


Verification and certification report form for CDM programme of activities
(version 01.0)

Complete this form in accordance with the "Attachment. Instructions for filling out the verification and certification report form for CDM programme of activities" at the end of this form.

VERIFICATION AND CERTIFICATION REPORT

Title of the programme of activities (PoA)	Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America	
	VPA: "Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America: First VPA for Distribution of Dos por Tres Cookstoves in Honduras"	
GS reference number of the PoA	GS 1988, VPA: GS2758	
Earthhood reference number	GS.VER.18.19	
Version number(s) of the PoA-DD(s) applicable to this report	Version 6.0 dated 25 th March 2016 VPA –DD Version 6 dated 25 March 2016	
Version number of the verification and certification report	Version 2.2	
Completion date of the verification and certification report	17/06/2019	
Monitoring period number	09	
Duration of this monitoring period	01/12/2017 – 30/11/2018 (inclusive of both days)	
Number and version number of the monitoring report to which this report applies	Monitoring Report dated 16/05/2019 (version 6)	
Coordinating/managing entity (CME)	Proyecto Mirador Foundation	
Host Party(ies)	Host Party(ies) of the PoA	Is this a host Party to a CPA covered in this report? (yes/no)
	Honduras	Yes
Sectoral scope(s)	Sectoral scope 3	
Selected methodology(ies)	Technologies and Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0	
	Gold Standard for Global Goals Transition Annexure Version 1 dated September 2019	
Selected standardized baseline(s)	Not Applicable	
Total estimated GHG emission reductions or net GHG removals for this monitoring period in the included CPA(s) covered in this report	426,606 tCO ₂ e	
Total certified GHG emission reductions or net GHG removals for this monitoring period for the included CPA(s) covered in this report	311,998tCO ₂ e	
Name of DOE	Earthood Services Private Limited	

Name, position and signature of the approver of the verification and certification report



Kaviraj Singh
Managing Director

SECTION A. Executive summary

Description of PoA and specific case VPA

The programme of activities titled "Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America" by Project Participant utilizes carbon finance to support the dissemination of improved cookstoves that address the problems of deforestation, indoor air quality, global warming and slow economic development.

VPA titled "Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America – First VPA for Distribution of Dos por Tres Cookstoves in Honduras" includes dissemination of highly efficient Cookstoves.

The project reduces carbon emissions by providing efficient cookstoves, which help in burning the fuel efficiently and completely. Also, it reduces soot and black carbon found in products of incomplete combustion thereby improving the environmental and health condition of the user as well. The project will lead to reduction in respiratory illness caused by inhalation of toxic smoke and will help in reducing indoor air pollution.

Proyecto Mirador Foundation has contracted Earthood Services Private Limited (Earthood) to conduct the verification and certification of emission reductions reported for the GS VPA- "First VPA for Distribution of Dos por Tres Cookstoves in Honduras" under the GS registered PoA 1988 "Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America" in Honduras for the period 01/12/2017 - 30/11/2018. This report contains the findings of the verification process and a certification statement for the certified emission reductions. The verification is the periodic independent review and *ex post* determination by Earthood of the monitored reductions in GHG emissions that have occurred as a result of the registered GS project activity during a defined monitoring period. Certification is the written assurance by Earthood that, during a specific period in time, a project activity achieved the verifiable emission reductions.

The objective of this verification was to verify and certify emission reductions reported for the "First VPA for Distribution of Dos por Tres Cookstoves in Honduras" for the period 01/12/2017 - 30/11/2018.

Scope of Verification

The verification is an independent and objective review determination of the monitored reductions in GHG emissions and improvement in sustainability parameters by the DOE. The verification includes the implementation and operation of the PoA as set out in the registered PoA-DD & its VPA-DD for the VPA in the monitoring period. The verification tests the data and assertions set out in the monitoring report based on the following:

The verification tests the data and assertions set out in the monitoring report prepared for this monitoring period by the CMEs and the review of VPA towards physical implementation of the project and it is based on the following:

- (i) The approved methodology "Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), Version 2.0"
- (ii) "Gold Standard for Global Goals Transition Annexure", version 1, dated September 2019
- (iii) The registered PoA-DD & registered VPA-DDs and monitoring plan
- (iv) GS Passport for PoA and VPA
- (v) GS4GG Transition Annexure (approved) dated 15th March 2019
- (vi) UNFCCC criteria referred to in the Kyoto Protocol criteria and the CDM modalities and procedures as agreed in the Bonn Agreement and the Marrakech Accords
- (vii) GS for GG requirements
- (viii) The CDM Validation and Verification Standard (VVS) version 2.0
- (ix) The CDM Project Standard (PS) version 2.0 and Project Cycle Procedure (PCP) version 2.0
- (x) Relevant decisions, guidance and clarifications of the CMP and CDM Executive Board and any other information and references relevant to the project activity's reported emission reductions
- (xi) GS review of previous verification

The verification has considered both quantitative and qualitative aspects on stated/reported emission reductions. The monitoring report (all versions) and corresponding supporting documentation was assessed in accordance with the rules defined by UNFCCC and GS for GG, as appropriate to the PoA. The verification is not meant to provide any consulting or recommendations to the CME/others. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring activities.

Verification Process:

The verification process is conducted as per internal GS Requirements, which includes the following steps;

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

Verification Conclusion:

Based on the outcome of the verification process of the PoA “Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America” and its VPA01 “Distribution Of Dos Por Tres Cookstoves In Honduras” for the monitoring period 01/12/2017 – 30/11/2018 (including both dates) we confirm that the implementation of referenced registered PoA and its VPA is complying with applicable CDM and GS rules and regulations as stated in the Monitoring Report (final) Version 5.0, dated 16/05/2019. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology “Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), Version 2.0” and the monitoring plan contained in the registered PoA-DD/1/ and VPA-DD/2/ and "Gold Standard for Global Goals Transition Annexure", version 1, dated September 2019.

Earthood Services Private Limited is able to certify that the emission reductions from the registered PoA (GS 1988) “Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America” and its VPA “Distribution of Dos Por Tres Cookstoves In Honduras” for the monitoring period 01/12/2017 – 30/11/2018 (including both dates) amount to 311,998tCO_{2e}. Therefore, this is being submitted for request for issuance, as per Gold standard and UNFCCC procedures.

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team members

No.	Role	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
					Desk review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader	Garg	Shreya	Central Office	Y	N	N	Y
2.	Verifier & Local Expert	Yadav	Siddharth	Central Office	Y	Y	Y	Y
3.	Technical Expert	Gautam	Ashok	Central Office	Y	N	N	Y

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

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Singh	Kaviraj	Central Office
2.	Technical expert	IR	Kumar	Sanjeev	Central Office
3.	Approver	IR	Singh	Kaviraj	Central Office

SECTION C. Application of materiality in conducting the verification

C.1. Consideration of materiality in planning the verification

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1.	Inconsistency between CME's result and DOE's observation during inspection.	Low	Considering DOE's observation are cross-check of CME's result, which were actually monitored by CME, there are usually less chances of error.	If the aggregated materiality threshold stays within the prescribed materiality threshold, no additional effort is required. However, if aggregated materiality threshold is above the prescribed threshold, additional samples are to be inspected. If additional sampling is not able to reduce the materiality threshold to reasonable level of assurance, the monitoring result by the CME for that parameter are to be discarded.

C.2. Consideration of materiality in conducting the verification

>> In accordance with CDM VVS for PoAs, Version 02.0 para 308 the prescribed thresholds for materiality for CDM PoAs are as under;

Type of PoA	PoAs comprising large-scale CPAs			PoAs comprising only small-scale CPAs	PoAs comprising only micro-scale CPAs
Emission Reductions (tCO ₂ e)/year	500,000 or more	300,001 to 499,999	300,000 or less		
Materiality Threshold (para 308)	0.5%	1.0%	2.0%	5.0%	10.0%

The applicable materiality threshold is 5% as PoA comprises only small-scale CPAs.

Particulars / Monitoring Report	MR Version (Revised/Final)
Emission Reductions Achieved (tCO ₂ e) in this monitoring period	311,998tCO ₂ e
Applicable Threshold (%) as per para 308 of CDM VVS for PoAs Version 01.0	5.0%

The verification team has identified the impact of minor errors observed and those were corrected by PP during verification for all monitoring parameter at individual level.

SECTION D. Means of verification

D.1. Desk review

Earthood conducted a desk review as under;

- A review of the data and information presented to verify their completeness;
- A review of the monitoring plan, the monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;
- A review of calculations and assumptions made in determining the GHG data and emission reductions;
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions;

The list of documents reviewed during the verification is provided under appendix 3 of this report.

D.2. On-site inspection

Duration of on-site inspection: 03/12/2018 to 06/12/2018				
No.	Activity performed on-site	Site location	Date	Team member
1.	Opening Meeting: Introduction, scope and objective of work, roles and responsibilities of audit team, resources required, and timetable of the onsite audit including venue for closing meeting and any concerns from PP	Santa Barbara	03/12/2018	Siddharth Yadav
2.	Site visit involving on-site sampling of the technology distribution and VPA implementation. Local Stakeholder especially end users interview and feedbacks	Various locations	04/12/2018	Siddharth Yadav
3.	Physical sampling of the technology distribution and VPA implementation & Local Stakeholder especially end users interview and, feedbacks	Various locations	04/12/2018	Siddharth Yadav
4.	Management and monitoring procedures followed at project site.	Various locations, Santa Barbara Office	04/12/2018	Siddharth Yadav
5.	Site visit Management and operational system: Documentation, allocation of responsibilities, qualification and training, data recording & archiving, internal audit and management review and emergency procedures.	Santa Barbara Office	05/12/2018	Siddharth Yadav
6.	Verification checklist: compliance of monitoring procedures followed at project site with registered PoA-DD and monitoring methodology.	Santa Barbara Office	05/12/2018	Siddharth Yadav
7.	Review of monitored data and relevant document in accordance with registered monitoring plan and applied monitoring methodology.	Santa Barbara Office	05/12/2018	Siddharth Yadav
8.	Interviews with other stakeholders like suppliers and employees involved in PoA.	Santa Barbara Office	06/12/2018	Siddharth Yadav
9.	Compilation of the findings by Auditor/s (CARs/CLs)	Santa Barbara Office	06/12/2018	Siddharth Yadav
10.	Closing Meeting: Submission of the audit findings to the client and agreement on the issues raised and timelines.	Santa Barbara Office	06/12/2018	Siddharth Yadav

D.3. Interviews

D.3.1. Interview with PP/CME/CPA Implementers

Interviews were conducted during site visits included the households that have been using the Dos por Tres stoves and the personnel engaged by Proyecto Mirador foundation. Interviews revealed that the all the people involved with the project are well versed with monitoring plan and implementation of the project including the QA/QC procedures.

