



Verification and certification report form for GS project activities

(Version 01.0)

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

VERIFICATION AND CERTIFICATION REPORT

Title of the Programme of Activities	Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America
Title of VPA	Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America First VPA for Distribution of Dos por Tres Cookstoves in Honduras
Reference number of the Programme of Activities	1988
Version number of the verification and certification report	02
Completion date of the verification and certification report	06/01/2016
Monitoring period number and duration of this monitoring period	Monitoring Period No. 6 01/12/2014 – 30/11/2015
Version number of monitoring report to which this report applies	Version 2.0
Crediting period of the Programme of Activities corresponding to this monitoring period	7 Years(Renewable Crediting Period); (01/05/2009-30/04/2016)
Project participant(s)	Proyecto Mirador Foundation
Host Party	Honduras
Sectoral scope(s), selected methodology(ies), and where applicable, selected standardized baseline(s)	3, Improved Cook-stoves and Kitchen Regimes, Version 01
Estimated GHG emission reductions or net anthropogenic GHG removals for this monitoring period in	295,000 tCO ₂ e

the registered PDD	
Certified GHG emission reductions or net anthropogenic GHG removals for this monitoring period	225,335 tCO ₂ e
Name of DOE	Earthood Services Private Limited
Name, position and signature of the approver of the verification and certification report	 Abhishek Mahawar Quality Manager

SECTION A. Executive summary**Brief Summary of PoA:**

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.

Brief Summary of VPA:

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. Therefore, the project will lead to GHG emission reduction and also reduction in respiratory illness caused by inhalation of toxic smoke and will help in reducing indoor air pollution.

Proyecto Mirador Foundation (PP) 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 01/12/2014 - 30/11/2015. 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 emission reductions as verified.

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 01/12/2014 - 30/11/2015.

Scope:

The scope of the verification is to establish and verify that:

- a) The project activity has been implemented and operated as per the registered PDD and passport or any approved revised PDD, and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- b) The monitoring report and other supporting documents provided are complete in accordance with the latest applicable version of the completeness checklist for requests for issuance of CERs, verifiable, and in accordance with applicable GS requirements;
- c) The actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan, any revised approved monitoring plan, the approved methodology including applicable tool(s) and/or, where applicable, the approved standardized baseline;
- d) The data recorded and stored as per the monitoring methodology including applicable tool(s) and, where applicable, the standardized baseline.

The verification report will report on the following;

- a) Emission reduction
- b) Leakages
- c) Changes to the key sustainable development indicators

- d) Achievement and implementation of mitigation/compensation measures, according to the success indicators established in the monitoring plan of registered PDD and passport
- e) Response by project participants to the grievances raised by local stakeholders

This verification is an independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the DOE. The verification addresses the implementation and operation of the GS PoA and tests the data and assertions set out in the monitoring report based on the following:

- a) The registered GS/CDM PoA-DD and Passport
- b) The approved methodology mentioned in the PDD and passport
- c) The registered POA-DD & CPA-DD and monitoring plan
- d) 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
- e) The latest Gold Standard (GS) tool kit
- f) CDM Validation and Verification Standard (VVS)
- g) CDM Project Standard (PS) and Project Cycle Procedure (PCP)
- h) Relevant decisions, guidance and clarifications of the CMP and CDM Executive Board, GS Board and any other information and references relevant to the project activity's reported emission reductions

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, as appropriate to the PoA and VPA. 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.

The verification process is conducted as per internal CDM Quality Manual, which includes the following steps;

- a) Contract with PP and appointment of verification team and technical review team (refer Section B.1 and B.2 of this report)
- b) Completeness check of Monitoring Report
- c) Uploading of the work plan on the GS registry
- d) Desk review (refer Section C.1 of this report) of Monitoring Report and corresponding ER sheet by verification team and planning of onsite audit (including sampling approach (refer Section C.4 of this report) to be applied)
- e) On site audit (refer Section C.2 of this report) (physical implementation and interview with relevant stakeholders especially end users) by verification team
- f) Follow up activities e.g., interviews with staff involved in project operation and implementation
- g) Reporting and closure of findings (CARs/CLs/FARs) and preparation of draft verification report (refer Section C.5 of this report)
- h) Independent technical review (refer Section D of this report) of the draft verification report and final/revised documentation (e.g., Monitoring Report, corresponding ER sheet and evidences)
- i) Reporting and closure of TR comments/findings (refer Section C.5 of this report) (CARs/CLs/FARs) and final approval for the decision made (refer Section E and F of this report).
- j) Issuance of final verification report to contracted PP (or authorized representatives) and submission of request for issuance to GS, as appropriate.

CDM-VCR-FORM

Based on the outcome of the verification process of the registered VPA1 “Distribution Of Dos Por Tres Cookstoves In Honduras” under registered PoA “Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America” and for the monitoring period 01/12/2014 – 30/11/2015 we confirm that the implementation of referenced registered VPA is complying with applicable GS and CDM rules and regulations as stated in the Monitoring Report (final) Version 02 dated 09/12/2015. Earthood Services Private Limited is able to certify that the emission reductions from the VPA1 “Distribution Of Dos Por Tres Cookstoves In Honduras” under registered GS PoA 1988 “Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America” during the period 01/12/2014 – 30/11/2015 (including both days) amount to 225,335 tCO₂e. Therefore, this is being submitted for request for issuance, as per GS and UNFCCC procedures as applicable.

SECTION B. Verification team, technical reviewer and approver**B.1. Verification team member**

No.	Role	Type of resource	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	ER	Yadav	Siddharth	Central Office	Y	Y	Y	Y
2.	Verifier	ER	Yadav	Siddharth	Central Office	Y	Y	Y	Y
3.	Local Expert	ER	Yadav	Siddharth	Central Office	Y	Y	Y	Y
3.	Technical Expert	IR	Gautam	Ashok	Central Office	Y	N	N	Y

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.	TA Expert to TR	ER	Sharma	Ashu	Central Office
3.	Approver	IR	Mahawar	Abhishek	Central Office

SECTION C. Application of materiality**C.1. Consideration of materiality in planning the verification**

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1.	Human error in recording monitored data base in Data sheets	Low	The recording of number of stoves distributed has a provision of cross-check at various stages. The information is recorded at the time of distribution of equipment which is further	All Database sheets to be checked with information present on ground through household surveys.

			checked during installation of stove in the household by a technician. Other provisions include validation of data filled in forms while entry on salesforce.com (A specialised online tool/software which is used for data monitoring), scrutiny by supervisor through household visit and survey data consistency check by PP's office team is also carried out.	
2	Error in transferring the recorded data to ER sheet	Low	The procedure for transferring the recorded values to the spreadsheet is automated, hence the risk is negligible. The data is automatically updated in the software 'salesforce' which is used for calculations in the ER sheets.	ER sheet to be verified with Data base sheets.

