




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)	GS 3112 - GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh	
GS reference number of the PoA	GS 3112	
Earthhood reference number	GS.VAL.15.24. II	
Version number(s) of the PoA-DD(s) applicable to this report	Version 4.0	
Version number of the verification and certification report	Version 1.0	
Completion date of the verification and certification report	17/11/2016	
Monitoring period number	01	
Duration of this monitoring period	01/08/2014 – 31/07/2016 (inclusive of both days)	
Number and version number of the monitoring report to which this report applies	Batch I (VPA 7-20)- version 2.0, MR no. 01 Batch II (VPA 21-36)- version 2.0, MR no. 02	
Coordinating/managing entity (CME)	Bangladesh Bondhu Foundation	
Host Party(ies)	Host Party(ies) of the PoA	Is this a host Party to a CPA covered in this report? (yes/no)
	People's Republic of Bangladesh	Yes
Sectoral scope(s)	Sectoral scope 3	
Selected methodology(ies)	The Gold Standard Simplified Methodology for Efficient Cookstoves, dated February 2013	
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	Batch I (VPA 7-20)- version 2.0 – 242,573 tCO _{2e} Batch II (VPA 21-36)- version 2.0 - 210,931 tCO _{2e}	
Total certified GHG emission reductions or net GHG removals for this monitoring period for the included CPA(s) covered in this report	Batch I (VPA 7-20)- version 2.0 – 246,810 tCO _{2e} Batch II (VPA 21-36)- version 2.0 – 216,034 tCO _{2e}	
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**Description of PoA and specific case VPA**

The PoA titled “GS 3112 - GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh” involves dissemination of improved cookstoves branded as Bondhu Chula in the territory of Bangladesh. As verified through technical specifications/12/ and the stove thermal efficiency study by university of Dhaka/16/ the ICS leads to reduction in emission of GHG and other air quality degrading components such as soot and particulate matter.

There are partner organisations (also called partner entrepreneurs) which are responsible for implementation of PoA. Their scope includes manufacturing, sales and installation of ICS as verified through onsite audit and interviews. The list of partner entrepreneurs was also scrutinised for the purpose. The PO/PE’s responsibilities also include collection and maintenance of database of unique information of Chula which is scrutinised by BBF representative to avoid double counting.

Population in Bangladesh has traditionally been using “three-stone” cooking stove which is very inefficient and emits small particles, carbon monoxide and other fumes resulting in worsening of indoor air quality. It has an evident impact on health residents especially women and children, which suffer from cardiovascular and respiratory diseases because of this/1, 14, 18, 19, 20/. Open fire traditional stoves usually use wood, agricultural residue and animal dung as fuel. The inefficient process of cooking with biomass on traditional open fired cookstoves leads to release of significant levels of indoor air pollutants.

With the implementation of this project, the traditional three stone cookstoves are being replaced with a more efficient cookstove. It will not only reduce the GHG emission but also result in less usage of fuel (biomass) and thereby resulting in Green House Gas (GHG) emission reductions.

Scope of Verification

Bangladesh Bondhu Foundation (CME) has contracted Earthood Services Private Limited (Earthood) to conduct the verification of the following VPAs included under the registered GS PoA No. 3112 titled “GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh” for the period 01/08/2014–31/07/2016 (including both days). The VPAs has been divided into two batches for the purpose of reporting and the details of VPAs are listed below batch wise:

Batch 1:

S.No	VPA No.	Title of VPA
1.	VPA00007	GS 4372 VPA 07- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
2.	VPA00008	GS 4373 VPA 08- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
3.	VPA00009	GS 4374 VPA 09- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
4.	VPA00010	GS 4375 VPA 10- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
5.	VPA00011	GS 4376 VPA 11- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
6.	VPA00012	GS 4377 VPA 12- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
7.	VPA00013	GS 4378 VPA 13- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
8.	VPA00014	GS 4379 VPA 14- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
9.	VPA00015	GS 4380 VPA 15- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
10.	VPA00016	GS 4381 VPA 16- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
11.	VPA00017	GS 4382 VPA 17- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
12.	VPA00018	GS 4384 VPA 18- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
13.	VPA00019	GS 4383 VPA 19- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
14.	VPA00020	GS 4385 VPA 20- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh

Batch 2:

1.	VPA00021	GS 4386 VPA 21- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
2.	VPA00022	GS 4387 VPA 22- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
3.	VPA00023	GS 4388 VPA 23- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
4.	VPA00024	GS 4389 VPA 24- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
5.	VPA00025	GS 4390 VPA 25- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
6.	VPA00026	GS 4391 VPA 26- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
7.	VPA00027	GS 4392 VPA 27- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
8.	VPA00028	GS 4393 VPA 28- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
9.	VPA00029	GS 4394 VPA 29- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
10.	VPA00030	GS 4395 VPA 30- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
11.	VPA00031	GS 4396 VPA 31- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
12.	VPA00032	GS 4397 VPA 32- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
13.	VPA00033	GS 4398 VPA 33- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
14.	VPA00034	GS 4399 VPA 34- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
15.	VPA00035	GS 4400 VPA 35- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
16.	VPA00036	GS 4401 VPA 36- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh

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 programme of activities during the defined monitoring period.

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

- The project activity has been implemented and operated as per the registered PoA-DD and VPA-DD or any approved revised PoA-DD and VPA-DD, and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- 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 VERs, verifiable, and in accordance with applicable GS requirements;
- 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;
- The data recorded and stored as per the monitoring methodology including applicable tool(s) and, where applicable, the standardized baseline.

Verification Process:

The verification process involves an agreement with project participant for verification scope and defined monitoring period in accordance with latest valid CDM AS and GS standard. The verification was performed as per latest valid CDM Standards i.e., CDM PS, VVS and latest valid CDM PCP and latest GS toolkit i.e. Version 2.2. The desk review, onsite assessment, interview, reporting of findings, preparation of draft verification report followed by independent technical review (internal quality check) were performed as stated in further sections of this report.

Conclusion:

Earthood has performed the first verification of the GS VPAs under registered GS PoA No. 3112 titled “GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh”:

Batch 1:

S.No	VPA No.	Title of VPA
1.	VPA00007	GS 4372 VPA 07- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
2.	VPA00008	GS 4373 VPA 08- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
3.	VPA00009	GS 4374 VPA 09- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
4.	VPA00010	GS 4375 VPA 10- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
5.	VPA00011	GS 4376 VPA 11- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
6.	VPA00012	GS 4377 VPA 12- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
7.	VPA00013	GS 4378 VPA 13- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
8.	VPA00014	GS 4379 VPA 14- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
9.	VPA00015	GS 4380 VPA 15- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
10.	VPA00016	GS 4381 VPA 16- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
11.	VPA00017	GS 4382 VPA 17- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
12.	VPA00018	GS 4384 VPA 18- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
13.	VPA00019	GS 4383 VPA 19- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
14.	VPA00020	GS 4385 VPA 20- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh

Batch 2:

1.	VPA00021	GS 4386 VPA 21- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
2.	VPA00022	GS 4387 VPA 22- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
3.	VPA00023	GS 4388 VPA 23- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
4.	VPA00024	GS 4389 VPA 24- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
5.	VPA00025	GS 4390 VPA 25- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
6.	VPA00026	GS 4391 VPA 26- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
7.	VPA00027	GS 4392 VPA 27- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
8.	VPA00028	GS 4393 VPA 28- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
9.	VPA00029	GS 4394 VPA 29- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
10.	VPA00030	GS 4395 VPA 30- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
11.	VPA00031	GS 4396 VPA 31- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
12.	VPA00032	GS 4397 VPA 32- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
13.	VPA00033	GS 4398 VPA 33- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh

CDM-PoA-VCR-FORM

14.	VPA00034	GS 4399 VPA 34- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
15.	VPA00035	GS 4400 VPA 35- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
16.	VPA00036	GS 4401 VPA 36- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh

The verification includes confirming the implementation of the monitoring plan of the PoA-DD, VPA-DD and the application of the monitoring methodology as per The Gold Standard Simplified Methodology for Efficient Cookstoves, February 2013. Earthood confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. The emission reductions from the GS VPAs as listed above in Bangladesh during the period 01/08/2014–31/07/2016 (including both days) amount to 246,810 tCO₂e for Batch I (VPA 7-20) and 216,034 tCO₂e for Batch II (VPA 21-36).

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team members

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	IR	Singh	Kaviraj	Central Office	Y	Y	Y	Y
2.	Verifier	IR	Gupta	Anshika	Central Office	Y	N	N	Y
3.	Technical Expert (1.1)	IR	Deka	Nayan Jyoti	Central Office	Y	Y	Y	Y
4.	Technical Expert (3.1)	IR	Deka	Nayan Jyoti	Central Office	Y	Y	Y	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	Garg	Shreya	Central Office
2.	Technical expert (1.1, 3.1)	IR	Gautam	Ashok Kumar	Central Office
3.	Approver	IR	Mahawar	Abhishek	Central Office

SECTION C. Means of verification

C.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;
- 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;

In addition to the monitoring documentation, Earthood has reviewed;

CDM-PoA-VCR-FORM

- The PoA-DD Version 4.0 dated 20/01/2015 and the monitoring plan, including any approved revised monitoring plan and/or changes from the registered PoA-DD, and the corresponding validation opinion;
- Registered VPA-DDs for already included VPAs and SD Appraisal Reports;
- The applied monitoring methodology (The Gold Standard Simplified Methodology for Efficient Cookstoves);
- The VPA-DDs for respective VPAs;
- Any other information and references relevant to the project activity's emission reductions (e.g. IPCC reports, third party test report, other literature reviewed, etc.);
- Sustainability appraisal reports for each VPA.
- Monitoring report (Final)

The complete list of documents reviewed is included under Appendix 3.

