Verification and certification report form for programme of activities	
BASIC INFORMATION	
Title and GS reference number of the programme of activities (PoA)	Efficient cookstoves in Burkina Faso (PoA) GS ID: 1340
Version number(s) of the PoA-DD(s) to which this report applies	Version 4.0 dated 12/09/2014
GS ID (s) of the VPAs	1. GS1340 Efficient cookstoves in Burkina Faso – VPA-11– Tiipaalga – F3PA cookstoves in Kourwéogo (GS6152) 2. GS1340 Efficient cookstoves in Burkina Faso – VPA-12– Tiipaalga – F3PA cookstoves in Kourwéogo (GS6419) 3. GS1340 Efficient cookstoves in Burkina Faso – VPA-13– Tiipaalga – F3PA cookstoves in Kourwéogo (GS6420)
Version number of the verification and certification report	3.0
Completion date of the verification and certification report	10/03/2025
Monitoring period number and duration of this morning period	1. GS6152 (VPA-11): 01/01/2022-31/12/2022 (including both days)_MP 5th 2. GS6419 (VPA-12): 01/01/2022-31/12/2022 (including both days)_MP 4th 3. GS6420 (VPA-13): 01/01/2022-31/12/2022 (including both days)_MP 3rd
Version number of the monitoring report to which this report applies	version 4.0 Dated 18/02/2025
Activity Requirements applied	Community Services Activities
Product Requirements applied	GHG Emission Reduction & Sequestration
Coordinating/managing entity (CME)	Association tiipaalga and CO2logic
Host Country	Burkina Faso
Applied methodologies and standardized baselines	The Gold Standard Simplified Methodology for Efficient Cookstoves, Version 01, February 2013.

Mandatory sectoral scopes	3/3.1: Energy demand
Conditional sectoral scopes, if applicable	Not applicable
Name and UNFCCC reference number of the VVB	E-0052: Carbon Check (India) Private Ltd.
Name, position, and signature of the approver of the verification and certification report	 Amit Anand, CEO

SECTION A. Executive summary

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Introduction:

The Co-ordinating Managing Entity has appointed the VVB, Carbon Check (India) Private Ltd. (CCIPL) to perform independent verification of the GS Programme of Activities, "Efficient cookstoves in Burkina Faso (PoA)" in Burkina Faso (hereafter referred to as "Programme of Activities or PoA") for the VPAs titled "GS1340 Efficient cookstoves in Burkina Faso),– VPA-11– Tiipaalga – F3PA cookstoves in Kourwéogo (GS6152),GS1340 Efficient cookstoves in Burkina Faso – VPA-12– Tiipaalga – F3PA cookstoves in Kourwéogo (GS6419), GS1340 Efficient cookstoves in Burkina Faso – VPA-13– Tiipaalga – F3PA cookstoves in Kourwéogo (GS6420)".

The PoA involves the replacement of less efficient three-stone cooking stoves using woody biomass with improved energy-efficient cooking stoves. The ICS F3PA cookstove distributed under the above mentioned VPAs are more efficient in transferring heat from the fuel to the pot when compared to the traditional three-stone stove used in the baseline. By replacing inefficient stoves, the PoA will save on the consumption of woody biomass as well as enable GHG emissions reduction.

The VPAs are designed to generate emission reductions through the distribution of fuel-efficient wood/charcoal stoves. The improved cookstoves (ICS) are replacing the less efficient baseline stoves in common use (baseline scenario). The Association Tiipaalga and CO2logic are responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the component project activities.

This report summarizes the findings of the verification of the project, performed based on gold standard for global goals (GS4GG), as well as criteria given to provide for consistent project operations, monitoring and reporting and the subsequent decisions by the Gold Standard. Verification is required for all registered GS project activities intending to confirm their achieved emission reductions and proceed with request for issuance of ERs. This report contains the findings and resolutions from the verification and a certification statement for the verified emission reductions.

Objective:

Verification is the process of periodic independent review and ex-post determination of both quantitative and qualitative information by a VVB. In verification, the monitored reductions in GHG emissions that have occurred because of the registered GS project activity during a defined monitoring period are to be verified.

Certification is the written assurance by a VVB that, during a specific period, a project activity achieved the emission reductions as verified. The objective of this verification was to verify and certify Emission Reductions and SDG benefits achieved for the period 01/01/2022 to 31/12/2022 (both dates inclusive) reported for the "Efficient cookstoves in Burkina Faso (PoA)" in the host country "Burkina Faso" as follows :

SR. NO.	VPA	Monitoring period and Number
11.	GS6152 (VPA-11)	01/01/2022-31/12/2022_MP 5th
12.	GS6419 (VPA-12)	01/01/2022-31/12/2022_MP 4th
13.	GS6420 (VPA-13)	01/01/2022-31/12/2022_MP 3rd

The purpose of verification is to review the monitoring results and verify that the monitoring was implemented according to the monitoring methodology and the monitoring plan elaborated in the

PoA/ VPAs and to ensure that the reductions in anthropogenic emissions by sources, are sufficient, definitive, and presented in a concise and transparent manner. CCIPL's objective is to perform a thorough, independent assessment of the implementation of the registered program of activity "VPA-11– Tiipaalga – F3PA cookstoves in Kourwéogo (GS6152), GS1340 Efficient cookstoves in Burkina Faso – VPA-12– Tiipaalga – F3PA cookstoves in Kourwéogo (GS6419), GS1340 Efficient cookstoves in Burkina Faso – VPA-13– Tiipaalga – F3PA cookstoves in Kourwéogo (GS6420)" under the reported period 01/01/2022 to 31/12/2022 (including both dates).

In particular, the monitoring plan, monitoring report, and the project's compliance with relevant UNFCCC, GS, and host Party criteria are verified to confirm that the component project/s has/have been implemented in accordance with the previously registered/included component project design with conservative assumptions, as documented. Also, it is confirmed whether the monitoring plan is consistent with the registered/included VPA-DDs and the approved monitoring methodology.

Scope:

The scope of the verification is:

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

The verification shall ensure that the reported emission reductions are complete and accurate, in order, to be certified.
The verification comprises a review of the monitoring report covering the monitoring period for each VPA is as follows:

SR. NO.	VPA	Monitoring period and Number
11.	GS6152 (VPA-11)	01/01/2022-31/12/2022_MP 5th
12.	GS6419 (VPA-12)	01/01/2022-31/12/2022_MP 4th
13.	GS6420 (VPA-13)	01/01/2022-31/12/2022_MP 3rd

In above mentioned period inclusive of both the dates and based on the registered/included VPA-DDs /02/ including the monitoring plan, emission reduction calculation spreadsheet, monitoring methodology and all related evidence provided by a project participant.

The verification team assigned by the validation & verification body (VVB) concludes that the monitoring report /01/, meet all relevant requirements of the Gold Standard as per the requirements of GS4GG. The verification has been conducted in-line with the GS4GG requirements.

The voluntary project activities were correctly implemented according to the selected monitoring methodology, monitoring plan, and the approved VPA-DD/s /02/. The monitoring system was implemented, and maintained in a proper manner, while collected monitoring data allowed for the verification of the amount of achieved GHG emission reductions. Through the review of documents

and information shared by the CME, the verification team confirms that all 03 VPAs have resulted in emission reductions during the current monitoring period as follows:

SR. NO.	VPA	Monitoring period and Number	Emission Reduction (VERs)
1.	GS6152 (VPA-11)	01/01/2022-31/12/2022_MP 5th	9,651
2.	GS6419 (VPA-12)	01/01/2022-31/12/2022_MP 4th	9,315
3.	GS6420 (VPA-13)	01/01/2022-31/12/2022_MP 3rd	8,954
Total			**27,920**

CCIPL, as a VVB, is therefore pleased to issue a positive verification opinion expressed in the Certification statement.

SECTION B. Verification team

B.1. Verification team, technical reviewer, and approver[1]

Carbon Check (India) Private Ltd. has appointed a competent team as per the UNFCCC Accreditation Standard, GS4GG requirements, and CCIPL's internal procedures. Further details regarding team competence can be found in Appendix 2. The team is outlined below:

Sr. No.	Role	Type of resource	Last name	First name	Affiliation (e.g., name of central or other offices of VVB or outsourced entity)
1.	Team Leader/Technical Expert	IR	Campal	Kadam	CCIPL
2.	Assessor	IR	Tekapso	Leslie	CCIPL
3.	Technical Reviewer	IR	Seshan	Ranganathan	CCIPL
4.	Approver	IR	Anand	Amit	CCIPL

SECTION C. Application of materiality in conducting the verification

C.1. Consideration of materiality in planning the verification

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1.	Human Error: Recording and reporting of the information in the ER spreadsheet.	*Medium*	*All the input data in the ER spreadsheet including the sales database, determination of parameters for*	*The risk was mitigated by training the personnel involved in the data capture, and calculation and by following the monitoring*

[1] Confirming to the GS requirements of paragraph 2.2 of RU 2020 PR - PR, V1.2 (validation and verification by same VVB), VVB confirms that it was not involved in any kind of validation activity of the project.

			efficiency testing including data calculation. This includes all the parameters to be monitored ex-post as per the PDD.	*responsibilities. The training records /09/ were reviewed. The verification team, based on the above, confirms that the risk is appropriately mitigated.*
2.	Information System: Use of spreadsheets without adequate controls related to data changes/updates, version tracking, traceability, security	*Medium*	*The data is recorded in spreadsheets based on the raw data collected during the field visits. The access to the spreadsheets for calculation of ERs, monitoring and sales database, and Stove efficiency testing records is controlled.*	*The identified risk was mitigated by managing access to the records. It was confirmed by the CME that the raw data is collected by the field personnel and then transmitted and stored electronically to the CME's office. The organogram of the organization for the data collection and record-keeping was reviewed and found satisfactory. The data quality control is maintained by the CME.*
3.	*Accuracy of the measuring equipment*	*Low*	*Check the calibration records for the measurement equipment used for the efficiency test.*	*The risk due to the accuracy of the measuring equipment was ensured by planning to check the calibration certificates of the measuring equipment used for stove efficiency.*
4.	*Competence of personnel involved in conducting standardized tests.*	*Low*	*Interview of the personnel involved and check the training records/accreditation certificates (applicable in case of institutions) involved in conducting such tests.*	*The risk was mitigated by reviewing the training records /09/ of the personnel involved in conducting such tests and by following the monitoring responsibilities. For institutions involved in conducting such tests, their accreditation certificates were checked to establish their competence for conducting such tests. The training records /09/ were reviewed which were also confirmed during the verification.*
5.	*Sample*	*Medium*	*The sample size is not suitable or the surveyed stoves at the VPA level are not random.*	*Cross-check the procedure to identify the sample size against the sampling guideline and standard and confirm the sample size is calculated correctly.*

C.2. Consideration of materiality in conducting the verification

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The project is a Micro-scale GS4GG project activity achieving total emission reductions of 27,920 tCO_2 during the monitoring period 01/01/2022 – 31/12/2022. As per GS validation and verification

standard version 1.0, 10 per cent of the emission reductions or removals for microscale projects are to be applied as materiality threshold. The threshold of materiality was evaluated based on § 9.6.3 of GS validation and verification version 1. It was concluded that the materiality threshold applicable to the project activity based on actual emission reductions achieved is 10% which is calculated as follows.