Project staff interviewed:

Name	Affiliation	Date	Subject
Esther Adams	Proyecto Mirador Program Manager	03/12/2018-06/12/2018	Project monitoring and reporting, leakage, ER Calculations, Salesforce data management system
Elder Mendoza	Proyecto Mirador Director of Operations	04/12/2018	Surveys, general execution, training of personnel, quality assurance and quality control issues
Emilia Mendoza	Proyecto Mirador Director (Honduras)	04/12/2018	General execution, quality assurance and quality control issues
Roy Lara	Proyecto Mirador Asst. to Dir. of Ops.	04/12/2018	Training the personnel, Evaluation of personnel Transportation records
Jessica Vasquez	Proyecto Mirador Marketing Manager	04/12/2018	Surveys, Salesforce data management system
Renieroy Rodriguez	Proyecto Mirador Manager of I.T.	04/12/2018-06/12/2018	IT infrastructure, Surveys, Salesforce data management system
Juan Carlos Guzman	Proyecto Mirador Dir. of Supervision	05/12/2018-06/12/2018	Training of the personnel Surveys, general execution
Martin Avilez	Proyecto Mirador Human HR	06/12/2018	Personnel; quantitative Employment

D.3.2. Type of questions asked by Team member

The households were asked the following questions;

- Usage and functionality of Dos por Tres stove
- Whether any other type of stove is installed and if yes, its hours of operation
- Physical condition of chimney, mouth piece, or if any changes were made by the households after its installation that could effect the stove efficiency
- Hours of usage
- If there were electric or gas stoves being used along with the usage of the Dos por Tres
- Users were also asked about how has the family benefitted from the installation of the Dos por Tres stove, for example: reduction in smoke or indoor air pollution, efficient cooking, reduction in time spent for collection of firewood and the quantity of the firewood collected

As mentioned above, during the site visit, the verification team checked if another type of stove is installed. Information about the type of stove/product type (make) was checked and mentioned in the survey forms used during the site visit.

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Some of the stove users were found to be using other gas or electric stoves for roasting coffee beans or prepare coffee, but the usage varied from 10 minutes to 30 minutes each day.

It was noticed during the onsite visit that many of the stoves which are more than 3 years old have been repaired, mostly damaged chimneys have been replaced. This has resulted in lowering of the drop-off rates as compared to the previous year.

D.4. Sampling approach

The assessment team has followed a simple random sampling approach for verification purposes. Sampling was done across the PoA in a random manner, but considering the principles of proportional representation and keeping in line with “Standard for Sampling and surveys for CDM project activities and programmes of activities, Version 7.0”. The list of households selected for random surveys including the names and government IDs of the owners is available with DOE on request /23/.

159 households (end users) were randomly selected from different age groups and surveyed during the site visit. Of these 159 households, 31 households were also found to exist in Proyecto Mirador’s survey database.

The details are as below:

Age Group	Surveyed	Abandoned
1	25	0
2	25	1
3	28	3
4	25	4
5	29	3
6	27	6
Total	159	

17 stoves out of 159 sampled were found to be non-operational during the site visit, two if these were considered abandoned as they were built outside the main house while two others has their chimneys and mouth piece broken. The drop off rate per age group is further discussed under parameter ‘ID 8 / Up,y : Abandonment (drop-off) rate (the number of stoves that have fallen out of use in a given age group) expressed as % of households’

The status of the stove installed in each house was checked vis a vis the data available from salesforce.com. The location of the households, and the government IDs were also checked against the data reported. Information outlined in section D.3.2 above was checked for these households.

The IDs of the households visited, their locations and the surveys are available on request.

D.5. Clarification requests, corrective action requests and forward action requests raised

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
General	-	-	-
Compliance of the monitoring report with the monitoring report form	-	-	-
Remaining forward action requests from validation and/or previous verification	-	-	-
Specific-case CPA(s) considered for verification and covered in this report	-	-	-
Programme of activities	-	-	-
Compliance of the programme implementation with the registered PoA-DD	-	-	-
Implementation and operation of the management system	-	-	-
Post-registration changes	-	-	-

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<ul style="list-style-type: none"> Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline 	-	-	-
<ul style="list-style-type: none"> Corrections 	-	-	-
<ul style="list-style-type: none"> Inclusion of a monitoring plan in a registered PoA-DD (including its generic CPA-DD(s)) 	-	-	-
<ul style="list-style-type: none"> Permanent changes to the monitoring plan as described in the registered PoA-DD, applied methodology, or applied standardized baseline 	-	-	-
<ul style="list-style-type: none"> Changes to the programme design of the registered PoA-DD (including corresponding changes to project design of the generic CPA-DD(s)) and updates to the eligibility criteria for inclusion of specific-case CPAs in the PoA 	-	-	-
<ul style="list-style-type: none"> Types of changes specific to afforestation and reforestation activities 	-	-	-
Component project activity(ies)	-	-	-
Compliance of the CPA implementation with the included CPA design document	-	-	-
Post-registration changes	-	-	-
<ul style="list-style-type: none"> Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline 	-	-	-
<ul style="list-style-type: none"> Corrections 	-	-	-
<ul style="list-style-type: none"> Changes to the start date of the crediting period 	-	-	-
<ul style="list-style-type: none"> Inclusion of a monitoring plan to an included CPA-DD 	-	-	-
<ul style="list-style-type: none"> Permanent changes to the monitoring plan as described in the included CPA-DD, applied methodology, or applied standardized baseline 	-	-	-
<ul style="list-style-type: none"> Changes to the programme design of the included CPA-DD 	-	-	-
<ul style="list-style-type: none"> Types of changes specific to afforestation and reforestation component project activities 	-	-	-
Compliance of the monitoring plan with the monitoring methodology including applicable tool and standardized baseline	-	-	FAR5
Compliance of monitoring activities with the registered monitoring plan	-	-	-
<ul style="list-style-type: none"> Data and parameters fixed ex ante or at renewal of crediting period 	-	-	-
<ul style="list-style-type: none"> Data and parameters monitored 	CL1	-	-
<ul style="list-style-type: none"> Implementation of sampling plan 	-	-	-
Compliance with the calibration frequency requirements for measuring instruments	-	-	-
Assessment of data and calculation of emission reductions or net removals	-	-	-
<ul style="list-style-type: none"> Calculation of baseline GHG emissions or baseline net GHG removals by sinks 	-	-	-
<ul style="list-style-type: none"> Calculation of project GHG emissions or actual net GHG removals by sinks 	CL2, CL3	-	-
<ul style="list-style-type: none"> Calculation of leakage GHG emissions 	CL4	-	-
<ul style="list-style-type: none"> Summary of calculation of GHG emission reductions or net GHG removals by sinks 	-	-	-

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• Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates in included specific-case CPA	-	-	-
• Remarks on difference from estimated value in registered VPA-DD	-	-	-
Others (please specify)	-	-	-
Total	4	0	1

SECTION E. Verification findings –

E.1. General

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

Means of verification	The template used for MR is GS4GG Version 1, dated June 2017, which has been released by Gold Standard for Global Goals for the reporting of monitored data of VPAs under same PoA for GS.
Findings	None
Conclusion	The monitoring report template is appropriate for program of activities. The sections were filled in according to the guidelines.

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

As verified through the review of the Verification report for 8th Monitoring period (1st December 2016 to 30th November 2017) no forward action requests were issued.

The project developers have continued to check the following through the regular Maintenance Surveys (compiled through Salesforce.com). The questions are included in these surveys in order to avoid double counting:

- Is there another improved cook stove in the home?
- Who installed the other ICS?
- Is the other ICS in use?
- Was the other ICS installed before the Dos por Tres?
- (If applicable) When did they stop using the other ICS?

E.1.3. Specific-case CPA(s) considered for verification and covered in this report

Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America – Renewed VPA for Distribution of Dos por Tres Cookstoves in Honduras (Version 06, dated 25 March, 2016)

E.2. Verification findings – Programme of activities

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

Means of verification	The programme implementation was checked by assessment team through onsite visit. The verification team conducted site visits for a total of 159 households across the VPAs to examine if the implementation of programme is as per the description provided in registered PoA-DD/1/. The end users were surveyed based on the installation, functioning, maintenance and utility of the cook stove to them. The salesforce software usage and the unique information of each sample as per the records maintained by CME was also cross-checked onsite. There were some repairs done on a few stoves during this monitoring period. As observed onsite and validated by interviews, these repairs have resulted in better maintenance and durability of the stoves. Some of the stoves were out of usage due to construction while a few were also found to be drop off damaged i.e broken mouthpiece. These issues are addressed satisfactorily in the rates. No major issues in terms of stove design or project implementation were found. Grievance Mechanism:
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	During the site visits it was checked that the households which have installed the efficient stoves are visited by the supervisors and the household feedback is recorded/24/. In general, the grievances are related to the problems faced by the stove users for example- replacement of chimney etc. or about the functionality of stove, its benefits and criticism i.e the stove takes time to heat up as compared to an electric or gas stove. None of the concerns were of extreme nature and resolvable. The log is maintained electronically at the project office was, reviewed and an export of the stakeholder feedback log was obtained (VP9-15 Stakeholder Comment Log.xlsx).
Findings	None
Conclusion	The implementation of the programme was found to be in compliance with the description provided in the registered PoA and VPA-DDs. The unique information of each cook stove sample was found to be consistent on sales force and onsite concluding that the data management system is working efficiently and in compliance with the system mentioned in registered VPA-DD/2/.

