



**Verification and certification report form for
CDM programme of activities
(Version 04.0)**

Complete this form in accordance with the instructions attached at the end of this form.

BASIC INFORMATION

Title and UNFCCC reference number of the programme of activities (PoA)	Improved cookstove program in Bangladesh supported by the Republic of Korea UNFCCC ID: 10431		
Version number(s) of the PoA-DD(s) to which this report applies	4.0		
Version number of the verification and certification report	1.0		
Completion date of the verification and certification report	19/05/2021		
Monitoring period number and duration of this morning period	4 (Fourth monitoring period) 01/04/2020 – 31/12/2020(both days included)		
Number and version number of the monitoring report to which this report applies	1.0 Version 2.0		
Coordinating/managing entity (CME)	Ecoeye Co., Ltd.		
Host Parties	Host Parties of the PoA Bangladesh	Is this a host Party to a CPA covered in this report? (yes/no) Yes	
Applied methodologies and standardized baselines	AMS II.G. – “Energy efficiency measures in thermal applications of non-renewable biomass” (version 08.0) Standardized Baseline: Not applicable		
Mandatory sectoral scopes	3: Energy Demand		
Conditional sectoral scopes, if applicable	NA		
Estimated amount of GHG emission reductions or GHG removals for this monitoring period in the included CPAs covered in this report	7,132,152 ¹ (t CO ₂ e)		
Certified amount of GHG emission reductions or GHG removals for this monitoring period for the included CPAs covered in this report	Amount before 1 January 2013 -	Amount from 1 January 2013 until 31 December 2020 1,412,557 tCO ₂ e	Amount from 1 January 2021 -
Name and UNFCCC reference number of the DOE	TÜV NORD CERT GmbH E-0022		
Name, position and signature of the approver of the verification and certification report	Final Approver Kunal Rami		

¹ Refer the Ex-ante worksheet for details. The Ex-ante ERs are calculated on prorata basis

SECTION A Executive summary

Ecoeye Co., Ltd. (EECL) has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 4th periodic verification of the CDM Programme of Activities:

“Improved cookstove program in Bangladesh supported by the Republic of Korea”

with regard to the relevant requirements for CDM PoAs.

This verification covers the period from 01/04/2020 – 31/12/2020(both days included).

The programme of activities reduces GHG emissions by disseminating high efficiency biomass based improved cookstoves (“Bondhu Chulha”) to households / SMEs in Bangladesh. Under the CPAs (10431-P1-0001-CP1 to 10431-P1-0003-CP1), two types of Bondhu Chulha (1-Pot and 2-Pot models)^{/TS/} have been installed in project households in Bangladesh, replacing the inefficient cookstoves used in the baseline scenario (mainly 3 stone fired).

EECL, SK Securities Investment Asia Limited, Korea Impact Carbon Corporation (KICC) and/or other Korean Entity(ies) have fully financed all improved cooking stoves distributed to the households under the CPAs (The total project cost per stove is USD 10, including BDT 450 subsidy a stove and CPA implementation costs to BBF).

The CPA implementer of the implemented CPAs (10431-P1-0001-CP1 to 10431-P1-0003-CP1) is Bangladesh Bondhu Foundation (BBF). EECL and BBF ensured that the PoAs Operational and Management Plan, as given in the registered PoA-DD^{/POA-DD/}, is duly implemented for the concerned CPAs.

Details of the PoA location are given in table A-1 below:

Table A-1: Project Location of CPAs (10431-P1-0001-CP1 to 10431-P1-0003-CP1): Improved cookstove program in Bangladesh supported by the Republic of Korea

No.	Project Location
Host Country	Republic of Bangladesh
Region:	All across Bangladesh
Project location address:	Whole country where CPAs are implemented

Basic technical details of the PoA are summarized in table A-2.

Table - A-2: Technical data of the 10431-P1-0001-CP1 to 10431-P1-0003-CP1: Improved cookstove program in Bangladesh supported by the Republic of Korea

Parameter	Unit	Value ^{/TS/}
Average Thermal Efficiency as per registered CPA-DD	%	34% (1-Pot Bondhu Chulha) 34.62 % (2-Pot Bondhu Chulha)
Portable/Fixed	-	Fixed with fuel grate (1-Pot and 2-Pot)
Materials	-	Cement concrete mix with chimney and grate
Producer	-	Bangladesh Bondhu Foundation (BBF)
Design operational lifetime	Year	5-7 (1-Pot and 2-Pot)

As a result of this verification, the verifier confirms that:

- all operations of the CPAs (10431-P1-0001-CP1 to 10431-P1-0003-CP1) are implemented and installed as planned and described in the validated component project activities design document^{/CPA-DD/}.
- the monitoring plan is in accordance with the applied approved CDM methodology, i.e., AMS-II.G. ver. 08.0^{/AMS-II-G./}
- the equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately^{/CAL/INV/}.
- the monitoring system^{/DB/,/SSQ/,/WBT/,/SUR/,/USAGE/} is in place and functional. The CPA has generated GHG emission reductions^{/XLS/}.