SR. NO.	VPA	Emission Reduction (VERs)	Materility threshold
1.	GS6152 (VPA-11)	9,651	965.1
2.	GS6419 (VPA-12)	9,315	931.5
3.	GS6420 (VPA-13)	8,954	895.4

Based on the above information, a risk analysis is carried out in the following activities:

1. Monitoring system including the data input procedure (including relevant personnel and applicable template forms used)
2. Copy of the agreement between household and Project Participant (s) (origin of data)
3. Stove unique ID system
4. ER sheet (application of data)
5. Data flow
6. Data control procedures
7. Monitoring survey records

Data flow was checked through a comparison of data in electronic databases, and ER sheet /03/. The competence of the personnel involved in conducting the stove efficiency testing, recording of data, and calculation of the emission reduction data has been checked by the verification team by means of a review of the training documents /09/.

The risks identified can be mitigated through cross check with all sets of documents. The verification team performed the following checks to mitigate the effects of the above-identified sources of error:

Mitigation of Human error risks: The verification team mitigated the risk by checking the training records of the personnel and assessing their competencies, skills, monitoring/testing procedure followed, understanding of the monitoring survey forms, protocol and testing procedure, etc. Further, data was crosschecked with the ER calculation spreadsheet /03/ and the sample raw data.

Mitigation due to error in the Information system: Verification team by conducting interviews with the personnel responsible for such activities mitigated the risk due to errors in an information system. It was confirmed through interviews that the raw data is collected by the field personnel and then transmitted and stored electronically at CME's office. The data quality control is maintained by the CME.

Accuracy of the measuring equipment: The risk due to inaccuracy in measurements was mitigated by reviewing the calibration certificates of all the project equipment.

Competence of personnel involved in conducting Monitoring surveys: The verification team has reviewed the abilities, qualifications, and recognition of involved personnel and institutions of the survey team. The tests/procedures have been carried out by well-trained personnel. The training records of the personnel /09/ has been provided to the verification team in this respect.

Mitigation due to an error in Sampling: The verification team mitigated the risk by checking the list of random samples generated for monitoring surveys for VPAs, and the sample size calculation sheet.

In conducting the verification, VVB took cognizance of §13-17 of the Guideline: "Application of materiality in verifications" (version 2.0) and based on the input of data from different sources checked through sampling records.

Based on the assessment carried out, CCIPL confirms with a reasonable level of assurance that the claimed emission reductions are free from material errors, omissions, or misstatements.

SECTION D. Means of verification

D.1. Desk/document review

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The verification was performed primarily based on the review of the Monitoring report and the supporting documentation. This process included a review of data and information presented to verify their completeness and a review of the monitoring plan and monitoring methodology. Documents reviewed or referenced during the verification are listed in Appendix 3 below.

D.2. On-site inspection

On-site physical audit has been performed on the 26/06/2024. In accordance with §3.1 and §3.2 of the Site Visit and Remote Audit Requirements and Procedures version 2.0 /B05/, VVB has decided to conduct a physical site visit inspection.

D.3. Interviews

No.	Name	Organization	Date	Topic	Team member
/1/	Carlotta Zini, Bakary Diakite, Coulibally Simplice, So Josiane R., Sinon Salifou	CO2Logic (CME) and Association Tiipaalga	26/06/2024	MR preparation, GS requirements, Emission reduction calculations, methodology applicability, start date justification, Project Design, ownership details, carbon credit ownership arrangements, monitoring and reporting arrangements, QA/QC procedures, baseline assessment, Project technology etc.	Leslie Tekapso
/2/	Gansoré Justine VPA 12	F3PA End- User	26/06/2024	Details of survey, methodology, Survey results, QA/QC procedure etc.	Leslie Tekapso
/3/	Sam Marcelline VPA 12	F3PA End- User	26/06/2024	Details of survey, methodology, Survey results, QA/QC procedure etc.	Leslie Tekapso
/4/	Sawadogo Lizèta VPA 12	F3PA End-User	26/06/2024	Details of survey, methodology, Survey results, QA/QC procedure etc.	Leslie Tekapso
/5/	Souli Pascaline VPA 12	F3PA End-User	26/06/2024	Details of survey, methodology, Survey results, QA/QC procedure etc.	Leslie Tekapso

/6/	Palogo Pauline Nafie VPA 12	F3PA End-User	26/06/2024	Details of survey, methodology, Survey results, QA/QC procedure etc.	Leslie Tekapso
/7/	Zongo Zounoaga Germaine VPA 11	F3PA End-User	26/06/2024	Stove Distribution Mechanism, Details of survey, methodology, Survey results, QA/QC procedure etc.	Leslie Tekapso
/8/	Polgo Marie VPA 13	F3PA End-User	26/06/2024	Stove Distribution Mechanism, Details of survey, methodology, Survey results, QA/QC procedure etc.	Leslie Tekapso
/9/	Ouedraogo céline VPA 13	F3PA End-User	26/06/2024	Stove Distribution Mechanism, Details of survey, methodology, Survey results, QA/QC procedure etc.	Leslie Tekapso

D.4. Sampling approach

The monitoring parameters required to be monitored through the sampling plan are:

1. Usage rate in project scenario p during year y ($U_{p,y}$)
2. Discount factor to account for the baseline stove use in project scenario p during the year y ($DF_{b,\ Stove,\ y}$)

As per paragraph 25 of the Sampling Standard, version 09 /B04/, the verification team has to verify whether the project participants or the coordinating/managing entity have implemented the sampling and surveys according to the sampling plan in the registered monitoring plan. The verification includes determining:
(a) Whether the required confidence/precision has been met;
(b) Whether the selected sample was representative of the population.

Furthermore, the sampling plan implemented by the CME is in accordance with the applied approved monitoring methodology /B02/ and the VPA-DDs /02/. The CME has appropriately performed the Sampling procedure in line with the applied methodology and VPA-DDs.

The verification team of the VVB has applied a sampling approach for on-site visits as part of verification in accordance with the paragraph 26 of the Standard: Sampling and surveys for CDM project activities and programmes of activities, Version 09.0 /B04/. In accordance with the paragraph 28 of the sampling standard, acceptance sampling has been chosen by the verification team and accordingly steps listed in paragraph 29 of the sampling standard shall be followed. Verification team has opted for AQL of 0.5 % and UQL of 20 %; producer risk of 10 % and consumer risk of 20% in determining the VVB's sample size. Accordingly, site visits for 8 households/samples from the CME's sample size for the PoA for the monitoring period with acceptance number (c) as 0 was conducted. The 8 households were selected randomly by the VVB.

The monitoring/usage surveys were carried out during the period from 15/03/2023 to 31/02/2023The Information provided in the monitoring survey records, has been cross checked during the Onsite visit. As a part of simple random sampling, the Verification team could confirm the monitoring survey data with no discrepant records. Thus, PD's set of records has been accepted in line with § 33 of the sampling standard, version 09 /B04/. 08 samples from each survey participants were interviewed by the verification team during the on-site visit.

Parameter	Verification approach	Population (for VVB's sample)	VVB's Sample Size
Monitoring / Usage surveys	Sampling Survey	160	8

The details of the sample interviewed are listed in section D.3 (under the list of interviewed persons). No discrepancy was found in any of the 08 samples from monitoring surveys and thus c=0, i.e., no discrepant records were observed. Thus, CME's set of records has been accepted in line with §33 of the sampling standard (version 09.0) /B04/. For the impact parameters, questionnaire was prepared and was used during the survey by the CME/13/. During the on-site interviews, the verification team cross-checked these sample documents, and no discrepancies were found in the impact parameters as well. Furthermore, the training & competency of the personnel/09/, who conducted surveys were checked. They were also interviewed to ensure that the process, method used, and their competency to confirm such surveys were appropriately applied. The sampling technique to draw such samples were found adequate and the sample collectors were found competent to perform such task.

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

The VVB had raised 05 clarifications (CLs) and 03 corrective action requests (CARs) and 00 (FARs) Forward action requests during this verification which shall be addressed by the CME. No FARs were raised during this verification.

SECTION E. Verification findings

E.1. General

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

Means of verification	Document Review
Findings	CAR 01 was raised and closed successfully
Conclusion	CME has used the GS4GG template Monitoring Report, version 1.1. The verification team confirms that the latest available version of the monitoring report template has been used by the CME and the MR is in compliance with the monitoring report form and related template guide Monitoring Report, version 1.1. This confirms compliance with the § 2.2.1 and 9.4.4 of GS4GG principles and requirements /B03 (1)/.

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

FAR ID	01	Section no.	NA	Date: 05/07/2023
Description of FAR				
CME to note that the deviation request for the remote audit was approved for the monitoring period 01/01/2021 to 31/12/2021, however, as per the deviation decision authorized by GS for remote site visits for all VPAs, and in accordance with paragraph 11.1.2 of the microscale project requirement, CME shall facilitate VVB's on-site audit during the next periodic verification.				

Project participant response	Date: XX/XX/XXXX
Documentation provided by project participant	
GS VVB assessment	**Date: 28/08/2024**
An onsite visit has been conducted by the VVB on the 26/06/2024. Hence, the finding is closed.	

E.2. Programme of activities

E.2.1. Compliance of the program implementation with the registered program design document

Means of verification	Document Review, Interview
Conclusion	CCIPL by means of onsite interview and document provided by the CME confirms that all physical features (technology, project equipment, and monitoring equipment) of the included VPAs in the PoA are in place and that the coordinating/managing entity has operated the PoA and the VPAs as per the VPA-DD /02/. The verification team confirms the actual operation of the VPAs in compliance with the VPA-DDs /02/ and sections 9.1.1 and 9.3.2 (b) of GS VVS version 1 /B03 (5)/.