C.2. On-site inspection

Duration of on-site inspection: 01/11/2015 to 03/11/2015				
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.	Dhaka, Bangladesh	01/11/2015	Kaviraj Singh, Nayan Jyoti Deka
2.	Physical sampling of the technology distribution and VPA implementation. Local Stakeholder especially end users interview and feedbacks	Various locations in Bangladesh	01/11/2015	Kaviraj Singh, Nayan Jyoti Deka
3.	Summary of day one	Dhaka, Bangladesh	01/11/2015	Kaviraj Singh, Nayan Jyoti Deka
4.	Physical sampling of the technology distribution and VPA implementation & Local Stakeholder especially end users interview and, feedbacks	Various locations in Bangladesh	02/11/2015	Kaviraj Singh, Nayan Jyoti Deka
5.	Summary of day two	Dhaka, Bangladesh	02/11/2015	Kaviraj Singh, Nayan Jyoti Deka
6.	Management and monitoring procedures followed at project site.	Dhaka, Bangladesh	03/11/2015	Kaviraj Singh, Nayan Jyoti Deka
7.	Management and operational system: Documentation, allocation of responsibilities, qualification and training, data recording & archiving, internal audit and management review and emergency procedures.	Dhaka, Bangladesh	03/11/2015	Kaviraj Singh, Nayan Jyoti Deka
8.	Verification checklist: compliance of monitoring procedures followed at project site with registered PoA-DD and monitoring methodology.	Dhaka, Bangladesh	03/11/2015	Kaviraj Singh, Nayan Jyoti Deka
9.	Review of monitored data and relevant document in accordance with registered monitoring plan and applied monitoring methodology.	Dhaka, Bangladesh	03/11/2015	Kaviraj Singh, Nayan Jyoti Deka
10.	Interviews with other stakeholders like suppliers and employees involved in PoA.	Various locations in Bangladesh	03/11/2015	Kaviraj Singh, Nayan Jyoti Deka
11.	Compilation of the findings by Auditor/s (CARs/CLs)	Dhaka, Bangladesh	03/11/2015	Kaviraj Singh, Nayan Jyoti Deka
12.	Closing Meeting: Submission of the audit findings to the client and agreement on the issues raised and agreement on timelines.	Dhaka, Bangladesh	03/11/2015	Kaviraj Singh, Nayan Jyoti Deka

* The site visit conducted during the inclusion of the same VPAs has been considered under the current monitoring period.

C.3. Interviews

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

Interviews conducted on site visit included people from project proponent (BBF) and entity responsible for completing the forms required for the verification process (Climate Secure Services). Interviews revealed that people from both the entities were well verse with monitoring plan and implementation of the project. They could easily describe all the QA/QC procedures as well

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Mohammad	Khalequzzaman	BBF	01/11/2015	Recording of data and other QA/QC procedures, implementation of VPA	Kaviraj Singh
2.	Hajang	Suchitra	BBF	01/11/2015	Recording of data and other QA/QC procedures, implementation of VPA	Kaviraj Singh
3.	Rahman	Mohammad Shahidur	BBF	01/11/2015	Recording of data and other QA/QC procedures, implementation of VPA	Kaviraj Singh
4.	Sarkar	Animesh Kumar	BBF	01/11/2015	Recording of data and other QA/QC procedures, implementation of VPA	Kaviraj Singh
5.	Saha	Adanu Kumar	BBF	01/11/2015	Recording of data and other QA/QC procedures, implementation of VPA	Kaviraj Singh
6.	Lohia	Rohit	Climate Secure Services	01/11/2015	Emission reduction calculation, data representation, sampling and monitoring surveys	Kaviraj Singh
7.	Alam	Md. Ashraful	BBF	03/11/2015	Operation and maintenance	Kaviraj Singh
8.	Penrim	Mst. Evana	BBF	03/11/2015	Data collection	Kaviraj Singh

* The site visit conducted during the inclusion of the same VPAs has been considered under the current monitoring period.

C.3.2. Type of questions asked by Team member

The following table lists down the nature of questions asked to the local stakeholders and end users.

No.	Questions asked by Team member	Nature of Responses Received
	to Local Stakeholders	
1.	Do you own an ICS?	Yes
2.	Were you given a demo while installation?	Yes
3.	Is it beneficial to you?	Yes
4.	Is the air quality in your house improved post installation of ICS?	Yes
5.	Did you observe any fuel saving post ICS?	Yes
6.	Do you use baseline stove?	Yes
7.	Would you like to continue with using ICS?	Yes
8.	Has ICS been useful in upgradation of your quality of life?	Yes
9.	Does PP hold frequent user awareness programmes?	Yes
10.	Are you aware of transfer of carbon benefits to PP?	Yes

C.3.3. Interview with Local Stakeholders especially with end users

Earthhood team has physically interviewed various project cookstove owners. It was ensured that stoves with age ranging from 0-1 and 1-2 years are visited. The stove owners were questioned about the experience of owning the improved cookstove, the difference they find between the traditional cookstove and ICS and about their fuel savings. The responses are distinguished between Positive (P), Negative (N), Concerned (C) and Neutral (Nu). Positive response is the one in which the user is very happy with the product and has no issues. Negative response is the one in which the user is not at all satisfied with the product. Concerned response is characterised by satisfied customer with few issues. Neutral responses are those where end-user is indifferent. The list of the stove owners visited are as follows:

S.No	Name of the customer	District	Village/Road	Contact No.	Installation date	Bondhu Chula ID	Feedback (C/P/N/Nu)	VPA No.	ICS Type
1.	Saiful Islam	Gazipur	Goualkhali	1868539084	20/05/2015	MBS3-DHA-KER-SAK-D-115	P	32	D
2.	Baccsae Mridha	Gazipur	Goualkhali	01817540771	15/01/2015	HOS-MUMN-SRE-PAT-D-134	P	22	D
3.	Mithu Mrida	Munshigonj	Kamarkhola	1961799897	15/04/2015	HOS-MUN-SRE-PAT-D-139	P	29	D
4.	Manik Shaikh	Patuakhali	Kalapara	01717044297	15/05/2015	HOS-MUN-SRE-KOL-D-110	P	29	D
5.	Altaf Hussain	Patuakhali	Kalapara	01916061406	15/07/2015	HOS-MUM-SRE-KOL-D-145	P	29	D
6.	Foraja Begum	Guclogram	Dhalikandi	01933945798	22/04/2015	SS-MUN-MUS-MOL-D-327	P	30	D
7.	Runa Begum	Guclogram	Dhalikandi	184507139	22/04/2015	SS-MUN-MUS-MOL-D-328	P	30	D
8.	Doli Begum	Guclogram	Dhalikandi	1949483538	22/04/2015	SS-MUN-MUS-MOL-D-329	P	30	D
9.	Sanoawara Begum	Guclogram	Dhalikandi	1918085014	22/04/2015	SS-MUN-MUS-MOL-D-332	P	30	D

CDM-PoA-VCR-FORM

10.	Ayiasa Aktar	Gucc ogra m	Dhalikandi	-	22/04/2015	SS-MUN-MUS-MOL-D-333	P	30	D
11.	Rabaya Begum	Gucc ogra m	Dhalikandi	-	22/04/2015	SS-MUN-MUS-MOL-D-334	P	30	D
12.	Halima Begum	Dhali kand i	Munshigonj	1929138652	22/04/2015	SS-MUN-MUS-MOL-D-335	P	30	D
13.	Monu Begum	Gucc ogra m	Dhalikandi	-	22/04/2015	SS-MUN-MUS-MOL-D-337	P	30	D
14.	Sahanaz Begum	Gucc ogra m	Dhalikandi	-	22/04/2015	SS-MUN-MUS-MOL-D-338	P	30	D
15.	Piyara Begum	Gucc ogra m	Dhalikandi	-	22/04/2015	SS-MUN-MUS-MOL-D-339	P	30	D
16.	Fozila Khatun	Gucc ogra m	Dhalikandi	-	22/04/2015	SS-MUN-MUS-MOL-D-341	Dam aged	30	D
17.	Rehuna Begum	Gucc ogra m	Dhalikandi	1933945798	15/04/2015	SS-MUN-MUS-MOL-D-295	P	30	D
18.	Forida Begum	Gucc ogra m	Dhalikandi	1933945798	15/04/2015	SS-MUN-MUS-MOL-D-296	P	30	D
19.	Rina Begum	Gucc ogra m	Dhalikandi	1933945798	15/04/2015	SS-MUN-MUS-MOL-D-297	Dam aged	30	D
20.	Mafiya Begum	Gucc ogra m	Dhalikandi	-	16/04/2015	SS-MUN-MUS-MOL-D-298	Dam aged	30	D
21.	Borbetun Nasa	Gucc ogra m	Dhalikandi	1930482422	15/04/2015	SS-MUN-MUS-MOL-D-299	P	30	D
22.	Shahida Begum	Gucc ogra m	Dhalikandi	-	22/04/2015	SS-MUN-MUS-MOL-D-342	P	30	D
23.	Anowara Begum	Gucc ogra m	Dhalikandi	-	15/04/2015	SS-MUN-MUS-MOL-D-301	P	30	D
24.	Rasada Begum	Gucc ogra m	Dhalikandi	-	15/04/2015	SS-MUN-MUS-MOL-D-302	Chim ney dam aged	30	D
25.	Layli Begum	Gucc ogra m	Dhalikandi	-	15/04/2015	SS-MUN-MUS-MOL-D-304	P	30	D
26.	Moni Rani	Gucc ogra m	Dhalikandi	-	15/04/2015	SS-MUN-MUS-MOL-D-305	Hom e vaca nt	30	D
27.	Santi Begum	Gucc ogra m	Dhalikandi	-	15/04/2015	SS-MUN-MUS-MOL-D-306	Chim ney dam aged	30	D

C.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. The details of the sample of households visited to confirm the project installation has been given in details in the section C.3.3 of the report. As per the sampling methodology

CDM-PoA-VCR-FORM

for CDM the DOE required 18 random samples to be visited across PoA, thus DOE the selected 27 random households from different VPAs factoring in the buffer. The details of the households visited have been provided in the earlier sections.