C.2. Consideration of materiality in conducting the verification

The applicable threshold for materiality in accordance with CDM VVS Version 9 para 361(c) is 2%. The monthly reported figures for parameters were randomly verified with respective Installation Database sheets/17/, Kitchen Test Reports/29,30,31/, Survey Reports/20,21,22/, Sales Database/16/ and were found to be consistent. Therefore, it can be stated that the verified value is free from any potential error / omission / misstatement. The project activity is inline to the applied methodology/33/ and the emissions due to transportation are considered de-minimus as agreed by the Gold Standard during the previous verifications. This approach is also reasonable in the opinion of assessment team. Therefore, there are no additional factors which might lead to introduction of error in emission reduction estimation.

SECTION D. Means of verification

D.1. Desk review

The verification is performed primarily as a desk review of the documents submitted at various stages of assessments. The review is performed by assessment team using dedicated protocols (checklists). The assessment team cross checks the information provided in the documents (MR) and information from sources other than those used, if available, and also conducts independent background investigations. 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 (as described in PoA-DD, CPA-DD and Passport), 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.

- e) A review of the stakeholders grievance mechanism

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: 06/12/2015 to 09/12/2015				
No.	Activity performed on-site	Site location	Date	Team member
1.	An assessment of the implementation and operation of the registered Programme of Activities as per the registered PoA/ VPA DD	Honduras	06/12/2015	Siddharth Yadav
2.	A review of information flows for generating, aggregating and reporting the monitoring parameters	Honduras	06/12/2015	Siddharth Yadav
3.	Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the PoA/VPA DD	Honduras	07/12/2015	Siddharth Yadav
4.	A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources	Honduras	07/12/2015	Siddharth Yadav
5.	A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PoA/VPA DD, the applied methodology including applicable tool(s), and, where applicable, the applied standardized baseline	Honduras	08/12/2015	Siddharth Yadav
6.	A review of calculations and assumptions made in determining the GHG data and emission reductions	Honduras	08/12/2015	Siddharth Yadav
7.	An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters	Honduras	09/12/2015	Siddharth Yadav

D.3. Interviews with project participants

No.	Interviewee			Date	Subject
	Last name	First name	Affiliation		
1.	Adams	Esther	Proyecto Mirador Foundation	08/12/2015	Project monitoring and reporting, Leakage, ER Calculations, Salesforce data management system
2.	Mendoza	Emilia	Proyecto Mirador Foundation	08/12/2015	Project management structure and human resources
3.	Mendoza	Elder	Proyecto Mirador Foundation	08/12/2015	Surveys, General execution, Quality Assurance and Quality control issues

D.4. Interviews with local stakeholders

108 households (end users) were surveyed during the site visit by the assessment team. 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. The households in the following locations were visited;

La Arada Laguna Verde - Azacualpa, El Emán Abajo San Jose de Buena – Atima, Concepcion de Soluteuca – La Paz, El Canton San Rafael - Atima, Berlin –Atima, La Libertad – Ceguaca

The households were asked the following sets of questions;

- Month and year of installation
- Usage (hours/day) and functionality of Dos por Tres stove
- Physical condition of chimney or if any changes were made by the households after its installation that could effect the stove efficiency
- If there were any electric/ gas baseline stoves being used along with the usage of the Dos por Tres
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

99% of the households reported to have benefitted from the use of Dos por Tres stove. It was found that some of the stove users had problems due to insufficient cleaning of the stove. Also, some users reported using other gas stoves primarily for roasting coffee beans.

There was no reported decline in efficiency of the stove due to its age, however some stoves were considered as dropped off if the stove mouth was broken due to large pieces of wood not going inside the stoves. Some of the stoves which had issues with the plancha (hot plate) were also reported as dropped off/out of use.

The list of households selected for random surveys including the names and government IDs of the owners is available with DOE on request, if required/38/.

D.5. Sampling approach

Simple Random Sampling Method was selected to monitor the value of each parameter. The target population was the the total population under the VPA and a sample size, representative of the population, has been used by the PP. The verification team has found the approach to be inline with the method mentioned in the PoA-DD./1/

D.6. Clarification requests, corrective action requests and forward action requests raised

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
Compliance of the monitoring report with the monitoring report form		1	NA
Compliance of the project implementation with the		1	

registered PDD			
Post-registration changes			
Compliance of the monitoring plan with the monitoring methodology including applicable tool and standardized baseline			
Compliance of monitoring activities with the registered monitoring plan			
Compliance with the calibration frequency requirements for measuring instruments			
Assessment of data and calculation of emission reductions or net removals			
Others (please specify)	2		
Total	2	2	

SECTION E. Verification findings

E.1. Compliance of the monitoring report with the monitoring report form

Means of verification	PP has used his own MR template which covered all the requirements as per GS Toolkit V2.2/36/. The template was found to be appropriate for the type of project activity and gave all the relevant details.
Findings	None
Conclusion	The monitoring report Version 2.0/07/ is found to be in compliance with the Gold Standard Toolkit Version 2.2

E.2. Remaining forward action requests from validation and/or previous verification

There are 2 FAR(s) from previous verification, out of these one was raised by Gold Standard. These FARs were converted and raised as CL2 and CL4 in the current verification requesting the actions taken by the client to address the issues. These two clarifications (CL2 & CL4) requests have been discussed and closed during the current verification. Please refer Appendix 4 for more details.

E.3. Compliance of the project implementation with the registered project design document

Means of verification	The project has been implemented in accordance with the registered as a Gold Standard PoA titled 'Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America, and the corresponding VPA 'First VPA for Distribution of Dos por Tres Cookstoves in Honduras'. VPA Design document is registered against methodology "Methodology for Improved Cook-stoves and Kitchen Regimes V.01". /34,33/ Through the implementation of this project, the improved "Dos por Tres" stove replaces the traditional 'fogon' stove thereby contributing to a reduction in carbon emissions and improvement of environmental conditions of the local community as outlined in the registered design documents. QA/QC procedures, as detailed in the registered Project Design Document have been followed during the implementation of the project. However, the discrepancies in the monitoring of parameters and monitoring approach in the monitoring report that are not consistent with the registered PDD in terms of unit and measurement procedures are discussed. The data/parameters that are monitored for the calculation of emission reductions are also discussed in the following sections.
Findings	CAR 1 was raised because the monitoring report dated 4 th November 2015 required to be updated until the end of the current monitoring period i.e 30 th November 2015 and also regarding minor editorial corrections required to be made in the monitoring report. CAR1 was closed after the requested corrections were made in the revised

	monitoring report dated 9 th December 2015. CL2 was raised regarding FAR 1 which was raised during the previous verification (5 th) because there were some typographical inconsistencies in the VPA DD.
Conclusion	The project proponents have re-submitted the revised files to the market registry, where these are publicly available hence CL1 was closed. These corrections have no effect on the emissions reduced.