E.3. Voluntary project activities

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

Means of verification	Document Review, Interview
Conclusion	The implementation status of the PoA and the voluntary project activities is:

Project Participants:	CO2logic & Association tiipaalga
Title of PoA:	Efficient cookstoves in Burkina Faso (PoA)
GS Reference No:	PoA – GS1340 GS6152 (VPA-11), GS6419 (VPA-12), GS6420 (VPA-13)
Applied Baseline and monitoring methodology:	The Gold Standard Simplified Methodology for Efficient Cookstoves, Version 01, February 2013.
Project Scale:	Microscale
Location of the project activity:	Burkina Faso
Reported monitoring Period verified in this verification:	1. GS6152 (VPA-11): 01/01/2022-31/12/2022_MP 5th 2. GS6419 (VPA-12): 01/01/2022-31/12/2022_MP 4th 3. GS6420 (VPA-13): 01/01/2022-31/12/2022_MP 3rd

The VPAs distribute the improved cook stoves. The improved cook stoves (ICS) under the VPA use wood as fuel. These ICSs are efficient in transferring heat from the fuel to the pot, thus saving fuel (Wood and charcoal) compared to the traditional stoves.

The number of stoves deployed under each VPAs has been confirmed by the monitoring database and as stated below:

SR. NO.	VPA	Number of ICS
1.	GS6152 (VPA-11)	10,387
2.	GS6419 (VPA-12)	10,165
3.	GS6420 (VPA-13)	8,629

It was confirmed that CO2logic & Association tiipaalga are the Coordinating/Managing Entity for the PoA. The actual voluntary project activities are in line with the VPAs. CO2logic & Association tiipaalga are the VPA implementers for the VPAs.

The information (including data and variables) provided in the MR /01/ is in line with the details provided in the VPA-DD.

CCIPL's verification team considers the project description of the project contained in the PoA and the VPAs to be complete and accurate. The VPAs comply with the relevant methodology, tools, forms, and guidance.

In accordance with §9.4.7 (c) of the GS VVS version 1.0 /B03 (5)/, the verification team confirms that there is no information (data and variables) in the current monitoring period that are different from that stated in the approved revised VPA-DD /02/ which has caused an increase in the estimates of GHG emission reductions.

The verification team has assessed the project to check any proposed or actual changes to the project design in accordance with §7.15.2 of GS VVS Version 1.0 /B03 (5)/. In the opinion of CCIPL, there is no change to the project design. After reviewing the data shared by CME, CCIPL's verification team confirms that the VPAs are implemented within the boundary of the PoA as described in the PoA-DD.

CCIPL's verification team confirms that the VPAs are implemented within the boundary of the PoA as described in the PoA and the implementation and operation of the project activity have been conducted in accordance with the description contained in the PoA-DD and VPA-DD.

E.3.2. Compliance with the registered monitoring plan with applied methodologies and standardized baselines

Means of verification	Document Review, Interview
Conclusion	The verification team can confirm that the monitoring plan contained in the VPAs is in accordance with the approved methodology applied by the project activity, i.e., The Gold Standard Simplified Methodology for Efficient Cookstoves, Version 01, February 2013 /B02/. The verification took cognizance of § 17.4.9 of GS VVS, version 01.0 /B03 (5)/.

E.3.3. Compliance of monitoring activities with the registered monitoring plan

The monitoring has been carried out in accordance with the monitoring plan contained in the VPA-DDs /02/. This conclusion has been made based on the assessment below.

E.3.3.1. Data and parameters fixed ex-ante or at the renewal of crediting period

Means of verification	Document Review, Interview
Conclusion	The verification team confirms that the Data and parameters fixed ex-ante are in compliance with the VPAs and the monitoring plan. Please refer to Appendix 5 for a detailed analysis of the ex-ante parameters. The verification took cognizance of § 17.4.12 of GS VVS, version 01.0 /B03 (5)/.

E.3.3.2. Data and parameters monitored.

Means of verification	Document Review, Interview
Findings	CL04 was raised and closed successfully
Conclusion	The Verification team confirms that the Data and parameters monitored are in compliance with the VPA-DD and the monitoring plan. A complete assessment of each of the monitored parameters has been provided in Appendix 6 of this report. The verification took cognizance of t § 17.4.10 of GS VVS, version 01.0 /B03 (5)/ and GS4GG Requirements /B03 (1)/.

E.3.3.3. Implementation of sampling plan

Means of verification	Document Review, Interview
Findings	--
Conclusion	Monitoring surveys were conducted during the current monitoring period. The total population of the stoves under VPA considered for the monitoring period is 29,181 for all 03 VPAs. The monitoring parameters required to be monitored through the sampling plan are: 1. The average usage rate of the appliance ($U_{p,y}$) 2. Discount factor to account for usage of baseline cookstove during the year y in project scenario p ($DF_{b,Stove,y}$) The CME's sampling plan for determining various monitoring parameters is based on the requirements in the applied methodology TPDDTEC version 3.1, A minimum sample size of 30 samples for each age group has been considered. In this case, 4-year vintages were applied for a total population above 1000 stoves which requires a minimum sample size of 100. This approach has been appreciated by sustaincert further confirming its validity. Across VPA, random sampling was applied for the VPA by CME for the selection of the monitoring samples with 90/10 confidence/precision for all the parameters of annual monitoring which is deemed acceptable as per the PoA and VPAs. Applying the random number generator, the ICS were randomly picked from the defined population up to the required sample size as calculated by the CME. The verification team confirms that the applied method for sample size calculation is in accordance with the PoA-DD / VPA-DD.

	The verification team of the VVB has applied a sampling approach for on-site visits as part of verification in accordance with the paragraph 26 of the Standard: Sampling and surveys for CDM project activities and programmes of activities, Version 09.0 /B04/. In accordance with the paragraph 28 of the sampling standard, acceptance sampling has been chosen by the verification team and accordingly steps listed in paragraph 29 of the sampling standard shall be followed. Verification team has opted for AQL of 0.5% and UQL of 20 %; producer risk of 10 % and consumer risk of 20% in determining the VVB's sample size. Accordingly, site visits for 08 households / samples from the PP's sample size for the monitoring surveys for the monitoring period covered by the present report with acceptance number (c) as 0 was conducted. To calculate the efficiency of the cookstove (DF_n) Discount factor to account for the efficiency loss of the project cook stoves, the default value 1% efficiency loss per year has been considered. This value is in line with the methodology /B02/ used in this project. The sampling plan implemented by the CME is in accordance with the applied approved monitoring methodology and the PoA/ VPA-DD. The CME has appropriately performed the Random Sampling procedure in line with the applied methodology and is best suited for this type of project. As the PoA mentions the option for a random Sampling procedure, it is acceptable to the verification team.

E.3.4. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	Document Review
Conclusion	CME has considered a 1% loss per year in efficiency which is a default value provided by the applicable methodology /B02/ hence no device is used for measurement. Hence this point is Not applicable.

E.3.5. Post registration Changes

E.3.5.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents

Not applicable

E.3.5.2. Corrections

Not Applicable

E.3.5.3. Changes to the start date of the crediting period

Not Applicable

E.3.5.4. Inclusion of a monitoring plan

Not Applicable

E.3.5.5. Permanent changes from registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents

For the sampling, it has been decided to follow TPDDTEC guidelines, for security reasons. Therefore, a minimum of 30 households per Age Group have been selected, and 1 single Usage

Rate has been calculated for all ag groups. This is mainly due to security reasons, as only a limited number of households can be visited.

The sampling plan has changed to reflect the TPDDTEC version 3.1 methodology sampling method for the selection of the minimum Household sample size for each age group included in the VPAs. The minimum total sample size being 100 due to population above 1000 households with at least 30 samples for project technologies of each age being credited. The minimum sample size for each age group considered is 30.

E.3.5.6. Changes to the project design

Not Applicable

E.3.5.7. Changes specific to afforestation and reforestation projects activities

Not Applicable

E.3.6. Emission Reduction Quantification

Assessment of data and calculation of emission reductions or net removals
In line with the requirement of the Gold Standard Methodology" The Gold Standard Simplified Methodology for Efficient Cookstoves, Version 01, February 2013" /B02/. The verification team has reviewed the Monitoring report /01/ and ER spreadsheets /03/ to check the calculation of the emission reductions. The equation used for the calculation is compared with those provided in the VPA-DDs and The Gold Standard Methodology "The Gold Standard Simplified Methodology for Efficient Cookstoves, Version 01, February 2013" /B02/.

E.3.6.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification	Document Review, Interview
Conclusion	When the baseline fuel and the project fuel are different and/or the emission factors are different, the overall GHG reductions achieved by the project activity in year y are calculated as follows: $ER_y = \sum_{0to1}^{xtoy} Np,y * P_y * U_{p,y} * (f_{NRB,y} * E_{Fb,fuel,CO2} + EF_{b,fuel,non\_CO2}) * (1 - DF_{b,Stove,y})$ Where: $N_{p,y}$ — Number of projects cookstoves of each age group operational in the year y P_y — Quantity of firewood that is saved in the year y (tones per household in year y) $U_{p,y}$ — Usage rate for project cookstoves in year y, based on adoption rate and drop off rate revealed by usage surveys (fraction) $f_{NRB,b,y}$ — Fraction of biomass, used in year y for baseline scenario, which can be established as non-renewable. $EF_{b,fuel,CO2}$ — CO2 emission factor of firewood that is substituted or reduced. (Default value for wood fuel 1.747 tCO2/ton of wood) $EF_{b,fuel,non\_CO2}$ — Non-CO2 emission factor of firewood that is substituted or reduced. (IPCC Fifth Assessment Report: Climate Change (IPCC AR5) value for wood fuel 0.148 tCO2/ton of wood)

$DF_{b,Stove,y}$	Usage of baseline cookstove during the year y (fraction) in project scenario
x	y – 1
y	Year of the crediting period

Determination of quantity of biomass saved (P_y):
Quantity of fire wood that is saved ($P_{,y}$) is estimated as follows:

$$P_y = B_{b,y} * (1 - \frac{\eta b}{\eta p,y})$$

Where:

$B_{b,y}$	Quantity of firewood consumed in baseline scenario during year y (tonnes per household per year)
$\eta_{p,y}$	Efficiency of project cookstove in year y (fraction)
η_b	Efficiency of the baseline cookstove being replaced (fraction). A default value of 10% shall be used if the replaced cookstove is a three stone fire, or a conventional device without a grate or a chimney i.e., with no improved combustion air supply or flue gas ventilation

Determination of project cookstove efficiency ($\eta_{p,y}$ and η_p):
Efficiency of project cookstove in year y ($\eta_{p,y}$) is estimated as follows:

$$\eta_{p,y} = \eta_p * (DF\eta)^{y-1} * 0.94$$

Where

$\eta_{p,y}$	Efficiency of project cookstove in year y (fraction)
η_p	Efficiency of project cookstove (fraction) determined at the start of the project activity
DF_η	Discount factor to account for efficiency loss of project cookstove per year of operation (Fraction). The default value for this parameter is 0.99 i.e., 1% efficiency loss/year.
0.94	Adjustment factor to account for uncertainty related to project cookstove efficiency test

From the above equation and the parameter values, emission reductions for the period as follows calculated as:

SR. NO.	VPA	Monitoring period and Number	Emission Reduction (VERs)
1.	GS6152 (VPA-11)	01/01/2022-31/12/2022_MP 5th	9,651
2.	GS6419 (VPA-12)	01/01/2022-31/12/2022_MP 4th	9,315
3.	GS6420 (VPA-13)	01/01/2022-31/12/2022_MP 3rd	8,954

	Total		**27,920**

The verification team confirms that the calculation of baseline emission and emission reductions is in accordance with the applied methodological equation and the VPAs. Calculations have been checked and confirmed from the ER spreadsheet/03/.