As the result of the 4th periodic verification of CPAs (10431-P1-0001-CP1 to 10431-P1-0003-CP1) (Improved cookstove program in Bangladesh supported by the Republic of Korea), the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above-mentioned reporting period as follows:

Emission reductions achieved during the monitoring period: **1,412,557 tCO₂e**

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/ document review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader+ Technical Expert	IR	Mishra	Prakash Kumar	TUV NORD CERT	x	x	x	x

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/ Approver	IR	Rami	Kunal	TÜV NORD CERT

SECTION C. Application of materiality in conducting the verification

C.1. Consideration of materiality in planning the verification

In order to ensure a complete, transparent and timely execution of the verification task the team leader has planned the complete sequence of events necessary to arrive at a substantiated final verification opinion.

Various tools have been established in order to ensure an effective verification planning.

Materiality Threshold

The verification is based on the materiality threshold identified in table C-1 below:

Table C-1: Applied Materiality Threshold

	Threshold	Related to
<input type="checkbox"/>	0.5 %	Emission reductions or removals for registered CDM project activities achieving a total emission reduction or removal equal to or more than 500,000 tonnes of carbon dioxide equivalent per year ² ;
<input type="checkbox"/>	1 %	Emission reductions or removals for registered CDM project activities achieving a total emission reduction or removal of between 300,000 and 500,000 tonnes of carbon dioxide equivalent per year;
<input type="checkbox"/>	2 %	Emission reductions or removals for registered large-scale CDM project activities achieving a total emission reduction or removal of 300,000 tonnes of carbon dioxide equivalent per year or less;

² A year refers to a period of 12 consecutive months.

	Threshold	Related to
<input checked="" type="checkbox"/>	5 %	Emission reductions or removals for registered small-scale CDM PoA other than registered CDM PoA covered under next category below;
<input type="checkbox"/>	10 %	Emission reductions or removals for the type of registered small-scale CDM PoA referred to in decision 3/CMP.6, paragraph 38 (referred to as microscale project activities).

Strategic Analysis

At the beginning of the verification, the verification team leader has assessed the nature, scale and complexity of the verification tasks by carrying out a strategic analysis of all activities relevant to the project activity. The team leader has collected and reviewed the information relevant to assess that the designated verification team is sufficiently competent to carry out the verification and to ensure that it is able to conduct the necessary risk analysis.

Risk analysis and detailed audit testing planning

For the identification and assessment of potential reporting risks and to determine the necessary detailed audit testing procedures for residual risk areas the following table is used.

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1.	Analysis and transfer of data from monitoring documents (installation database, household usage Survey and WBT Records) for parameters under monitoring, to MR and excel ER spreadsheet.	Low	Human error during transfer of data from Usage Survey reports and WBT reports/sheet for BE, PE and ER Calculations	Thorough cross-check and assessment required on the generation and transfer of data to the ER spreadsheet. Assessment of Usage Survey reports and WBT reports/sheet for Usage rate, change in efficiency, fuel wood consumption by baseline stoves still in use, no of days stoves under operation, appropriateness of sampling plan etc.

On the basis of the risk analysis the verification has been planned. A detailed audit / verification plan has been prepared and submitted to the project participant(s) in due time before the remote audit.

C.2. Consideration of materiality in conducting the verification

Based on the verification planning, verification process is carried out. The concept of materiality considered during the verification process. A breakdown of the chosen approaches is included in the following table.

