/ and also the manufacturer specification /04/ which confirms that the ICS distributed to the end users has thermal efficiency more than 25% i.e., 38.44% for Ecozen and 30.25% for TK90. This is deemed appropriate to the Validation team. Thus, the applicability condition has been met for the new project activity instances under this group project
3	Both 'Projects' and 'Large Projects' can use the methodology	Estimated average annual emission reductions of project activity instance 1 is 60,426 tonne CO ₂ per year which smaller than 300,000 tonnes CO ₂ e per year. Therefore, proposed project qualifies the "Projects" criteria.	The Validation team through document review and remote interviews can confirm that the TK90 and Ecozen stove will only be distributed in the households and each ICS distributed under this grouped project will be

No.	Relevant applicability condition	Justification by PP on compliance with project activity	Means of validation										
			considered as project activity instance. The average annual GHG emission reduction for the grouped project is more than 300,000 tCO ₂ and hence the project is Project criteria as per VCS.										
4	Non-renewable biomass has been used in the project region since 31 December 1989, using survey methods or referring to published literature, official reports or statistics;	According to FAO data, the total forest cover in Viet Nam has decreased since 1990. Global Forest Resources Assessment Country Report (2015) revealed that the total forest area has been declining, as indicated in the table below: Table: Trends in carbon stock in living forest biomass 1990 - 2015³ <table><tr><td>1990</td><td>2000</td><td>2005</td><td>2010</td><td>2015</td></tr><tr><td>778</td><td>927</td><td>964</td><td>986</td><td>1025</td></tr></table> Based on the findings above, one can reasonably assume that Non-Renewable Biomass has been used before 1989 thereby hinting that fuelwood used across Viet Nam comes from non-renewable sources.	1990	2000	2005	2010	2015	778	927	964	986	1025	The validation team reviewed the FOA Global Forest Resources Assessment 2015 Country Reports, which demonstrates the use of Non-renewable biomass since 1989 in Viet Nam. This is deemed appropriate to the Validation team. Thus, the applicability condition has been met for the new project activity instances under this group project.
1990	2000	2005	2010	2015									
778	927	964	986	1025									
5	For the specific case of biomass residues processed as a fuel (e.g., briquettes, wood chips), it shall be demonstrated that: (a) It is produced using	Not applicable. The project use of biomass is sourced from non-renewable sources	Not applicable										

³ FAO forest Resource Assessment 2015 Global Tables.

No.	Relevant applicability condition	Justification by PP on compliance with project activity	Means of validation
	exclusively renewable biomass (more than one type of biomass may be used). (b) The consumption of the fuel should be monitored during the crediting period and (c) Energy use for renewable biomass processing (e.g., shredding and compacting in the case of briquetting) may be considered as equivalent to the upstream emissions associated with the processing of the displaced fossil fuel and hence disregarded.		
6	The project design shall explain the proposed method for distribution of project devices including the method to avoid double counting of emission reductions such as unique identifications of product and end-user locations (e.g., programme logo)	Each ICS in this project will be identified by a unique combination of customer name and geographical location, as well as a serial number. The serial number will be a unique number which will allow for a clear distinction between the stoves. No individual serial number can be repeated within the project, thus ensuring that each stove is counted only once in the proposed project. In addition, the project has been cross-checked against other CDM project activity operating in the country using the UNFCCC, the Gold Standard, and other relevant voluntary carbon schemes to ensure that the ICS is not included in any other CDM project activity or voluntary project activity	The validation team by means of remote audit interviews confirms that the proposed method for distribution of project devices includes the method to avoid double counting of emission reductions such as unique identifications of product, end-user details (name, address etc) and unique GPS referenced location (if available). Therefore, the validation team confirms that the record keeping system will eliminate double counting.

No.	Relevant applicability condition	Justification by PP on compliance with project activity	Means of validation
7	The project design shall also explain how the proposed procedures prevent double counting of emission reductions, for example to avoid that project stove manufacturers, wholesale providers or others claim credit for emission reductions from the project devices	All users of ICSs sign a Beneficiary Agreement that cedes all rights to VRs to the project proponent. Therefore, only the project proponent can claim credit for emissions reductions from the project devices.	The validation team by means of remote audit interviews and the review of sample beneficiary (end-user) agreement /05/, 12/ confirms that the proposed procedures prevent double counting of emission reductions.

3.3.3 Project Boundary

The Grouped Project boundary is defined as per VMR0006. “Methodology for Installation of High Efficiency Firewood Cookstoves, (Version 1.1)”.

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 ICS limited to within the Viet Nam for the grouped project. This includes: “The Non-renewable biomass (firewood) used by the project cooking system. It has been validated by the VVB that a net to gross adjustment factor i.e., default value of 0.95 has been considered in the grouper project to account for leakage, as an ex- ante parameter and thus no other emission sources for leakage emission are required in the project boundary which is in line with the applied methodology. The greenhouse gases included in or excluded from the project boundary are mentioned in figure 2 in the PD which was validated on the basis of interview with the PP and the households during the remote interview and the same was in line with the applied methodology.

3.3.4 Baseline Scenario

The project activity will use methodology VMR0006 version 1.1. This is the most recent valid version available on the VERRA site at the time of validation. Since the project activity that apply the indicative simplified methodology VMR0006 version 1.1, the baseline scenario for this project activity is the one indicated by this methodology, i.e. “The baseline scenario is the continued use of non-renewable wood fuel (firewood) by the target population to meet similar thermal energy needs as provided by project cookstoves in absence of project activity.”. The baseline described in the PD complies with the

requirements of the methodology, as the energy baseline is the existing level of consumption of non-renewable biomass used by the cooking systems currently in use and which is used in the absence of the project activity. Validation team based on review of the VCS PD /01/ confirms that the documentary evidence 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 were also confirmed through remote interviews with the end users of technologies and representatives of PP. 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

The additionality of the grouped project has been demonstrated by the PP as per the methodology section 7 /B02/. The methodology uses activity method for the demonstration of additionality. As per the methodology, the grouped project activity falls under the positive list of technologies and project activity types that are defined as automatically additional. PP has demonstrated regulatory surplus 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 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.