E.2.2. Implementation and operation of the management system

Means of verification	The implementation and operation of management system was verified through onsite visit which included interaction with end-users and key staff members from Proyecto Mirador Foundation. As observed in each household, cookstoves bear a unique serial number which had been recorded in the PE's records on salesforce software/8/. Along with the stove model, serial number, name, address, installation date, contact number etc. had also been noted which were found to be consistent on ground. Trainings were provided to the staff and users of cook stove which could be verified through training records and photographs/14/.
Findings	None
Conclusion	The assessment team, with the help of onsite verification and document review that implementation and operation of the management system is as per the registered PoA-DD.

E.2.3. Post-registration changes

E.2.3.1. Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline

Not applicable

E.2.3.2. Corrections

Not applicable

E.2.3.3. Inclusion of a monitoring plan in a registered PoA-DD (including its generic CPA-DD(s))

Not applicable

E.2.3.4. Permanent changes to the monitoring plan as described in the registered PoA-DD, applied methodology, or applied standardized baseline

Not applicable

E.2.3.5. Changes to the programme design of the registered PoA-DD (including corresponding changes to project design of the generic CPA-DD(s)) and updates to the eligibility criteria for inclusion of specific-case CPAs in the PoA

Not applicable

E.2.3.6. Types of changes specific to afforestation and reforestation activities

N/A.

E.3. Verification findings – Component project activity(ies)

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

Means of verification	The programme implementation was checked by assessment team through onsite visit. A total of 159 samples were visited across VPA to examine if the implementation of programme is as per the description provided in registered PoA-DD/1/. The end users were surveyed based on the installation, functioning, maintenance and utility of the cook stove to them. The unique information of each user as per the records maintained by CME was also cross-checked onsite through random sampling procedure.
Findings	CL1 was raised and resolved.
Conclusion	The implementation of the programme was found to be in compliance with the description provided in the registered PoA-DD/1/ and VPA DD/2/. The unique information of each cookstove sample was found to be consistent onsite concluding that the data management system is working efficiently and in compliance with the system mentioned in registered design documents (PoA DD and CPA DD).

E.3.2. Post-registration changes

E.3.2.1. Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline

Not applicable

E.3.2.2. Corrections

The project documentation has been updated to account for the UN Sustainable Development Goals, and a corresponding transition document was approved by the Gold Standard on 15 March 2019. There has been no change in the original parameters, which were validated and registered earlier except for the added text, to reflect updating of the corresponding UN Sustainable Development Goals applicable to this project.

E.3.2.3. Changes to the start date of the crediting period

Not applicable

E.3.2.4. Inclusion of a monitoring plan to an included CPA-DD

Not applicable

E.3.2.5. Permanent changes to the registered monitoring plan or permanent deviation of monitoring from the applied methodology, standardized baseline, or other applied standards or tools

Not applicable

E.3.2.6. Changes to the programme design or project design

Not applicable

E.3.2.7. Types of changes specific to afforestation and reforestation component project activities

Not applicable

E.3.3. Compliance of monitoring plan with the monitoring methodology including applicable tool and standardized baseline

Means of verification	The monitoring plan has been registered in PoA-DD and VPA-DD at the time of validation. However, the monitoring plan was cross-checked with the applied methodology/10/ and found to be in compliance. No standardized baseline was applied as per the registered PoA-DD.
Findings	None

Conclusion	The monitoring plan was found to be in compliance with the monitoring methodology/10/
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E.3.4. Compliance of monitoring activities with the registered monitoring plan

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

ID 1/ E_{fuel},CO₂ : CO₂ emission factor of the fuel that is reduced

Relevant SDG Indicator	13 – Climate Action <ul style="list-style-type: none"> 13.1.1 Number of deaths, missions persons and directly affected persons attributed to disasters per 100,000 population
Means of verification	The value for this parameter is 112 tCO ₂ /TJ, which was sourced from 2006 IPCC Guidelines for National Greenhouse Gas Inventories 2.1, Volume 2: Energy/25/
Findings	None
Conclusion	The value mentioned in the Monitoring Report /6/ and Emission Reduction Spreadsheet /7/ are consistent with the registered PoA DD/1/ and VPA DD/2/, The applied value is correct and justified

ID 2/ E_{fuel,nonCO₂},CH₄ : CH₄ emission factor for the fuel that is reduce

Relevant SDG Indicator	13 – Climate Action <ul style="list-style-type: none"> 13.1.1 Number of deaths, missions persons and directly affected persons attributed to disasters per 100,000 population
Means of verification	The value for this parameter is 0.30 tCO ₂ /TJ which was sourced from 2006 IPCC Guidelines for National Greenhouse Gas Inventories 2.1, Volume 2: Energy/25/
Findings	None
Conclusion	The value mentioned in the Monitoring Report /6/ and Emission Reduction Spreadsheet /7/ are consistent with the registered PoA DD/1/ and VPA DD/2/, The applied value is correct and justified

ID 3/ E_{fuel,nonCO₂},N₂O : N₂O emission factor for wood that is reduced

Relevant SDG Indicator	13 – Climate Action <ul style="list-style-type: none"> 13.1.1 Number of deaths, missions persons and directly affected persons attributed to disasters per 100,000 population
Means of verification	The value for this parameter is 0.004 tCO ₂ /TJ which was sourced from 2006 IPCC Guidelines for National Greenhouse Gas Inventories 2.1, Volume 2: Energy/25/)
Findings	None
Conclusion	The value mentioned in the Monitoring Report /6/ and Emission Reduction Spreadsheet /7/ are consistent with the registered PoA DD/1/ and VPA DD/2/, The applied value is correct and justified

ID 4/ NCV_{fuel} : The Net Calorific Value (NCV) of the fuel that is substituted or reduced

Relevant SDG Indicator	13 – Climate Action <ul style="list-style-type: none"> 13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population.
Means of verification	The value of this parameter 0.0186 was sourced from NCV for Red Oak, per Global Alliance for Clean Cookstoves, “WBT 4.2.4 Spreadsheet” (http://cleancookstoves.org/technology-and-fuels/testing/protocols.html) with reference to Cheremisinoff, N. Properties of Wood. Wood for Energy Production. Ann Arbor, MI, Ann Arbor Science: 31-43. 1980
Findings	None
Conclusion	The value mentioned in the Monitoring Report /6/ and Emission Reduction Spreadsheet /7/ are consistent with the registered PoA DD/1/ and VPA DD/2/, The applied value is correct and justified

ID 5/ fNRB,b,y : %The non-renewable fraction of the woody biomass harvested in the project collection area in year y in the baseline scenario

Relevant SDG Indicator	15-Life on land <ul style="list-style-type: none"> 15.2.1 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation
Means of verification	The value of 69% was taken from a third-party NRB Analysis by Berkeley Air Monitoring Group (2011). Result was adjusted downward from the previously used NRB value of 77% to ensure conservativeness and align with recently validated project NRB figures during the renewal of crediting period. The above figure of 69% has been validated in the ERM CVS validation report dated 30 th March 2016
Findings	None
Conclusion	The value mentioned in the Monitoring Report /6/ and Emission Reduction Spreadsheet /7/ are consistent with the registered PoA DD/1/ and VPA DD/2/, The applied value is correct and justified

E.3.4.2. Data and parameters monitored (Carbon & SDG)

ID 6 / N_{p,y} : Number of project technology days

Relevant SDG Indicator	13 – Climate Action <ul style="list-style-type: none"> 13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population 	
Means of verification	This is measured manually and recorded on Salesforce.com installation database through Garmin GPS devices	
	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Ongoing
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The frequency is in line with the registered PoA DD/1/ and VPA DD/2/
	Monitoring equipment	Smartphones; Salesforce.com installation database/8/
	Calibration frequency /interval:	Not Applicable
	How were the values in the monitoring report verified?	The value of the parameter was verified from the sales database/8/. The verified value of the parameter is 21,087. The ER sheet/7/ was checked for the calculations and was found to have the correct value used.
	If applicable, has the reported data been cross-checked with other available data?	Yes. The information provided in the Database/19/ were verified randomly during the site visit by interviewing the end users. The survey results were checked by the verification team and were found acceptable. The results are reproducible in the corresponding ER sheet /7/ of final Monitoring Report /6/.

CDM-PoA-VCR-FORM

		The verification team randomly selected 159 samples for DOE's field survey and via on-site interview found out that all the stoves which were selected for sampling are installed at the household and are in working condition.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The CME directly supervises the training of staff and provides guidelines to facilitate accurate record keeping in their database. During the site visit the sale process, record keeping was reviewed and were found reliable.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not Applicable
Findings	None	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/10/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.	

ID 7 / P_p,b,y : Average daily dry wood fuel reduction per person-meal (tonnes/household/day)

Relevant SDG Indicator	15 – Life on Land <ul style="list-style-type: none"> 15.2.1 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation 	
Means of verification	Specific fuel savings from an individual technology of project p against an individual technology of baseline b in year y are measured through a Kitchen Performance Test. Survey data is tabulated in the attached "VP9-02 KPT Data.xlsx"/33/ and parameter flows to ER Calculations.xlsx"/7/. The data has been analysed by third party expert – Prof. Rob Bailis, currently at Stockholm Environment Institute (previously worked at Yale School of Forestry), Prof. Bailis is one of the key contributors to the methodology.	
	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Annual
	Is measuring and reporting frequency in	The frequency is in line with the registered PoA DD/1/ and VPA DD/2/

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	accordance with the monitoring plan and monitoring methodology? (Yes / No)	
	Monitoring equipment	Compact digital hanging scale Zipper polyethylene bag Moisture meter with digital readout
	Calibration frequency /interval:	Digital hanging scale is calibrated before every study.
	How were the values in the monitoring report verified?	The value of the parameter was verified from the ER sheet, where it has been calculated using the fuel savings per personal meal grouped on the basis of age group; this data was verified from KPT data/12/. The verified value of the parameter is 0.005045 t/household/day. The ER sheet/7/ was checked for the calculations and was found to have the correct value used.
	If applicable, has the reported data been cross-checked with other available data?	Not applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were found to be appropriate and reliable. The person responsible for the monitoring & survey are well trained which is evident from the site visit interview.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not Applicable
Findings	CL2 was raised and resolved.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/10/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.	