E.4. Post-registration changes

Not Applicable

E.4.1. Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline

Not Applicable

E.4.2. Corrections

Not Applicable

E.4.3. Changes to the start date of the crediting period

Not Applicable

E.4.4. Inclusion of a monitoring plan to a registered project activity

Not Applicable

E.4.5. Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline

Not Applicable

E.4.6. Changes to the project design of a registered project activity

There are no post registration changes that are identified during this verification of the current monitoring period.

However, in 2012 Proyecto Mirador submitted a Design Change Request that was approved by the Gold Standard. The Design Change Request asked for approval to use the Gold Standard methodology described in "Technologies and Practices to Displace Decentralized Thermal Energy Consumption" (11/04/2011), Annex 1, Section A1.3, "NRB Assessment similar to approach of CDM methodology AMS-IIG" to calculate the NRB fraction (an "NRB Exception"). In accordance with the approved 2012 Design Change Request, and in agreement with the subsequent verifications in 2012 and 2013, the reported per-stove emissions reduction figure of 3.31 mtCO₂e/year is accepted, while it reflects an updated NRB of 77% using CDM Methodology AMS-IIG. The stove design has not changed and all other factors previously established remain valid.

The corrected figure of 3.31 mtCO₂e/year is used for calculating the emission reductions for the current monitoring period.

E.4.7. Types of changes specific to afforestation and reforestation project activities

Not Applicable

E.5. Compliance of monitoring plan with the monitoring methodology including applicable tool and standardized baseline

Means of verification	The monitoring plan as contained in the registered PoA-DD and VPA-DD /1,34/ was reviewed against the monitoring requirements of the applied methodology –
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	"Improved Cook-stoves and Kitchen Regimes, Version 01" ("Methodology v.01"). Based on this review it was found the monitoring plan contained in the registered PoA-DD and VPA-DD includes all the required parameters to be monitored in the context of project design and description and allows proper determination of emission reductions in accordance with the registered PoA DD and VPA DD and applied methodology "Improved Cook-stoves and Kitchen Regimes", Version 01 ("Methodology v.01")/1,34,33/.
Findings	None
Conclusion	The monitoring plan outlined in the registered PoA-DD and VPA-DD is in accordance with the applied methodology /1,34,33/ and correctly applied by the project activity.

E.6. Compliance of monitoring activities with the registered monitoring plan

E.6.1. Data and parameters fixed ex ante or at renewal of crediting period

E.6.1.1. The non-renewable fraction of the woody biomass harvested in the project collection area in year y in the baseline scenario, ID 1/ $X_{nrb,bl,y}$, %

Means of verification	The value of 77% was taken from Berkeley Air 2011 NRB Analysis ("Annex_15_Berkeley Air NRB Analysis 2011.pdf"); Yale 2007 Study and Yale 2009 Study/24/. the value was found to be consistent with registered VPA-DD and PoA-DD.
Findings	None
Conclusion	The value has been correctly applied in MR.

E.6.1.2. The mass of woody biomass consumed during cooking in the baseline scenario, ID 2/ $B_{bl,y}$, T woody biomass/year/household

Means of verification	The value applied is 3.87 tonnes per household. The data was obtained during 2010 Paired Fuelwood Consumption Study. The number 3.87 was calculated by taking the average fuelwood consumption for the baseline scenario expressed in kg per day, multiplying by 365 days/year and converting to metric tonnes
Findings	None
Conclusion	The value in the monitoring report /07/ and corresponding emission reduction calculations spreadsheet /08/ are consistent with the registered PoA-DD and VPA-DD/1,34/. The applied value is correct and justified.

E.6.1.3. The CO₂ emission factor for use of the biomass fuel in the baseline scenario, ID 3/ $EF_{bl,bio,co2}$, tCO₂/t woody biomass

Means of verification	87.6 g/MJ is the emission factor measured in laboratory testing of traditional fogón stoves. The source of the data was Aprovecho Stove Test (28 April 2009)
Findings	None
Conclusion	The value in the monitoring report /07/ and corresponding emission reduction calculations spreadsheet /08/ are consistent with the registered PoA-DD and VPA-DD/1,34/. The applied value is correct and justified.

E.6.1.4. The CH₄ emission factor for use of the biomass fuel in the baseline scenario, ID 4/ $EF_{bl,bio,nonCO2,CH4}$, tCH₄/t woody biomass

Means of verification	0.47 g/MJ is the emission factor measured in laboratory testing of traditional fogón stoves. The value was taken from Aprovecho Stove Test (28 April 2009). Data is obtained by use of the net calorific value (NCV) of wood 18.6 MJ/kg.
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Findings	None
Conclusion	The value in the monitoring report /07/ and corresponding emission reduction calculations spreadsheet /08/ are consistent with the registered PoA-DD and VPA-DD/1,34/. The applied value is correct and justified.

E.6.1.5. The N₂O emission factor for use of the biomass fuel in the baseline scenario, ID 5/
EF_{bl,bio,nonCO₂,N₂O}, t N₂O /t woody biomass

Means of verification	The Value applied is 0. It was determined from the source Aprovecho Stove Test (28 April 2009).
Findings	None
Conclusion	The value in the monitoring report /07/ and corresponding emission reduction calculations spreadsheet /08/ are consistent with the registered PoA-DD and VPA-DD/1,34/. The applied value is correct and justified.

E.6.1.6. The CO₂ emission factor for use of the biomass fuel in the project scenario, ID 6/ EF_{pe,bio,co₂}, tCO₂/t woody biomass

Means of verification	98.3 g/MJ is the emission factor measured in laboratory testing of the Dos por Tres model stoves. Data is obtained by use of the net calorific value (NCV) of wood 18.6 MJ/kg. The value was taken from Aprovecho Stove Test (28 April 2009)
Findings	None
Conclusion	The value in the monitoring report /07/ and corresponding emission reduction calculations spreadsheet /08/ are consistent with the registered PoA-DD and VPA-DD/1,34/. The applied value is correct and justified.

E.6.1.7. The CH₄ emission factor for use of the biomass fuel in the project scenario, ID 7/ EF_{pe,bio,nonCO₂,CH₄}, tCH₄/t woody biomass

Means of verification	0.05 g/MJ is the emission factor measured in laboratory testing of traditional fogón stoves. The value was taken from Aprovecho Stove Test (28 April 2009)
Findings	None
Conclusion	The value in the monitoring report /07/ and corresponding emission reduction calculations spreadsheet /08/ are consistent with the registered PoA-DD and VPA-DD/1,34/. The applied value is correct and justified.