The verification took cognizance of § 17.4.12 of GS VVS, version 01.0 /B03 (5)/.

E.3.6.2. Calculation of project GHG emissions or actual net GHG removals by sinks

>>

NA.

E.3.6.3. Calculation of leakage GHG emissions

Means of verification	Document Review, Interview
Conclusion	As per para 6 of the applied methodology /B02/, the CME has conducted the survey to analyse the applicability of leakage emissions. It is found that the project activity doesn't qualify for any of the criteria for considering leakage emission. Hence, As defined under The Gold Standard Simplified Methodology for Efficient Cookstoves, the net emission reductions (ER_y) for a micro-scale programme of activities (POA) need to be discounted by a factor of 0.95 to account for leakages related to non-renewable biomass saved by the project activity.

E.3.6.4. Summary of calculation of GHG emission reductions or net GHG removals by sinks

Means of verification	Document Review, Interview
Conclusion	The verification team confirms that all parameters are used correctly in the calculations, all results are verifiable and transparent, all assumptions are described and based on verifiable evidence, and calculations are done in accordance with the pre-defined formulae from VPAs. The following equation has been used: $ERy = \sum N_{P,y} * P_y * U_{P,y} * (f_{NRB,y} * EF_{b,fuel,CO2} + EF_{b,fuel,nonCO2}) * (1 - DF_{b,Stove,y})$ Where $N_{p,y}$ = Number of households with project cookstoves of each age group operational in the year y P_y = Quantity of firewood that is saved in the year y (tones per household in year y) $U_{p,y}$ = Usage rate for project cookstoves in year y, based on adoption rate and drop off rate revealed by usage surveys (fraction) $f_{NRB,y}$ = Factional non-renewability status of wood fuel during year y $EF_{b,fuel,CO2}$ = CO2 emission factor of firewood that is substituted or reduced $EF_{b,fuel,nonCO2}$ = Non-CO2 emission factor of firewood that is substituted or reduced $DF_{b,stove,y}$ = Usage of baseline cookstove during the year y (fraction) in project scenario X = y-1 Y = Year of the crediting period The total number of ERs achieved during the monitoring period for VPAs is below:

SR. NO.	VPA	Emission Reduction (VERs)
1.	GS6152 (VPA-11)	9,651
2.	GS6419 (VPA-12)	9,315
3.	GS6420 (VPA-13)	8,954
Total		**27,920**

In summary, the verification team confirms that the actual emission reduction is lower than the estimate of the VPAs for the current monitoring period 01/01/2022 to 31/12/2022.

The verification took cognizance of § 17.4.12 of GS VVS, version 01.0 /B03 (5)/.

E.3.6.5. Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates in included VPA

Means of verification	Document Review
Findings	CL 05 was raised and closed successfully
Conclusion	A comparison of the actual GHG emission reductions as well as other sustainable development benefits with the estimates in the VPAs 11,12 and, 13 is given in the below table.

SDG	Value estimated in an ex-ante calculation in the included VPA-DD(s)	Actual values achieved by the VPAs during this monitoring period
SDG 13	**28,757**	**27,920**
SDG 3	>90%	99%
SDG 4	1	1
SDG 4	60	55
SDG 5	>90%	97%
	>90%	67%
SDG 7	18,600	29,181

emission reduction calculations provided in the spreadsheet /03/ have been verified to be correct and in line with the registered VPA-DD /02/.
The verification took cognizance of § 17.4.12 of GS VVS, version 01.0 /B03 (5)/.

E.3.6.6. Remarks on difference from estimated value in registered VPA-DD

Means of verification	Document review
Findings	-

Conclusion	The ex-ante estimated value of the emission reductions for the monitoring period as per the registered VPA-DD /02/ is 28,757 tCO_2e and the actual emission reductions achieved for the monitoring period is 27,920 tCO_2e. For SDG 13, since actual emission reduction is lower than the estimated value and hence it is acceptable to the verification team. The monitoring report /01/ provides reason for decrease in the actual emission reduction and the same was confirmed by the verification team by interviewing the representatives of CME and by reviewing the actual implementation status of the project. For SDG 3,4 and, 5 parameters, the actual values are equal/lower than the estimated value, which is deemed appropriate and thus acceptable to the VVB. Regarding while for SDGs 7 CME has provided justification in the Monitoring report and assessment of the same is provided below: • SDG 7: The actual value is higher than the estimated value, due to more distribution of ICS as compared to the ex-ante estimates.

SECTION F. Internal quality control

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The verification report shall pass a technical review before being submitted to the Gold Standard. The technical review is performed by a technical reviewer qualified in accordance with CCIPL's qualification scheme for validation and verification.

SECTION G. Verification/ Certification opinion

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Carbon Check (India) Private Ltd., the VVB, has performed the 5th, 4th and 3rd verification of the VPAs 11 (GS6152), VPA-12 (GS6419) and, VPA-13 (GS 6420) respectively of the GS Programme of Activities, GS 1340 "Efficient cookstoves in Burkina Faso (PoA)" in "Burkina Faso" for the monitoring period 01/01/2022 to 31/12/2022 (both dates inclusive). It is VVB's responsibility to express an independent verification statement on the reported GHG emission reductions from the component project/s. The verification team assigned by the VVB concludes that the project activity as described in the VPA-DD /02/ and the Monitoring report /01/, meets all relevant requirements of the Gold Standard. The verification has been conducted in-line with the GS4GG requirements project activities.

Verification methodology and Process

The Verification team confirms the contractual relationship signed between the VVB, Carbon Check (India) Private Ltd. and the CME. The team assigned to the verification meets the CCIPL's internal procedures including the UNFCCC/GS requirements for the team composition and competence. The verification team has conducted a thorough contract review as per UNFCCC and CCIPL's procedures and requirements.

The verification has been performed as per the requirements described in the GS4GG and constitutes the review and completion of the following steps:

- Reviewing the PoA-DD and VPA-DD, including the monitoring plan and the corresponding validation report.
- Desk review of the MR and other relevant documents including documents related to the project activities in emission reductions;

- Review of the applied monitoring methodology Approved GS monitoring methodology Gold Standard Methodology Simplified Methodology for Efficient Cookstoves, Version 01, February 2013
- On-site inspection (26/06/2024).
- Resolution of CARs and CLs raised during verification
- Issuance of Verification Report

The project activity was correctly implemented according to selected monitoring methodology, monitoring plan and the registered VPA-DD /02/. The monitoring system was installed, maintained in a proper manner, while collected monitoring data allowed for the verification of the amount of achieved GHG emission reductions. Through the document review and remote interviews, the verification team confirms that the project activity has resulted in the 27,920 tCO_2e emission reductions during the reported monitoring period.

This statement covers verification period from 01/01/2022 to 31/12/2022 (including both dates)

The VVB had raised (00) Forward action Request, (05) clarifications, and (03) Corrective action requests which have been resolved by the CME.

The VVB considers giving necessary reasonable assurance that reported GHG emission reductions were calculated correctly based on the monitoring methodology and that the monitoring plan contained in the VPAs is fairly stated.

The VVB, hereby certifies that the project activity, achieved emission reductions by sources of GHG equal to 27,920 tCO_2e equivalent over the monitoring period 01/01/2022 to 31/12/2022 (inclusive of both dates) and all monitoring requirements have been fulfilled and this is substantiated by an audit trail that contains evidence and records.

SR. NO.	VPA	Emission Reduction (VERs)
1.	GS6152 (VPA-11)	9,651
2.	GS6419 (VPA-12)	9,315
3.	GS6420 (VPA-13)	8,954
Total		**27,920**

Appendix 1. Abbreviations

Abbreviations	Full texts
AQL	Acceptable Quality Limit
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Ltd.
CER	Certified Emission Reduction
CL	Clarification Request
CME	Co-ordinating and Managing entity
VPA	Voluntary Project Activity
VPA-DD	Voluntary Project Activity Design Document
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
DR	Document review
DVR	Draft Verification Report
EB	CDM Executive Board
EF	Emission Factor
EI	External individual
FA	Final Approval
FAR	Forward Action Request
FVR	Final verification Report
GACC	Global Alliance for Clean Cookstoves
GHG	Greenhouse gas(es)
GS4GG	Gold Standard for the Global Goals
I	Interview
IPCC	Intergovernmental Panel on Climate Change
IR	Internal resource
MP	Monitoring Period
MWh	Mega Watt Hour
MR	Monitoring Report
PoA	Programme of Activities
PoA-DD	Programme of Activities Design Document
PD	Project Developer
QC/QA	Quality control /Quality assurance
SDG	Sustainable Development Goal
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
UQL	Unacceptable Quality Limit
VVS	Validation and Verification Standard
VVB	Validation & Verification Body
WBT	Water boiling test
ICS	Improved cook stove

Appendix 2. Competence of team members and technical reviewers

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Campal Deepak Kadam

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), A 6.4 AS (V1.0) ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Validator/Verifier (Trainee)	☐ Gender Expert	☐ Plastic Waste Expert
☐ CCB Expert	☐ Legal Expert	☐ Financial Expert	☐ Environmental, Health and Safety financial matters
☐ SDG Expert	☐ Expert Social aspect	☐ Expert Environment aspect	☐ Health Expert
☒ Regional Expert for India			

in the following Technical Areas:

☐ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☒ TA 13.2
☐ TA 14.1	☐ TA 15.1	☐ TA 16.1		

Issue Date

20th January 2025

Expiry Date

19th January 2026

Mr. Vikash Kumar Singh
Director-Compliance

Revision History of the document:

Revision date	Summary of changes
Dec 2023[1]	Initial Adoption
April 2024	Revision due to A6.4 implementation
Jan 2025	Revised as per the latest organogram.