ID 8 / U_{p,y} : Abandonment (drop-off) rate (the number of stoves that have fallen out of use in a given age group) expressed as %of households

<p>Relevant SDG Indicator</p>	<p>13 – Climate Action</p> <ul style="list-style-type: none"> 13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population 																																						
<p>Means of verification</p>	<p>Cumulative abandonment rates are applied, i.e., they reflect the total rate of abandonment for a given age group. Annual rates are extrapolated and applied to ER Calculations. Survey data is exported from Salesforce and tabulated in the attached "VP9-13 Dropoff Data.xls."/19/</p>																																						
<p>Criteria/Requirements</p>	<p>Assessment/Observation</p>																																						
<p>Measuring /Reading /Recording frequency</p>	<p>Annual</p>																																						
<p>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</p>	<p>The frequency is in line with the registered PoA DD/1/ and VPA DD/2/</p>																																						
<p>Monitoring equipment</p>	<p>Surveys compiled by handheld device</p>																																						
<p>Calibration frequency /interval:</p>	<p>NA</p>																																						
<p>How were the values in the monitoring report verified?</p>	<p>The value of the parameter was verified from the on site verification. The verified value of the parameter are as given in table below. The ER sheet/7/ was checked for the calculations and was found to have the correct value used.</p> <p>The following drop off rates were observed during the verification site visit:</p> <table border="1" data-bbox="662 1227 1412 1715"> <thead> <tr> <th>Age Group</th> <th># surveys</th> <th>Reported drop off %(in MR)</th> <th># abandoned</th> <th>Surveyed Dropoff %</th> </tr> </thead> <tbody> <tr> <td>0_1</td> <td>23</td> <td>4%</td> <td>0</td> <td>0%</td> </tr> <tr> <td>1_2</td> <td>24</td> <td>9%</td> <td>1</td> <td>4%</td> </tr> <tr> <td>2_3</td> <td>24</td> <td>12%</td> <td>3</td> <td>11%</td> </tr> <tr> <td>3_4</td> <td>21</td> <td>18%</td> <td>4</td> <td>16%</td> </tr> <tr> <td>4_5</td> <td>32</td> <td>20%</td> <td>3</td> <td>10%</td> </tr> <tr> <td>5_6</td> <td>21</td> <td>22%</td> <td>6</td> <td>22%</td> </tr> </tbody> </table> <p>Since the surveyed drop-off percentage is lower than the drop-off rate reported, the approach was found to be conservative. Therefore, the values of drop-off rate applied by the CME were found acceptable.</p>				Age Group	# surveys	Reported drop off %(in MR)	# abandoned	Surveyed Dropoff %	0_1	23	4%	0	0%	1_2	24	9%	1	4%	2_3	24	12%	3	11%	3_4	21	18%	4	16%	4_5	32	20%	3	10%	5_6	21	22%	6	22%
Age Group	# surveys	Reported drop off %(in MR)	# abandoned	Surveyed Dropoff %																																			
0_1	23	4%	0	0%																																			
1_2	24	9%	1	4%																																			
2_3	24	12%	3	11%																																			
3_4	21	18%	4	16%																																			
4_5	32	20%	3	10%																																			
5_6	21	22%	6	22%																																			
<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>Not applicable</p>																																						

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	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were found to be appropriate and reliable. The person responsible for the monitoring & survey are well trained which is evident from the site visit interview.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not Applicable
Findings	CL2 was raised and resolved	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/10/. The monitored values were found to be conservative and therefore acceptable. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.	

ID 9 / LE_{p,y} : Number of households

Assess leakage sources including (1) replacement of efficient household heating sources with less efficient fuel; (2) continued use of baseline stove after installation

Relevant SDG Indicator	13 – Climate Action <ul style="list-style-type: none"> 13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population 	
Means of verification	Surveys are taken onsite, and the information contained on Salesforce.com database.	
	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Recorded continuously and reported annually
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The frequency is in line with the registered PoA DD/1/ and VPA DD/2/
Monitoring equipment	Questionnaires	

CDM-PoA-VCR-FORM

	Calibration frequency /interval:	NA
	How were the values in the monitoring report verified?	The total leakage for the 9 th Verification Period is 4.7%. Survey data is exported from Salesforce and tabulated in the annexure "VP9-09 Leakage Sustainability Results/15/. The ER sheet/7/ was checked for the calculations and was found to have the correct value used. The monitored value of the parameter is 15,333 tonnes.
	If applicable, has the reported data been cross-checked with other available data?	The sources of leakage identified above, including discounts to prevent double counting were crosschecked against the data records available on site
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were found to be appropriate and reliable. The person responsible for the monitoring & survey are well trained which is evident from the site visit interview.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not Applicable
Findings	None	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/10/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.	

ID 10 / LEp,y – Leakage due to Transportation, in Kilometers

Relevant SDG Indicator	13 – Climate Action <ul style="list-style-type: none"> 13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population. 	
Means of verification	Mileage records track miles driven are recorded on an ongoing basis for each vehicle using vehicle odometers, and the results are tabulated annually.	
	Criteria/Requirements	Assessment/Observation

CDM-PoA-VCR-FORM

	Measuring /Reading /Recording frequency	Mileage is tracked for every transport (continuous) and is tabulated annually.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The frequency is in line with the registered PoA DD/1/ and VPA DD/2/
	Monitoring equipment	Vehicle odometer
	Calibration frequency /interval:	NA
	How were the values in the monitoring report verified?	<p>The transportation records/20/ were checked on site. Transportation records for all Mirador vehicles are tabulated/20/ showing Mirador vehicles collectively drove 283,854 km (or 176,379 miles) during the 9th Verification Period.</p> <p>The project emitted altogether 0.04% of CO2 due to transportation during the current verification period which was calculated using a standard online carbon calculator/27/. Since the percentage of CO2 released by transport is almost negligible, the value of the parameter as 0.0% was accepted.</p>
	If applicable, has the reported data been cross-checked with other available data?	NA
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were found to be appropriate and reliable.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not Applicable
Findings	CL4 raised and resolved	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to	

	be applied) and applied methodology/10/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.
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E.3.4.3. Data and parameters monitored (Sustainable Development)

Relevant SDG Indicator	7 – Affordable and Clean Energy <ul style="list-style-type: none"> 7.3.1 Energy intensity measured in terms of primary energy and GDP
Data/parameter	ID 11 / % reduction in release of PM2.5
Means of Verification	Document review and site visit Report - McCarty, Nordica & Still, Dean, “Results of Testing the Overlook Foundation Justa Stoves Including the ‘2 By 3’ Stove: Fuel Use and Carbon/CO2eq Savings” (2009) 1. The parameter is measured using HAPEXNano light scattering nephelometer, which measures the PM concentration in an environment. 79% was the value of the parameter obtained. It was worn by study participants in control and intervention groups during a 48-hour period, which was confirmed during on-site visit by the DOE representative. 100% of the households surveyed confirmed that there was a remarkable improvement in Air quality and soot since the new stoves were built.
Findings	None
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting is as per the registered PoA-DD/1/ and VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found

Relevant SDG Indicator	3 – Good Health and Well Being <ul style="list-style-type: none"> 3.9.1 Mortality rate attributed to household and ambient air pollution
Data/parameter	ID 12 / % reduction in personal exposure to PM2.5
Means of Verification	Document review and site visit Report - Lefebvre, Olivier, “Health Impact of Proyecto Mirador 2x3 Stove” (2018) The parameter is measured using HAPEXNano light scattering nephelometer, which measures the PM concentration in its surroundings. 47% was the value of the parameter monitored. The nephelometer was worn by study participants in control and intervention groups during a 48-hour period, which was confirmed by was confirmed during on-site visit by the DOE representative through interviews.
Findings	None
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting is as per the registered PoA-DD/1/ and VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found

CDM-PoA-VCR-FORM

Relevant SDG Indicator	1 – No Poverty <ul style="list-style-type: none"> 1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions
Data/parameter:	ID 13 / Time saved collecting fuelwood
Means of Verification	Qualitative surveys were conducted by the CME regularly. 3.78 Hours /week (a reduction of 40%), value was checked from the summary of sustainability surveys, ref. VP-09 Leakage Sustainability Results/15/. The applied value was found to be correct. End-users were interviewed during the DOE survey, results were corroborated by visual inspection and cross checked using Salesforce.com database/8/.
Findings	None
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting is as per the registered PoA-DD/1/ and VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found

Relevant SDG Indicator	1 – No Poverty <ul style="list-style-type: none"> 1.2.2. Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions
Data/parameter:	ID 14 / Money saved purchasing fuelwood
Means of Verification	Qualitative surveys were conducted regularly and tabulated in “VP9-09 Leakage Sustainability Results”/15/. US\$ 2.23 (54 Honduran Lempiras) per week per HH, a reduction of 54% was reported in the MR which was verified by the verification team using surveys taken onsite. The results were corroborated by visual inspection and cross-checked using Salesforce.com database/8/.
Findings	None
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting is as per the registered PoA-DD/1/ and VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found.

Relevant SDG Indicator	2 – Zero Hunger <ul style="list-style-type: none"> 2.1.1 Prevalence of undernourishment
Data/parameter:	ID 15 / % of people reporting they used money saved purchasing fuelwood to buy food
Means of Verification	Qualitative surveys were conducted by CME to monitor if the funds saved by end-users because of the project were used for purchasing food. 71% of the population were found to be reporting that they used money saved purchasing fuelwood to buy food. The value used is correct, checked from VP9-09 Leakage Sustainability Results”/15/. This was also cross checked during on-site visit while conducting DOE surveys.
Findings	None
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting is as per the registered PoA-DD/1/ and VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found.