Furthermore, the project activity meets all the applicability conditions of the applied methodology VMR0006, version 1.1 and distributes stoves at zero cost to the end-users and has no other source of revenue other than the sale of GHG credits. Validation team on the basis of document review, remote interviews and review of signed declaration letter provided by the PP/18/ and the beneficiary agreement /12/, confirms that the project is to free distribution of ICSs to the Household, the PP has no other income from VER revenue. Hence the project qualifies under positive list and deemed additional. 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. As per the program definitions of VCS /B01-e/ Grouped Project is defined as, “A project to which additional instances of the project activity, which meet pre-established eligibility criteria, may be added subsequent to project validation” and Project Activity Instance (Instance) is defined as, “A particular set of implemented technologies and/or measures that constitute the minimum unit of activity necessary to comply with the criteria and procedures applicable to the project activity under the methodology applied to the project”. Thus, distribution of ICS in the Lao Cai Province is considered as project Activity 1 and will distribute 10,000 ICS free of cost to users i.e., households, hence there is no financial return from the programme other than revenue from sale of GHG credits.

Therefore, the validation team confirms that the grouped project and project activity 1 is additional and the project activity instances that will be included in the grouped project will meet the eligibility criteria. Installation of high efficiency wood burning cookstoves 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

3.3.6 Quantification of GHG Emission Reductions and Removals

The equations and choices provided in the methodology and all other methodological tools are correctly quoted in the PD /01-f/. The emission reductions of the project instances of the grouped project would be calculated using the formulae mentioned in the applied methodology; VMR0006 (version 1.1) /B02-a/. Validation team based on the review of the PD /01/, confirms that the formulae are correctly presented for the determination of emissions reductions at project instance level. The parameters and equations presented in the PD /01/, as well as other applicable documents, have been compared with the information and requirements presented in the methodology respectively. An equation comparison has also been made to ensure consistency between all the formulae presented in the PD/01/ and ER spreadsheet/02/ and methodology VMR0006 (version 1.1) /B02-a/.

According to applied methodology VMR0006 (version 1.1) /B02-a/ emissions are calculated as below:

The improved cookstove is introduced as energy efficiency measure in the project, therefore equations 1 and 2 of the methodology will be applied to calculate the net GHG emission reductions.

$$ER_y = \sum_i \sum_j ER_{y,i,j}$$

Where:

i	Indices for the situation where more than one type/model of improved cookstove is introduced to replace three stone fire.
j	Indices for the situation where there is more than one batch of improved cookstove of type i
ER _y	Emission reductions during year y in t CO ₂ e
ER _{y,i,j}	Emission reductions by improved cookstove of type i and batch j during year y in t CO ₂ e

$$ER_{y,i,j} = B_{y,savings,i,j} \times NCV_{wood\ fuel} \times f_{NRB,y} \times (EF_{wf,CO_2} + EF_{wf,non\ CO_2}) \times N_{y,i,j} \times 0.95$$

Where:

B _{y,savings,i,j}	: Quantity of woody biomass that is saved in tonnes per improved cookstove of type i and batch j during year y
----------------------------	--

$f_{NRB,y}$	: Fraction of woody biomass that can be established as non-renewable biomass (f_{NRB})
$NCV_{woodfuel}$	: Net calorific value of the non-renewable woody biomass that is substituted or reduced (IPCC default for wood fuel, 0.0156 TJ/tonne)
$EF_{wf,CO2}$	: CO ₂ emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 112 tCO ₂ /TJ)
$EF_{wf,non\ CO2}$	: Non CO ₂ emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 26.23 tCO ₂ /TJ)
$N_{y,i,j}$	: Number of improved cookstoves of type i and batch j operating during year y.
0.95	: Discount factor to account for leakage.

The quantify of woody biomass saved due to implementation of improved cookstoves to be estimated using equation below:

Where;

$B_{y,savings,i,j}$ is calculated using the following formula in accordance with equation 4 of the approved methodology VMR0006 Version 1.1:

$$B_{y,savings,i,j} = B_{y=1,new,i,survey} \times (\eta_{new,i,j} / \eta_{old} - 1)$$

Where:

$B_{y=1,new,i,j,survey}$	: Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type i and batch j, determined in the first year of the implementation of the project through a sample survey.
η_{old}	: Efficiency of baseline cookstove
$\eta_{new,i,j}$	: Efficiency of the improved cookstove type I and batch j determined through water boiling test (WBT) during year y.

Alternatively, efficiency may be determined using equation 5 of methodology.

$$\eta_{new,y,i,j} = \eta_p \times (DF_n)^{y-1} \times 0.94$$

Where,

- η_p = Efficiency of project stove (fraction) at the start of project activity.
- $(DF_n)^{y-1}$ = Discount factor to account for efficiency loss of project cookstove per year operation (fraction). This value may be based on actual monitoring or based on manufacturer's declaration on expected loss in efficiency or through published available literature on relevant industry standards. Alternatively default value 0.99 efficiency loss per year can be considered.
- 0.94 = Adjustment factor to account for uncertainty related to project cookstove efficiency test.