C.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	-	-	-
<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	-	CAR#1	-
Compliance of monitoring activities with the registered monitoring plan	-	-	-

CDM-PoA-VCR-FORM

• Data and parameters fixed ex ante or at renewal of crediting period	-	-	-
• Data and parameters monitored	-	-	-
• Implementation of sampling plan	-	-	-
Compliance with the calibration frequency requirements for measuring instruments	-	-	-
Assessment of data and calculation of emission reductions or net removals	-	-	-
• Calculation of baseline GHG emissions or baseline net GHG removals by sinks	-	-	-
• Calculation of project GHG emissions or actual net GHG removals by sinks	-	-	-
• Calculation of leakage GHG emissions	-	-	-
• Summary of calculation of GHG emission reductions or net GHG removals by sinks	-	-	-
• 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 PDD	-	-	-
Others (please specify)	-	-	-
Total	0	1	0

SECTION D. 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 project activity 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 on its website (www.earthood.in).

SECTION E. Verification opinion

Earthood Services Private Limited (Earthood), contracted by Bangladesh Bondhu Foundation (CME), has performed the independent verification of the emission reductions for the following GS Projects:

Batch 1:

S.No	VPA No.	Title of VPA
1.	VPA00007	GS 4372 VPA 07- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
2.	VPA00008	GS 4373 VPA 08- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
3.	VPA00009	GS 4374 VPA 09- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
4.	VPA00010	GS 4375 VPA 10- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
5.	VPA00011	GS 4376 VPA 11- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
6.	VPA00012	GS 4377 VPA 12- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
7.	VPA00013	GS 4378 VPA 13- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
8.	VPA00014	GS 4379 VPA 14- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh

CDM-PoA-VCR-FORM

9.	VPA00015	GS 4380 VPA 15- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
10.	VPA00016	GS 4381 VPA 16- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
11.	VPA00017	GS 4382 VPA 17- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
12.	VPA00018	GS 4384 VPA 18- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
13.	VPA00019	GS 4383 VPA 19- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
14.	VPA00020	GS 4385 VPA 20- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh

Batch 2:

1.	VPA00021	GS 4386 VPA 21- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
2.	VPA00022	GS 4387 VPA 22- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
3.	VPA00023	GS 4388 VPA 23- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
4.	VPA00024	GS 4389 VPA 24- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
5.	VPA00025	GS 4390 VPA 25- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
6.	VPA00026	GS 4391 VPA 26- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
7.	VPA00027	GS 4392 VPA 27- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
8.	VPA00028	GS 4393 VPA 28- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
9.	VPA00029	GS 4394 VPA 29- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
10.	VPA00030	GS 4395 VPA 30- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
11.	VPA00031	GS 4396 VPA 31- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
12.	VPA00032	GS 4397 VPA 32- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
13.	VPA00033	GS 4398 VPA 33- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
14.	VPA00034	GS 4399 VPA 34- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
15.	VPA00035	GS 4400 VPA 35- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh
16.	VPA00036	GS 4401 VPA 36- GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh

The VPAs are verified under the registered GS PoA No. 3112 titled “GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh” for the period 01/08/2014–31/07/2016 (including both days). The Bangladesh Bondhu Foundation (CME) 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 against the baseline and monitoring methodology The Gold Standard Simplified Methodology for Efficient Cookstoves, February 2013, the monitoring plan contained in the PDD Version 04 dated 20/01/2015, GS Sustainability Appraisal Report for each VPA-DD, for and Monitoring Report Version 02 dated 15/10/016(For both Batch 1(VPA07-20) and Batch 2(VPA21-36)).

CDM-PoA-VCR-FORM

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 GS VPAs mentioned above are correctly reported in the Monitoring Report Version 02 dated 15/10/2016 (For both Batch 1 (VPA07-20) and Batch 2 (VPA21-36)) and corresponding ER sheet for the monitoring period 01/08/2014–31/07/2016 (including both days) amounted as 246,810 tCO₂e for Batch I (VPA 7-20) and 216,034 tCO₂e for Batch II (VPA 21-36). Therefore, this will be submitted as part of request for issuance as per CDM PCP Version 9 and GS tool kit 2.1.

SECTION F. 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 are fairly stated in the Monitoring Report Version 02 dated 15/10/2016 (For both Batch 1 (VPA07-20) and Batch 2 (VPA21-36)). ESPL, based on outcome of verification activities, certifies in writing that, during the monitoring period 01/08/2014–31/07/2016 (including both days), the registered GS VPAs in the registered GS PoA GS 3112 - GHG Emission Reduction through use of Bondhu Chula (Improved Cook Stoves) in Bangladesh" achieved the verified amount of 246,810 tCO₂e for Batch I (VPA 7-20) and 216,034 tCO₂e for Batch II (VPA 21-36) reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the VPA.

The verified amount of emission reductions is stated below as per each VPAs and as per commitment period;

For Batch 1 (VPA07-20):

	VPA reference number	GHG emission reduction by sinks (tCO ₂ e) achieved in monitoring period				
		Upto 31/12/2012	From 01/01/2013			Total amount
			2014	2015	2016	
Batch 1	GS 4372 VPA 7	0	4137	10000	5831	19968
	GS 4373 VPA 8	0	3676	10000	5831	19507
	GS 4374 VPA 9	0	34044	10000	5831	19235
	GS 4375 VPA 10	0	2781	10000	5831	18612
	GS 4376 VPA 11	0	2527	10000	5831	18358
	GS 4377 VPA 12	0	2159	10000	5831	17990
	GS 4378 VPA 13	0	1809	10000	5831	17637
	GS 4379 VPA 14	0	1395	10000	5831	17226
	GS 4380 VPA 15	0	1170	10000	5831	17001
	GS 4381 VPA 16	0	928	10000	5831	16759
	GS 4382 VPA 17	0	534	10000	5831	16366
	GS 4384 VPA 18	0	412	10000	5831	16243
	GS 4383 VPA 19	0	185	10000	5831	16016
	GS 4385 VPA 20	0	61	10000	5831	15893
		Total Amount	0	25175	140000	81635

For Batch 2 (VPA21-36):

	VPA reference number	GHG emission reduction by sinks (tCO ₂ e) achieved in monitoring period				
		Upto 31/12/2012	From 01/01/2013			Total amount
			2014	2015	2016	
	GS 4386 VPA 21	0	0	9874	5837	15710

CDM-PoA-VCR-FORM

Bat ch 2	GS 4387 VPA 22	0	0	9646	5841	15486
	GS 4388 VPA 23	0	0	9340	5846	15186
	GS 4389 VPA 24	0	0	8815	5856	14671
	GS 4390 VPA 25	0	0	8756	5857	14613
	GS 4391 VPA 26	0	0	8408	5864	14272
	GS 4392 VPA 27	0	0	8142	5869	14011
	GS 4393 VPA 28	0	0	8103	5869	13973
	GS 4394 VPA 29	0	0	7498	5880	13378
	GS 4395 VPA 30	0	0	7129	5887	13017
	GS 4396 VPA 31	0	0	6891	5892	12782
	GS 4397 VPA 32	0	0	6506	5899	12405
	GS 4398 VPA 33	0	0	6043	5907	11950
	GS 4399 VPA 34	0	0	6023	5907	11930
	GS 4400 VPA 35	0	0	5609	5915	11524
	GS 4401 VPA 36	0	0	5203	5922	11126
	Total Amount	0	0	121986	94047	216034

SECTION G. Verification findings - General

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

Means of verification	The template used for MR is CDM-PoA-MR-FORM Version 01, which has been released by UNFCCC for the reporting of monitored data of CPAs under same PoA for CDM.
Findings	None
Conclusion	The monitoring report template was found to be the latest and appropriate for program of activities. The sections were filled in according to the guidelines.

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

As verified through internal verification protocol dated 14/04/2015/3/ given by Gold Standard, there were no FARs in validation or previous verification.

G.3. Specific-case CPA(s) considered for verification and covered in this report

Reference number of the specific-case CPA included in the PoA as of the end of this monitoring period	Is the specific-case CPA considered for this verification? (yes/no)	Version number of the registered PoA-DD to which the specific-case CPA complies with	Confirmation that a request for issuance including the specific-case CPA has been published for the previous monitoring period (Y/N)
Batch 1			
GS 4372 - VPA 07	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4373 - VPA 08	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4374 - VPA 09	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4375 - VPA 10	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4376 - VPA 11	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4377 - VPA 12	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4378 - VPA 13	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4379 - VPA 14	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4380 - VPA 15	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4381 - VPA 16	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4382 - VPA 17	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4384 - VPA 18	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4383 - VPA 19	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4385 – VPA 20	Yes	Version 4.0 dated 20/01/2015	Not applicable
Batch 2			
GS 4386 – VPA 21	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4387 – VPA 22	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4388 – VPA 23	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4389 – VPA 24	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4390 – VPA 25	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4391 – VPA 26	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4392 – VPA 27	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4393 – VPA 28	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4394 – VPA 29	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4395 – VPA 30	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4396 – VPA 31	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4397 – VPA 32	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4398 – VPA 33	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4399 – VPA 34	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4400 – VPA 35	Yes	Version 4.0 dated 20/01/2015	Not applicable
GS 4401 – VPA 36	Yes	Version 4.0 dated 20/01/2015	Not applicable

SECTION H. Verification findings – Programme of activities

H.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. A total of 27 samples were visited 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 unique information of each sample as per the records maintained by CME was also cross-checked onsite. There a few replacements/repairs done during this monitoring period. As observed onsite and validated by interviews, these repairs can be mainly attributed to behavioural and lifestyle issues rather than quality of stoves. Chimneys were damaged while household owner repaired the roof of house or has stored heavy items near chimney. The people were in habit of using brick sized wood pieces in the traditional stoves, however in ICS, comparatively smaller wood pieces are required to be fed. Thus, people forced larger pieces into the inlet leading to damage of cook stove.
------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

CDM-PoA-VCR-FORM

	There were a few dissatisfied customers as well as demonstrated in sampling survey forms provided by CME. The reasons upon scrutiny were found to be out of purview of CME. People had concerns like enhancement of subsidy, or other social and behavioural issues. No major issues in terms of stove design or project implementation were found.
Findings	None
Conclusion	The implementation of the programme was found to be in compliance with the description provided in the registered PoA-DD. 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 PoA-DD.