CDM-PoA-VCR-FORM

Relevant SDG Indicator	7 – Affordable and Clean Energy <ul style="list-style-type: none"> 7.3.1 Energy intensity measured in terms of primary energy and GDP.
Data/parameter:	ID 16 / % of households that report the air inside the home is cleaner
Means of Verification	Qualitative surveys were conducted by CME to monitor the number of households which reported to have cleaner air in their homes. 100% of the population were found to be reporting the same. The value used is correct, checked from VP9-09 Leakage Sustainability Results’/15/. This was also cross checked during on-site visit while conducting DOE surveys and interviews of end-users..
Findings	None
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting is as per the registered PoA-DD/1/ and VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found.

Relevant SDG Indicator	4 – Quality Education <ul style="list-style-type: none"> 4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months by sex.
Data/parameter:	ID 17 / Individual training hours provided per year
Means of Verification	Documented records and training data verified on site, and checked with the database available on salesforce.com. The value 4116 hours/year is correct as checked with ‘ VP9-17 training data’/28/.
Findings	None
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting is as per the registered PoA-DD/1/ and VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found.

Relevant SDG Indicator	5 – Gender Equality <ul style="list-style-type: none"> 5.5.2 Proportion of women in managerial positions.
Data/parameter:	ID 18 / Proportion of employees who are women
Means of Verification	2. Employment records show the proportion of women employed, by job type, 29% of the direct employees are women, while 6% of the overall workforce including field personnel. Qualitative surveys, on site interviews & documents- VP9-09 Leakage Sustainability Results/15/ and VP9-12 Quantitative Employment/18/ were cross checked to verify this information.
Findings	None
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting is as per the registered PoA-DD/1/ and VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found.

CDM-PoA-VCR-FORM

Relevant SDG Indicator	5 – Gender Equality <ul style="list-style-type: none"> 5.c.1 Proportion of countries with systems to track and make public allocations for gender equality and women’s empowerment.
Data/parameter:	ID 19 / Improvement in Cooking Times
Means of Verification	99% of respondents say the Dos por Tres cooks faster. It was verified from on-site surveys and interviews conducted by the verification team that all end-users surveyed reported in reduction of time taken to cook. Findings from DOE survey were later cross-checked with survey database from Salesforce.com/8/ and therefore, monitored data was found appropriate by the DOE.
Findings	None
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting is as per the registered PoA-DD/1/ and VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found.

Relevant SDG Indicator	5 – Gender Equality <ul style="list-style-type: none"> 5. C.1 Proportion of countries with systems to track and make public allocations for gender equality and women’s empowerment.
Data/parameter:	ID 20 / % of users who say there is something they don’t like about the stove
Means of Verification	1% of the users of all have something which they have not liked about the stove. The same has been verified at the time of on-site surveys and interviews conducted by the verification team. Findings from DOE survey were later cross-checked with survey database from Salesforce.com/8/ and therefore, monitored data was found appropriate by the DOE.
Findings	None
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting is as per the registered PoA-DD/1/ and VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found. The value of the monitored parameter has been cross-checked from the MR sheet/6/

Relevant SDG Indicator	8 – Decent Work and Economic Growth <ul style="list-style-type: none"> 8.5.2 Unemployment rate by sex, age and person with disabilities.
Data/parameter:	ID 21 / % of Mirador employees and microenterprises who report they are satisfied with their jobs
Means of Verification	100% of the respondents of monitoring survey reported job satisfaction. The responses of the respondents in the annual qualitative survey were verified during DOE’s on site-visit by conducting survey and interviews. All respondents reported to be happy with their jobs. The raw data for the employees' survey provided by the CME/17/ was also used for cross-checking of DOE findings and was found appropriate.
Findings	None
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting is as per the registered PoA-DD/1/ and VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found.

CDM-PoA-VCR-FORM

Relevant SDG Indicator	8 – Decent Work and Economic Growth <ul style="list-style-type: none"> 8.5.2 Unemployment rate by sex, age and person with disabilities.
Data/parameter:	ID 22 / Quantitative employment by job type
Means of Verification	Annual surveys and on site interviews were conducted by CME to monitor this parameter and it was found that 161 people were employed due to the project activity. This was verified by the verification team during on-site visit as checked from the employment records on site
Findings	None
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting is as per the registered PoA-DD/1/ and VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found.

E.3.4.4. Implementation of sampling plan

Means of verification	It was verified through on site visit that a sampling method of Simple Random Sampling was followed through VPA which is in compliance with the registered VPA-DD/2/
Findings	No Finding
Conclusion	The Sampling Plan implemented is inline to the method mentioned in PoA DD/1/.

E.3.4.5. Compliance with the calibration frequency requirements for measuring instruments

The calibration related information for the equipment used in the project is outlined in the Monitoring report Section C.

The devices and equipment used in the project have been detailed below:

S.no.	Device	Make	Accuracy	Usage	Calibration Frequency
1.	Humidity Meter	Delhorst BD-2100	± 0.2% (in moisture range 6% to 40%)	Kitchen Performance Test	The device is checked for calibration before every use using calibration check key/30/
2.	Digital Scale	MadBite- Digital Hanging Fish Scale	± 1 ounce (to 110 lbs / 50 kg)	Kitchen Performance Test	Calibrated prior to each measurement by checking that the scale is reset to 0/31/.
3.	GPS marking device	Smartphone	± 3 meters	Mark stove locations	Calibration not required

The copies of relevant pages from the brochures supplied by the equipment manufacturers were checked:

GPS Device -Garmin eTrex 20/29/:

- Page 10 – Increasing the accuracy of a waypoint location
- Page 47 – GPS accuracy

Humidity Meter Specification/30/:

- Page 3 – Calibration Check Key & instructions
- Page 6 – Meter reset instructions

Digital Scale Specification/31/:

- Panel 1 – Tare/zero instructions
- Comments corroborate accuracy of ± 1 ounce, customer reviews available at www.amazon.com

The procedures prescribed by the manufacturers and the instruments were verified during the site visit, and no equipment were found to be out of range.

E.3.4.6. Safeguarding principles assessment

Means validation of	The analysis of social, economic and environmental impacts:			
	Safeguarding principles	Assessment questions	Assessment of relevance to the project by CME (Yes/potentially/No)	Justification by DOE
	3.2 Gender Equality and Women's Rights	1. The Project shall complete the following gender assessment questions in order to inform Requirements 2-4, below:		Based on the registered GS documentation, including PoA-DD/1/ and transition document/32/, from review and assessment of the PoA it is evident that the Programme enables the beneficiaries in using efficient cookstoves for cooking. Therefore, the activity helps in reducing the time wasted collecting firewood, along with the physical labour. Based on the gender roles, it is mostly women who shall be benefitted from the programme therefore the safeguarding principle is relevant to the programme in a positive manner. It was found in this verification period that 99% of respondents of annual survey reported a faster cooking speed of project stove. Hence, it was found acceptable by the assessment team.
		a) Is there a possibility that the Project might reduce or put at risk women's access to or control of resources, entitlements and benefits?	a. No	
		b) Is there a possibility that the Project can adversely affect men and women in marginalised or vulnerable communities (e.g., potential increased burden on women or social isolation of men)?	b. No	
		c) Is there a possibility that the Project might not take into account gender roles and the abilities of women or men to participate in the decisions/designs of the project's activities (such as lack of time, child care duties, low literacy or	c. No	

		<p>educational levels, or societal discrimination)?</p> <p>d) Does the Project take into account gender roles and the abilities of women or men to benefit from the Project's activities (e.g., Does the project criteria ensure that it includes minority groups or landless peoples)?</p> <p>e) Does the Project design contribute to an increase in women's workload that adds to their care responsibilities or that prevents them from engaging in other activities?</p> <p>f) Would the Project potentially reproduce or further deepen discrimination against women based on gender, for instance, regarding their full participation in design and implementation or access to opportunities and benefits?</p> <p>g) Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and priorities of</p>	<p>d. Yes</p> <p>e. No</p> <p>f. No</p> <p>g. No</p>	
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		<p>women and men in accessing and managing environmental goods and services?</p> <p>h) Is there likelihood that the proposed Project would expose women and girls to further risks or hazards?</p>	<p>h. No</p>	
	<p>3.4.3 Land Tenure and Other Rights</p>	<p>a. Does the Project require any change to land tenure arrangements and/or other rights?</p>	<p>No</p>	<p>The safeguarding principle is not impacted by the VPA since the inclusion of VPA and distribution of biogas digesters does not require any change to land tenure arrangements. It only requires the beneficiary to own a house, where the stove can be built. Therefore, the CME is not monitoring. Since safeguarding principle is not impacted, the verification team found it acceptable for CME to not monitor this principle.</p>
	<p>3.6.2 Negative Economic Consequences</p>	<p>a. The Project Developer shall demonstrate the financial sustainability of the Projects implemented, also including those that will occur beyond the Project Certification period. b. The Projects shall consider economic impacts and demonstrate a consideration of potential risks to the local economy and how these have been taken into account in Project design, implementation, and operation and after the Project. Particular focus shall</p>	<p>No</p>	<p>The safeguarding principle is not impacted by the VPA because the project does not impact the local economy. The cookstoves are constructed, have little operation cost and the project is public funded, therefore, the CME is not monitoring. Since safeguarding principle is not impacted, the verification team found it acceptable for CME to not monitor this principle.</p>

		be given to vulnerable and marginalised social groups in targeted communities and that benefits are socially-inclusive and sustainable.		
	4.1.1 Emissions	Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	The programme reduces the amount of fuel used for cooking and therefore mitigates GHGs. The parameter is monitored based on the operational status of the project units
	4.1.2 Energy Supply	Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	Yes	The safeguarding principle is impacted by the VPA because the project stoves use lesser fuel from community pool which provides for other local users. Monitored parameter $P_{p,b,y}$ indicates that on an average 0.005045 tonnes of fuel is saved per household per day/12/. The impact is positive. Therefore, assessment by the CME was found appropriate by the verification team.
	4.2.1 Impact on natural water patterns and flow	Will the Project affect the natural or pre-existing pattern of watercourses, ground-water and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	No	The safeguarding principle is not impacted by the VPA except reduction in degradation of forest causing to keep ground water aquifers better supplied. Since safeguarding principle is not directly or significantly impacted, the verification team found it acceptable for CME to not monitor this principle.
	4.2.2 Erosion and/or water body stability	Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion?	No	The safeguarding principle is not impacted by the VPA in a negative way. Therefore, the CME is not monitoring. Since safeguarding principle is not impacted, the verification team found it acceptable for CME to not monitor this principle.
	4.2.3 Landscape modification and soil	Does the Project involve the use of land and soil for	No	The safeguarding principle is not impacted by the VPA because the project doesn't involve use of land and soil for any project