Parameter	Approach ⁺	Errors* detected	Findings reference	Corrected	Remaining verification risk
$N_{y,i,j}$ (Number of project devices of type i and batch j operating during year y)	SPL	<input checked="" type="checkbox"/>	CL 01, CAR 02	<input checked="" type="checkbox"/>	Not material
μ_y (Adjustment to account for any continued use of pre-project devices during the year y)	SPL	<input checked="" type="checkbox"/>	-	<input checked="" type="checkbox"/>	Not material
$\eta_{new,i,j}$ (Efficiency of the project device of each type i and batch j)	CDC	<input checked="" type="checkbox"/>	CAR 01	<input checked="" type="checkbox"/>	Not material
Date of commissioning of project device i	CDC	<input type="checkbox"/>	-	<input type="checkbox"/>	-
Aggregate				Materiality threshold not exceeded	

⁺) incl. omissions and misstatements

Verification Approaches:

CDC: Complete data check of data including all data aggregation steps

NDC: Non-complete data check – omissions not material

Parameter	Approach ⁺	Errors* detected	Findings reference	Corrected	Remaining verification risk
SPL:	Sampling approach (all data available)				
ASP:	Acceptance Sampling				
COM:	Data check at higher data aggregation levels and sampling at original data levels				

For above risk mentioned in section C.1, the verification team has conducted a thorough cross check and verification as follows:

I. Analysis and transfer of data from sales records, household usage Survey and WBT Reports for parameters under monitoring to MR and excel ER spreadsheet:

Total sales record presented in ER calculation spreadsheet^{/XLS/} and MR^{/MR/} were assessed and verified against all the evidence submitted by CME, by desk review and during remote audit assessment³. CME conducts sampling surveys^{/SUR/,USAGE/,WBT/} in accordance with registered monitoring plan^{/PoA-DD/,CPA-DD/}. The verification team reviewed and compared available data at CME office (total installation records/ database^{/DB/}, Usage Survey^{/SUR/,USAGE/}, WBT reports^{/WBT/} etc.) for which CERs are claimed under the current monitoring period. Total installation records / database^{/DB/} presented were assessed and verified during remote audit. CME conducts monitoring (surveys and tests)^{/SUR/,USAGE/,WBT/} every year in accordance with registered monitoring plan. Verification team assessed the value of parameters monitored ($N_{y,i,j}$, $\eta_{new,i,j}$ and μ_y)^{/XLS/,RC/} against the Installation / survey / WBT records^{/DB/,SUR/,USAGE/,WBT/} presented to the verification team by the CME. The survey records for parameters $N_{y,i,j}$ and μ_y conducted in January 2021^{/SUR/,USAGE/} were assessed and cross-checked with physical observations and interview responses received from the sampled project technologies users during remote assessment. The value of $\eta_{new,i,j}$, i.e. “Efficiency of the system being deployed as part of the project activity” is compared with WBT test Reports^{/WBT/} (February 2021 for age 3) submitted. Based on the above, verification team has issued findings (CAR/CLs) which can be referred in the tables above and in Appendix-4 and Appendix-5 of this report. Certain data was assessed to be inconsistent (Inconsistent values of project stoves in databases and ER/MRs; please refer the corresponding findings under Appendix-4).

³ Refer section D.2 for details of Remote audit assessment

SECTION D. Means of verification

D.1. Desk/document review

During the desk review all documents initially provided by the client and publicly available documents relevant for the verification were reviewed. The main documents are listed below:

- Registered PoA-DD including the monitoring plan^{/PoA-DD/},
- PoA Validation Report^{/VAL/}
- Registered CPA-DD^{/CPA-DD/}
- CPA validation report^{/VAL/}
- Previous Monitoring Reports^{/VERIF/}
- Previous Verification Reports^{/VERIF/}
- The monitoring report, including the claimed emission reductions for the PoA^{/MR/}
- Field Monitoring Report and related work sheets^{/SUR/,/Usage/,/WBT/,/RC/}
- Water Boiling Test Report^{/WBT/} and related work sheets
- The emission reduction calculation spreadsheet^{/XLS/}
- Total Installation Database/ End User Database^{/DB/} and CPA Distribution Records/ Sales Receipts^{/SSQ/}
- Sample size calculation spreadsheet for Usage Survey and WBT^{/XLS/,/RC/}

Other supporting documents, such as publicly available information on the UNFCCC website and background information were also reviewed (Appendix – 3).

D.2. On-site inspection

A remote audit was conducted using other means of verification due to Pandemic of COVID-19 and related lockdown in the host country of Bangladesh. Detailed explanation on remote audit is provided under D.4.2 below.