E.6.2. Data and parameters monitored (Carbon Verification)

E.6.2.1: Identification of household that has received a Dos por Tres stove, ID 8/Stove Sales, Number of stoves

Means of verification	83,562 total stoves, details are as follows:	
	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Recorded on an ongoing basis on Salesforce.com
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology?	the measuring and reporting frequency is as per the monitoring plan and in accordance with monitoring methodology
	Monitoring equipment	Salesforce software platform, recorded through GPS (Garmin), iPhone with Google applications, and crosschecked

		through government IDs (unique)
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	There is no data transcription involved for the location determined through GPS waypoints, there are no accuracy requirements as per the methodology. However, to maintain the legibility of data, the accuracy of the GPS device has been considered to be +/-12ft which could be verified through the instruction manual of the device/37/. The ID for each stove is unique as this is the same as the govt. ID of the individual under whose name the stove is registered.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	N/A
	Calibration frequency /interval:	No additional requirements on calibration
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	N/A
	Is the calibration of measuring equipment carried out by an accredited person or institution?	N/A
	Is(are) calibration(s) valid for the whole reporting period?	N/A
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	N/A
	How were the values in the monitoring report verified?	For the verification of given parameter, the salesforce software was accessed onsite and random sampling checks were also done. The verified values are: • 101,900 total stoves, as follows: • 6,621 (1 May 2009 – 11 Nov 2010) • 10,509 (1 December 2010 – 30 November 2011) • 17,000 (1 December 2011 – 30 November 2012)

		• 24,484 (1 December 2012 – 30 November 2013) • 24,948 (1 December 2013 – 30 November 2014) • 18,338 stoves installed in the Sixth Verification Period- current (1 December 2014 – 30 November 2015)
	If applicable, has the reported data been cross-checked with other available data?	Yes, on site surveys
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes
Findings	None	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.2.2: Fuelwood consumed per household per year, ID9/ Fuelwood consumed per household per year, Tonnes

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Biennial surveys
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology?	The biennial follow-up survey accounts for any changes in the number and ages of household members. Such follow-up surveys were completed in 2011, in 2012, 2013 and 2015 to include older stoves. The fuel use patterns have not changed.
	Monitoring equipment	Manual surveys
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	N/A
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	N/A

	Calibration frequency /interval:	N/A
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	N/A
	Is the calibration of measuring equipment carried out by an accredited person or institution?	N/A
	Is(are) calibration(s) valid for the whole reporting period?	N/A
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	N/A
	How were the values in the monitoring report verified?	A copy of the survey conducted in 2015 was obtained and assessed. Verified Value: 2126.47kg
	If applicable, has the reported data been cross-checked with other available data?	The survey is conducted by a third party and the value is comparable to values of the wood fuel consumed in regions under similar conditions as reported in publicly available literature.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes
Findings	None	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.2.3: CO₂ emission factor for use of the biomass fuel in the project scenario in tonnes CO₂ per tonne of woody biomass fuel, ID 10/ EF_{pj,bio,co2}, tCO₂/tonne woody biomass

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Same as previously reported Comment: Value will be measured by same method biennially only if Verifier determines it necessary.

	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology?	Yes, there is no reason for us to believe that the value has changed significantly from the previous years because the determining parameters have not changed significantly
	Monitoring equipment	laboratory testing
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Emission factors in the region has been published in the recent years have continued to demonstrate a fairly narrow bound of uncertainty for emission factors of CO ₂ .
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes
	Calibration frequency /interval:	N/A
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	N/A
	Is the calibration of measuring equipment carried out by an accredited person or institution?	N/A
	Is(are) calibration(s) valid for the whole reporting period?	N/A
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	N/A
	How were the values in the monitoring report verified?	The values were verified through Interviews of onsite personnel and literature review. Verified value: 98.3 g/MJ is the emission factor measured in laboratory testing of Dos por Tres model stoves
If applicable, has the reported data been cross-checked with other available data?	Yes, literature review	
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC	Yes	

	processes in place?	
Findings	None	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.2.4: Drop off rate, ID 11/ Stoves in use, Households

Means of verification		
	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Surveys are conducted on a sample group of at least 30 households for each age category of stove by year. 11,723 surveys were conducted during the current monitoring period. 108 households were visited by the verification team during the onsite visit. The households comprised of stoves built since 2009 in order to confirm representativeness of the sample.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology?	Yes
	Monitoring equipment	N/A
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	N/A
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	N/A
	Calibration frequency /interval:	N/A
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per	N/A

	the manufacturer's specifications?	
	Is the calibration of measuring equipment carried out by an accredited person or institution?	N/A
	Is(are) calibration(s) valid for the whole reporting period?	N/A
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	N/A
	How were the values in the monitoring report verified?	Onsite visits and desk review. The following figures were verified: First year: 10%, Second year: 4%, Third year: 13%, Fourth year: 0%, Fifth year: 3%, Sixth year: 8%
	If applicable, has the reported data been cross-checked with other available data?	Randomly selected households were visited to cross check the information available on salesforce platform
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	GPS data point is captured for each stove and this information is also kept under the household record, and multiple GPS marks are captured for a single record to maximize accuracy of the marking.
Findings	CAR3 was raised because the reported drop off figures did not match the samples collected on site. The client chose to use the figures which were arrived through the onsite checks, these were conservative. Hence CAR3 was closed.	
Conclusion	Drop-off figures were updated to reflect complete calculations as of November 30, 2015, these were further revised to maintain conservativeness and to comply with the random surveys results conducted during December 7-9, 2015. The revised figures are as follows: First year: 10%, Second year: 4%, Third year: 13%, Fourth year: 0%, Fifth year: 3%, Sixth year: 8% The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.2.5: Leakage, ID 12 / Leakage, Households

Means of verification		
	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Surveys conducted on an ongoing basis
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology?	Yes

	Monitoring equipment	Usage surveys are conducted manually regarding possible leakage effects. The results are recorded on the handheld devices.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	N/A
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	N/A
	Calibration frequency /interval:	N/A
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	N/A
	Is the calibration of measuring equipment carried out by an accredited person or institution?	N/A
	Is(are) calibration(s) valid for the whole reporting period?	N/A
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	N/A
How were the values in the monitoring report verified?	Verified value: 0% 8 cases were reported not destroying a traditional stove, it was confirmed during the site visits that there are cases when the beneficiary has not destroyed the traditional fogon, particularly among the oldest age groups of stoves. In those cases, the <i>fogon</i> is either not in use, or is used minimally – i.e., up to twice a month for a couple of hours, and only for toasting coffee. This means average use of the auxiliary <i>fogon</i> is roughly equivalent to 0.15 hours per day for <i>fogon</i> users, and far less for the overall population, which is <i>de minimis</i>. The families continue to use with gas and electric fuels occasionally (for coffee	

		making, etc.) if a traditional stove was in place (generally 2-3 hours fortnightly).
	If applicable, has the reported data been cross-checked with other available data?	N/A
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	N/A
Findings	None	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.2.6: Assess agreement with statement regarding possible leakage effects described in the PDD: “f. Significant emissions from transportation or other suggest more impact than if project did not exist.”, ID 13 / Leakage due to Transportation, Kilometers