Table 3: Parameters Determined ex-ante

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

S.No	Parameter	Unit	Value	Assessment
1	$f_{NRB,y}$	Fraction	94.03	Fixed ex-ante The value is calculated by third party C4Ecosolutions which is in line with the applicable methodological CDM Tool 30, version 3.0. The detailed assessment is provided just below the table.
2	$NCV_{wood\ fuel}$	TJ/tonne	0.0156	- Fixed ex-ante - Default values from the 2006 IPCC Guidelines have been used.
3	$EF_{wf,CO2}$	tCO ₂ /TJ	112	- Fixed ex-ante - Default values from the 2006 IPCC

				Guidelines have been used.
4	$EF_{wf,non\ CO2}$	tCO ₂ /TJ	26.23	- Fixed ex-ante - Default values from the 2006 IPCC Guidelines have been used.
5	η_{old}	Fraction	0.10	- Fixed ex-ante - Default values from the methodology.
6	η_p	Fraction	0.3025	- Fixed ex-ante -Manufacturers specification.

Assessment of fNRBi, y

PP has contracted an independent party “C4Ecosolutions” for a study and calculation of fNRB as per CDM Methodological Tool: “Calculation of fraction of non- renewable biomass” (v03.0). Validation team confirms that it has checked fNRB calculation report/spread sheet /11/ prepared by C4Ecosolutions.

As per the applied methodological tool, In the case of ex ante calculation of fNRB, the parameter fNRB shall be estimated using the most recent historical year for which data is available. Review of fNRB report /11/ prepared by C4Ecolution revealed that all the data used for the calculation is latest available data at the time of validation.

Review of fNRB calculation report/spread sheet /11/ prepared by C4Ecosolutions reveals that the estimation of non-domestic fuel consumption was derived from the UN Statistics Division wood consumption and population statistics, in combination with the national average per capita woody biomass consumption (Table 1). The non-domestic fuelwood consumption estimates provided by the UN Statistics Division have been conservatively applied (Table 1), disregarding the additional deforestation likely occurring as a result of shifting agriculture and from informal or illegal harvesting. Other categories of non-domestic consumption reported by UN Statistics Division have been conservatively excluded due to apparent double accounting with domestic consumption. The total woody biomass consumption for Vietnam is as per the fNRB report /11/ prepared by C4Ecolution is estimated to be 48,669,292 t/yr, which is deemed appropriate to the VVB.

In Viet Nam seven ecological zone has been found i.e., subtropical humid forest, subtropical mountain system, tropical dry forest, tropical moist forest, tropical mountain system, tropical rainforest, topical shrubland and the same was verified by referring the FAO data through web-research. VVB has noted that in the report /11/ geospatial data products for Viet Nam were analysed in R11-15 to estimate Vietnam

renewable biomass. The woody cover from all areas defined as “forest” (>10%) cover “other wooded land” (5-10% cover) as well as “other land” (<5% cover), according to the FAO definitions for 2000 and 2020 was estimated using Hansen/UMD/Google/USGS/NASA spatial data, which is derived from Hansen et al.

As no woody cover was excluded from the analysis based on a threshold of minimum cover, disaggregation into the FAO forest categories would have been superfluous. The woody cover was disaggregated according to the FAO global ecological zones and the total woody cover extent was calculated for each ecological zone, within the protected areas and within areas that are either accessible or geographically remote. The woody cover is estimated as a percentage for the whole country within 30 x 30 m resolution grid cells. The woody cover extent for each cell is therefore calculated as the woody cover percentage multiplied its area (0.9 ha).

The default age-weighted mean annual increment (MAI) estimates of each ecological zone, as reported by the IPCC, was used for the study, checked, and confirmed by the VVB. The proportion of forest stand ages above and below 20 years old were estimated for each ecological zone by extrapolating the observed forest gain extents between 2000 and 2012 to a 20-year period. Where primary forest growth rates are available, they were applied based on the primary forest extent data published by Turubanova et al. The resulting average MAI estimates for Vietnam are 1.05,0.52,1.71,0.87,0.37,1.41,1.78 t/ha/year for the subtropical humid forest, subtropical mountain system, tropical dry forest, tropical moist forest, tropical mountain system, tropical rainforest, tropical shrubland respectively.

As per paragraph 13 of the Tool 30 version 03.0,

“If the fNRB value is estimated at the national level, as a cross check, project proponent shall compare the value of estimated NRB with the product of:

- i) total average above ground biomass tonnage of the area of forest areas deforested in recent past (tonnes/ha), and
- ii) most recent available observed annual rate of deforestation (ha/yr). If the estimated NRB value is more than 10% above the value calculated as per the product of biomass and deforestation rate, justification shall be provided for the higher value for NRB.”

CC IPL based on review of fNRB report prepared by C4 Eco Solutions (Pty) Ltd /11/ confirms that the above requirement of tool 30 has been followed and the justification has been provided, which is deemed acceptable to the validation team. The excerpt of fNRB report /11/ is as below:

“The resulting non-renewable biomass (NRB) value was compared with the top-down product of average above-ground biomass (62.71 t/ha) and the most recent annual deforestation data (185,504 ha/year). NRB, as calculated in this report according to the latest CDM Tool 30, was found to be 45,765,690 t/year, which is significantly greater than the cross-check results based on deforestation (11,632,954 t/year). It is expected that the cross-check estimate of biomass loss from deforestation would grossly underestimate the actual extent of non-renewable biomass consumption as it only considers the average biomass stocks from areas that are completely deforested. Unsustainable wood harvesting those results

in forest degradation, and significant reductions in biomass stocks, but not complete deforestation are not considered in the cross-check.

Table below provides the validated total, protected and remote forest cover extent, mean annual increment and renewable biomass by ecological zone for the Vietnam.

The difference between woody biomass consumption and renewable biomass is non-renewable.

Ecological Zone	Total forest cover (ha)	Protected cover (ha)	Remote cover (ha)	MAI (t/ha/yr)	Renewable biomass (t/yr)
Subtropical humid forest	435,626	14,390	187,363	1.05	245,952
Subtropical mountain system	70,662	4,826	24,899	0.52	21,337
Tropical dry forest	451,166	79,667	255,096	1.71	198,849
Tropical moist forest	5,360,918	1,547,386	2,279,808	0.87	1,342,008
Tropical mountain system	1,936,862	344,036	952,287	0.37	234,460
Tropical rainforest	3,334,696	841,437	1,693,967	1.41	1,128,284
Tropical shrubland	173,451	37,463	108,506	1.78	49,008
Total	11,083,642	2,812,526	5,181,159	-	2,903,601

Non-renewable biomass utilisation in Viet Nam is, therefore, validated as 45,765,690 t/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 0.94.