H.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 Bondhu representatives as well. As observed in each household, cookstoves bear a unique serial number which had been recorded in the PE's records. 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 field staff and users of cookstove which could be verified through training records and photographs/21/ clicked during the session. The transfer of ownership was verified through customer agreement form/22/.
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.

H.3. Post-registration changes

H.3.1. Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline

Not applicable

H.3.2. Corrections

Not applicable

H.3.3. Inclusion of a monitoring plan in a registered PoA-DD (including its generic CPA-DD(s))

Not applicable

H.3.4. Permanent changes to the monitoring plan as described in the registered PoA-DD, applied methodology, or applied standardized baseline

Not applicable

H.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

H.3.6. Types of changes specific to afforestation and reforestation activities

N/A.

SECTION I. Verification findings – Component project activity(ies)

I.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 27 samples were visited across 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 cookstove to them. The unique information of each sample as per the records maintained by CME was also cross-checked onsite.
Findings	None
Conclusion	The implementation of the programme was found to be in compliance with the description provided in the registered PoA-DD. 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 PoA-DD.

I.2. Post-registration changes

I.2.1. Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline

Not applicable

I.2.2. Corrections

Not applicable

I.2.3. Changes to the start date of the crediting period

Not applicable

I.2.4. Inclusion of a monitoring plan to an included CPA-DD

Not applicable

I.2.5. Permanent changes to the monitoring plan as described in the included CPA-DD, applied methodology, or applied standardized baseline

Not applicable

I.2.6. Changes to the programme design of the included CPA-DD

Not applicable

I.2.7. Types of changes specific to afforestation and reforestation component project activities

Not applicable

I.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	CAR#1 was raised and resolved. For details please refer to appendix 4
Conclusion	The monitoring plan was found to be in compliance with the monitoring methodology/10/

I.4. Compliance of monitoring activities with the registered monitoring plan

I.4.1. Data and parameters fixed ex ante or at renewal of crediting period

I.4.1.1. Quantity of firewood consumed in baseline scenario during year y (tons per household per year), $B_{b,y}$, Tons of firewood per household per year

Means of verification	The registered PoA-DD/1/ and VPA-DD for each VPA/2/ gives the value of 1.06484 for this parameter. PP has used the data of a World Bank Study "Restoring Balance: Bangladesh's Rural Energy Realities, March 2009"/14/.
Findings	None
Conclusion	The value in the monitoring report /5,6/ and corresponding emission reduction calculations spreadsheet /7/ are consistent with the registered PoA-DD/1/ and VPA-DD/2-6/. The applied value is correct and justified.

I.4.1.2. Fraction of biomass in year y that can be established as non-renewable using survey methods, $f_{NRB,y}$, Fraction

Means of verification	The registered PoA-DD/1/ and VPA-DD for each VPA/2/ gives the value of 0.83 for this parameter. PP has taken the data from "Default Values of Fraction of Non-Renewable Biomass for Least Developed Countries and Small Island Developing States" (EB 67 Annex 22)/23/
Findings	None
Conclusion	The value in the monitoring report /5,6/ and corresponding emission reduction calculations spreadsheet /7/ are consistent with the registered PoA-DD/1/ and VPA-DD/2-6/. The applied value is correct and justified.

I.4.1.3. CO₂ emission factor of firewood that is substituted or reduced, $EF_{b,fuel,CO_2}$, tCO₂/ton of wood

Means of verification	The registered PoA-DD/1/ and VPA-DD for each VPA/2/ gives the value of 1.747 for this parameter. PP has taken the value from the applied methodology/10/.
Findings	None
Conclusion	The value in the monitoring report /5,6/ and corresponding emission reduction calculations spreadsheet /7/ are consistent with the registered PoA-DD/1/ and VPA-DD/2-6/. The applied value is correct and justified.

I.4.1.4. Non_CO₂ emission factor of firewood that is substituted or reduced, $EF_{b,fuel,non_CO_2}$, tCO₂/ton of wood

Means of verification	The registered PoA-DD/1/ gives the value of 0.455 for this parameter, however VPA-DD for each VPA/2/ uses the value of 0.533. The change in value has been validated during inclusion of VPA
Findings	None
Conclusion	The value in the monitoring report /5,6/ and corresponding emission reduction calculations spreadsheet /7/ could be traced to the value of second commitment period according to the Emission Reduction Calculation Tool for the "Simplified Methodology for Efficient Cookstoves"/27/. Thus applied value is found to be correct and justified.

I.4.1.5. Efficiency of the cookstove being used in the baseline scenario, η_b , Fraction

Means of verification	The registered PoA-DD/1/ and VPA-DD for each VPA/2/ gives the value of 0.1 for this parameter. PP has taken the value from the applied methodology/10/.
Findings	None
Conclusion	The value in the monitoring report /5,6/ and corresponding emission reduction calculations spreadsheet /7/ are consistent with the registered PoA-DD/1/ and VPA-DD/2/. The applied value is correct and justified.

I.4.1.6. Efficiency of the cookstove being used in the project scenario, η_p , Fraction

Means of verification	The registered PoA-DD/1/ and VPA-DD for each VPA/2/ gives the value of 0.2326 for this parameter. PP has taken the value from a third party test report provided by University of Dhaka/16/.
Findings	None

Conclusion	The value in the monitoring report /5,6/ and corresponding emission reduction calculations spreadsheet /7/ are consistent with the registered PoA-DD/1/ and VPA-DD/2/. The applied value is correct and justified.
-------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

I.4.1.7. Discount factor to account for efficiency loss of project cookstove per year of operation(Fraction), DF_{η} , Fraction

Means of verification	The registered PoA-DD/1/ and VPA-DD for each VPA/2/ gives the value of 0.99 for this parameter. PP has taken the value from the applied methodology/10/.
Findings	None
Conclusion	The value in the monitoring report /5,6/ and corresponding emission reduction calculations spreadsheet /7/ are consistent with the registered PoA-DD/1/ and VPA-DD/2/. The applied value is correct and justified.

I.4.1.8. Leakage adjustment factor, LAF, Fraction

Means of verification	The registered PoA-DD/1/ and VPA-DD for each VPA/2/ gives the value of 0.95 for this parameter. PP has taken the value from the applied methodology/10/.
Findings	None
Conclusion	The value in the monitoring report /5,6/ and corresponding emission reduction calculations spreadsheet /7/ are consistent with the registered PoA-DD/1/ and VPA-DD/2/. The applied value is correct and justified.

I.4.2. Data and parameters monitored (Carbon)

I.4.2.1. Usage rate in project scenario p during year y, $U_{p,y}$, Fraction / Percentage

Means of verification	Criteria/Requirements	Assessment / Observation
		Measuring /Reading /Recording frequency
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The measuring frequency is as per the monitoring plan and monitoring methodology.
	Monitoring equipment	The sample is survey based thus no monitoring equipment is involved. Thus, this is not applicable.
	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

CDM-PoA-VCR-FORM

	<p>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?</p>	<p>N/A</p>
	<p>Is the calibration of measuring equipment carried out by an accredited person or institution?</p>	<p>N/A</p>
	<p>Is(are) calibration(s) valid for the whole reporting period?</p>	<p>N/A</p>
	<p>Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?</p>	<p>N/A</p>
	<p>How were the values in the monitoring report verified?</p>	<p>MR/5,6/ and ER sheet/7/ has reported a value 1.0, i.e. 100% of ICS were in use. While inclusion of VPA-07 to VPA-36, it was noted by the assessment team that out of total samples of 27, 3 were not in use and 2 stoves were damaged. For the purpose of verification of VPAs, it was verified through sales and warranty replacement records/24/ that these stoves has been repaired/replaced. Thus 100% usage rate has been accepted by the assessment team.</p>
	<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>As verified by warranty card, PE/PO gives a free warranty for first year post installation, i.e., stoves shall be repaired/replaced free of cost for first one years from the date of installation. Post one year, users have an option of extended warranty of 4 years. As most of the cookstoves have recently completely their first year, a usage rate of 100% was found to be acceptable.</p>
	<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>The data management system was found to be appropriate and reliable.</p>
	<p>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?</p>	<p>No such issues identified.</p>
<p>Findings</p>	<p>None</p>	
<p>Conclusion</p>	<p>The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be</p>	

	applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.
--	-------------------------------------------------------------------------------------------------------------------------------------------

I.4.2.2. Cookstove in the project database for project scenario p through year y, $N_{p,y}$, Number of project cookstove credited (units)

Means of verification	Criteria/Requirements	Assessment / Observation
	Measuring /Reading /Recording frequency	The parameter is monitored and recorded continuously.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The measuring frequency is as per the monitoring plan and monitoring methodology.
	Monitoring equipment	The sample is survey based thus no monitoring equipment is involved. Thus this is not applicable.
	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