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Mileage records; Sales Database (for total # of stoves built per year). The monitoring plan states ‘Significant emissions from transportation or other suggest more impact than if project did not exist’.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology?	Yes
	Monitoring equipment	N/A
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	N/A
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges? Calibration frequency /interval:	N/A N/A

	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	N/A
	Is the calibration of measuring equipment carried out by an accredited person or institution?	N/A
	Is(are) calibration(s) valid for the whole reporting period?	N/A
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	N/A
	How were the values in the monitoring report verified?	Interviews, records and salesforce.com Verified Value: 205,949 kms For the sixth Verification Period the ratio is 8.90%, below the 15.61% baseline established in the First Verification Period. For the Fourth Verification Period the ratio is 7.64%, 0 leakage is acceptable as the transportation does not increase significantly beyond the relative increase in project activity. Thus, it is the ratio of stoves constructed : km driven that is relevant and accepted.
	If applicable, has the reported data been cross-checked with other available data?	N/A
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	
Findings	None	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.3. Data and parameters monitored (Sustainability Verification)**E.6.3.1: Air Quality , ID 14 / Number and percentage of individuals, Individuals**

Means of verification	
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	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Assess agreement with statements in Sustainability Monitoring Plan Sections, Passport: Issue #1, Air Quality.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology?	Yes, 439 Leakage and Sustainability Surveys collected during the sixth Verification Period. "Reported Results" worksheet within the file "Annex_10_Leakage Sustainability Results 2015.xlsx." 99% of respondents reported the air is cleaner in their homes with the new Dos por Tres cookstove (N9).
	How were the values in the monitoring report verified?	Questionnaires, salesforce.com
	If applicable, has the reported data been cross-checked with other available data?	Yes, through on site interviews and visual observation
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes
Findings	None	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.3.2: ID 15 / Number and percentage of individuals, Individuals

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Ongoing Randomness of the sample is maintained by surveying every nth beneficiary.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology?	Yes, Questionnaires are collected regularly "Annex_10_Leakage Sustainability Results 2015.xlsx." • 99% respondents have more free time since having the Dos por Tres, representing a reduction in time spent collecting wood. Other reported uses of extra time include setting up a business; attending school; helping their partner; resting, taking better care of children, etc. • 76% respondents who purchase their fuelwood reported using the funds saved

		after installation of the 2x3 to purchase food. 3% reported using the funds to pay for electricity and 21% reported other uses.
	How were the values in the monitoring report verified?	The surveys were verified and the values reported on salesforce.com were verified
	If applicable, has the reported data been cross-checked with other available data?	Yes, through on site interviews and visual observation
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, Questionnaires are administered by Supervisors and checked by the project manager on a regular basis
Findings	None	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.3.3: ID 16 / Number and percentage of individuals, Individuals

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Ongoing, randomness of the sample is maintained by surveying every nth beneficiary.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology?	Yes, Questionnaires are collected regularly "Annex_10_Leakage Sustainability Results 2015.xlsx." 99% of respondents who collect their own wood reported that they have more free time since having the Dos por Tres (Cell C34). Respondents reported saving an average of 2.68 hours per week (Cell C37), representing a reduction of 45% in time spent collecting wood (Cell C38). 61% of those respondents reported that they invest the time saved from collecting fuelwood to work in the fields (Cell C41). Other reported uses of extra time include setting up a business (1%); attending school (1%); helping their partner (7%); resting (13%), taking better care of children (11%), "nothing" (2%) and other activities (3%) (Cells C42-C48).

		96% of respondents reported they cook faster with the Dos por Tres (Cell C52), indicating that women have more time to participate in the activities previously listed.
	How were the values in the monitoring report verified?	The surveys were verified and the values reported on salesforce.com were verified
	If applicable, has the reported data been cross-checked with other available data?	Yes, through on site interviews and visual observation
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, Questionnaires are administered by Supervisors and checked by the project manager on a regular basis
Findings	None	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.3.4: ID 17 / Number of individuals, Individuals

Means of verification		
	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Annual Surveys of employees, management report on number of employees, and copies of training materials used by employees.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology?	Yes results for Quality of Employment are tabulated in "Annex_11_Employee Survey Export.xlsx" and "Annex_12_Employee Survey Export Ejecutores.xlsx."
	How were the values in the monitoring report verified?	The surveys were verified and the values reported on salesforce.com were verified
	If applicable, has the reported data been cross-checked with other available data?	Yes, through document review, on site interviews and visual observation
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, Questionnaires are checked by the project manager on a regular basis
Findings	None	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the	

	approved frequency in the monitoring plan.
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E.6.3.5: ID 18 / Number of individuals, Individuals

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Annual
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology?	Yes
	How were the values in the monitoring report verified?	Surveys of employees, management report on number of employees, and copies of training materials used by employees were checked.
	If applicable, has the reported data been cross-checked with other available data?	Annual written report of number of employees is a crosscheck for the record of employee surveys.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, employee surveys conducted by Human Resources Manager in Honduras are reported and reviewed by U.S. office.
Findings	None	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.3.6: ID 19/ Number and percentage of individuals, Individuals

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Annual
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology?	Yes
	How were the values in the monitoring report verified?	Surveys of employees, management report on number of employees and copies of training materials used by employees were checked. Technology is transferred to beneficiaries prior to stove construction, during construction and follow-up visits conducted after stove installation. Each time a follow-up visit is conducted, a maintenance survey is recorded.

		Number of maintenance surveys: 60,764 surveys were conducted in 6th Verification Period Technology transfer to employees ranges from stove building practices to the use of state-of-the-art technology using Salesforce.com and hi-res GPS mapping on both iPhones and laptops. % of employees that report familiarity with work regulations: 100% % of employees who received job training in the past year: 77%
	If applicable, has the reported data been cross-checked with other available data?	Interviews were conducted on site during site visits and offices based in Santa Barbara
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, maintenance survey data collected on handheld devices, stored in Salesforce.com monitoring system and reviewed by office staff in Honduras and U.S. offices.
Findings	None	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.4. Implementation of sampling plan

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

E.7. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	Not Applicable
Findings	None
Conclusion	Not Applicable

E.8. Assessment of data and calculation of emission reductions or net removals**E.8.3. Calculation of baseline GHG emissions or baseline net GHG removals by sinks**

Means of verification	Emissions reductions are calculated as follows: $ER_y = BE_y - PE_y - LE_y$ ER_y Emission reductions in year y in tCO₂/year PE_y Project emissions in year y in tCO₂/year BE_y Baseline emissions in year y in tCO₂/year LE_y Leakage emissions in year y in tCO₂/year As per the methodology the Project emissions and the Leakage emissions are 0.
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	Therefore Emission Reduction is equal to Baseline missions.
Findings	No Findings
Conclusion	The Verification Team confirms that the baseline emissions has been correctly calculated and complies with the applied methodology/33/.