From the review of this report/spread sheet /11/ and interviews with the CME and C4 EcoSolutions (Pty) Ltd, validation teams confirm the following:

- The report has been prepared by an independent party (i.e., C4 Eco Solutions (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 /11/.
- The study has been done in accordance with the CDM Methodological Tool: “Calculation of fraction of non- renewable biomass” (v03.0) including the equitation used and the data source as required by the tool.
- All the reference and data source used for the calculation/study as listed in the fNRB report has been assessed by the VVB.

In the opinion of validation team, the calculation of fNRB is correct and in line with the CDM Methodological tool: Calculation of the fraction of non-renewable biomass (v03.0) and thus acceptable to the validation team.

The project activity instance 1 under the grouped project would achieve a total emission reduction of 604,268 tCO₂e in the 10-year crediting period and an average of 60,426 tCO₂e per year as indicated in the final VCS PD /01/ and in the ER spread sheet /02/.

In conclusion, all values used in the VCS PD to calculate emission reductions are considered reasonable in the context of the proposed grouped project “Grouped Projects for Viet Nam Cookstove Program” and calculation approach is correct.

3.3.7 Methodology Deviations

No methodology deviations have been applied to the project activity.

3.3.8 Monitoring Plan

The grouped project employs baseline and monitoring methodology namely VMR0006, version 1.1 /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;

Table 4:Parameters monitored ex-post

Sl.No.	Parameters/01/	Methodology(B02)	Description/01/
1	$N_{y,i,j}$	VMR0006	Description: -Number of project devices of type i and batch j operating during year y. Monitoring Method and Frequency of monitoring: - Monitored directly or based on a representative sample. Sampling standard shall be used for determining the sample size to achieve 95/10 confidence precision according to the latest version of Standard for sampling and surveys for CDM project activities and programme of activities. at least once every two years
2	$\eta_{new,y,i,j}$	VMR0006	Description:- Efficiency of the improved cookstove type i and batch j determined through water boiling test (WBT) during year y.

			Monitoring Method and Frequency of monitoring: - To adopt Option V given in the methodology: “Efficiency of the improved cookstoves to be estimated using equation 5 above where loss in efficiency per year is calculated, and therefore this parameter does not need to be monitored” can be used by PP, with Annually monitoring frequency.
3	$B_{y=1,new,i,j,survey}$	VMR0006	Description: - Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type i and batch j, determined in the first year of the implementation of the project through a sample survey. Monitoring Method and Frequency of monitoring: - Minimum sample size of each type i and batch j should be in line with the latest version of Standard for sampling and surveys for CDM project activities and programme of activities or guidelines provided in methodology Section 8.4 option (b). Determined in the first year of the introduction of the devices (e.g. during the first year of the crediting period, $y=1$) through measurement campaigns at representative households and/or sample survey. Sample surveys to estimate this parameter, that are solely based on questionnaires or interviews (i.e. that do not implement measurement campaigns) may only be used if the following conditions are satisfied. (i) Baseline cookstoves have been completely decommissioned and only improved cookstoves are exclusively used in the project households; (ii) If multiple devices are used in the project, it is possible from the results of the survey questions to clearly differentiate

			the quantity of firewood being used by each device. In other words, if more than one device, or another device that consumes firewood, are in use in project households, then the sample survey needs to distinguish the quantity of firewood used by the project device and the other devices that use firewood.
4	Life Span	VMR0006	Description: -The operating lifetime of the project device. The life span should be reported if the methodology equation 5 is adopted to determine the project stove efficiency Monitoring Method and Frequency of monitoring: - Manufacturer's specification has been checked once at the time of project stove installation.

As per the applied methodology for the parameter $By=1, new, i, j, survey$, is the quantity of woody biomass used by improved cookstoves, the value applied in the emission reduction sheet /02/ is for estimation of emission reduction.

Furthermore, the applied methodology states the following for the parameter

"Determined in the first year of the introduction of the devices (e.g., during the first year of the crediting period, $y=1$) through measurement campaigns at representative households and/or sample survey. Sample surveys to estimate this parameter, that are solely based on questionnaires or interviews (i.e. that do not implement measurement campaigns) may only be used if the following conditions are satisfied. (a) Baseline cookstoves have been completely decommissioned and only improved cookstoves are exclusively used in the project households; (b) If multiple devices are used in the project, it is possible from the results of the survey questions to clearly differentiate the quantity of firewood being used by each device. In other words, if more than one device, or another device that consumes firewood, are in use in project households, then the sample survey needs to distinguish the quantity of firewood used by the project device and the other devices that use firewood." Hence, the $By=1, new, i, j, survey$ is the ex- post parameter and will be monitored during the 1st monitoring period to get the actual quantity of woody biomass used by improved cookstoves.

In accordance with section 3.21.1 of the VCS Standard (version 4.3) /B01a/ all documents and records 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-f/ are acceptable to the validation team. The validation team interviewed representatives of PP and it was established that the database of all the project equipment distributed by PP is created and maintained. The entire database will be kept with protected by PP for a period of more than two years. In addition, a two samples of equipment invoices were studied and was found to contain information in compliance with the monitoring requirements of the methodology VMR0006 (version 1.1) /B02a/.

The validation team considers that the means of implementation of the monitoring plan, including the data management, monitoring equipment 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 meets the requirements of the monitoring methodology VMR0006 (version 1.1) /B02a/ and the Standard of Sampling and Surveys of CDM project activities and Programme of Activities (version 09.0) /B04a/ and Guidelines for sampling and surveys for CDM project activities and Programme of Activities (version 04) /B04-b /.