CDM-PoA-VCR-FORM

	<p>How were the values in the monitoring report verified?</p>	<p>The number of stoves distributed for each VPA are as under:</p> <p>Batch 1:</p> <table border="1" data-bbox="863 277 1386 790"> <thead> <tr> <th>VPA</th> <th>Number of Stoves</th> </tr> </thead> <tbody> <tr><td>GS 4372 - VPA 07</td><td>9350</td></tr> <tr><td>GS 4373 - VPA 08</td><td>9350</td></tr> <tr><td>GS 4374 - VPA 09</td><td>9350</td></tr> <tr><td>GS 4375 - VPA 10</td><td>9350</td></tr> <tr><td>GS 4376 - VPA 11</td><td>9350</td></tr> <tr><td>GS 4377 - VPA 12</td><td>9350</td></tr> <tr><td>GS 4378 - VPA 13</td><td>9350</td></tr> <tr><td>GS 4379 - VPA 14</td><td>9350</td></tr> <tr><td>GS 4380 - VPA 15</td><td>9350</td></tr> <tr><td>GS 4381 - VPA 16</td><td>9350</td></tr> <tr><td>GS 4382 - VPA 17</td><td>9350</td></tr> <tr><td>GS 4384 - VPA 18</td><td>9350</td></tr> <tr><td>GS 4383 - VPA 19</td><td>9350</td></tr> <tr><td>GS 4385 - VPA 20</td><td>9350</td></tr> <tr><td>Total</td><td>130900</td></tr> </tbody> </table> <p>Batch 2:</p> <table border="1" data-bbox="863 882 1386 1458"> <thead> <tr> <th>VPA</th> <th>Number of Stoves</th> </tr> </thead> <tbody> <tr><td>GS 4386 - VPA 21</td><td>9350</td></tr> <tr><td>GS 4387 - VPA 22</td><td>9350</td></tr> <tr><td>GS 4388 - VPA 23</td><td>9350</td></tr> <tr><td>GS 4389 - VPA 24</td><td>9350</td></tr> <tr><td>GS 4390 - VPA 25</td><td>9350</td></tr> <tr><td>GS 4391 - VPA 26</td><td>9350</td></tr> <tr><td>GS 4392 - VPA 27</td><td>9350</td></tr> <tr><td>GS 4393 - VPA 28</td><td>9350</td></tr> <tr><td>GS 4394 - VPA 29</td><td>9350</td></tr> <tr><td>GS 4395 - VPA 30</td><td>9350</td></tr> <tr><td>GS 4396 - VPA 31</td><td>9350</td></tr> <tr><td>GS 4397 - VPA 32</td><td>9350</td></tr> <tr><td>GS 4398 - VPA 33</td><td>9350</td></tr> <tr><td>GS 4399 - VPA 34</td><td>9350</td></tr> <tr><td>GS 4392 - VPA 35</td><td>9350</td></tr> <tr><td>GS 4393 - VPA 36</td><td>9350</td></tr> <tr><td>Total</td><td>149600</td></tr> </tbody> </table> <p>They were verified from the VPA installation record as maintained by CME onsite/8/</p>	VPA	Number of Stoves	GS 4372 - VPA 07	9350	GS 4373 - VPA 08	9350	GS 4374 - VPA 09	9350	GS 4375 - VPA 10	9350	GS 4376 - VPA 11	9350	GS 4377 - VPA 12	9350	GS 4378 - VPA 13	9350	GS 4379 - VPA 14	9350	GS 4380 - VPA 15	9350	GS 4381 - VPA 16	9350	GS 4382 - VPA 17	9350	GS 4384 - VPA 18	9350	GS 4383 - VPA 19	9350	GS 4385 - VPA 20	9350	Total	130900	VPA	Number of Stoves	GS 4386 - VPA 21	9350	GS 4387 - VPA 22	9350	GS 4388 - VPA 23	9350	GS 4389 - VPA 24	9350	GS 4390 - VPA 25	9350	GS 4391 - VPA 26	9350	GS 4392 - VPA 27	9350	GS 4393 - VPA 28	9350	GS 4394 - VPA 29	9350	GS 4395 - VPA 30	9350	GS 4396 - VPA 31	9350	GS 4397 - VPA 32	9350	GS 4398 - VPA 33	9350	GS 4399 - VPA 34	9350	GS 4392 - VPA 35	9350	GS 4393 - VPA 36	9350	Total	149600
	VPA	Number of Stoves																																																																				
	GS 4372 - VPA 07	9350																																																																				
	GS 4373 - VPA 08	9350																																																																				
GS 4374 - VPA 09	9350																																																																					
GS 4375 - VPA 10	9350																																																																					
GS 4376 - VPA 11	9350																																																																					
GS 4377 - VPA 12	9350																																																																					
GS 4378 - VPA 13	9350																																																																					
GS 4379 - VPA 14	9350																																																																					
GS 4380 - VPA 15	9350																																																																					
GS 4381 - VPA 16	9350																																																																					
GS 4382 - VPA 17	9350																																																																					
GS 4384 - VPA 18	9350																																																																					
GS 4383 - VPA 19	9350																																																																					
GS 4385 - VPA 20	9350																																																																					
Total	130900																																																																					
VPA	Number of Stoves																																																																					
GS 4386 - VPA 21	9350																																																																					
GS 4387 - VPA 22	9350																																																																					
GS 4388 - VPA 23	9350																																																																					
GS 4389 - VPA 24	9350																																																																					
GS 4390 - VPA 25	9350																																																																					
GS 4391 - VPA 26	9350																																																																					
GS 4392 - VPA 27	9350																																																																					
GS 4393 - VPA 28	9350																																																																					
GS 4394 - VPA 29	9350																																																																					
GS 4395 - VPA 30	9350																																																																					
GS 4396 - VPA 31	9350																																																																					
GS 4397 - VPA 32	9350																																																																					
GS 4398 - VPA 33	9350																																																																					
GS 4399 - VPA 34	9350																																																																					
GS 4392 - VPA 35	9350																																																																					
GS 4393 - VPA 36	9350																																																																					
Total	149600																																																																					
<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>N/A</p>																																																																					
<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>The data management system was found to be appropriate and reliable.</p>																																																																					
<p>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</p>	<p>No such issues identified.</p>																																																																					

	Appendix 1 to the CDM Project Standard?	
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.	

I.4.2.3. Discount factor to account for the baseline stove use in project scenario during the year y, $DF_{b, stove, y}$, Fraction

Means of verification	Criteria/Requirements	Assessment / Observation
	Measuring /Reading /Recording frequency	The parameter calculated on the basis of survey calculated annually. The calculation method (if the baseline stove is in use) is proportion of number of meals cooked using the baseline stove/ total number of meals.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The measuring frequency is as per the monitoring plan and monitoring methodology.
	Monitoring equipment	The sample is survey based thus no monitoring equipment is involved. Thus, this is not applicable.
	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

CDM-PoA-VCR-FORM

	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?	CME's sampling survey results show that only one household was found using the baseline stove. DOE's sample did not find even a single such household. Thus a discount factor of 0.01 for age category of 1-2 years and 0.00 for age category of 0-1 years was found acceptable.
	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?	The data management system was 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?	No such issues identified.
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.	

I.4.2.4. Inspection of physical condition of project, Stove Condition, Qualitative

Means of verification	Criteria/Requirements	Assessment / Observation
	Measuring /Reading /Recording frequency	The parameter is observed visually through sample based surveys annually.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The measuring frequency is as per the monitoring plan and monitoring methodology.
	Monitoring equipment	The sample is survey based thus no monitoring equipment is involved. Thus, this is not applicable.

	<p>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?</p>	<p>N/A</p>
<p>Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?</p>	<p>N/A</p>	
<p>Calibration frequency /interval:</p>	<p>N/A</p>	
<p>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?</p>	<p>N/A</p>	
<p>Is the calibration of measuring equipment carried out by an accredited person or institution?</p>	<p>N/A</p>	
<p>Is(are) calibration(s) valid for the whole reporting period?</p>	<p>N/A</p>	
<p>Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?</p>	<p>N/A</p>	
<p>How were the values in the monitoring report verified?</p>	<p>MR/5,6/ and ER sheet/7/ reports that all the stoves were found to be in good condition. The survey done by DOE showed that 2 households that damaged chimney. However, as per the warranty replacement records/24/, it could be verified that the damaged coostoves has been repaired and are now in use. Thus CME's observation has been accepted by assessment team.</p>	
<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>N/A</p>	
<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>The data management system was found to be appropriate and reliable.</p>	

CDM-PoA-VCR-FORM

	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?	No such issues identified.
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.	

1.4.2.5. Replacements of project ICS with new project ICS, Stove Replacement, Qualitative

Means of verification	Criteria/Requirements	Assessment / Observation
	Measuring /Reading /Recording frequency	The parameter is observed visually through sample based surveys annually.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The measuring frequency is as per the monitoring plan and monitoring methodology.
	Monitoring equipment	The sample is survey based thus no monitoring equipment is involved. Thus, this is not applicable.
	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	N/A

	accredited person or institution?	
	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 monitored value for this parameter is 13%, i.e. 13 out of 102 stoves were replaced which was verified through sales and warranty replacement records/24/
	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?	The data management system was 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?	No such issues identified.
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.	

I.4.3. Data and parameters monitored (Sustainable Development)

I.4.3.1. Air Quality, Qualitative

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is measured and recorded annually.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the measuring and reporting frequency is consistent with the monitoring plan and monitoring methodology.
	How were the values in the monitoring report verified?	The MR/5,6/ and ER sheet/7/ reports that there was a visible reduction in smoke and soot while cooking inside the household. Sampling done by DOE also received similar responses as 100% of the respondents were affirmative.