	production of crops or other products?		related purpose. It's a household level stove installation activity, therefore the CME is not monitoring. Since safeguarding principle is not impacted, the verification team found it acceptable for CME to not monitor this principle.
4.3.2 Vulnerability to Natural Disaster	Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	No	The safeguarding principle is not negatively impacted by the VPA. It will protect the ecosystem around the activity area, which in turn will protect against natural disasters. Therefore, the CME is not monitoring. Since safeguarding principle is not impacted negatively, the verification team found it acceptable for CME to not monitor this principle.
4.3.3 Genetic Resources	Could the Project be negatively impacted by the use of genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development)?	No	The safeguarding principle is not impacted by the VPA, therefore the CME is not monitoring. Since safeguarding principle is not impacted, the verification team found it acceptable for CME to not monitor this principle.
4.3.4 Release of pollutants	Could the Project potentially result in the release of pollutants to the environment?	Yes	The safeguarding principle is impacted by the VPA; the project can potentially lead to release of gases like ozone, nitrous gases and carbon monoxide from welding during the production of planchas. Although the CME is not involved in production of this steel, the CME has taken measures to ensure that the employees are protected from such gases. Since the amount of gas released is negligible and some of these gases would also have released in the baseline scenario, therefore, the verification team found it acceptable for CME to not monitor this principle.
4.3.5 Hazardous and Non-	Will the Project involve the	No	The safeguarding principle is not impacted by the CPAs because the stove

CDM-PoA-VCR-FORM

	hazardous Waste	manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?		construction and usage doesn't involve any process which can release hazardous or non-hazardous waste. Therefore, the CME is not monitoring. Since safeguarding principle is not impacted, the verification team found it acceptable for CME to not monitor this principle.
	4.3.6 Pesticides and fertilizers	Will the Project involve the application of pesticides and/or fertilisers?	No	The safeguarding principle is not impacted by the VPA because project doesn't use pesticides or fertilizers, therefore the CME is not monitoring. Since safeguarding principle is not impacted, the verification team found it acceptable for CME to not monitor this principle.
	4.3.7 Harvesting of forests	Will the Project involve the harvesting of forests?	No	The safeguarding principle is not impacted by the VPA because no forests are harvested during this project; therefore, the CME is not monitoring. Since safeguarding principle is not impacted, the verification team found it acceptable for CME to not monitor this principle.
	4.3.8 Food	Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No	The safeguarding principle is only affected in manner that the money previously spent in purchasing fuelwood can be used for purchasing food. Since the impact is positive, the CME is not monitoring it. The verification team found it acceptable for CME to not monitor this principle.
	4.3.9 Animal Husbandry	Will the Project involve animal husbandry?	No	The safeguarding principle is not impacted by the VPA, therefore the CME is not monitoring. Since safeguarding principle is not impacted, the validation team found it acceptable for CME to not monitor this principle.
Findings	None			
Conclusion	All the safeguarding principles have been monitored appropriately by the implementer.			

E.3.5. Assessment of data and calculation of emission reductions or net removals

E.3.5.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

<p>Means of verification</p>	<p>Baseline emission was calculated using the approach given in the applied methodology/17/. The formula used for baseline estimation is as follows:</p> $ER_y = \sum_{b,p} (N_{p,y} * U_{p,y} * P_{p,b,y} * NCV_{b,fuel} * (f_{NRB,b,y} * E_{fuel,CO_2} + E_{fuel,nonCO_2})) - \sum L_{ep,y}$ <p>Where,</p> <p>$\sum_{b,p}$: Sum over all relevant (baseline b/project p) couples</p> <p>$N_{p,y}$: <i>Parameter ID6</i>- Cumulative number of project technology-days included in the project database for project scenario p against baseline scenario b in year y</p> <p>$U_{p,y}$: <i>Parameter ID8</i>- Cumulative usage rate for technologies in project scenario p in year y, based on cumulative adoption rate and drop off rate revealed by usage surveys (fraction)</p> <p>$P_{p,b,y}$: <i>Parameters ID7</i>- Specific fuel savings for an individual technology of project p against an individual technology of baseline b in year y, in tons/day, as derived from the statistical analysis of the data collected from the field tests</p> <p>$f_{NRB,b,y}$: <i>Parameter ID5</i>- Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass (drop this term from the equation when using a fossil fuel baseline scenario)</p> <p>$NCV_{b,fuel}$: <i>Parameter ID4</i>- Net calorific value of the fuel that is substituted or reduced (0.0186 TJ/ton, NCV for Red Oak)</p> <p>$E_{f,b,fuel,CO_2}$: <i>Parameter ID1</i>- CO₂ emission factor of the fuel that is substituted or reduced. 112 tCO₂/TJ for Wood/Wood Waste, or the IPCC default value of other relevant fuel $E_{f,b,fuel,nonCO_2}$ Non-CO₂ emission factor of the fuel that is reduced</p> <p>$L_{ep,y}$: <i>Parameters ID9 & ID10</i>- Leakage for project scenario p in year y (tCO₂e/yr)</p> <p>$E_{fuel,nonCO_2}$: <i>Parameters ID2 & ID3</i>- Non-CO₂ emission factor of the fuel that is reduced</p> <p>The formula was checked with methodology and registered PoA-DD and VPA-DDs.</p>
<p>Findings</p>	<p>None</p>
<p>Conclusion</p>	<p>The verification team verified that</p> <ol style="list-style-type: none"> A complete set of data for the monitoring period was available and the verification of each monitoring parameter is elaborated in this report. The complete monitoring data is also presented in the corresponding ER calculations sheet/7/ of final Monitoring Report /6/. The information provided in the monitoring report was cross checked with other sources, wherever appropriate and available, and such information is also included under Section E.3.4.2 of this report. The calculations of overall GHG emissions as presented in the corresponding ER calculations sheet/7/ of final Monitoring Report /6/ were checked and found to be consistent with the formulae and methods described in the registered monitoring plan of VPA-DD/2/, registered PoA-DD/1/ and the applied methodology/10/. All assumptions used in the emission calculations were found appropriate and therefore justified Appropriate emission factors, IPCC default factors and other reference values have been correctly applied. This has also been elaborated under Section E.3.4.1 of this report. No standardized baseline was prescribed in the registered PoA DD/1/ and therefore it has not been applied.

	g) There is no pro-rate approach was applied in the current monitoring period as entire monitoring period falls into period that is after the end of first commitment period of Kyoto Protocol.
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E.3.5.2. Calculation of project GHG emissions or actual net GHG removals by sinks

Means of verification	Not applicable as per the methodology and also no source of project emission could be identified.
Findings	Not applicable
Conclusion	Not applicable

E.3.5.3. Calculation of leakage GHG emissions

Means of verification	The leakage was calculated as a parameter and the overall leakage was found to be 15,290 tCO ₂ e. Please see section E.3.4.2 and E.3.5.1.
Findings	Please see section E.3.4.2 and E.3.5.1.
Conclusion	Please see section E.3.4.2 and E.3.5.1.

E.3.5.4. Summary of calculation of GHG emission reductions or net GHG removals by sinks

Means of verification	<p>The value of overall GHG emissions obtained by applying the equations provided in the registered PoA-DD is 311,998tCO₂e.</p> <p>The calculations presented in this regard in the final monitoring report/6/ and corresponding ER calculations sheet/7/ were found appropriate and complying with the provisions prescribed in the registered monitoring plan of VPA DD/2/, registered PoA-DD/1/ and applied methodology/10/.</p> <p>The verification team confirms that an audit trail that contains the evidence and records that validated the stated figures were checked and found acceptable.</p>
Findings	No finding was raised.
Conclusion	<p>The verification team confirms that</p> <ul style="list-style-type: none"> a) The complete data was available and is duly reported; b) As indicated above, the description with regard to cross-check of reported data is included under respective parameter (refer Section E.3.4 of this report); c) Appropriate methods and formulae for calculating net GHG removals and leakage emissions were followed; d) Appropriate emission factors, IPCC default factors and other reference values were correctly applied. e) There is no pro-rata approach was applied in the current monitoring period as entire monitoring period falls into period that is after the end of first commitment period of Kyoto Protocol. <p>The total number of ERs achieved during the current monitoring period is 311,998tCO₂e.</p>

Specific-case CPA reference number	Baseline emissions or baseline net GHG removals by sinks (tCO ₂ e)	Project emissions or actual net GHG removals by sinks (tCO ₂ e)	Leakage (tCO ₂ e)	GHG emission reductions or net GHG removals by sinks (tCO ₂ e) achieved in the monitoring period		
				Up to 31/12/2012	From 01/01/2013	Total amount
VPA1	*	*	4.7%	N/A	313,936	313,936
Total	*	*	4.7%	N/A	313,936	313,936

*Since emission reductions are conducted with respect to fuel savings per unit, rather than by comparing overall emissions in the baseline and project scenarios, the 2nd and 3rd columns in the table above are left blank.

E.3.5.5. Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates in included specific-case CPA

Means of verification	Review of VPA-DD and ER calculation spreadsheets demonstrated that In the VPA-DD, 426,606 tonnes were estimated to be reduced between 1 st December 2017 – 30 Nov. 2018. 311,998tonnes are reduced during the current monitoring period, which led to the conclusion that actual emission reductions achieved are less than the amount estimated.
Findings	None
Conclusion	The actual emission reductions are lower than the value estimated in VPA-DD/2/. Therefore, it has been accepted by the verification team.

E.3.5.6. Remarks on difference from estimated value in registered VPA -DD

Means of verification	The achieved ERs are lower than the estimates in registered VPA-DD for each VPA. It is explained by PP in monitoring report explicitly and DOE has accepted the justification.
Findings	None
Conclusion	It was verified that the difference is due to a reduction in 2017-2018 stove build quotas, political unrest and conflict in Honduras in Q3 2017 and Q1 2018, as well as unusual rains in Fall 2018, which affected access to many of the rural areas; many roads remain in poor condition and there had been delays in the transport of materials.