CCIPL_FM 7.9 Certificate of Competency_V7.0_17012025

[1] Please refer to previous version of FM 7.9 for the revision history

Carbon Check (India) Private Limited

Certificate of Competency

Ms. Tekapso Leslie

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), A 6.4 AS (V1.0) ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☐ Team Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Validator/Verifier (Trainee)	☐ Gender Expert	☐ Plastic Waste Expert
☐ CCB Expert	☐ Legal Expert	☐ Financial Expert	☐ Environmental, Health and Safety financial matters
☐ SDG Expert	☐ Expert Social aspect	☐ Expert Environment aspect	☐ Health Expert

☒ Regional Expert for Cameroon, Madagascar, Cote d' Ivoire, Burkino Faso and all french speaking countries

in the following Technical Areas:

☐ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☐ TA 13.1	☐ TA 13.2
☐ TA 14.1	☐ TA 15.1	☐ TA 16.1		

Issue Date
20th January 2025

Expiry Date
19th January 2026

Mr. Vikash Kumar Singh
Director-Compliance

Revision History of the document:

Revision date	Summary of changes
Dec 2023[1]	Change in the template due to revision in TA and function
April 2024	Revision due to A6.4 implementation
Jan 2025	Revised as per the latest organogram.

CCIPL_FM 7.9 Certificate of Competency_V7.0_17012025

[1] Please refer to previous version of FM 7.9 for the revision history

Carbon Check (India) Private Limited

Certificate of Competency

Mr. S Ranganathan

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS, A 6.4 AS/ ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☒ Technical Reviewer	☐ Validator/Verifier (Trainee)	☐ Gender Expert	☐ Plastic Waste Expert
☐ CCB Expert	☐ Legal Expert	☐ Financial Expert	☐ Environmental, Health and Safety financial matters
☒ SDG Expert	☒ Expert Social aspect	☒ Expert Environment aspect	☐ Health Expert
☒ Regional Expert for India			

in the following Technical Areas:

☒ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☒ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☒ TA 13.2
☐ TA 14.1	☐ TA 15.1	☐ TA 16.1		

Issue Date
20th January 2025

Expiry Date
19th January 2026

Mr. Vikash Kumar Singh
Director-Compliance

Revision History of the document:

Revision date	Summary of changes
Dec 2023[1]	Change in the template due to revision in TA and function
April 2024	Revision due to A6.4 implementation
Jan 2025	Revised as per the latest organogram.

CCIPL_FM 7.9 Certificate of Competency_ V7.0_17012025

[1] Please refer to previous version of FM 7.9 for the revision history

Appendix 3. Documents reviewed or referenced.

No.	Author	Title	Provider
/01/	CO2 logic, Tiipaalga	Monitoring report v1.0 dated 16/03/2023 v2.0 dated 25/07/2024 v3.0 dated 30/10/2024 v4.0 dated 18/02/2025	CO2 logic
/02/	CO2 logic, Tiipaalga	Approved VPA-DD VPA-11-12-13.	CO2 logic
/03/	CO2 logic, Tiipaalga	Ex-post Emission reduction calculation spread sheet for VPA-11-12-13.	CO2 logic
/04/	CO2 logic, Tiipaalga	Distribution records/Project database including sample sales receipt for VPA-11-12-13.	CO2 logic
/05/	CO2 logic, Tiipaalga	Evidence for unique identification number under the project	CO2 logic
/06/	CO2 logic, Tiipaalga	Evidence of Carbon Credits waivers for VPA-11-12-13	CO2 logic
/07/	CO2 logic, Tiipaalga	Description and Life span of F3PA Technology.	CO2 logic
/08/	CO2 logic, Tiipaalga	Grievance registration Books of the Kourwéogo province (VPA-11-12-13).	CO2 logic
/09/	CO2 logic, Tiipaalga	Training records of surveyors (modules, attendance records, minutes of meetings).	CO2 logic
/10/	CO2 logic, Tiipaalga	SDG 8 (training records: modules, attendance records, minutes of meetings).	CO2 logic
/11/	CO2 logic, Tiipaalga	Evidence of random sample section for monitoring survey.	CO2 logic
/12/	CO2 logic, Tiipaalga	Monitoring/Usage survey records from 15/03/2023 to 31/03/2023	CO2 logic
/13/	CO2 logic, Tiipaalga	Monitoring survey Questionnaire Template	CO2 logic
/14/	CO2 logic, Tiipaalga	SDG 4 Activities and Pictures for this monitoring period.	CO2 logic

Background documents

No.	Referenced Documents
/B01/	1. CDM Validation and Verification Standard for PoAs, version 03.0 2. CDM Project Standard for PoAs, version 03.0 3. CDM Project Cycle Procedure for PoAs, version 03.0
/B02/	The Gold Standard Simplified Methodology for Efficient Cookstoves, Version 01, February 2013
/B03/	1. Gold Standard Principles and Requirements version 1.2, dated 24/10/2019 2. Gold Standard Programme of Activity Requirements version 1.2, dated 24/10/2019 3. GS Validation & Verification Body Requirements version 2.0, dated 14/01/2021 4. Community Services Activity Requirements (version 1.1) under GS4GG https://globalgoals.goldstandard.org/200-gs4gg-community-services-activity-requirements/ 5. GS Validation-and-Verification-Standard version 1.0 6. Design-change-requirements Version 1.1
/B04/	Sampling and Survey

	a) CDM Sampling Standard, version 09.0 Guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0.
/B05/	Site Visit and Remote Audit Requirements and Procedures, version 2.0 dated 30/05/2023
/B06/	Cookstove Usage Rate Guidelines, version 2.0 dated 27/10/2020

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

4.1 Clarification requests (CLs)

CL ID	01	**Section no.**	C	**Date:** 24/06/2024
Description of CL				
CME to submit the workshop photographic evidence and attendance sheets to substantiate the following "*The tiipaalga surveyors are trained and retrained prior conducting surveys during a 2-days training session conducted from 12/03/2023 till 13/03/2023*" performed prior to the monitoring survey performed to cover the monitoring period "01/01/2022 to 31/12/2022 both days inclusive".				
CME response				**Date:** 17/07/2024
The document has been provided.				
Documentation provided by CME				
01-KWG-SYNTHESE DES ACTIVITES PROJET F3PA-2022.xlsx				
VVB assessment				**Date:** 28/08/2024
The required document has been provided by the PD and researched information complies with that found in the referred section of the Monitoring report v2. Hence, the finding is closed.				

CL ID	02	**Section no.**	D.4	**Date:** 24/06/2024
Description of CL				
In the referred section of the MR, the CME is required to clarify the steps taken regarding the accounting of the stoves that are operational beyond technical lifetime of 5 years.				
CME response				**Date:** 17/07/2024
The point has been addressed in version 2 of MR, page 8.				
Documentation provided by CME				
GS1340_VPA11-12-13_MR5_v2.0_track.docx				
VVB assessment				**Date:** 28/08/2024
Verification team notices that in section A.1 of the revised Monitoring report v2.0, PD has elaborated on the measures to be taken regarding the account of stoves that would be operational beyond the life span of the same. This is deemed acceptable to the verification team hence, the finding is closed.				

CL ID	03	**Section no.**	D.2	**Date:** 04/07/2024
Description of CL				
In the referred section of the MR version 2.0, CME is required to provide the correct data source required to access the value of the parameter Np,1 for the VPA-13.				
CME response				**Date:** 17/07/2024
Correct document has been now mentioned in version 2 of MR (track change modality)				
Documentation provided by CME				
Tiipaalga_DR_VPA-13_ICS_Vinctage 2022_20230228_Recent date per HH_v1.0.xlsx				
VVB assessment				**Date:** 28/08/2024
VVB notices in the revised Monitoring report v2.0 that the PD has mentioned the correct data source to access the value of the parameter Np,y for the VPA-13. Hence, the finding is closed.				

CL ID	04	Section no.	D.4	Date: 04/07/2024
Description of CL				
CME shall clarify the following “However, 40 households in AG 4-5 were removed from the sample as they had been renewed after the end of the monitoring period (after 31/12/2022) and are therefore not considered as AG 4_5 but AG 0-1 at the moment of the survey, which would have biased the results”. Equally, few paragraphs above, it has been mentioned that only four age groups have been considered and not 5. *“Since the project activities started in January 2018, there are four age groups, i.e. 0-1 age group, 1-2 age group, 2-3 age group and 3-4 age group.”* PD shall substantiate reason for including the age group 4-5. Additionally, CME is required to justify the inclusion of 40 households in age group 0-1 considering the fact the during the monitoring period the stoves were aged 4-5 and were renewed only after the end of the monitoring period.				
CME response				**Date:** 17/07/2024
This was a mistake, in fact no account has been made for AG 0-1 as you can see to the related parameter NPy,1 (related to ICS AG 0-1) and as declared at page 24, no ICS accounted. The mentioned paragraph has been corrected in version 2 of MR.				
Documentation provided by CME				
GS1340_VPA11-12-13_MR5_v2.0_track				
VVB assessment				**Date:** 28/08/2024
The verification team notices in the referred section of the revised monitoring report v2.0 that, the PD has clarified how many age groups have been considered during this monitoring period and same is consistent with “Tiipaalga_MS_Sampling_VPA-11-12-13_Vintage 2022_20230228_v2.0”. Hence, the finding is closed.				

CL ID	05	Section no.	E.5.1	Date: 04/07/2024
Description of CL				
In this section CME states that *“: the ER for this monitoring period for the VPA-13 are less than the ex-ante estimates presented in the PDD (9,615 vs. 8,954 VERs).”* However, it is not clear how the value of emission reductions is estimated for the current monitoring period.				
CME response				**Date:** 17/07/2024
Refer to ex-ante Ers, for VPA 13 values year 2022.				
Documentation provided by CME				
GS1340 - VPA-13 - ER - Calculation_v2.0_20190405.xlsx				
VVB assessment				**Date:** 28/08/2024
The verification team understands that a different approach from what had been considered for the determination of sample sizes has been applied during the current monitoring period, implying the use of an average usage U which was is a lower value than the usage factor which would have been used. The verification team equally understands that same applies for all VPAs covered by this monitoring report version 2.0. Hence, the finding is closed.				

4.2. Corrective action required (CARs)

CAR ID	01	Section no.	KPI	Date: 24/06/2024
Description of CAR				

In KPI section of the MR, the monitoring period (MP) number specified by CME for VPAs is incorrect. CME is required to make the MP number of each VPA consistent across the MR.	
CME response	**Date:** 17/07/2024
Correction has been made. Refer to version 2 of MR.	
Documentation provided by PD	
GS1340_VPA11-12-13_MR5_v2.0_track	
VVB assessment	**Date:** 28/08/2024
Verification team confirms that the PD has revised the referred section by providing correct information with respect to the monitoring period. This is acceptable hence, the finding is closed.	