Validation team confirms that the overall monitoring plan complies with the requirements of the methodology VMR0006 (version 1.1) /B02a/, 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 CONCLUSION

The Project Participant, Sustainability Investment Promotion and Development Joint Stock Company, has commissioned the VVB, Carbon Check (India) Private Ltd. to perform an independent validation of the VCS Grouped Project Activity “Grouped Projects for Viet Nam Cookstove Program”. This report summarizes the findings of the validation of the 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 4.3/B01-a/, VCS Program Guide version 4.2/B01-b/, VCS Validation and Verification Manual version 3.2/B01-c/ and Registration & Issuance Process version 4.0/B01-d/.

The project activity provides the information in PD/01/ as required by the VCS Standard /B01-a/ and Validation and Verification Manual /B01-c/ and in Carbon Check's opinion meets the requirements of the applied baseline and monitoring methodology, VMR0006 version 1.1/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 instance 1 are 60,426tCO₂e and the total for the crediting period is 604,268tCO₂e.

Carbon Check (India) Private Ltd concludes the validation with a positive opinion that the VCS Project Activity "Grouped Projects for Viet Nam Cookstove Program", as described in the latest revised PD /01/, meets all the applicable VCS requirements, including those specified in the Project Standard, relevant methodology, tools, and guidelines.

The selected baseline and monitoring methodology (VMR0006, Version 1.1) is applicable to the project and correctly applied. Carbon Check (India) Private Ltd therefore requests the registration of the project as a VCS project activity.

APPENDIX 01: REFERENCE DOCUMENTS

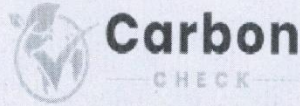
Ref	Document
/01/	Project description titled: a) Grouped Projects for Viet Nam Cookstove Program (version 02; dated: 18/04/2022) b) Grouped Projects for Viet Nam Cookstove Program (version 03; dated: 27/06/2022) c) Grouped Projects for Viet Nam Cookstove Program (version 04; dated: 13/07/2022) d) Grouped Projects for Viet Nam Cookstove Program (version 05; dated 18/07/2022) e) Grouped Projects for Viet Nam Cookstove Program (version 06; dated 10/10/2022) f) Grouped Projects for Viet Nam Cookstove Program (version 07; dated 23/11/2022)
/02/	ER estimated spread sheet correspond to project description of subject project activity.
/03/	Agreement between beneficiary and SIPCO first stove distributed/installed ICS-N001-00001 (evidence for the start date of the grouped project)
/04/	Technical specifications of the TK90 Rocket and Ecozen Stove including the life span. a. The efficiency test report and certificate of Ecozen and TK90 cookstove model. b. The Ecozen_WIPO and TK9_WIPO Certificates c. The Ecozen and TK90 Lifespan certificates
/05/	Proof of right of VERs.
/06/	Company registration certificate for the PP
/07/	Local stakeholders meeting related evidence a. Invitation Letter b. MoM of LSC c. LSC Project Introduction
/08/	Project implementation timelines
/09/	Agreement between beneficiary and SIPCO of the stove id ICS-N001-00001 (evidence for unique identification of each of the stove)
/10/	Global Alliance for Clean cookstove (evidence for stove efficiency tests performed by third party).
/11/	fNRB report and calculation done by C4 EcoSolutions (Pty) Ltd.
/12/	Proof of right of relinquishment of VERs from the end users of the stove
/13/	Sample sales records/warranty cards for the stove
/14/	Monitoring survey questionnaire template

/15/	Declaration from the project proponent that the project is not creating any other form of environmental credit under any specific program.
/16/	Declaration from the project proponent that the project has not or shall not claim carbon credits any other scheme after Registration of the project under VCS.
/17/	Agreement between beneficiary and SIPCO
/18/	Signed declaration by PP as evidence for free distribution of improved cookstoves.
/19/	Baseline survey report prepared by SIPCO
/20/	Validation contract in between CCIPL and SIPCO
Ref	Document
/B01/	VCS Requirements a. VCS Standard (v4.3, updated 22/06/2022) b. VCS Program Guide (v4.2, updated 22/06/2022) c. VCS Validation and Verification Manual version (v3.2, dated 19/10/2016) d. Registration & Issuance Process (v4.0, dated 19/09/2019) e. VCS Program Definitions version (v4.2, dated 22/06/2022) f. VCS PD template version 4.1
/B02/	Applied baseline and monitoring methodologies VMR0006. version 1.1, "Methodology for Installation of High Efficiency Firewood Cookstoves"
/B03/	a. "Standard for sampling and surveys for CDM project activities and programme of activities" (version 09.0) b. Guidelines for sampling and surveys for CDM project activities and Programme of Activities (version 04)
/B04/	Website and links: 1. IPCC (http://www.ipcc-nggip.iges.or.jp) 2. http://cdm.unfccc.int 3. http://www.v-c-s.org

APPENDIX 02: ABBREVIATIONS

CDM	Clean Development Mechanism
BE	Baseline Emission
CAR	Corrective Action Request
CC IPL	Carbon Check (India) Private Ltd.
CDM	Clean Development Mechanism
CL	Clarification Request
CO ₂	Carbon Dioxide
CO _{2e}	Carbon Dioxide Equivalent
DOE	Designated Operational Entity
DPR	Detailed project report
DVR	Draft Validation Report
EB	CDM Executive Board
EF	Emission Factor
ER	Emission Reduction
FAR	Forward Action Request
FVR	Final validation Report
GHG	Greenhouse gas(es)
GWh	Giga Watt Hour
IPCC	Intergovernmental Panel on Climate Change
MW	Mega Watt
MWh	Mega Watt Hour
NA	Not Applicable
OSV	On Site Visit
PD	Project Description
PP	Project Proponent
QC/QA	Quality control/Quality assurance
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCSA	Verified Carbon Standard Association
VCU	Verified Carbon Unit
VVM	Validation and Verification Manual
VVS	Validation and Verification Standard

APPENDIX 03: CERTIFICATES OF COMPETENCE



Carbon Check (India) Private Ltd.