E.3.6. Assessment of reported sustainable development co-benefits

Means of verification	Reported in section E.3.4.3
Findings	Reported in section E.3.4.3
Conclusion	Reported in section E.3.4.3

E.3.7. Global stakeholder consultation

Means of verification	Not Applicable
Findings	Not Applicable
Conclusion	Not Applicable

SECTION F. Internal quality control

The draft verification report that is prepared by verification team is reviewed by an independent technical review team (one or more members) to confirm if the internal procedures established and implemented by Earthood were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable CDM rules/requirements. The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the verification team.

During the technical review process additional findings may be identified or the closed-out findings may be opened, which needs to be satisfactorily resolved before the request for issuance is submitted to UNFCCC. The independent technical reviewer may either approve the report as such or reject/return the same in such case providing the comments/findings/issues that needs to be resolved by the verification team. The decision taken by the Technical Reviewer is final and is authorized on behalf of Earthood Services Private Limited.

SECTION G. Verification opinion

Earthood Services Private Limited (Earthood), contracted by Proyecto Mirador Foundation, has performed the independent verification of the emission reductions for the GS PoA 1988 “Proyecto Mirador Enhanced

Distribution of Improved Cookstoves in Latin America” in Honduras for the monitoring period 01/12/2017 to 30/11/2018 (Inclusive of both days) as reported in the Monitoring Report Version 5.0 dated 16/05/2019, Proyecto Mirador Foundation is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity.

Earthood commenced the verification on the basis of the baseline and monitoring methodology Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), Version 2.0, "Gold Standard for Global Goals Transition Annexure", version 1, dated September 2019 the monitoring plan contained in the PoA-DD and VPA-DD, both Version 6.0, dated 25/03/2016, Monitoring Report Version 6.0 dated 16/05/2019.

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

The verification team confirms that:

- The PoA was found completely implemented as per the description given in the registered VPA -DD. The actual operation conforms to the description in the registered PoA - DD and VPA- DD

SECTION H. Certification statement

Earthood Services Private Limited (Earthood), contracted by Proyecto Mirador Foundation, has performed the independent verification of the emission reductions for “Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America: First VPA for Distribution of Dos por Tres Cookstoves in Honduras” for the monitoring period 01/12/2017 to 30/11/2018 (Inclusive of both days) as reported in the Monitoring Report Version 6.0 dated 16/05/2019, Proyecto Mirador Foundation is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity. It is our responsibility to express an independent verification statement on the reported GHG emission reductions from the project activity.

Earthood commenced the verification on the basis of the baseline and monitoring methodology Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), Version 2.0, the monitoring plan contained in the VPA: “Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America: First VPA for Distribution of Dos por Tres Cookstoves in Honduras”, Monitoring Report Version 6.0 dated 16/05/2019.

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

In our opinion the GHG emissions reductions reported for the project activity for the period 01/12/2017 to 30/11/2018 (Inclusive of both days) are fairly stated in the Monitoring Report Version 6.0 dated 16/05/2019. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), Version 2.0, the monitoring plan contained in the VPA: “Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America: First VPA for Distribution of Dos por Tres Cookstoves in Honduras”. Earthood Services Private Limited is able to certify that the emission reductions from the GS VPA: “Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America: First VPA for Distribution of Dos por Tres Cookstoves in Honduras” during the period 01/12/2017 to 30/11/2018 (Inclusive of both days) amount to 311,998 tCO₂e.

Verified and certified emission reductions as per commitment period:

Commitment period	Amount
Upto 31/12/2012 (1 st commitment period)	Not Applicable/Nil
From 01/01/2013 onwards	311,998tCO ₂ e

Appendix 1. Abbreviations

Abbreviations	Full Texts
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CME	Coordinating and Managing Entity
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CP	Crediting Period
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EB	Executive Board
ER	Emission Reduction
ER	Emission Reduction
ESPL	Earthood Services Private Limited (Earthood)
FAR	Forward Action Request
GHG	Green House Gas
GS	Gold Standard
IPCC	Intergovernmental Panel on Climate Change
IR	Internal Resource
ODA	Official Development Assistance
PCP	Project Cycle Procedure
PDD	Project Design Document
PFA	Pre-Feasibility Assessment
PMU	Project Management Unit
PoA	Programme of Activities
PP	Project participant
PS	Project Standard
SFR	Stakeholders Feedback Round
UNFCCC	United Nations Framework Convention on Climate Change
VER	Verified Emission Reductions
PO	Partner Organisation

Appendix 2. Competence of team members and technical reviewers

Competence Statement			
Name	Shreya Garg		
Country	India		
Education	M.Sc. (Climate Science & Policy), TERI University		
Experience	6 Years +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS.I.A., AMS.I.C., AMS.I.D., AMS.I.F., AMS.II.D., AMS.II.G., AMS.II.J., AMS.III.AV., ACM0002, ACM0012		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.2, TA 3.1)		
Reviewed by	Abhishek Mahawar	Date	01/03/2018
Approved by	Ashok Gautam	Date	01/03/2018

Competence Statement			
Name	Ashok Gautam		
Country	India		
Education	M. Sc. (Environmental Sciences) M. Tech. (Energy & Environmental Management)		
Experience	16 Years +		
Field	Energy, Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-I.A., AMS-I.C., AMS-I.E, AMS-II.D., AMS-II.G., AMS-III.E., AMS-III.H., AMS-III.Q, AMS-III.Z., AMS-III.AV., AM0029, AM0025, AM0056, ACM0001, ACM0002, ACM0004, ACM0012, ACM0006, AM0018, ACM0009, AM0034, AMS.I.B		
Local expert	YES (India)		
Financial Expert	YES		
Technical Reviewer	YES		
TA Expert	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1)		
Reviewed by	Shreya Garg	Date	25/01/2019
Approved by	Anshika Gupta	Date	25/01/2019

Competence Statement	
Name	Siddharth Yadav
Country	England (UK)

CDM-PoA-VCR-FORM

Education	Masters (Oxford University) B. Tech. – Civil Engineering		
Experience	14 Years, More than 10 GS projects		
Field	Energy, Climate Change & Environment Complete more than 30 CDM projects and various GS projects		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (1.2)	YES		
TA Expert (13.1)	YES		
Reviewed by	Abhishek Mahawar	Date	10/11/2014
Approved by	Kaviraj Singh	Date	11/11/2014

Competence Statement			
Name	Kaviraj Singh		
Country	India		
Education	Ph.D. (Environmental Engineering), IIT Delhi Masters (Energy & Environmental), DAVV Indore		
Experience	15 Years +		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-II.D., ACM0006, AMS-I.A., AMS-I.C., AMS-II.B., AMS-III.H, ACM0002, ACM0001, AM0080		
Local expert	YES (India)		
Financial Expert	YES		
Technical Reviewer	YES		
TA Expert	YES (TA 1.1, TA 1.2, TA 13.1, 13.2)		
Reviewed by	Abhishek Mahawar	Date	01/03/2018
Approved by	Ashok Gautam	Date	01/03/2018

Competence Statement			
Name	Sanjeev Kumar		
Country	India		
Education	B. Tech. (Chemical Engineering) M.Tech. (Energy Management)		
Experience	13.5 years +		
Field	Climate Change, Environment, Energy		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		

CDM-PoA-VCR-FORM

Methodology Expert	YES (ACM0002, ACM0006, ACM0004, ACM0009, ACM0012, ACM0001, AMS I.D, AMS I.F, AMS I.C, AMS I.A, AMS II.D, AMS II.E, AMS III.H, AM0009, AM0013, AM0025, AM0056, AM0028)		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.1, TA 1.2, 4.1, 13.1)		
Reviewed by	Shreya Garg	Date	13/12/2018
Approved by	Anshika Gupta	Date	13/12/2018

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1.	Proyecto Mirador Foundation	PoA-DD, Version 6.0	Dated 25/03/2016	CME
2.	Proyecto Mirador Foundation	1. VPA-DD, Version 6.0	Dated 25/03/2016	CME
3.	Gold Standard Foundation	4-week review renewal crediting period GSv2.2 VER	Dated 20/04/2016	CME
4.	Proyecto Mirador Foundation	VPA Passport 2016	Dated 25/03/2016	CME
5.	Proyecto Mirador Foundation	Monitoring Report, Version 01 (version 02 was interim versions and was updated)	Dated 05/12/2017	CME
6.	Proyecto Mirador Foundation	Monitoring Report Version 03 (version 04 was interim versions and was updated)	Dated 25/03/2019	CME
7.	Proyecto Mirador Foundation	Monitoring Report Version 6 (final)	Dated 16/05/2019	CME
8.	Proyecto Mirador Foundation	a) ER calculations b) ER calculations	Dated 05/12/2017 Dated 31/01/2018	CME
9.	Proyecto Mirador Foundation	VP09-06 Sales Records (salesforce.com)	Dated 10/11/2018	CME
10.	Proyecto Mirador Foundation	VP09-07 Stoves installed by month	Dated 10/11/2018	CME
11.	The Gold Standard Foundation	The Gold Standard Simplified Methodology Technologies and Practices to Displace Decentralized Thermal Energy Consumption Gold Standard for Global Goals Transition Annexure, version 1, dated September 2019	Dated 17/01/2018 Dated September 2019	Others
12.	The Gold Standard Foundation	GS webpage for the project: https://mer.markit.com/br-reg/public/master-project.jsp?project_id=103000000001450	Last accessed on 24/01/2018	Others