CDM-PoA-VCR-FORM

		Thus, the information given in MR was found to be accurate and consistent.
	If applicable, has the reported data been cross-checked with other available data?	The fact that improved cookstoves reduce emission of indoor air quality degrading pollutants can be established through various studies available in public domain/14, 18, 19, 20/. Thus, there is no speck of doubt against the monitored parameter and its result.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Data management system was found to be accurate and reliable.
Findings	None	
Conclusion	Sustainability criteria was found to be fulfilled with the implementation of the VPAs. The monitoring and reporting is as per the registered monitoring plan/1,2/. 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, ER reporting or QA/QC procedures was found.	

I.4.3.2. Access to affordable and clean energy services, Dimensionless

Means of verification	Criteria/Requirements	Assessment/Observation																																											
	Measuring /Reading /Recording frequency	The parameter is monitored and recorded continuously.																																											
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the measuring and reporting frequency is consistent with the monitoring plan and monitoring methodology.																																												
How were the values in the monitoring report verified?	<p>The values were verified using the sales records/24/. The verified value is:</p> <p>Batch 1:</p> <table border="1"> <thead> <tr> <th>VPA</th> <th>Number of Stoves</th> </tr> </thead> <tbody> <tr><td>GS 4372 - VPA 07</td><td>9350</td></tr> <tr><td>GS 4373 - VPA 08</td><td>9350</td></tr> <tr><td>GS 4374 - VPA 09</td><td>9350</td></tr> <tr><td>GS 4375 - VPA 10</td><td>9350</td></tr> <tr><td>GS 4376 - VPA 11</td><td>9350</td></tr> <tr><td>GS 4377 - VPA 12</td><td>9350</td></tr> <tr><td>GS 4378 - VPA 13</td><td>9350</td></tr> <tr><td>GS 4379 - VPA 14</td><td>9350</td></tr> <tr><td>GS 4380 - VPA 15</td><td>9350</td></tr> <tr><td>GS 4381 - VPA 16</td><td>9350</td></tr> <tr><td>GS 4382 - VPA 17</td><td>9350</td></tr> <tr><td>GS 4384 - VPA 18</td><td>9350</td></tr> <tr><td>GS 4383 - VPA 19</td><td>9350</td></tr> <tr><td>GS 4385 – VPA 20</td><td>9350</td></tr> <tr><td>Total</td><td>130900</td></tr> </tbody> </table> <p>Batch 2:</p> <table border="1"> <thead> <tr> <th>VPA</th> <th>Number of Stoves</th> </tr> </thead> <tbody> <tr><td>GS 4386 – VPA 21</td><td>9350</td></tr> <tr><td>GS 4387 – VPA 22</td><td>9350</td></tr> <tr><td>GS 4388 – VPA 23</td><td>9350</td></tr> <tr><td>GS 4389 – VPA 24</td><td>9350</td></tr> <tr><td>GS 4390 – VPA 25</td><td>9350</td></tr> </tbody> </table>	VPA	Number of Stoves	GS 4372 - VPA 07	9350	GS 4373 - VPA 08	9350	GS 4374 - VPA 09	9350	GS 4375 - VPA 10	9350	GS 4376 - VPA 11	9350	GS 4377 - VPA 12	9350	GS 4378 - VPA 13	9350	GS 4379 - VPA 14	9350	GS 4380 - VPA 15	9350	GS 4381 - VPA 16	9350	GS 4382 - VPA 17	9350	GS 4384 - VPA 18	9350	GS 4383 - VPA 19	9350	GS 4385 – VPA 20	9350	Total	130900	VPA	Number of Stoves	GS 4386 – VPA 21	9350	GS 4387 – VPA 22	9350	GS 4388 – VPA 23	9350	GS 4389 – VPA 24	9350	GS 4390 – VPA 25	9350
VPA	Number of Stoves																																												
GS 4372 - VPA 07	9350																																												
GS 4373 - VPA 08	9350																																												
GS 4374 - VPA 09	9350																																												
GS 4375 - VPA 10	9350																																												
GS 4376 - VPA 11	9350																																												
GS 4377 - VPA 12	9350																																												
GS 4378 - VPA 13	9350																																												
GS 4379 - VPA 14	9350																																												
GS 4380 - VPA 15	9350																																												
GS 4381 - VPA 16	9350																																												
GS 4382 - VPA 17	9350																																												
GS 4384 - VPA 18	9350																																												
GS 4383 - VPA 19	9350																																												
GS 4385 – VPA 20	9350																																												
Total	130900																																												
VPA	Number of Stoves																																												
GS 4386 – VPA 21	9350																																												
GS 4387 – VPA 22	9350																																												
GS 4388 – VPA 23	9350																																												
GS 4389 – VPA 24	9350																																												
GS 4390 – VPA 25	9350																																												

CDM-PoA-VCR-FORM

		GS 4391 – VPA 26	9350
		GS 4392 – VPA 27	9350
		GS 4393 – VPA 28	9350
		GS 4394 – VPA 29	9350
		GS 4395 – VPA 30	9350
		GS 4396 – VPA 31	9350
		GS 4397 – VPA 32	9350
		GS 4398 – VPA 33	9350
		GS 4399 – VPA 34	9350
		GS 4392 – VPA 35	9350
		GS 4393 – VPA 36	9350
		Total	149600
		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?	Data management system was found to be accurate and reliable.	
Findings	None		
Conclusion	Sustainability criteria was found to be fulfilled with the implementation of the VPAs. The monitoring and reporting is as per the registered monitoring plan/1,2/. 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, ER reporting or QA/QC procedures was found.		

1.4.3.3. Quality of Employment, Dimensionless

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is monitored and recorded continuously.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the measuring and reporting frequency is consistent with the monitoring plan and monitoring methodology.
	How were the values in the monitoring report verified?	The MR/5,6/ and ER/7/ reports a value of 1719 trainings for PE and over 50 training sessions for 1098 field officers. The values were checked with the training records and photographs/21/, training attendance sheet/25/ and record of list of PE/9/ on sample basis.
	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?	Data management system was found to be accurate and reliable.
Findings	CAR#2	
Conclusion	Sustainability criteria was found to be fulfilled with the implementation of the VPAs. The monitoring and reporting is as per the registered monitoring plan/1,2/. 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, ER reporting or QA/QC procedures was found.	

I.4.3.4. Livelihood of poor, Qualitative

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is measured and recorded annually.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the measuring and reporting frequency is consistent with the monitoring plan and monitoring methodology.
	How were the values in the monitoring report verified?	The MR/5,6/ and ER sheet/7/ reports that there was a substantial reduction in fuel expenditure and fuel collection time. Sampling done by DOE also received similar responses as 100% of the respondents were affirmative. Thus the information given in MR was found to be accurate and consistent.
	If applicable, has the reported data been cross-checked with other available data?	The fact that improved cookstoves reduce the demand of fuel as it burns the fuel more efficiently, can be established through various studies available in public domain/14, 18, 19, 20/. Thus there is no speck of doubt against the monitored parameter and its result.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Data management system was found to be accurate and reliable.
Findings	None	
Conclusion	Sustainability criteria was found to be fulfilled with the implementation of the VPAs. The monitoring and reporting is as per the registered monitoring plan/1,2/. 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, ER reporting or QA/QC procedures was found.	

I.4.3.5. Human and Institutional capacity, Dimensionless

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is measured and recorded annually.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the measuring and reporting frequency is consistent with the monitoring plan and monitoring methodology.
	How were the values in the monitoring report verified?	The MR/5,6/ and ER sheet/7/ reports that total number of end user awareness initiatives/events/workshops conducted are 7360. Annex 1 of MR summerizes the training list, Annex 2 Field Officer Training List, Annex 3 summerizes End User Awareness. The further details of these Annexures are given in the ER calculation sheet /7/. The value was verified through training records maintained onsite, newspaper articles and photographs of the events held/26/.

CDM-PoA-VCR-FORM

	If applicable, has the reported data been cross-checked with other available data?	Cross-check of the reported parameter was done through interview of end user surveys which revealed a comparable result.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Data management system was found to be accurate and reliable.
Findings	None	
Conclusion	Sustainability criteria was found to be fulfilled with the implementation of the VPAs. The monitoring and reporting is as per the registered monitoring plan/1,2/. 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, ER reporting or QA/QC procedures was found.	

1.4.3.6. Quantitative employment and Income Generation, Dimensionless

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is measured and recorded continuously.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the measuring and reporting frequency is consistent with the monitoring plan and monitoring methodology.
	How were the values in the monitoring report verified?	The MR/5,6/ and ER sheet/7/ reports that 652 employees were engaged in the implementation of VPAs. It was verified through listing of partner entrepreneur maintained onsite. The value was found to be consistent
	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?	Data management system was found to be accurate and reliable.
Findings	None	
Conclusion	Sustainability criteria was found to be fulfilled with the implementation of the VPAs. The monitoring and reporting is as per the registered monitoring plan/1,2/. 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, ER reporting or QA/QC procedures was found.	