Ms. Aparna Chaudhary

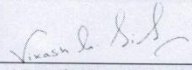
has been qualified as per CCIPL's internal qualification procedures, in accordance with requirements of Accreditation Standard (version 07.0):

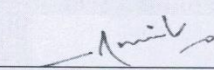
For following functions:

Validator	☒	Team Leader	☒	Technical reviewer	☐
Verifier	☒	Technical Expert	☒	Local Assessor ¹	☒

In the following Technical Areas:

TA 1.1	☐	TA 3.1	☒	TA 9.1	☐	TA 13.1	☐
TA 1.2	☒	TA 4.1	☐	TA 9.2	☐	TA 13.2	☐
TA 2.1	☐	TA 5.1	☐	TA 10.1	☐	TA 14.1	☐


Mr. Vikash Kumar Singh
Compliance Officer


Mr. Amit Anand
CEO

Date of Approval
29/11/2021

Valid Till
28/11/2022

Revision History of the Document

01/03/2020²
01/09/2020
24/12/2020
29/11/2021

Interim Revision for office address change
Interim Revision for CCIPL logo change
Annual Revision
Revision in response to qualification as Team Leader and Technical Expert

¹ India

² Please refer to previous version of competency certificates for the revision history.

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CIN: U74930DL2012PTC232495

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Carbon Check (India) Private Ltd.

SHIVAJI CHAKRABORTY

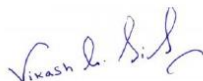
has been qualified as per CCIPL's internal qualification procedures, in accordance with requirements of Accreditation Standard (version 07.0):

For following functions:

Validator	☐	Team Leader	☒	Technical reviewer	☒
Verifier	☐	Technical Expert	☒	Local Assessor ¹	☒

In the following Technical Areas:

TA 1.1	☒	TA 4.1	☐	TA 9.1	☐	TA 13.1	☐
TA 1.2	☒	TA 5.1	☐	TA 9.2	☐	TA 13.2	☐
TA 3.1	☒	TA 5.2	☐	TA 10.1	☐	TA 14.1	☐



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APPENDIX 04: FINDING LOG

Table 1. CLs from this validation

Finding	CL 01
Classification	☐ CAR ☒ CL ☐ FAR
Description of finding (DOE)	<i>Under Section 1.4 of the PD, PP mentioned only about the stove model TK90. While under section 1.11 there are two models of the stoves has been described i.e. TK 90 and Ecozen.</i> <i>PP is requested to clarify, if both the stove model will be included in the project activity o only TK 90 will be distributed under the project activity 1</i>
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	Both TK90 and Ecozen Cookstoves will be used in the grouped project but in project activity 1, there is only TK90 cookstove to be adopted. It is clarified in section 1.4 and 1.11 of updated PD, version 03
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	<i>For the Project Activity 1, only TK90 cookstove is adopted whereas, both TK90 and Ecozen Cookstoves will be used in the grouped project which has been clearly mentioned in sections 1.4 and 1.11 of revised PD, version 03.</i> <i>Hence, validation team close the findings successfully.</i>
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 02
Classification	☐ CAR ☒ CL ☐ FAR
Description of finding (DOE)	<i>Under Section 3.2 of the PD, PP has mentioned the column title as the CDM methodology requirement. While the methodology used in the Project is VMR0006, which is a VCS methodology. PP is requested to clarify the inconsistency in the same.</i>

Finding	CL 02
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The column title in section 3.2. has been revised to “VCS Methodology Requirement” in the updated PD, version 03
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	It is clarified by PP under section 3.2, of revised PD, version 03 that the “Grouped project for Viet Nam Cookstove Program” apply methodology VMR0006 which is VCS methodology. Hence, the finding is successfully closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 03
Classification	☐ CAR ☒ CL ☐ FAR
Description of finding (DOE)	Under section 3.3 of the PD, the table for the project boundary is not in compliance with the table provided under the methodology. PP is requested to check the same and provide a clarification on the inconsistency.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	GHG source from production and transport of fuel in methodology is excluded in baseline and project boundary so It is not described in table of section 3.3 of the PD.
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	Table under section 3.3 of revised PD, version 03 has been revised by the PP. Hence, finding is successfully closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 04
Classification	☐ CAR ☒ CL ☐ FAR
Description of finding (DOE)	It is observed by the validation team that the value of fNRB mentioned in the PD is inconsistent with the value provided in the fNRB report submitted to VVB.

Finding	CL 04
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The value of 94.03% is exactly value in decimal of Fnrb. Detail about calculation of Fnrb value is stated in Fnrb calculation excel sheet. The fnrb calculation sheet has been provided
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	<i>The calculated fNRB is 94.03% as per the revised PD version 03 for the subject project activity is consistent with the ER calculation sheet "2.ER estimated spread sheet_cookstove" and "20.1_fNRB Vietnam_INTRACO Carbon_Calculation Sheet_28 Sep 2021. Whereas PP clears in fNRB report, the value taken (94%) is in round figure.</i> <i>Hence, the finding is closed successfully.</i>
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 05
Classification	☐ CAR ☒ CL ☐ FAR
Description of finding (DOE)	<i>It has been observed by the validation team that PP has considered the parameter "Bold" for the ex ante to calculate the baseline emission, while the value of the Bold has not been used anywhere in the calculation of the baseline.</i> <i>PP is requested to clarify the significance of considering the Bold value in the ex ante.</i>
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	Parameter "Bold" has not been used in the calculation of baseline but it can be used in calculation the emission of Household Air Pollution (HAP) in SD Vista PD. However, to avoid confusing, parameter "Bold" has been removed from ex-ante monitoring parameter in section 5.1 of updated PD, version 03
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	<i>The parameter "Bold" has been removed by the PP from revised PD, version 03.</i> <i>Hence, Finding is successfully closed.</i>
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Table 2. CARs from this validation