Duration of remote-site inspection: 12/04/2021				
No	Activity performed on-site	Site location	Date	Team member
1.	<ul style="list-style-type: none"> • Assessment of the installation database • Assessment of sample end-user/customer's agreements • Comparison of end-user/customer's agreements with information in the database (dates, serial numbers, names, locations) • Assessment of data management system, QA/QC procedures • Interviews with CME and BBF management • Interview with operation manager of BBF/CPA implementer • Interviews with CME representative • Discussion of emission reductions and supporting documentation • Telephonic interview with ceramic liner producer • Video Telephonic interview with randomly selected non-sampled users from total database (distant users of BBF stoves) to further cross verify if the samples taken are representative of the entire population 	BBF office (remotely) Dhaka Bangladesh	12/04/2021	Prakash Kumar Mishra (PKM)
2.	Virtual visit of randomly selected households partners interview with Field Survey team and WBT expert team	Stove users house in Bangladesh at different locations sampled	12/04/2021	

		(remote video calls)		
3.	Discussion on MR and supporting documents and final closing meeting	CME/consultant /PP	13/04/2021	

D.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Md.	Khaleq-uz-zaman	CPA Implementer (BBF) - CME Representative	12/04/2021	CPA development, QM, Organisational structure, QA/QC, raw data, sales database	PKM
2.	Lohia	Rohit	Director (CSIPL)	12/04/2021	MR development, ER calculation and monitoring aspects including Sampling & Survey and WBT analysis	
3.	Kumar	Ritesh	Consultant (CSIPL)	12/04/2021	MR development, ER calculation and monitoring aspects including Sampling & Survey and WBT analysis	
4.	Tushty	Moury ahmed	DM-Database, (BBF)	12/04/2021	Information flow, data Management, record keeping, sales database	
5.	Das	Sonjoy	DSM (BBF)	12/04/2021	Stove installation, Data entry, record keeping, sales database	
6.	Md.	Alamin	ADM (BBF)	12/04/2021	Stove installation, Data entry, record keeping, sales database	
7.	Islam	Md. Shahidul	ADM (BBF)	12/04/2021	Stove installation, Data entry, record keeping, sales database	
8.	Md.	Tarik-uz-zaman	DSM (BBF)	12/04/2021	Stove installation, record keeping, sales database	
9.	Kumar Saha	Atanu	DGM (BBF)	12/04/2021	WBT procedures Equipment Calibration, training	
10.	Munira	Sirajum Joya	Communication Officer (BBF)	12/04/2021	trainings, Information flow, record keeping, staff training, sales database	
11.	Pal	Nishi Kanto On behalf of Sadhona Rani Pal	Stove User (Usage Survey 1-Pot)	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, as applicable etc.	
12.	Pal	Ram Proshad On behalf of Sumon Pal	Stove User (Usage Survey 1-Pot)	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, as applicable etc.	

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
13.	-	Md. Sagor On behalf of Rasheda Begum	Stove User (Usage Survey 2-Pot)	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, as applicable etc.	
14.	Qadir	Abdul On behalf of Rika Akhter	Stove User (Usage Survey 2-Pot)	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, as applicable etc.	
15.	Bagum	Miss. Monisha On behalf of Md. Hidar Bepari	Stove User (Usage Survey 1-Pot)	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, as applicable etc.	
16.	Ali	Mst. Bijoy On behalf of Mst. Jorina Khatun	Stove User (Usage Survey 1-Pot)	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, as applicable etc.	
17.	Dewan	Jamal On behalf of Amena Begum	Stove User (Usage Survey 2-Pot)	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, as applicable etc.	
18.	Khaton	Md. Hasim Ali On behalf of Mst. Laboni	Stove User (WBT+Usage 1-Pot)	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, WBT tests, as applicable etc.	
19.	-	Samsul on behalf of Mariam Begum	Stove user WBT+Usage 1-Pot	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household,	

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
					Usage rate, Stove performance, Use of baseline stove, WBT tests, as applicable etc.	
20.	Elias	Khan	Stove User (WBT+Usage 1-Pot)	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, WBT tests, as applicable etc.	
21.	Nazmus	Sakib On behalf of Md. Sadek Ali	Stove User (WBT+Usage 1-Pot)	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, WBT tests, as applicable etc.	
22.	Khatun	Mst. Hazera On behalf of Md. Eyachin Ali	Stove User (WBT+Usage 2-Pot)	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, WBT tests, as applicable etc.	
23.	Khatun	Mst. Mahamuda on behalf of Boktiar	WBT+Usage 2-Pot	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, WBT tests, as applicable etc.	
24.	Saha	Bikas	WBT+Usage 2-Pot	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, WBT tests, as applicable etc.	
25.	-	Sahida	WBT+Usage 2-Pot	12/04/2021	Date of installation, number of persons in household, number of stoves (BBF and any other) in the household, Usage rate, Stove performance, Use of baseline stove, WBT tests, as applicable etc.	