1.4.4. Implementation of sampling plan

Means of verification	CME has followed a PoA-level sampling plan. Thus, sampling was done across VPAs. 102 samples were done for each age category summing up to 204 total samples. Population for the sample to be collected from was served by the entire PoA database which contains unique details of each sold cookstove. The first cook stove sold under the VPAs covered in this issuance request was on 01/08/2014. The sampling was done in February 2016. The confidence level achieved is 95/5 that makes the result applicable for two years i.e. until February 2014. Thus, assessment team accepted the sampling approach.
Findings	None
Conclusion	The sampling plan was found to be appropriate in accordance with registered PoA-DD

I.5. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	No measuring instrument is involved in monitoring. Thus, this section is not applicable.
Findings	Not applicable
Conclusion	Not applicable

I.6. Assessment of data and calculation of emission reductions or net removals

I.6.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification	<p>Baseline emission was calculated using the approach given in the applied methodology/17/. The formula used for baseline estimation is follows:</p> $ERY = \sum_{0 \text{ to } 1}^{x \text{ to } y} N_{p,y} * P_y * U_{p,y} * (f_{NRB,y} * EF_{b,fuel,CO2} + EF_{b,fuel,nonCO2}) * (1 - DF_{b,Stove,y})$ <p>Where:</p> <p>$N_{p,y}$ = Number of project cookstoves of each age group operational in the year y</p> <p>P_y = Quantity of firewood that is saved in the year y (tons per household in year y)</p> <p>$U_{p,y}$ = Usage rate for project cookstoves in year y, based on adoption rate and drop off rate revealed by usage surveys (fraction)</p> <p>$f_{NRB,b,y}$ = Fraction of biomass, used in year y for baseline scenario, which can be established as non-renewable. The project proponents shall estimate project specific national/ regional value or apply the default fNRB value provided by the CDM Executive Board and endorsed by the host country DNA.</p> <p>$EF_{b,fuel,CO2}$ = CO₂ emission factor of firewood that is substituted or reduced. (Default value for wood fuel 1.747 tCO₂/ton of wood)</p> <p>$EF_{b,fuel,nonCO2}$ = Non-CO₂ emission factor of firewood that is substituted or reduced. (Default value for wood fuel 0.530tCO₂/ton of wood)</p> <p>$DF_{b,Stove,y}$ = Usage of baseline cookstove during the year y (fraction) in project scenario</p> <p>x = y – 1</p> <p>y = Year of the crediting period</p> <p>Calculation of parameter P_y (Quantity of firewood that is saved in the year y) is done using the following relationship:</p> $P_y = B_{b,y} * \left(1 - \frac{\eta_b}{\eta_{p,y}}\right) * LAF$ <p>$B_{b,y}$ = Quantity of firewood consumed in baseline scenario during year y (tones per household per year)</p> <p>$\eta_{p,y}$ = Efficiency of project cook stove in year y (fraction)</p> <p>η_b = Efficiency of the baseline cook stove being replaced (fraction). A default value of 10% shall be used if the replaced cook stove is a three stone fire, or a conventional device without a grate or a chimney i.e. with no improved combustion air supply or flue gas ventilation</p> <p>LAF = Default leakage adjustment factor= 0.95 to account for leakages related to non-renewable biomass saved by the project activity</p> <p>The formula was checked with methodology and registered PoA-DD and VPA-DDs.</p>
Findings	None

Conclusion	The formula and approach used to calculate baseline emission was found to be in compliance with the applied methodology and registered PoA-DD and VPA-DDs. The calculation done in ER sheet/7/ and reported in MR/5,6/ were found to be consistent.
-------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

I.6.2. 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

I.6.3. Calculation of leakage GHG emissions

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

I.6.4. Summary of calculation of GHG emission reductions or net GHG removals by sinks

Means of verification	As per the formula used above, emission reduction for each VPA is quantified as follows:						
	Batc h 1	VPA reference number	GHG emission reduction by sinks (tCO ₂ e) achieved in monitoring period			Total amount	
			Upto 31/12/2012	From 01/01/2013			
				2014	2015	2016	
		GS 4372 VPA 7	0	4137	10000	5831	19968
		GS 4373 VPA 8	0	3676	10000	5831	19507
		GS 4374 VPA 9	0	34044	10000	5831	19235
		GS 4375 VPA 10	0	2781	10000	5831	18612
		GS 4376 VPA 11	0	2527	10000	5831	18358
		GS 4377 VPA 12	0	2159	10000	5831	17990
		GS 4378 VPA 13	0	1809	10000	5831	17637
		GS 4379 VPA 14	0	1395	10000	5831	17226
		GS 4380 VPA 15	0	1170	10000	5831	17001
		GS 4381 VPA 16	0	928	10000	5831	16759
		GS 4382 VPA 17	0	534	10000	5831	16366
		GS 4384 VPA 18	0	412	10000	5831	16243
	GS 4383 VPA 19	0	185	10000	5831	16016	
	GS 4385 VPA 20	0	61	10000	5831	15893	
	Total Amount	0	25175	140000	81635	246810	
	Batc h 2	VPA reference number	GHG emission reduction by sinks (tCO ₂ e) achieved in monitoring period			Total amount	
			Upto 31/12/2012	From 01/01/2013			
				2014	2015	2016	
		GS 4386 VPA 21	0	0	9874	5873	15710
		GS 4387 VPA 22	0	0	9646	5841	15486
		GS 4388 VPA 23	0	0	9340	5846	15186
GS 4389 VPA 24		0	0	8815	5856	14671	
GS 4390 VPA 25		0	0	8756	5857	14613	
GS 4391 VPA 26		0	0	8408	5864	14272	
GS 4392 VPA 27		0	0	8142	5869	14011	
GS 4393 VPA 28		0	0	8103	5869	13973	
GS 4394 VPA 29	0	0	7498	5880	13378		
GS 4395 VPA 30	0	0	7129	5887	13017		
GS 4396 VPA 31	0	0	6891	5892	12782		

CDM-PoA-VCR-FORM

	GS 4397 VPA 32	0	0	6506	5899	12405
	GS 4398 VPA 33	0	0	6043	5907	11950
	GS 4399 VPA 34	0	0	6023	5907	11930
	GS 4400 VPA 35	0	0	5609	5915	11524
	GS 4401 VPA 36	0	0	5203	5922	11126
	Total Amount	0	0	12198 6	94047	216034
The calculation method was checked with methodology, registered PoA-DD and VPA-DDs for each VPA.						
Findings	None					
Conclusion	Calculation of GHG emission reduction or net GHG removal by sinks was found to be accurate for the type of programme of activities. It was also found to be in compliance with the applied methodology and registered PoA-DD and VPA-DDs. Thus the verified value of GHG emission reduction is 246,810 tCO ₂ e for Batch I (VPA 7-20) and 216,034 tCO ₂ e for Batch II (VPA 21-36).					

For Batch 1:

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)		
				Results achieved in the period up to 31 December 2012	Results achieved in the period from 1 January 2013 onwards	Results achieved in the entire monitoring period
GS 4372 VPA 7	19968	0	0	0	19968	19968
GS 4373 VPA 8	19507	0	0	0	19507	19507
GS 4374 VPA 9	19235	0	0	0	19235	19235
GS 4375 VPA 10	18612	0	0	0	18612	18612
GS 4376 VPA 11	18358	0	0	0	18358	18358
GS 4377 VPA 12	17990	0	0	0	17990	17990
GS 4378 VPA 13	17637	0	0	0	17637	17637
GS 4379 VPA 14	17226	0	0	0	17226	17226
GS 4380 VPA 15	17001	0	0	0	17001	17001
GS 4381 VPA 16	16759	0	0	0	16759	16759
GS 4382 VPA 17	16366	0	0	0	16366	16366
GS 4384 VPA 18	16243	0	0	0	16243	16243
GS 4383 VPA 19	16016	0	0	0	16016	16016
GS 4385 VPA 20	15893	0	0	0	15893	15893
Total	246810	0	0	0	246810	246810

For Batch 2:

Specific-case CPA reference number	Baseline emissions or baseline net GHG removals by sinks (tCO _{2e})	Project emissions or actual net GHG removals by sinks (tCO _{2e})	Leakage (tCO _{2e})	GHG emission reductions or net GHG removals by sinks (tCO _{2e})		
				Results achieved in the period up to 31 December 2012	Results achieved in the period from 1 January 2013 onwards	Results achieved in the entire monitoring period
GS 4386 VPA 21	15710	0	0	0	15710	15710
GS 4387 VPA 22	15486	0	0	0	15486	15486
GS 4388 VPA 23	15186	0	0	0	15186	15186
GS 4389 VPA 24	14671	0	0	0	14671	14671
GS 4390 VPA 25	14613	0	0	0	14613	14613
GS 4391 VPA 26	14272	0	0	0	14272	14272
GS 4392 VPA 27	14011	0	0	0	14011	14011
GS 4393 VPA 28	13973	0	0	0	13973	13973
GS 4394 VPA 29	13378	0	0	0	13378	13378
GS 4395 VPA 30	13017	0	0	0	13017	13017
GS 4396 VPA 31	12782	0	0	0	12782	12782
GS 4397 VPA 32	12405	0	0	0	12405	12405
GS 4398 VPA 33	11950	0	0	0	11950	11950
GS 4399 VPA 34	11930	0	0	0	11930	11930
GS 4400 VPA 35	11524	0	0	0	11524	11524
GS 4401 VPA 36	11126	0	0	0	11126	11126
Total	216034	0	0	0	216034	216034

I.6.5. Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates in included specific-case CPA

Means of verification	Actual GHG emissions achieved during the monitoring period are 246,810 tCO _{2e} for Batch I (VPA 7-20) and 216,034 tCO _{2e} for Batch II (VPA 21-36) whereas estimated in registered VPA-DD for each VPA-DD sums up to 242,573 tCO _{2e} for Batch I (VPA 7-20) and 210,931 tCO _{2e} for Batch II (VPA 21-36). Thus, the achieved ERs are more than the estimates made in PDD. The reason for this increase is slight increase in usage rate of stove as considered during ex-ante calculations. In addition, the value of discount factor has changed resulting in slight increase of ERs.
Findings	None
Conclusion	There is an approximately 2.5% increase in achieved ERs as compared to ex-ante estimates in registered VPA-DD. As justified by PP and accepted by DOE this is because the discount factor ($DF_{b, stove, y}$) has decreased and usage rate ($U_{p, y}$) has improved as compared to ex-ante values.