E.8.4. Calculation of project GHG emissions or actual net GHG removals by sinks

Means of verification	The registered PoADD, VPA DD and applied monitoring methodology does not prescribe any project emissions to be considered. The onsite visit and project design also did not reveal any potential source to be considered in this regard. /1,34,33/
Findings	No finding was raised
Conclusion	No project emissions were required to be calculated.

E.8.5. Calculation of leakage GHG emissions

Means of verification	The emissions reductions uses a leakage of 0%. This value is obtained through qualitative surveys referenced in the discussion above "ID 12 / Leakage".
Findings	None
Conclusion	The value is correctly mentioned in the MR and the justification of verification has already been provided in section E.6.2. /07/

E.8.6. Summary of calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

Means of verification	Emissions reductions are calculated as follows:			
	$ER_y = BE_y - PE_y - LE_y$			
	ER _y	Emission reductions in year y in tCO ₂ /year		
	PE _y	Project emissions in year y in tCO ₂ /year		
	BE _y	Baseline emissions in year y in tCO ₂ /year		
	LE _y	Leakage emissions in year y in tCO ₂ /year		

	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.6.2 and E.6.3 of this report); c) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals, project emissions and leakage emissions were followed; d) Appropriate emission factors and other reference values were correctly applied. e) There is no pro-rate approach (para 403 of CDM VVS Version 09) 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. /35/ The total number of ERs achieved during the current monitoring period is 225,335 tCO₂e.
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E.8.7. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

Means of verification	The actual emission reduction value was found to be lower than the estimated value of emission reduction in the registered VPA-DD. Hence, No further justification is required.
Findings	No finding
Conclusion	The explanation included in the revised MR/07/ was found acceptable. Thus comparison of actual GHG emission reduction with estimates in registered VPA DD/34/ was found OK.

E.8.8. Remarks on difference from estimated value in registered PDD

Means of verification	As per the explanation given in MR, low emission reduction is due to reduced plant load factor which is beyond the control of PP./07/
Findings	None
Conclusion	The actual ERs are less than the estimated quantity of ERs as given in the registered PoA DD & VPA DD, which is appropriate and accepted./1,34/

E.8.9. Actual GHG emission reductions or net anthropogenic GHG removals by sinks during the first commitment period and the period from 1 January 2013 onwards

Means of verification	Earthood Services Private Limited is able to certify that the emission reductions from the First VPA "Dos por Tres Cookstoves in Honduras" of GS PoA 1988 "Enhanced Distribution of Improved Cookstoves in Latin America" during the period 01/12/2014-30/11/2015 (including both days) amount to 225,335 tCO ₂ e.
Findings	None
Conclusion	Actual GHG emission reductions in the commitment period (01/01/2013 onwards) were found to be 225,335 tCO ₂ e

SECTION F. Internal quality control

A draft verification report prepared by assessment 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 Gold Standard and CDM requirements. The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the Programme of Activities relates to. All team members of technical review team are independent of the validation team. The report approved by Quality Manager is endorsed by Managing Director, who is overall responsible to ensure quality, before final release. The further details of applicable procedures and responsibilities about Earthood Quality Management System (QMS) are available at www.earthood.in).

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 01/12/2014-30/11/2015 as reported in the Monitoring Report (public) Version 2.0 dated 09/12/2015 /07/. The 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 Improved Cook-stoves and Kitchen Regimes, Version 01 (“Methodology v.01”), the monitoring plan contained in the PoA DD, VPA DD Version 1.0 dated 01/06/2013 & Monitoring Report (public) Version 2.0 dated 09/12/2015 as per the methodology described under Section 2 of this report /1,34,07/.

ESPL confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. This verification report has been prepared using the latest available template specified by UNFCCC and complies with the instructions to follow as per para 406 and 407 of CDM VVS Version 9. The verification activities were conducted in accordance with ESPL’s CDM Quality Manual System as per the steps indicated under Section A of this report.

As a result, it is confirmed that the emission reductions from the First VPA titled “Dos por Tres Cookstoves in Honduras” under GS PoA (1988) “Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America” are correctly reported in the Monitoring Report (final) Version 02 dated 09/12/2015 and corresponding ER sheet for the monitoring period 01/12/2014 to 30/11/2015 (including both days) amounted as 225,335 tCO₂e /07,08/. Therefore, this will be submitted as part of request for issuance as per CDM PCP Version 9 GS tool kit 2.1. /32/.

SECTION H. Certification statement

ESPL’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. ESPL planned and performed the verification by obtaining evidence and other information and explanations that ESPL 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 01/12/2014 to 30/12/2015 are fairly stated in the Monitoring Report (final) Version 2.0 dated 09/12/2015 /7/. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology referred above and the monitoring plan contained in the PoA and VPA DD Version 1.0 dated 01/06/2013. /1,34/

Earthood Services Private Limited is able to certify that the emission reductions from the GS project activity 1988 “Proyecto Mirador Enhanced Distribution of Improved Cookstoves in Latin America” in Honduras during the period 01/12/2014- 30/11/2015 (including both days) amount to 225,335 tCO₂e.

The verified amount of emission reductions is stated below per year;

	Emission Reductions (Amount) in this monitoring period	
Year	Duration	Emission reduction
2014	01/12/2014 to 31/12/2014	17,778 tCO ₂ e
2015	01/01/2015 to 31/12/2015	2,07,557 tCO ₂ e
Total		225335 tCO₂e

Appendix 1. Abbreviations

Abbreviations	Full texts
CAR	Corrective Action Request
CDM	Clean Development Mechanism
GS	Gold standard
EB	Executive Board
CER	Certified Emission Reduction
CL	Clarification Request
DOE	Designated Operational Entity
DNA	Designated National Authority
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
IPCC	Intergovernmental Panel on Climate Change
PDD	Project Design Document
RMP	Revised Monitoring Plan
UNFCCC	United Nations Framework Convention on Climate Change

Appendix 2. Competence of team members and technical reviewers

Competence Statement			
Name	Siddharth Yadav		
Country	England (UK)		
Education	Masters (Oxford University) B. Tech. - Civil Engineering		
Experience	14 Years, More than 10 GS projects		
Field	Energy, Climate Change & Environment Worked on more than 300 CDM projects and various GS projects. He has also qualified as local expert for Honduras.		
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	Ashok Gautam		
Country	India		
Education	M. Sc. (Environmental Sciences) M. Tech. (Energy & Environmental Management)		
Experience	14 Years, More than 4 GS projects		
Field	Energy, Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (1.1)	YES		
TA Expert (3.1)	YES		
TA Expert (13.1)	YES		
Reviewed by	Abhishek Mahawar	Date	29/12/2014
Approved by	Kaviraj Singh	Date	29/12/2014

Competence Statement			
Name	Kaviraj Singh		
Country	India		
Education	Ph.D. (Environmental Engineering), IIT Delhi M.Phil. (Energy & Environmental), DAVV Indore		
Experience	8 Years, More than 5 GS projects		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (1.2)	YES		
TA Expert (13.1)	YES		
TA Expert (13.2)	YES		
TA Expert (15.2)	YES		
Reviewed by	Abhishek Mahawar	Date	30/03/2014
Approved by	Ashok Gautam	Date	30/03/2014