D.4. Sampling approach**D.4.1 Sampling during monitoring:**

<input type="checkbox"/>	No sampling approach has been used by the PP to determine the monitored parameters						
<input checked="" type="checkbox"/>	A sampling approach has been taken for the following monitored parameter(s):						
	Parameter	Sampling approach ¹⁾	Sampling Type ²⁾	Population		Sample Size	
	$N_{y,i,j}$	StRS	PS	Strata	Population	Sample Size(n) required	Samples covered
				$N_{y,1-Pot, 2018}$	46,047	1	5
				$N_{y,2-Pot, 2018}$	38,530	1	5
				$N_{y,1-Pot, 2019}$	497,851	10	15
				$N_{y,2-Pot, 2019}$	230,806	5	5
				$N_{y,1-Pot, 2020}$	535,802	11	15
				$N_{y,2-Pot, 2020}$	183,654	4	5
	μ_y	StRS	PS	Strata	Population	Sample Size(n) required	Sample covered
				$\mu_{y,1-Pot}$	1,079,700	22	32
$\mu_{y,2-Pot}$				452,990	9	14	
$\eta_{new,i,j}$	StRS	PS	Strata	Population	Sample Size(n) required	Sample covered	
			$\eta_{new,1-Pot, 2018(age\ 3)}$	46,047	4	4	
			$\eta_{new,2-Pot, 2018(age\ 3)}$	38,530	4	4	

¹⁾ Sampling Approaches:

SiRS: Simple Random Sampling
 StRS: Stratified Random Sampling
 SS: Systematic Sampling
 CS: Cluster Sampling
 MSS: Multi-stage Sampling

²⁾ Sampling Types:

PS: Parameter Sampling

Sampling design

- Objectives and reliability: The objective is to determine the parameter of interest of project stoves during the monitoring period with a 95/10 confidence/precision.
- Target population: Project households with Bondhu Chulha installed (1,532,690)^{/DB/./XLS/}.
- Sampling methods: a stratified random sampling, with stove type (1-Pot / 2-Pot with year of installation, 2018, 2019 and 2020) as strata, was applied for sampling. In line with registered monitoring plan, PP has considered all vintages and stove type for stratification. Thus, the population was divided into following strata:
 - 1-Pot (stove type), 2018, 2019 and 2020 (Vintage) and
 - 2-Pot (stove type), 2018, 2019 and 2020 (Vintage)
- The end user data (including specific stove location)^{/DB/} has been made available to the verification team for each of the 1,532,690 Bondhu chulhas as verified from the installation databases submitted and maintained at the BBF office.
- Sample size: the sample size is calculated based on developer's knowledge and experience in line with para 13(b) and 13(c) of the Sampling and surveys for CDM project activities and programmes of activities, Version 8.0^{/SAMPLE-S/} and registered CPA-DD section B.5.2^{/CPA-DD/}.

A representative sampling was adopted by the CME for Sampling. The sample size is determined using the following formulas:

$$n \geq \frac{z^2 * N * V}{(N-1) * precision^2 + z^2 * V}$$

Where,

n = number of ICS to be sampled

N = Total number of ICS in the population

Z = Constant referring to level of confidence (1.96 for 95 % confidence)

Precision = Required precision (e.g. 10% = 0.1)

For Proportion based parameters ($N_{y,ij}$ and μ_y)

$$V = \frac{SD^2}{p^2} \text{ Where:}$$

$$SD^2 = \frac{\sum_{i=1}^k g_i * p_i * (1 - p_i)}{N}$$

$$p = \frac{\sum_{i=1}^k g_i * p_i}{N}$$

Where,

g_i = weight of strata i in the population

p_i = expected proportion of strata i in the population

k = total number of strata in the population

For Mean based parameters ($\eta_{y,ij}$)

$$V = \left(\frac{SD}{Mean} \right)^2$$

Where

$$SD^2 = \frac{\sum_{i=1}^k g_i * SD_i^2}{N}$$

$$Mean = \frac{\sum_{i=1}^k g_i * m_i}{N}$$

Where

SD_i = expected standard deviation of strata i in the population

m_i = expected mean of strata i in the population

The samples sizes based on the registered monitoring plan; 95/10 reliability level is selected for PoA specific sampling for all the parameters listed above at monitoring frequency prescribed in CPA-DD. The target population for the three parameters stated above are total installed ICS (Bondhu Chulha 1-Pot & 2-Pot with vintages 2018, 2019 and 2020) covered under the monitoring period as recorded in the project installation database^{/DB/} i.e. 1,532,690.