For Batch 1:

Specific-case CPA reference number	Value estimated in ex ante calculation in the included specific-case CPA-DD(s)	Actual values achieved by the specific-case CPA(s) during this monitoring period
GS 4372 - VPA 07	19518	19968
GS 4373 - VPA 08	19086	19507
GS 4374 - VPA 09	18831	19235
GS 4375 - VPA 10	18249	18612
GS 4376 - VPA 11	18010	18358
GS 4377 - VPA 12	17665	17990
GS 4378 - VPA 13	17335	17637
GS 4379 - VPA 14	16950	17226
GS 4380 - VPA 15	16739	17001
GS 4381 - VPA 16	16512	16759
GS 4382 - VPA 17	16144	16366
GS 4384 - VPA 18	16030	16243
GS 4383 - VPA 19	15817	16016
GS 4385 - VPA 20	15687	15893
Total	242573	246810

For Batch 2:

Specific-case CPA reference number	Value estimated in ex ante calculation in the included specific-case CPA-DD(s)	Actual values achieved by the specific-case CPA(s) during this monitoring period
GS 4386 - VPA 21	15351	15710
GS 4387 - VPA 22	15132	15486
GS 4388 - VPA 23	14836	15186
GS 4389 - VPA 24	14331	14671
GS 4390 - VPA 25	14273	14613
GS 4391 - VPA 26	13939	14272
GS 4392 - VPA 27	13683	14011
GS 4393 - VPA 28	13645	13973
GS 4394 - VPA 29	13061	13378
GS 4395 - VPA 30	12707	13017
GS 4396 - VPA 31	12477	12782
GS 4397 - VPA 32	12106	12405
GS 4398 - VPA 33	11660	11950
GS 4399 - VPA 34	11640	11930
GS 4400 - VPA 35	11241	11524
GS 4401 - VPA 36	10851	11126
Total	210931	216034

I.6.6. Remarks on difference from estimated value in registered PDD

Means verification	of	The achieved ERs are greater than the estimates in registered VPA-DD for each VPA. It is explained by PP in monitoring report explicitly and DOE have accepted the justification.
Findings		None
Conclusion		There is an approximately 2.5% increase in achieved ERs as compared to ex-ante estimates in registered VPA-DD. As justified by PP and accepted by DOE

	this is because the discount factor ($DF_{b, stove, y}$) has decreased and usage rate ($U_{p, y}$) has improved as compared to ex-ante values.
--	----------------------------------------------------------------------------------------------------------------------------------------------------

Appendix 1. Abbreviations

Abbreviations	Full Texts
BBF	Bangladesh Bondhu Foundation
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 _{2e}	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
ICS	Improved Cookstove
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
SZCSL	SZ Consultancy Services Limited
UNFCCC	United Nations Framework Convention on Climate Change
VER	Verified Emission Reductions
PO	Partner Organisation
PE	Partner Entrepreneur

Appendix 2. Competence of team members and technical reviewers

Competence Statement			
Name	Kviraj Singh		
Country	India		
Education	Ph.D. (Environmental Engineering), IIT Delhi Masters (Energy & Environmental), DAVV Indore		
Experience	8 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		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (1.1)	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	08/09/2016
Approved by	Ashok Gautam	Date	08/09/2016

Competence Statement			
Name	Anshika Gupta		
Country	India		
Education	M.Sc. (Climate Science & Policy), TERI University		
Experience	2 Year +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.A., AMS-II.G., ACM0002, AMS-III.A.V.		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (1.2, 3.1)	NO		
Reviewed by	Abhishek Mahawar	Date	08/09/2016
Approved by	Ashok Kumar Gautam	Date	08/09/2016

Competence Statement			
Name	Shreya Garg		
Country	India		
Education	M.Sc. (Climate Science & Policy), TERI University		
Experience	4 Years +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-II.D., ACM0002		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (1.2)	YES		
Reviewed by	Abhishek Mahawar	Date	08/09/2016
Approved by	Ashok Gautam	Date	08/09/2016

Competence Statement			
Name	Ashok Gautam		
Country	India		
Education	M. Sc. (Environmental Sciences) M. Tech. (Energy & Environmental Management)		
Experience	14 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-II.D., AMS-II.G., AMS-III.E., AMS-III.H., AMS-III.AV., ACM0002, ACM0004, ACM0006, ACM0012		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (1.1)	YES		
TA Expert (1.2)	YES		
TA Expert (3.1)	YES		
TA Expert (13.1)	YES		
Reviewed by	Abhishek Mahawar	Date	08/09/2016
Approved by	Kaviraj Singh	Date	08/09/2016

CDM-PoA-VCR-FORM

		23. SD appraisal report VPA29 24. SD appraisal report VPA30 25. SD appraisal report VPA31 26. SD appraisal report VPA32 27. SD appraisal report VPA33 28. SD appraisal report VPA34 29. SD appraisal report VPA35 30. SD appraisal report VPA36		
5.	Climate Secure Services	Monitoring Report, Version 01, 02	Dated 15/10/2016 (V02)	CME
6.	Climate Secure Services	Monitoring Report, Version 01, 02	Dated 15/10/2016 (V02)	
7.	Climate Secure Services	a) ER spreadsheet for Batch1 (VPA07-20) b) ER spreadsheet for Batch2 (VPA21-36)	Dated 16/02/2016	CME
8.	BBF	Installation data, Version 2.0	dated 13/01/2016	CME
9.	BBF	Partner entrepreneur list	-	CME
10.	The Gold Standard Foundation	The Gold Standard Simplified Methodology for Efficient Cookstoves	02/2013	Others
11.	The Gold Standard Foundation	GS webpage for the project: https://mer.markit.com/br-reg/public/master-project.jsp?project_id=103000000002047	Last accessed on 18/02/2016	Others
12.	Bangladesh Bondhu Foundation	Technical specifications of ICS	-	CME
13.	Gold Standard Foundation	Toolkit Version 2.2	-	Other
14.	World Bank	Restoring Balance: Bangladesh's Rural Energy Realities	March 2009	Others
15.	UNFCCC	Default Values of Fraction of Non-Renewable Biomass for Least Developed Countries and Small Island Developing States (EB 67 Annex 22)	Dated 11/05/2012	Others
16.	University of Dhaka	The stove thermal efficiency test reports	Dated 16/10/2014	CME
17.	BBF	HR Records and employment contract	-	CME
18.	Research and Evaluation Division, BRAC	Promotion of Improved Cookstove in Rural Bangladesh, available at http://cleancookstoves.org/resources_files/promotion-of-improved.pdf	Dated May 2011, weblink last accessed on 08/01/2016	Others
19.	Development Research Group, World Bank	Who Suffers from Indoor Air Pollution? Evidence from Bangladesh. Available at http://www-wds.worldbank.org/external/default/WDSP/IB/2004/10/22/000012009_20041022102225/Rendered/PDF/wps3428.pdf	Dated October 2004, weblink last accessed on 08/01/2016	Others
20.	The New York Times, Elisabeth Rosenthal	Third-world stove soot is target in climate fight, available at http://www.nytimes.com/2009/04/16/science/earth/16degrees.html?_r=0	Dated 15/04/2009, weblink last accessed on 08/01/2016	Others
21.	BBF	Training records and photographs	For monitoring period	CME
22.	BBF	Bondhu Chula Customer Agreement Form	-	CME
23.	UNFCCC	Default Values of Fraction of Non-Renewable Biomass for Least Developed Countries and Small	-	Others

CDM-PoA-VCR-FORM

		Island Developing States (EB 67 Annex 22)		
24.	BBF	Sales and warranty replacement records	For monitoring period	CME
25.	BBF	Training attendance sheet	For monitoring period	CME
26.	BBF	Records of end user survey, newspaper articles and photographs	For monitoring period	CME
27.	GS	Emission Reduction Calculation Tool for the "Simplified Methodology for Efficient Cookstoves"	Version 2.0	Others
28.	BBF	Partner Training Manual	March 2015, (Latest)	CME
29.	BBF	Employment Contract listing ADM responsibilities	March 2015	CME
30.	BBF	Employment Contract listing DSM responsibilities	March 2015	CME
31.	BBF	List of Partner Entrepreneurs and date of their training	NA	CME

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

Table 1. CL from this verification

CL ID	Section no.	Date :
Description of CL		
None		
Project participant response		Date : DD/MM/YYYY
None		
Documentation provided by project participant		
None		
DOE assessment		Date: DD/MM/YYYY
None		

Table 2. CAR from this verification

CAR ID	Section no.	Date :
01	1.3	15/10/2016
Description of CL		
<i>The calculation of relative precision has not been demonstrated in ER sheets for both the batches.</i>		
Project participant response		Date : 15/10/2016
<i>The ER calculator has been revised to include the precision calculations.</i>		
Documentation provided by project participant		
GS 3112 - VPA 07-20 MP#1 Monitoring Report version 2.0 15102016 GS 3112 - VPA 07-20 MP#1 ER calculator version 2.0 15102016 GS 3112 - VPA 21-36 MP#1 Monitoring Report version 2.0 15102016 GS 3112 - VPA 21-36 MP#1 ER calculator version 2.0 15102016		
DOE assessment		Date: 15/10/2016
The information has been added inline to the requirements. Thus, this CAR stands closed .		

Table 3. FAR from this verification

FAR ID	Section No.	Date:
Description of FAR		
None		
CME response		Date: DD/MM/YYYY
None		
Documentation provided by the CME		
None		
DOE assessment		Date: DD/MM/YYYY
None		

Document information

Version	Date	Description
01.0	5 June 2015	Initial publication.
Decision Class: Regulatory		
Document Type: Form		
Business Function: Issuance		
Keywords: programme of activities, verifying and certifying		