CAR ID	02	**Section no.**	A.1	**Date:** 24/06/2024
Description of CAR				
In section A.1 of the MR, the ERs reported for group of three VPAs is inconsistent with ER sheet. CME is required to report the value of achieved ERs consistently across the MR.				
CME response				**Date:** 17/07/2024
Refer to updated section into MR version 2 (page 8).				
Documentation provided by CME				
GS1340_VPA11-12-13_MR5_v2.0_track				
VVB assessment				**Date:** 28/08/2024
PD has made consistent the value of the total ERs obtained throughout the MR version 2.0 and ER calculation sheet "*GS1340 - VPA-11-12-13-Vintage 2022 - Consolidated ER calculation v1.0*". The finding is therefore closed.				

CAR ID	03	**Section no.**	C	**Date:** 24/06/2024
Description of CAR				
In sub-section 'Diagram of Responsibilities', CME is required to revise the diagram as the entity 'objective observer' is not involved in the verification process.				
CME response				**Date:** 17/07/2024
Refer to the updated figure, where OO has been substituted with VVB.				
Documentation provided by CME				
GS1340_VPA11-12-13_MR5_v2.0_track				
VVB assessment				**Date:** 28/08/2024
In section C of the monitoring report v2.0, PD has revised the 'diagram of responsibilities' including only parties involved in the current monitoring period. This is acceptable to the verification team, hence the finding is closed.				

4.3 Forward action request

FAR ID	**Nil**	**Section no.**	**NA**	**Date: DD/MM/YYYY**
Description of FAR				
CME response				**Date: DD/MM/YYYY**
Documentation provided by CME				
GS VVB assessment				**Date: DD/MM/YYYY**

Appendix 5. Data and parameters fixed ex-ante

SDG 13: Climate Action

Parameter	$EF_{b, fuel, CO2}$
Data unit:	tCO_2/t firewood
Default values used:	1.747
Purpose of data	To calculate VERs
Source and Verification of the source	IPCC default values, table 1.4 of chapter 1 of Vol. 2, 2006 IPCC Guidelines for National Greenhouse Gas Inventories

Parameter	$EF_{b, fuel, non\_CO2}$
Data unit:	tCO_2/t firewood
Default values used:	0.58
Purpose of data	To calculate VERs
Source and Verification of the source	IPCC default value, table 1.4 of Chapter 1 of Vol.2, 2006 IPCC Guidelines for National Greenhouse Gas Inventories

Parameter	η_b
Data unit:	Fraction
Default values used:	0.10
Purpose of data	To calculate VERs
Source and Verification of the source	The default value as per the GS methodology.

Parameter	η_p
Data unit:	Fraction
Default values used:	0.234
Purpose of data	To calculate VERs
Source and Verification of the source	VVB has checked the document provided to prove the efficiency of ICS i.e. “tiipaalga_Rapport de tests de performance énergétiques_F3PA_24_07_2015_VF”

Parameter	$f_{NRB,b, y}$
Data unit:	Fraction
Default values used:	0.90
Purpose of data	To calculate VERs
Source and Verification of the source	Default NRB value provided by the CDM executive board and endorsed by the host country DNA (http://cdm.unfccc.int/DNA/fNRB/docs/burkina.pdf)

Parameter	$B_{b,y}$
Data unit:	t/hh/a (tons firewood per household per annum)
Default values used:	(GS6152) VPA-11 – 3.32 (GS6419) VPA-12 –3.32 (GS6420) VPA-13 –3.32
Purpose of data	To calculate VERs
Source and Verification of the source	The value was derived from ex-ante baseline surveys.

Appendix 4. Data and parameters monitored.

Relevant SDG Indicator	SDG 13, Climate action
Data/ Parameter	$U_{p,y}$
Unit	Percentage
Description	Usage rate in project scenario p during year 1
Source of data	Annual usage/monitoring survey. See document 'GS1240_MS_VPA-11-12-13_MP5'/Tab 'Analysis'.
Value(s) applied	82.35%
Measurement methods and procedure	The measurement of the usage rate is based on qualitative information collected in the usage/monitoring survey. A question concerning the current use of the technology is asked to each end user of the sample and is validated by the observation of the surveyor to determine the usage rate of each technology age category.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions
Additional comment	A usage parameter is derived for each age group of project cookstoves being credited. The usage survey will determine if the project cookstoves can be considered as 'in use' or 'not in use' and if the project cookstoves are in 'good condition' or 'not in good condition'. The record keeping system of the VPA is at household level (with household number) for which all baseline cookstove set(s) (comprising of several traditional three stone cookstoves for domestic use) have been replaced by project cookstove set(s). Cookstove set(s) within a household can only be considered 'in use' if all the cookstoves in the set(s) (in polygamous households all cookstoves of all cookstove sets of all women in the household) are being used. Similarly, cookstove set(s) can only be considered in 'good condition' as long as all cookstoves within the cookstove set(s) (in polygamous households all cookstoves of all cookstove sets of all women in the household) are in a 'good condition'. See document 'GS1340_MS_VPA_25-26_MP1_20220518'.
VVB Assessment	VVB has assessed the Annual usage/monitoring survey. See document 'GS1240_MS_VPA-11-12-13_MP5'/Tab 'Analysis' /12/. against $U_{p,y}$. which was found in line with the value mentioned. Same has been checked by VVB during end-user interviews and confirmed that the values mentioned are correct.

Relevant SDG Indicator	SDG 13, Climate action
Data/ Parameter	$N_{p,1}$
Unit	Number of households included in the project (Units), based on days of usage of age group 0-1 during the monitoring period related to one year.
Description	Household in the project database for project scenario p through the year i for which all baseline cookstove set(s) (comprising of several traditional three-stone cookstoves for domestic use) have been replaced by project cookstove set(s).
Source of data	Project database. See documents:

	'Tiipaalga_DR_VPA-11_ICS_Vintage 2022_20230228_Recent date per HH_v1.0 'Tiipaalga_DR_VPA-12_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-13_ICS_Vintage 2022_20230228_Recent date per HH_v1.0.
Value(s) applied	 (GS6152) VPA 11: 0 (GS6419) VPA 12: 0 (GS6420) VPA 13: 0
Measurement methods and procedure	For the determination of the number of usage days at the household level for age group 0-1 during the corresponding monitoring period, the latest start day of use of all constructed F3PA efficient cookstoves within the household will be taken to have a conservative approach. Number of households included in the project (Units) is calculated based on days of usage of age group 0-1 during the corresponding monitoring period related to one year.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions
Additional comment	A part of the households in the project area of the VPA are polygamous. Each wife of the household included in the carbon project must have at least two F3PA efficient cookstoves. This is a local cooking requirement as one is for the Mush "Tô", the other for the sauce "Sauce". Additional Cookstoves could be used for boiling water or preparing the soup. All the traditional three stone cookstoves for domestic use will be replaced by the F3PA efficient cookstoves. This means that according to the needs of the household, an un-predetermined number of projects cookstoves will be constructed and used at household level. As the quantity of firewood consumed in the baseline is determined at household level, the number of households will be monitored instead of project cookstoves to determine the emissions reductions. Women are trained by the APEDR and Solidagro instructors or leader women to build the project cookstoves themselves using local materials according to a strict construction protocol. In tight collaboration of the project coordinator, the instructor and the leader women the logistical management, quality assurance of the project cookstoves according to the construction protocol and the management of the project database recording all constructed project cookstoves will be ensured.
VVB Assessment	VVB has assessed the 'Tiipaalga_DR_VPA-11_ICS_Vintage 2022_20230228_Recent date per HH_v1.0 'Tiipaalga_DR_VPA-12_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-13_ICS_Vintage 2022_20230228_Recent date per HH_v1.0. " against $\mathbf{N_{p,1}}$ which was found in line with the values mentioned same has been checked by VVB and confirmed that the values mentioned are correct.

Relevant SDG Indicator	**SDG 13, Climate action**
Data/ Parameter	$\mathbf{N_{p,2}}$

<table>
<tr><td>Unit</td><td>Number of households included in the project (Units), based on days of usage of age group 1-2 during the monitoring period related to one year.</td></tr>
<tr><td>Description</td><td>Household in the project database for project scenario p through the year i for which all baseline cookstove set(s) (comprising of several traditional three-stone cookstoves for domestic use) have been replaced by project cookstove set(s).</td></tr>
<tr><td>Source of data</td><td>Project database. See document ‘
‘Tiipaalga_DR_VPA-11_ICS_Vintage 2022_20230228_Recent date per HH_v1.0’
‘Tiipaalga_DR_VPA-12_ICS_Vintage 2022_20230228_Recent date per HH_v1.0’
‘Tiipaalga_DR_VPA-13_ICS_Vintage 2022_20230228_Recent date per HH_v1.0.</td></tr>
<tr><td>Value(s) applied</td><td><table><tr><td>(GS6152)</td><td>VPA 11: 0</td></tr><tr><td>(GS6419)</td><td>VPA 12: 0</td></tr><tr><td>(GS6420)</td><td>VPA 13: 1,019</td></tr></table></td></tr>
<tr><td>Measurement methods and procedure</td><td>For the determination of the number of usage days at the household level for age group 1-2 during the corresponding monitoring period, the latest start day of use of all constructed F3PA efficient cookstoves within the household will be taken in order to have a conservative approach.
Number of households included in the project (Units) is calculated based on days of usage of age group 1-2 during the corresponding monitoring period related to one year.</td></tr>
<tr><td>Monitoring frequency</td><td>Annual</td></tr>
<tr><td>QA/QC procedures</td><td>Transparent data analysis and reporting</td></tr>
<tr><td>Purpose of data</td><td>Calculation of emission reductions</td></tr>
<tr><td>Additional comment</td><td>A part of the households in the project area of the VPA are polygamous. Each wife of the household included in the carbon project must have at least two F3PA efficient cookstoves. This is a local cooking requirement as one is for the Mush “Tô”, the other for the sauce “Sauce”. Additional Cookstoves could be used for boiling water or preparing the soup. All the traditional three stone cookstoves for domestic use will be replaced by the F3PA efficient cookstoves. This means that according to the needs of the household, an un-predetermined number of projects cookstoves will be constructed and used at household level.
As the quantity of firewood consumed in the baseline is determined at household level, the number of households will be monitored instead of project cookstoves to determine the emissions reductions.
Women are trained by the APEDR and Solidagro instructors or leader women to build the project cookstoves themselves using local materials according to a strict construction protocol. In tight collaboration of the project coordinator, the instructor and the leader women the logistical management, quality assurance of the project cookstoves according to the construction protocol and the management of the project database recording all constructed project cookstoves will be ensured.</td></tr>
<tr><td>VVB Assessment</td><td>VVB has assessed the ‘Tiipaalga_DR_VPA-11_ICS_Vintage 2022_20230228_Recent date per HH_v1.0</td></tr>
</table>

	'Tiipaalga_DR_VPA-12_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-13_ICS_Vintage 2022_20230228_Recent date per HH_v1.0. $N_{p,2}$ which was found in line with the values mentioned same has been checked by VVB and confirmed that the values mentioned are correct.