Competence Statement			
Name	Ashu Sharma		
Country	India		
Education	Masters (Energy Management), DAVV Indore Masters (Physics), CCS University Meerut		
Experience	12+ Years in energy audit and insulations, 3 GS projects		
Field	Energy & Insulation		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (3.1)	YES		
Reviewed by	Abhishek Mahawar	Date	30/04/2014
Approved by	Ashok K Gautam	Date	30/04/2014

Appendix 3. Documents reviewed or referenced

No.	Title
1	PoA DD Version 1.0, 01/06/2013
2	VPA Validation Report Version 2.0, 06/02/2014
3	PoA Validation Report Version 1.0, 05/03/2014
4	VPA Passport Version 1.0, 09/04/2014
5	PoA Passport Version 1.0, 21/06/2014
6	Monitoring Report (publication) Version 1.0, 04/11/2015
7	Monitoring Report (final) Version 2.0, 09/12/2015
8	ER Calculation Spreadsheet Version 2.0, 09/12/2015
9	Financing Plan Version 2.0, 10/12/2015
10	Financing Plan 2015.xlsx09/12/2015
11	PM Fuel Usage Study Data 2012.xlsx
12	PM Fuel Usage Study Summary Report 2012.pdf
13	PM Fuel Usage Study Data Sheet SPANISH.pdf
14	PM Fuel Usage Study Data Sheet ENGLISH.pdf
15	PM Fuel Usage Study Guidelines.pdf
16	Sales Record 120114-113015.xlsx
17	Stoves Installed by Month 120114-113015.pdf
18	Training Brochure.pdf
19	Leakage Sustainability Results2015.xlsx
20	Employee Survey Export.xlsx
21	Employee Survey Export Ejecutores.xlsx
22	Employee Questionnaires.pdf
23	Quantitative Employment 2015.xlsx
24	Berkeley Air NRB Analysis 2011.pdf
25	Dropoff Data 2015.xlsx
26	Transportation Summary 2015.xlsx
27	ER Calculations 2015.xlsx
28	GS Aging Approval Email.pdf
29	Aging Stove KT Data 2015.docx
30	Aging Stove KT Report 2012.docx
31	Aging Stove KT Report 2011.docx
32	GS Toolkit 2.1 Ver 9.0
33	Applied Methodology" Methodology for Improved Cook-stoves and Kitchen Regimes V.01"
34	VPA DD Version 1.0
35	CDM VVS Version 9.0
36	GS Toolkit Version 2.2
37	User manual for the GPA device of Garmin make, available at http://static.garmincdn.com/pumac/eTrex_10-20-30_OM_EN.pdf
38	ID cards (issued by government) of the end users

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

Table 1. Remaining FAR from validation and/or previous verification

FAR ID	01, 01	Section no.	E.2	Date:	10/12/2015
Description of FAR					
There was 2 FARs raised in last verification which has been addressed as CLs below. Both are now closed.					

Table 2. CAR01 from this verification

CAR ID	01	Section no.		Date: 10/12/2015
Description of CAR				
The datasets presented in the monitoring report version 1 and the supporting annexures are not updated to the end date of the monitoring period i.e 30/11/2015. Kindly provide updated monitoring report reflecting all information updated until 30th November 2015. For example 1. The header in the monitoring report needs to be modified 2. The number of stoves built during the sixth monitoring period (1st December 2014 through 30 November 2015), please update the data figures provided under ID8 3. The beneficiaries are required to remove the traditional stove that is being replaced. Were there any instances reported wherein the old stoves have not been destroyed? 4. Is there information available on how many stoves aged 5-7 years have been retired and how many of these stoves have been replaced? 5. Please update table 1 on page 5 of the monitoring report upto November 30, 2015 6. Please update the information regarding leakage, drop off rates, and stove ageing factor 7. Typos i.e November 30, 2014 should be replaced by November 30. 2015, leakage and sustainability surveys conducted in MP6 8. Regarding sustainability analysis section on page 17 refers to different files, please summarise the results of the surveys 9. Page 18: Aging stove KT Survey: Quantitative fuelwood consumption study, please report the outcome/results of the study conducted in 2015 which included older stoves 10. Usage (drop off) survey: Please report when was the lastbiennial Usage Survey conducted and please provide a summary of the Usage Surveys. 11. QA/QC procedures applied under ID9- please inform if the results show any a change in the patterns 12. ID11-Soves in use: please provide latest updated figures upto November 30, 2015 13. The lifetime of the stoves is reported to be 5-7 years (page 4, section 3). The reported drop offs for the stoves aged 6 years are much lower. Please clarify. 14. ID12/Leakage: A value of 0% has been used, what are the results frm the surveys? Is this figure an absolute zero or insignificant. Please clarify 15. ID13/leakage due to transportation, please update the figures reported until 30th November 2015, please correct the typos 16. ID14 please correct typos and confirm the reported figures 17. ID15, ID16: please correct the typos/report figures for sixth monitoring period 18. ID19 please provide the updated figures on maintenance surveys and the results 19. Please revise table 2 (Emission reduction calculations) 20. Please update the aging calculation figures as reported on page 36, was a aging test performed in 2015? 21. Page 38: correct typos regarding drop off rates for years – 5 or 6?				
Project participant response				Date: 17/12/2015
1. The header in the monitoring report needs to be modified Header has been modified to reflect Monitoring Report v2, dated 9 December 2014. 2. The number of stoves built during the sixth monitoring period (1st December 2014 through 30				

November 2015), please update the data figures provided under ID8

ID 8 has been updated to reflect final, actual stove construction figures for the entire 6th Verification Period.

3. The beneficiaries are required to remove the traditional stove that is being replaced. Were there any instances reported wherein the old stoves have not been destroyed?

Yes. There are cases when the beneficiary has not destroyed the traditional fogon, particularly among the oldest age groups of stoves. In those cases, the *fogon* is either not in use, or is used minimally – i.e., up to twice a month for a couple of hours for toasting coffee.

4. Is there information available on how many stoves aged 5-7 years have been retired and how many of these stoves have been replaced?

None of the stoves in the 5-7 year range have been replaced. Stoves built from 1 May 2009 to 31 December 2010 are included in the stove database and adjusted according to drop-off.

5. Please update table 1 on page 5 of the monitoring report upto November 30, 2015

Table 1 has been revised accordingly.

6. Please update the information regarding leakage, drop off rates, and stove ageing factor

All information regarding leakage, drop off rates, and stove aging has been updated appropriately.

7. Typos i.e November 30, 2014 should be replaced by November 30, 2015, leakage and sustainability surveys conducted in MP6

Typos with respect to date and MPs have been searched and replaced with corrected information.