CDM-PoA-VCR-FORM

13.	Proyecto Mirador Foundation	VP09-02 KPT Data	Dated 10/11/2018	CME
14.	Gold Standard Foundation	Toolkit Version 2.2	-	Other
15.	Proyecto Mirador Foundation	VP09-08 Training Brochure	-	CME
16.	Proyecto Mirador Foundation	VP09-09 Leakage Sustainability Results	Dated 10/11/2018	CME
17.	Proyecto Mirador Foundation	VP09-10 Employee Survey Export	Dated 10/11/2018	CME
18.	Proyecto Mirador Foundation	VP09-11 Employee questionnaire contract	Dated 10/11/2018	CME
19.	Proyecto Mirador Foundation	VP9 -12 Quantitative Employment	Dated 10/11/2018	CME
20.	Proyecto Mirador Foundation	VP09-13 Dropoff data	Dated 10/11/2018	CME
21.	Proyecto Mirador Foundation	VP09 -14 Transportation summary	Dated 10/11/2018	CME
22.	Proyecto Mirador Foundation	VP9-15 Stakeholder Comment Log (Excel file)	Dated 10/11/2018	CME
23.	Proyecto Mirador Foundation	User Manuals (pdf) – digital scale meter, humidity meter, GPS Device -Garmin	Dated 16/01/2017	CME
24.	ESPL	List of households surveyed by DOE	-	Others
25.	Proyecto Mirador Foundation	Log of feedback from users	-	CME
26.	IPCC	IPCC Guidelines for National Greenhouse Gas Inventories 2.1 (http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf)	Vol. 2	Others
27.	UNFCCC	Standard for Sampling and surveys for CDM project activities and programmes of activities	Ver.7	
28.	Proyecto Mirador Foundation	http://www.nativeenergy.com/travel.html	-	CME
29.	Proyecto Mirador Foundation	VP9-17 training data'		CME
30.	Proyecto Mirador Foundation	Garmin eTrex 20 (gps device)	-	CME
31.	Proyecto Mirador Foundation	Humidity Meter Specifications (Calibration check key and instructions)	-	CME
32.	Amazon	Digital Scale Specification	-	CME
33.	Proyecto Mirador Foundation	GS transition document	30/01/2019	CME
34.	Proyecto Mirador Foundation	VP9-02 KPT data		CME

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

Table 1. CARs and CLs from this verification

CL ID	01	Section no.	Monitoring Report VP9 Version 1 dated 9 th November 2018 and version 2 dated 04 December 2018	Date : 06/12/2018
Description of CL				
Please provide information on key changes between the version 1 and version 2 of the monitoring reports dated 09th November 2018 and 04th December 2018 submitted to Earthood, including the changes in the corresponding list of annexures.				
Project participant response				Date : 18/12/2018
<p><i>As the original draft was submitted prior to the close of the monitoring period, changes were made to update figures to actuals. Key figures include:</i></p> <ul style="list-style-type: none"> • <i>Sales record updated to reflect final stove construction totals for October & November.</i> • <i>Final dropoff (abandonment) figures to reflect all surveys collected in October & November.</i> • <i>Leakage figure adjusted to account for final stove construction figures.</i> • <i>Double counting figure adjusted to account for final stove construction figures.</i> • <i>ER calculations spreadsheet updated and ER figures updated in Monitoring Report to reflect final figures.</i> 				
Documentation provided by project participant				
<ul style="list-style-type: none"> • <i>Revised Monitoring Report (v2 dated 18 December 2018)</i> 				
DOE assessment				Date: 18/12/2018
Report dated 18 th December 2018 checked, CL1 is closed, 18 December 2018				

CL ID	02	Section no.	D.2.	Date : 06/12/2018
Description of CL				
<p>Data and Parameters Monitored ID 7 / Pp,b,y - Average daily dry wood fuel reduction per person-meal (tonnes/household/day) Survey data is tabulated in the attachment titled "VP9-02 KPT Data.xlsx" and parameter flows to "VP9-01 ER Calculations.xlsx," "Assumption" worksheet, Cell G20. The values provided in the annexure do not match the ones reported in the monitoring report/ Please clarify the reason for the discrepancy.</p>				
Project participant response				Date : 18/12/2018
<p><i>There was a typo in ID 7 under "Value of monitored parameter" and this has now been corrected to align with the final figure in the ER Calculations worksheet, "Assumption" worksheet, cell G20. The correct value for Weighted Average Fuel Savings (all ages inclusive) is 0.005045 t/household/day.</i></p>				
Documentation provided by project participant				
N/A				
DOE assessment				Date: 18/12/2018
The correctly values match with the ER calculation worksheet, CL2 closed. 18 December 2018				

CL ID	03	Section no.	D.2.	Date : 06/12/2018												
Description of CL																
Data and Parameters Monitored ID 8 / Up,y																
<ol style="list-style-type: none"> 1. Abandonment (drop-off) rate - the number of stoves that have fallen out of use in a given age group 2. <p>The following figures have been applied for the monitored <i>cumulative</i> abandonment rates applied for the 9th Verification Period:</p> <table> <tr> <td>Year 0_1</td> <td>4%</td> </tr> <tr> <td>Year 1_2</td> <td>6%</td> </tr> <tr> <td>Year 2_3</td> <td>13%</td> </tr> <tr> <td>Year 3_4</td> <td>16%</td> </tr> <tr> <td>Year 4_5</td> <td>20%</td> </tr> <tr> <td>Year 5_6</td> <td>23%</td> </tr> </table> <p>The above dropoff rates are significantly less for the stoves in the age groups of 3-4, 4-5 and 5-6 to those reported during the previous monitoring period (8th MP - 26%, 46%, 52%). Please explain the reason for this reduction in drop off rates in the age groups referred above.</p>					Year 0_1	4%	Year 1_2	6%	Year 2_3	13%	Year 3_4	16%	Year 4_5	20%	Year 5_6	23%
Year 0_1	4%															
Year 1_2	6%															
Year 2_3	13%															
Year 3_4	16%															
Year 4_5	20%															
Year 5_6	23%															
Project participant response				Date : 18/12/2018												
<p><i>There are multiple reasons for the dramatic decrease in dropoff during the 9th VP. They are as follows:</i></p> <ol style="list-style-type: none"> 1. <i>The oldest group of stoves built 2009-12, which did not reflect structural upgrades to the plancha implemented from 2012-13, have now completely aged out of the creditable stove universe.</i> 2. <i>In 2017 Mirador implemented an inspection system, by which the inspector visits each household and assesses the appropriateness of the household to receive a cookstove. If approved, the inspector determines the best location for the cookstove before construction can be approved. Optimizing the location of the stove prevents problems with efficiency due to chimney placement relative to roof slope and wind direction, which maximizes functionality and thus reduces abandonment.</i> 3. <i>In early 2018 Mirador implemented a text-based "help line" to receive complaints about cookstoves, and supervisors began spending 2 out of every 5 work days visiting problem stoves, making repairs and distributing replacement parts, thus dramatically improving outcomes and reducing abandonment.</i> 4. <i>Ejecutores (stove construction contractors) are paid by the stove. In early 2018 Mirador implemented a policy by which Ejecutores must pay Mirador back for any stove that is abandoned during the first year of construction. This incentivized the Ejecutores to emphasize how important it is that their Technicians properly build the stove and properly train the beneficiaries to care for it, thus improving long term outcomes.</i> 5. <i>Continuous improvement to supervisory training regimes.</i> 																
Documentation provided by project participant																
N/A																
DOE assessment				Date: 18/12/2018												
The justification provided by the project proponents is correct, CL3 closed, 18 th December 2018																

CL ID	04	Section no.	D.2.	Date : 06/12/2018
Description of CL				
<p>Data and Parameters Monitored ID 10 / LEp,y – Leakage due to Transportation Mileage records; transportation and maintenance records</p> <p>Transportation records for all Mirador vehicles are tabulated in the attachment “VP9-14 Transportation Summary.xlsx” showing Mirador vehicles collectively drove 283,854 km (or 176,379 miles) during the 9th Verification Period.</p> <p>There is a considerable difference (reduction) in the distance travelled by different vehicles during the current monitoring period (01/12/2017- 30/11/2018) when compared to the previous monitoring period (01/12/2016-30/11/2017). Please clarify the reasons for this difference.</p>				
Project participant response				Date : 18/12/2018
<p><i>During previous verification periods, Ejecutores were responsible for transporting materials to their job sites in small pickups, one load at a time, without much efficiency involved in the route planning.</i></p> <p><i>At the end of 2017 Mirador began using a large delivery truck to shuttle supplies to job sites using consolidated routes. Through calculated logistics and planning, and by taking much of the burden off the Ejecutores, we have been able to dramatically reduce transit times and overall distance.</i></p> <p><i>That said, the large delivery truck creates higher emissions than the small trucks. To account for this, we have updated the attachment “VP9-14 Transportation Summary” to reflect three types of vehicle emissions: motorcycles; small pickups; and large delivery trucks. An online carbon calculator was used to determine transportation emissions from each of these 3 sources. The result is that the project emitted 126.28 tonnes of CO₂ due to transportation during the 9th Verification Period. That figure equates to 0.04% of the total emissions claimed, so it is disregarded as de minimis.</i></p> <p><i>Transportation records for all Mirador vehicles are tabulated in the revised attachment “VP9-14 Transportation Summary.xlsx” showing Mirador vehicles collectively drove 293,374 km (or 182,294 miles) during the 9th Verification Period. Corresponding emissions are 125.44 tonnes, which equates to 0.04% of total project emissions for the 9th VP (de minimis).</i></p>				
Documentation provided by project participant				
<ul style="list-style-type: none"> • VP9-14 Transportation Summary • Raw data file from Roy Lara (Assistant to the Director of Operations) showing breakdown of mileage from light trucks vs. delivery trucks • Raw data file from Juan Carlos Guzman (Director of Supervisors) showing mileage from motorcycles, updated to include actuals for December 2018. • 				
DOE assessment				Date: 18/12/2018
The above documentation was checked, and the values verified on site too. CL4 is closed, 18 December 2018.				

FAR ID	05	Section no.		Date : 15/05/2019
Description of FAR				
The DOE conducting the next verification for this project must ensure that the of age of stove during user surveys is determined using method which is in compliance with the TPDDTEC methodology.				
Project participant response				Date : xx
xx				
Documentation provided by project participant				
xx				
DOE assessment				Date: xx
xx				

There are no CARs issued.

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	5 June 2015	Initial publication.

Decision Class: Regulatory
Document Type: Form
Business Function: Issuance
Keywords: programme of activities, verifying and certifying