Finding	CAR 01		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (DOE)	The template of project description used by PP is not the latest as available in the Verra. PP is requested to use the latest version of the template.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The latest Project Description template, version 4.1 has been used in updated PD, version 03		
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	The latest version of template 4.1 has been used in revised PD, version 03. Hence, the finding id successfully closed.		
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 02		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (DOE)	It observed by the validation team that the VCS standard referred for the project is not the latest as per available in the Verra. PP is requested to refer the latest version of the VCS standard.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The VCS Standard, version 04.3 has been updated in updated PD, version 03.		
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	The VCS Standard, version 4.3 has been updated in the revised PD, version 3.0. Hence, the finding is successfully closed.		
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 03		
Classification	☒ CAR	☐ CL	☐ FAR

Finding	CAR 03
Description of finding (DOE)	Under section 1.4 of the PD, PP is requested to mention the unit for the value of the energy savings mentioned under point 7 “capacity Limit” under the table for eligibility criteria. Furthermore, PP is requested to check and mention the units for all the values provided throughout the PD.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The units of all the values have been updated throughout the updated PD, version 03
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	The unit of capacity limit has been provided under point 7 of section 1.4 of the revised PD version 03. Hence, the finding is successfully closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 04
Classification	☒ CAR ☐ CL ☐ FAR
Description of finding (DOE)	In line with the filling guideline of the VCS PD template vesion 4.1 “Indicate the project location and geographic boundaries (if applicable) including a set of geodetic coordinates. For grouped and AFOLU projects, coordinates may be submitted separately as a KML file” PP is requested to provide the coordinate in the PD under the required section.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The KML file has been provided to Verra for review. This document will be provided do DOE for crosscheck in supporting documents.
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	The validation team confirms that PP provides the KML file to the DOE to crosscheck the coordinates. And coordinates of location is deemed to be correct. Hence, The finding is successfully closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 05
Classification	☒ CAR ☐ CL ☐ FAR
Description of finding (DOE)	Section 1.17 and 1.18 of the PD is not in compliance with the latest version of the VCS PD and thus the information about the sustainable Development Contributions is missing in the PD. PP is requested to use the latest template and provide the complete information accordingly.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The latest version of VCS PD template, version 4.1 has been updated throughout updated PD, version 03
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	Section 1.17 and 1.18 of Revised PD, version 03 has been in compliance with the latest version of VCS PD 4.1. Hence, the finding is closed successfully.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 06
Classification	☒ CAR ☐ CL ☐ FAR
Description of finding (DOE)	In line with the filling guideline of the section 2.2 of the template VCS PD version 4.1. PP is requested to provide the details of the LSC
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The details of the LSC have been provided in the section 2.2 of updated PD, version 03.
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	The details of LSC have been provided in the section 2.2 of revised PD, version 03. Hence, the finding is successfully closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 07		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (DOE)	In line with the filling guideline of the section 2.3 of the template VCS PD version 4.1. "Summarize any environmental impact assessments carried out with respect to the project, where applicable." PP is requested confirm if any EIA has been conducted under the project or not and also provide the reason in any of the case.		
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 EIA is not required for the project. The reason has been provided in section 2.3 of updated PD, version 03.		
DOE Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	PP clears that there is no requirement of environment impact assessment for the subject grouped project and has been added the same under section 2.2 of the revised PD version03. But the validation team finds the subject project activity has no requirement for the environment impact assessment. Hence, the finding is successfully closed.		
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 08		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (DOE)	In line with the filling guideline of the section 2.4 of the template VCS PD version 4.1, PP is requested to provide the details of the public comments under the same section of PD.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The PP receive 01 comments during open public comment period, the response for this comment has been provided in section 2.4 of updated PD, version 03.		
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	The comments and response have been mentioned in the section 2.4 of revised PD version 03. As per the revised PD version 03, The validation team finds there is one comment and finds PP's response is deemed to be appropriate. whereas the validation team also finds PP provides the information in the revised PD version 03 has been in line with the filling guideline of section 2.4 of the template VCS PD version 4.1. Hence, the finding is successfully closed.		
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 09		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (DOE)	In line with the filling guideline of the section 3.1 of the template VCS PD version 4.1, "Provide the title, reference and version number of the methodology or methodologies applied to the project. Include also the title and version number of any tools applied by the project" Thus, PP is requested to provide the details of all the tools and the sampling standard used in the project activity.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The title, reference and version number of the methodology or methodologies applied to the project have been provided in section 3.1 of updated PD, Version 03.		

Finding	CAR 09
DOE Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<i>The title, reference, version number of the methodology or methodologies and tools which is applied to the project have been provided in section 3.1 of updated PD, Version 03 by the PP as per the filling guideline of the section 3.1 of the template VCS PD version 4.1.</i> <i>Hence, the finding is successfully closed.</i>
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 10
Classification	☒ CAR ☐ CL ☐ FAR
Description of finding (DOE)	Under section 4.4 of PD version 03, PP is requested to provide the source of emission factor.
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	<i>The source of emission factor has been provided in section 4.4 of updated PD, version 04</i>
DOE Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The validation team finds the source of emission factor provided by the PP in section 4.4 of updated PD, version 04. Hence, the finding is successfully closed.
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 11
Classification	☒ CAR ☐ CL ☐ FAR
Description of finding (DOE)	PP is requested clarify how the regulatory surplus has been demonstrated as per the requirement of VCS guideline under the section 3.5
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	<i>Regulatory surplus has been demonstrated as per requirement of VCS guideline in section 3.5 of updated PD, version 04.</i>