Relevant SDG Indicator	**SDG 13, Climate action**
Data/ Parameter	$N_{p,3}$
Unit	Number of households included in the project (Units), based on days of usage of age group 2-3 during the monitoring period related to one year.
Description	Household in the project database for project scenario p through the year i for which all baseline cookstove set(s) (comprising of several traditional three-stone cookstoves for domestic use) have been replaced by project cookstove set(s).
Source of data	Project database. See document Tiipaalga_DR_VPA-11_ICS_Vintage 2022_20230228_Recent date per HH_v1.0 'Tiipaalga_DR_VPA-12_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-13_ICS_Vintage 2022_20230228_Recent date per HH_v1.0.
Value(s) applied	(GS6152) VPA 11: 0 (GS6419) VPA 12: 844 (GS6420) VPA 13: 2,155
Measurement methods and procedure	For the determination of the number of usage days at the household level for age group 2-3 during the corresponding monitoring period, the latest start day of use of all constructed F3PA efficient cookstoves within the household will be takento to have a conservative approach. Number of households included in the project (Units) is calculated based on days of usage of age group 2-3 during the corresponding monitoring period related to one year.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions
Additional comment	A part of the households in the project area of the VPA are polygamous. Each wife of the household included in the carbon project must have at least two F3PA efficient cookstoves. This is a local cooking requirement as one is for the Mush "Tô", the other for the sauce "Sauce". Additional Cookstoves could be used for boiling water or preparing the soup. All the traditional three stone cookstoves for domestic use will be replaced by the F3PA efficient cookstoves. This means that according to the needs of the household, an un-predetermined number of projects cookstoves will be constructed and used at household level. As the quantity of firewood consumed in the baseline is determined at household level, the number of households will be monitored instead of project cookstoves to determine the emissions reductions. Women are trained by the APEDR and Solidagro instructors or leader women to build the project cookstoves themselves

	using local materials according to a strict construction protocol. In tight collaboration of the project coordinator, the instructor and the leader women the logistical management, quality assurance of the project cookstoves according to the construction protocol and the management of the project database recording all constructed project cookstoves will be ensured.
VVB Assessment	VVB has assessed the 'Tiipaalga_DR_VPA-11_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-12_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-13_ICS_Vintage 2022_20230228_Recent date per HH_v1.0.' against $\mathbf{N_{p,3}}$ which was found in line with the values mentioned same has been checked by VVB and confirmed that the values mentioned are correct.

Relevant SDG Indicator	**SDG 13, Climate action**
Data/ Parameter	$\mathbf{N_{p,4}}$
Unit	Number of households included in the project (Units), based on days of usage of age group 3-4 during the monitoring period related to one year.
Description	Household in the project database for project scenario p through the year i for which all baseline cookstove set(s) (comprising of several traditional three-stone cookstoves for domestic use) have been replaced by project cookstove set(s).
Source of data	Project database. See document 'Tiipaalga_DR_VPA-11_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-12_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-13_ICS_Vintage 2022_20230228_Recent date per HH_v1.0.
Value(s) applied	(GS6152) VPA 11: 1,079 (GS6419) VPA 12: 2,486 (GS6420) VPA 13: 0
Measurement methods and procedure	For the determination of the number of usage days at the household level for age group 3-4 during the corresponding monitoring period, the latest start day of use of all constructed F3PA efficient cookstoves within the household will be taken to have a conservative approach. Number of households included in the project (Units) is calculated based on days of usage of age group 0-1 during the corresponding monitoring period related to one year.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions
Additional comment	A part of the households in the project area of the VPA are polygamous. Each wife of the household included in the carbon project must have at least two F3PA efficient cookstoves. This is a local cooking requirement as one is for the Mush "Tô", the other for the sauce "Sauce". Additional Cookstoves could be used for boiling water or preparing the soup. All the traditional three stone cookstoves for domestic use will be replaced by the F3PA efficient cookstoves. This means that according to the needs of the household, an un-

	predetermined number of projects cookstoves will be constructed and used at household level. As the quantity of firewood consumed in the baseline is determined at household level, the number of households will be monitored instead of project cookstoves to determine the emissions reductions. Women are trained by the APEDR and Solidagro instructors or leader women to build the project cookstoves themselves using local materials according to a strict construction protocol. In tight collaboration of the project coordinator, the instructor and the leader women the logistical management, quality assurance of the project cookstoves according to the construction protocol and the management of the project database recording all constructed project cookstoves will be ensured.
VVB Assessment	VVB has assessed the 'Tiipaalga_DR_VPA-11_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-12_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-13_ICS_Vintage 2022_20230228_Recent date per HH_v1.0against $\mathbf{N_{p,4}}$ which was found in line with the values mentioned same has been checked by VVB and confirmed that the values mentioned are correct.

Relevant SDG Indicator	**SDG 13, Climate action**
Data/ Parameter	$\mathbf{N_{p,5}}$
Unit	Number of households included in the project (Units), based on days of usage of age group 0-1 during the monitoring period related to one year.
Description	Household in the project database for project scenario p through the year i for which all baseline cookstove set(s) (comprising of several traditional three-stone cookstoves for domestic use) have been replaced by project cookstove set(s).
Source of data	Project database. See document 'Tiipaalga_DR_VPA-11_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-12_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-13_ICS_Vintage 2022_20230228_Recent date per HH_v1.0
Value(s) applied	(GS6152) VPA 11: 2,357 (GS6419) VPA 12: 0 (GS6420) VPA 13: 0
Measurement methods and procedure	For the determination of the number of usage days at the household level for age group 4-5 during the corresponding monitoring period, the latest start day of use of all constructed F3PA efficient cookstoves within the household will be taken in order to have a conservative approach. Number of households included in the project (Units) is calculated based on days of usage of age group 4-5 during the corresponding monitoring period related to one year.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions

Additional comment	A part of the households in the project area of the VPA are polygamous. Each wife of the household included in the carbon project must have at least two F3PA efficient cookstoves. This is a local cooking requirement as one is for the Mush "Tô", the other for the sauce "Sauce". Additional Cookstoves could be used for boiling water or preparing the soup. All the traditional three stone cookstoves for domestic use will be replaced by the F3PA efficient cookstoves. This means that according to the needs of the household, an un-predetermined number of projects cookstoves will be constructed and used at household level. As the quantity of firewood consumed in the baseline is determined at household level, the number of households will be monitored instead of project cookstoves to determine the emissions reductions. Women are trained by the APEDR and Solidagro instructors or leader women to build the project cookstoves themselves using local materials according to a strict construction protocol. In tight collaboration of the project coordinator, the instructor and the leader women the logistical management, quality assurance of the project cookstoves according to the construction protocol and the management of the project database recording all constructed project cookstoves will be ensured.
VVB Assessment	VVB has assessed the 'Tiipaalga_DR_VPA-11_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-12_ICS_Vintage 2022_20230228_Recent date per HH_v1.0' 'Tiipaalga_DR_VPA-13_ICS_Vintage 2022_20230228_Recent date per HH_v1.0against $\mathbf{N_{p,5}}$ which was found in line with the values mentioned same has been checked by VVB and confirmed that the values mentioned are correct.

Relevant SDG Indicator	**SDG 13, Climate action**
Data/ Parameter	$\mathbf{DF_{b,stove}}$
Unit	Percentage
Description	Discount factor to account for the baseline stove use in project scenario p during the year 1
Source of data	Monitoring data. See document 'GS1240_MS_VPA-11-12-13_MP5'.
Value(s) applied	6.1%
Measurement methods and procedure	The measurement of the discount factor to account for the baseline stove use is based on qualitative information collected in the usage/monitoring survey. A question concerning the current use of the baseline technology is asked to each end user of the sample and is validated by the observation of the surveyor in order to determine the discount factor to account for the baseline stove use in project scenario p of each technology age category.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions
Additional comment	The discount factor for the baseline stove is determined based on the number of meals cooked using the baseline stove. The required information is captured through sample surveys carried out following a random sampling approach for all age groups of the project stove. The impact of seasonal variation on the use of baseline stoves is considered as part of the

	monitoring survey. The survey format for sample questions to capture this information is described in the Monitoring Plan. In the case of polygamous households, the discount factor is determined for each cookstove set and the highest value of all cookstove sets within the household is used as representative discount factor for the household.
VVB Assessment	VVB has assessed the Monitoring data. See document 'GS1240_MS_VPA-11-12- 13_MP5' /12/. against $DF_{b,stove}$ which was found in line with the values mentioned same has been checked by VVB during remote visit and confirmed that the values mentioned are correct.

Relevant SDG Indicator	**SDG 13, Climate action**
Data/ Parameter	**DF_{η}**
Unit	Fraction
Description	Discount factor to account for efficiency loss of project stoves
Source of data	Gold Standard Simplified Methodology for Efficient Cookstoves
Value(s) applied	Default value: 0.99 i.e., 1 % efficiency loss per year
Measurement methods and procedure	N.A.
Monitoring frequency	N.A.
QA/QC procedures	N.A.
Purpose of data	Calculation of emission reductions
Additional comment	N.A.
VVB Assessment	The default value is being used from a methodology /B02/ that is in line with the requirement.

Relevant SDG Indicator	**SDG 7, Affordable and clean energy**
Data/ Parameter	**Number of F3PA efficient cookstoves disseminated**
Unit	Number
Description	Number of F3PA efficient cookstoves included in the project database for project scenario p
Source of data	Project database. See document ' "DR_Tiipaalga_VPA01- 10_ICS_MP7 DR_Tiipaalga_VPA-11_ICS_20220404' & 'DR_Tiipaalga_VPA-12_ICS_20220404' & 'DR_Tiipaalga_VPA-13_ICS_20220404' GS1340_VPA14- 17_MP2_VPA 29_MP1_DR_Recent date_20220330'. GS1340_VPA18-19- 20_DR_HH and ICS_20220330', tab 'Raw data'.
Value(s) applied	(GS6152) VPA 11: 10,387 (GS6419) VPA 12: 10,165 (GS6420) VPA 13: 8,629 (GS10781) VPA 17: 1,777 (GS11074) VPA 29: 596 (GS10922) VPA 18: 2,900 (GS10923) VPA 19: 2,899 (GS10924) VPA 20: 980
Measurement methods and procedure	The project database provides a list of end-users with number of F3PA efficient cookstoves per end-user.
Monitoring frequency	Continuous
QA/QC procedures	The data is analyzed in the monitoring report and Project database is made available for review.
Purpose of data	Calculation of the parameter "Number of households equipped with F3PA cookstoves for the group of VPA's"

Additional comment	N/A
VVB Assessment	VVB has assessed the "GS1340_VPA18-19- 20_DR_HH and ICS_20220330', tab 'Raw data'" against "**Number of households equipped with F3PA cookstoves for the group of VPA's"** which was found in line with the values calculated same has been checked by VVB and confirmed that the values mentioned are correct.