8. Regarding sustainability analysis section on page 17 refers to different files, please summarise the results of the surveys

Sustainability information is summarized under Sustainability Parameters (ID 14 through ID 19).

9. Page 18: Aging stove KT Survey: Quantitative fuelwood consumption study, please report the outcome/results of the study conducted in 2015 which included older stoves

Specific results are reported in Annex 20.

10. Usage (drop off) survey: Please report when was the last biennial Usage Survey conducted and please provide a summary of the Usage Surveys.

Usage surveys have been conducted every monitoring period to date, including the Sixth (current) MP.

11. QA/QC procedures applied under ID9- please inform if the results show any a change in the patterns

Results have been remarkably consistent over all 6 MPs. Please refer to Leakage & Sustainability Survey Results submitted for each MP for comparison. Fluctuations are insignificant for all reported figures.

12. ID11-Soves in use: please provide latest updated figures upto November 30, 2015

Parameter ID11 has been updated to reflect final drop-off figures. Attachment 01 has also been modified according to the final figures.

13. The lifetime of the stoves is reported to be 5-7 years (page 4, section 3). The reported drop offs for the stoves aged 6 years are much lower. Please clarify.

With proper maintenance (and in some cases, when replacement parts are purchased), many Dos por Tres stoves last beyond their 7th year. However, Mirador is only claiming emission reductions from stoves in their 1st through 6th years despite the improvements in drop-off figures that tend to result from improved supervision and consequently, improved maintenance on the part of the beneficiaries.

14. ID12/Leakage: A value of 0% has been used, what are the results from the surveys? Is this figure an absolute zero or insignificant. Please clarify

Leakage due to transportation is shown to be within the allowed limits approved from the First Monitoring Period onward. Other sources of leakage are shown to be insignificant.

15. ID13/leakage due to transportation, please update the figures reported until 30th November 2015, please correct the typos

Figures have been updated and typos corrected.

16. ID14 please correct typos and confirm the reported figures

Figures are complete, current and correct. Typos have been corrected.

17. ID15, ID16: please correct the typos/report figures for sixth monitoring period

Figures are complete, current and correct. Typos have been corrected.

18. ID19 please provide the updated figures on maintenance surveys and the results

Figures are complete, current and correct. Total number of surveys has been corrected to reflect the final figure.

19. Please revise table 2 (Emission reduction calculations)

Table 2 has been revised accordingly.

20. Please update the aging calculation figures as reported on page 36, was a aging test performed in 2015?

An aging test was performed in 2015 to determine the degradation factor for stoves in their 6th year. The data set is included in the results reported herein and referenced in Annex 20.

21. Page 38: correct typos regarding drop off rates for years – 5 or 6?

Figures have been updated and typos corrected.

Documentation provided by project participant

NA

DOE assessment

Date: 22/12/2015

Following revisions indicated above, CAR1 is closed

Table 3. CL from this verification

CL ID	02	Section no.	MR Version 01	Date: 10/12/2015
Description of CAR				
Kindly provide an update on the FAR1 issued in the previous verification report (5 th Monitoring period)				
The text states: <i>FAR1 - The revised VPA highlighting changes from the registered version should be submitted to Gold Standard Secretariat</i>				
Project participant response				Date: 20/12/2015
VPA-DD was updated to correct typos found in the Fifth Verification and the revised VPA-DD was submitted to the Gold Standard and uploaded to the MarkIt Registry in conjunction with the Gold Standard's 3-week review for the 5 th Verification (2015 issuance). The public documentation currently available on the MarkIt Registry includes the updated VPA-DD.				
Project documentation is posted at: https://products.markit.com/br-reg/public/master-project.jsp?project_id=103000000001450				
Documentation provided by project participant				
NA				
DOE assessment				Date: 22/12/2015
Corrections were merely tpographical mistakes. CL2 Closed following posting of the revised VPA DD on Markit Registry				

Table 4. CAR from this verification

CAR ID	03	Section No.		Date:	10/12/2015
Description of FAR					
The households visited during the site visit show drop off figures higher than those reported in the monitoring report version 1. Although the samples were collected on a random basis, there should be an explanation to the variation of the samples collected randomly, to the samples collected by Proyecto Mirador's team. Please clarify					
Project participant response				Date: 20/12/2015	

For stoves in their 3rd year and beyond, DOE estimates for drop-off in the 6th Verification Period were higher than those originally monitored by Mirador. Mirador's sample was larger and more broadly representative than the DOE sample in general. However, to maintain conservativeness, DOE figures are used in replacement of the originally monitored figures. For the Sixth Verification Period, the following non-cumulative drop-off rates were applied: First year: 10% Second year: 4% Third year: 13% Fourth year: 0% Fifth year: 3% Sixth year: 8% The above figures are explained and substantiated in Section E.4 of the Monitoring Report. Furthermore, Annex 1 has been updated according to the adjusted rates, and the emission reductions reported in Tables 1 and 2 have been updated accordingly as well.	
Documentation provided by project participant	
NA	
DOE assessment	Date: 22/12/2015
The PP decided to revise the drop off figures as per the samples obtained on site. Hence CAR is closed	

Table 5. CL from this verification

CL ID	04	Section No.	MR Version 1	Date: 10/12/2015
Description of FAR				
Kindly provide an update how was FAR1 issued by Gold Standard during the previous monitoring period (MP5) addressed? Forward Action Request #1: A requisite from the methodology is to keep updated the sales record. In this regard, the preparation of the sampling plan should exclude the households identified as dropped off in previous surveys. Indeed, this is not relevant when for year_x the surveys include village_a, and next year_y, the survey takes place in village_b. However, since the samples are taking on random basis, it is likely that at some year, a village previously surveyed is again selected, in that case, if a household is randomly selected and it is known that the stove is no longer in use, then, this should be excluded from the sampling group, and take randomly another household.				
Project participant response				Date: 20/12/2015
Every single stove installed is surveyed for drop-off within the first year and thus, it is accurate to say that any village surveyed may be selected as part of a sample group for older stoves. That being the case, ER Calculations are structured such that dropped-off stoves are removed progressively from consideration and cumulative drop-off figures are applied only to the remaining universe of surviving stoves ongoing. For the purposes of drop-off surveys conducted in 2015 on stoves older than 1 year, if we remove stoves from the sample group that had dropped off previously, the result is a corresponding increase in ERs (resulting from a decrease in the drop-off rate since only surviving stoves are included in the survey sample). Because the cumulative rates are broken down by year and applied progressively across the ER calculations, we can confirm our sampling approach and calculations are conservative				
Documentation provided by project participant				
DOE assessment				Date: 23/12/2015
The project participants confirmed that the stoves reported as dropped off in the previous years do not appear again in the sampled population. Hence CL4 is closed				

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	23 March 2015	Initial publication.
Decision Document Business Keywords: project activities, verifying and certifying		Class: Type: Function: Regulatory Form Issuance