Finding	CAR 11
DOE Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<i>The validation team finds that PP has demonstrated the regulatory surplus as per requirement of VCS guideline in section 3.5 of updated PD, version 04.</i> <i>Hence, the finding is successfully closed.</i>
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 12
Classification	☒ CAR ☐ CL ☐ FAR
Description of finding (DOE)	The validation Team finds Project Boundary has not been demonstrated as per the requirement of the methodology VMR006 version 1.1 under the section 3.3 of PD version 03. As per section 5 of methodology VMR006, version 1.1 state that the “The project boundary must be determined following the procedure provided in CDM methodology AMS-II.G” and CDM methodology AMS-II.G state “The project boundary is the physical, geographical site of the efficient devices that utilize biomass” in para 15 section 5.1. So, PP is requested to demonstrate the Project Boundary as per the requirements.
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	<i>The project boundary has been demonstrated as the requirement of the Methodology VMR0006, version 1.1 in section 3.3 of updated PD, version 04</i>
DOE Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<i>The validation team finds that PP has demonstrated the project boundary as per requirement of the methodology VMR006, version 1.1 in section 3.3 of updated PD, version 04.</i> <i>Hence, the finding is successfully closed.</i>
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 13
Classification	☒ CAR ☐ CL ☐ FAR

Finding	CAR 13
Description of finding (DOE)	Table 3.1 under the section 3.2 of PD, it is mentioned that Project complies and simple cost analysis in Tool 01 is applied to demonstrate and assessment of additionality for each instance of grouped project. But the validation team did not able to find where demonstration of the simple cost analysis has been done. PP is requested to provide the demonstration of the simple cost analysis.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The activity method of Methodology VMR0006, version 1.1 is used for demonstration of additionality. Hence, the simple cost analysis of Tool 01 has been deleted in table 3.2 of section 3.2 in the updated PD, version 04
DOE Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<i>The finding is not closed.</i>
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☒ Outstanding finding (not closed) ☐ The finding is closed
Description of finding (DOE)	PP is requested to clarify if the PP is demonstrating positive list for additionality as per methodology, then why still mentioning financial barrier to be part of it. Also, it is nowhere demonstrated throughout the PD. The validation team finds this meth VRM0006 allows to use step 2 positive list, where one has to prove that the ICS are distributed for free and not a govt project. As well as meeting methodology applicability conditions. (A kind of auto additional after proving above said thing) So, there is no need to mention about barrier and no need to prove anything regarding no financial return.

Finding	CAR 13
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 additionality of the grouped project has been demonstrated as per activity method of Methodology VMR006, using positive list in section 3.5 of updated PD. The investment barriers of tool 21 also has been deleted in table 3.2 in the updated PD, version 05
DOE Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<i>The validation team find that PP has demonstrated the additionality of the grouped project as per activity method of Methodology VMR006, using positive list in section 3.5 of updated PD. Investment barrier is also removed from the section 3.2 of updated PD.</i> <i>Hence, the finding has been closed.</i>
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 14
Classification	☒ CAR ☐ CL ☐ FAR
Description of finding (DOE)	Under the section 1.2, PP is requested to provide the methodology name and version number.
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 methodology name and version number has been provided in section 1.2 of updated PD, version 04
DOE Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<i>The validation team finds that PP has provided the methodology name and version number in section 1.2 of updated PD, version 04.</i> <i>Hence, the finding is successfully closed.</i>
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 15
Classification	☒ CAR ☐ CL ☐ FAR

Finding	CAR 15
Description of finding (DOE)	The given link in the section 1.13 of PD version 3.0 represents the demography/population status of the Viet Nam, validation team do not able to find connection between the population percent or number residing in rural area and their dependency on the forests. So, PP is requested to clarify the same.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The link provided to clarify the information of population and the portion of population live in city and rural. The position of footnote has been changed to avoid understanding.
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	<i>The validation team finds that PP has provided the clarification on information of population and portion of population lived in city and rural in updated PD. The position of footnote has also been changed in the updated version.</i> <i>Hence, the finding is successfully closed.</i>
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 16
Classification	☒ CAR ☐ CL ☐ FAR
Description of finding (DOE)	The validation team finds the map provide under the section 1.12 is not clear in terms of the location of the project. Please provide clear map with coordinates of coverage area as per requirement of VCS standard v4.3, section 3.10.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The map has been replaced by clear map. For the grouped project, coordinates may be submitted separately as a KML file. The KML file has been provided to Verra for listing period and DOE for validation.
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	<i>The validation team finds that PP has replaced a clear map in the updated PD and the coordinates are submitted separately as KML file.</i> <i>Hence, the finding is successfully closed.</i>
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 17		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (DOE)	All applicability criteria under Section 4 of the methodology have to be demonstrated by PP. It is unclear how criteria no. 3 under section 2 of the methodology has been demonstrated. How it is demonstrated that non-renewable biomass has been used. It is unclear from the project description and documentary evidence.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The applicability criteria No.3 under section 2 of the methodology has been demonstrated clearly in section 3.2 of updated PD and the documentary evidence has been provided in footnote 4 of update PD, version 04.		
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	The validation team finds that PP has demonstrated the applicability criteria No.3 under section 2 of the methodology in section 3.2 of updated PD version 04. The documentary evidence has also been provided in footnote 4 of updated PD. Hence, the finding is successfully closed.		
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 18		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (DOE)	PP is requested to provide the source for the values of EF _{wf} , CO ₂ and EF _{wf, non-CO₂} .		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The source for the values of EF _{wf} , CO ₂ and EF _{wf, non-CO₂} has been provided in section 4.4 of updated PD, version 04.		
DOE Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	The validation team finds that PP has provided the source for the values of EF_{wf}, CO₂ and EF_{wf, non-CO₂} in section 4.4 of updated PD, version 04. Hence, the finding is successfully closed.		
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		