Relevant SDG Indicator	**SDG 13, Climate Action**
Data/ Parameter	**Number of tCO_2e reduced by the project**
Unit	Ton of CO_2e
Description	Number of tCO_2e reduced thanks to the implementation of the project during the corresponding monitoring period.
Measured/calculated/default	Measured
Source of data	ER calculations: see document ' 'GS 1340 - VPA 11 - ER_MP5_v1.0' 'GS 1340 - VPA 12 - ER_MP5_v1.0' 'GS 1340 - VPA 13 - ER_MP4_v1.0'
Value(s) of monitored parameter	(GS6152) VPA 11: 9,651tCO_2e (GS6419) VPA 12: 9,315tCO_2e (GS6420) VPA 13: 8,954 tCO_2e
Monitoring equipment	N/A
Measuring/reading/recording frequency	Annual
Calculation method (if applicable)	See section E.4
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions
Additional comments	N.A.
VVB Assessment	VVB has assessed the 'GS 1340 - VPA 11 - ER_MP5_v1.0' 'GS 1340 - VPA 12 - ER_MP5_v1.0' 'GS 1340 - VPA 13 - ER_MP4_v1.0' /03/ against "**Number of tCO2e reduced by the project"** which was found in line with the values calculated same has been checked by VVB and confirmed that the values mentioned are correct.

Relevant SDG Indicator	**SDG 3, Good health, and well-being**
Data/ Parameter	**Smoke level reduction** **Incidence of coughing reduction** **Incidence of respiratory illness reduction** **Incidence of itchy eyes reduction**
Unit	Fraction
Description	Poportion of households perceiving less often smoke levels, incidence of coughing, incidence of respiratory illness, incidence of itchy eyes since the implementation of F3PA efficient cookstoves
Source of data	Monitoring surveys. See document '*GS1340_MS_VPA-11- 12-13_Vintage 2021'*
Value(s) applied	Proportion of households perceiving: Smoke level reduction: 99% Incidence of coughing reduction: 99% Incidence of respiratory illness reduction: 99% Incidence of itchy eyes reduction: 99%

Measurement methods and procedure	The measurement of the parameter is based on qualitative information collected during Monitoring surveys. The end users are asked whether, since they have the F3PA efficient cookstoves, smoke level occurs for each more often, less often among the family members or the situation has not changed. The same is asked for coughing, respiratory illnesses and itchy eyes.
Monitoring frequency	Annual
QA/QC procedures	The data is analyzed in the monitoring report and raw data of the Monitoring surveys is made available for review.
Purpose of data	Calculation of the parameter "Proportion of households perceiving less often smoke levels, incidence of coughing, incidence of respiratory illness, incidence of itchy eyes"
Additional comment	N.A.
VVB Assessment	VVB has assessed the "*GS1340_MS_VPA-11- 12-13_Vintage 2021*" /12/ against "**Smoke level reduction, Incidence of coughing reduction, Incidence of respiratory illness reduction, Incidence of itchy eyes reduction"** Which was found in line with the values calculated same has been checked and confirmed by VVB during interviews with an end user's and confirmed that the values mentioned are correct.

Relevant SDG Indicator	**SDG 4, Quality Education**
Data/ Parameter	**Number of training initiatives for staff involved in the programme**
Unit	Number
Description	Number of training initiatives for staff involved in the programme in order to increase their performance in the programme
Source of data	Reports regarding the training initiatives See original document: '*Compte rendu de formation des enqueteurs verification An4_FR*' and its translation in English : '*Compte rendu de formation des enqueteurs verification An4_EN translation'*.
Value(s) applied	1
Measurement methods and procedure	The list of training initiatives during the corresponding monitoring period
Monitoring frequency	Annual
QA/QC procedures	The data is analyzed in the reports regarding the training initiatives, which is made available for review
Purpose of data	Calculation of the parameter: " Number of trainings initiatives for staff involved in the programme "
Additional comment	Starting from the 12th of March 2023, three surveyors received a 2-days training under the supervision of three members of Association tiipaalga. The purpose of the training was to teach the fundamentals of the usage survey with a theoretical and practical phase and to familiarize with the used tools (Akvo software). The surveyors were ultimately able to collect quality data from the households on the field for the purpose of the monitoring survey. More details regarding the training and the participants list can be found in document: '*Compte rendu de formation des enqueteurs verification An4_EN translation'*.
VVB Assessment	VVB has assessed the "*Compte rendu de formation des enqueteurs verification An4_FR*' and its translation in English : '*Compte rendu de formation des enqueteurs verification An4_EN translation*"' /14/ against "**Number of training initiatives for staff involved in the programme"** which was found in line with the values mentioned in the supporting document same has been checked by VVB and confirmed that the values mentioned are correct.

Relevant SDG Indicator	**SDG 4, Quality Education**

Data/ Parameter	Number of workshops carried out for women
Unit	Number
Description	Number of workshops carried out for women in order to increase their empowerment
Source of data	Reports regarding the workshops carried out for women. See document '*Bilan des activités - sensibilisation et formation - VPA 11-12-13_2021_with comments'.*
Value(s) applied	55
Measurement methods and procedure	The list of workshops carried out for women during the corresponding monitoring period
Monitoring frequency	Annual
QA/QC procedures	The data is analyzed in the reports regarding the workshops carried out for women, which is made available for review
Purpose of data	Calculation of the parameter "Number of workshops carried out for women"
Additional comment	Two types of workshops were organized: i) sensitization workshops; and ii) (re-)training workshops of leader women for the construction of F3PA efficient cookstoves. During the sensibilization sessions stove users are informed about the advantages of the project cookstoves for the climate and desertification of the project area, tiipaalga's activities, on how the banco or mud should be prepared for the construction of the cookstoves etc. During training or retraining sessions leader women are trained on how the F3PA efficient cookstoves should be constructed. In total, 3,506 participants were present during the workshops. A complete summary of the different sessions can be found in document : '*Bilan des activités - sensibilisation et formation - VPA 11-12-13_2021_with comments'*
VVB Assessment	VVB has assessed the "*Bilan des activités - sensibilisation et formation - VPA 11-12-13_2021_with comments"* against "**Number of workshops carried out for women"** which was found in line with the values mentioned in the supporting document same has been checked by VVB and confirmed that the values mentioned are correct.

Relevant SDG Indicator	SDG 5, Gender Equality
Data/ Parameter	**Proportion of stove users perceiving reduced amount of time spent on wood fuel collection and/or proportion of user perceiving reduced amount of money spent on wood fuel purchase**
Unit	Fraction
Description	Proportion of stove users perceiving reduced time spent on wood fuel collection and/or reduced money spent on wood fuel purchase since the implementation of the F3PA efficient cookstoves
Source of data	Monitoring survey, see document ' *GS1340_MS_VPA-11- 12-13_Vintage 2021*'.
Value(s) applied	Proportion of stove users perceiving reduced amount of time spent on wood fuel collection: 97% Activities done in saved time: i. Domestic tasks$_p$: 40% ii. Income generating activities$_p$: 30% iii. Field labour$_p$: 26% iv. Gardening$_p$: 3% v. Participating in a literacy program$_p$: 0% vi. Community work$_p$: 0% vii. Doing nothing$_p$: 0% viii. Religious activities$_p$: 0% ix. Leisure$_p$: 0% Proportion of stove users perceiving reduced amount of money spent on wood fuel purchase: 67

	Usage of saved money: i. School $fees_p$: 40% ii. Purchase of medical $drugs_p$: 40% iii. Purchase of $food_p$: 0% iv. Income generating $activities_p$: 20% v. $Savings_p$: 0%
Measurement methods and procedure	The measurement of the parameter is based on qualitative information collected during Monitoring surveys. The end users are asked whether, since they have the F3PA efficient cookstoves, they spent more, less time to collect the wood or the situation has not changed. In case of purchase wood fuel, the end users are asked they spent more, less money on the purchase of wood fuel or the situation has not changed.
Monitoring frequency	Annual
QA/QC procedures	The data is analyzed in the monitoring report and raw data of the Monitoring surveys is made available for review.
Purpose of data	Calculation of the parameter "Proportion of stove users perceiving reduced amount of time spent on wood fuel collection and/or proportion of user perceiving reduced amount of money spent on wood fuel purchase"
Additional comment	N.A
VVB Assessment	VVB has assessed the "*GS1340_MS_VPA-11- 12-13_Vintage 2021*" /12/ against the "**Proportion of stove users perceiving reduced amount of time spent on wood fuel collection and/or proportion of user perceiving reduced amount of money spent on wood fuel purchase**" which was found in line with the values mentioned in the supporting document also same has been checked by VVB and confirmed from the supporting document that the values mentioned are correct.

Sustainable Development Contributions Achieved

Sustainable Development Goals Targeted	SDG Impact	Amount Achieved Amount achieved from 01st January 2022 to 31st December 2022	Units/ Products
13: Climate Action	Emission reductions	VPA 11: 9,651 VPA 12: 9,315 VPA 13: 8,954 Total : 27,920	**VERs**
3. Good health and well being	Proportion of households perceiving: Smoke level reduction Incidence of coughing reduction Incidence of respiratory illness reduction Incidence of itchy eyes reduction	 99% 99% 99% 99%	**Percentage**

4. Quality Education	Number of training initiatives for staff involved in the programme	1	**Numbers**
4. Quality Education	Number of workshops carried out for women for the group of VPA's	55	**Numbers**
5. Gender Equality	A proportion of stove users perceiving reduced amount of time spent on fuel collection. A proportion of stove users perceiving reduced amount of money spent on wood fuel purchase.	97% 67%	**Percentage**
7. Affordable clean energy	Number of F3PA efficient cookstoves disseminated for the group of VPA's.	VPA-11: 10,387 VPA-12: 10,165 VPA-13: 8,629 Total: 29,181	**Numbers**