Sample size calculation is assessed to be in accordance with registered sampling plan in PoA-DD/CPA-DD and the guideline "Sampling and surveys for CDM project activities and programme of activities", version 04.0 for sampling^{/SAMPLE-G/}.

Every individual project stove in the CPAs covered under this MR (observed to be uniquely identifiable by its ID number) was allocated a sample number. CME has submitted sample size calculation spreadsheet^{/XLS/} and random number generator^{/DB/} where it was demonstrated that samples are drawn randomly using stratified random sampling approach. DOE further has cross-checked the sampling approach by the CME as per MR section E.3 against related PoA- and CPA-DD.

Additionally, the related population size has been checked with corresponding supporting documents (e.g. Total Sales database^{/DB/}, ER worksheet^{/XLS/}). Input parameters for the sampling calculations have been checked for consistency with the stated approach and against registered PoA-DD, CPA-DD/PoA-DD/^{/CAP-DD/} and the sampling guideline^{/SAMPLE-G/}.

Further, verification team has re-calculated the sample size according to the required confidence/precision and found the sample size correctly calculated. Also, the achieved precision^{/XLS/} for every parameter was recalculated by the verification team and was found to meet the minimum desired confidence and precision levels.

Several findings were raised during course of verification. Please refer Appendix-4 of this report.

D.4.2 Sampling approaches during verification

<input type="checkbox"/>	No sampling approach has been used by the VT to verify the monitored parameters			
<input checked="" type="checkbox"/>	A sampling approach has been applied by the VT for the following monitored parameter(s):			
Parameter	Sampling approach ¹⁾	Sampling Type ²⁾	Population	DoE Sample Size
$N_{y,i,j}$	StRS	AS	50	14(7 1-Pot, 07 2-Pot) ⁴
μ_y	StRS	AS	46	14(07 1-Pot, 07 2-Pot)
$\eta_{new,i,j}$	StRS	AS	8	08 (04 1-Pot, 04 2-Pot)

¹⁾Sampling Approaches:

SiRS: Simple Random Sampling
 StRS: Stratified Random Sampling
 SS: Systematic Sampling
 CS: Cluster Sampling
 MSS: Multi-stage Sampling

²⁾Sampling Types:

AS: Acceptance Sampling
 PS: Parameter Sampling
 COM: Full data check at higher data aggregation levels and sampling at original data levels

Remote audit assessment:

Due to the COVID-19 pandemic there was a complete lockdown in the Host Country of Bangladesh where movement in the field was not permitted and hence Verification Team, in line with UNFCCC INQ-09667 (email reply from Secretary to The CDM Executive Board, dated 20/03/2020 where agreement to relax mandatory site visit by DOE for period of 03 months which was further extended up to December 2020⁵). The CDM Executive Board agreed to relax mandatory site visits by DOEs for a period upto 30 June 2021 because of COVID-19, vide CDM EB 108 report⁶, Agenda item 4.1. Standard/ tools para 28. The extension was conditionally permitted to apply alternative and credible means of verification. Further the Verification Team has presented the reasoning to demonstrate the fulfilment of conditions to initiate the Remote Audit Assessment:

⁴ All WBT samples tested by CME are also usage surveyed.

⁵ https://cdm.unfccc.int/newsroom/latestnews/releases/2020/01041_index.html

⁶ [Meeting report \(version 01.0\)](#)

Sr. No	Condition	Applicable (Y/N)	Justification
1.	Para 321 of VVS-PS It is mandatory for the DOE to conduct an on-site inspection at verification for the included CPA if: (a) It is the first verification for the DOE with regard to this CPA; (b) More than three years have elapsed since the last on-site inspection conducted for verification for the CPA; or (c) The CPA has achieved more than 300,000 t CO ₂ e.q. of GHG emission reductions or net anthropogenic GHG removals since the last verification when an on-site inspection was conducted.	Y	The verification for the CPAs 01 is undergoing the Fourth periodic verification and Second periodic verification for CPAs 02 & 03 and no onsite assessment for CPA 02 and 03 could be conducted due to COVID-19 restrictions. In addition, the expected emission reductions are more than 300,000 tCO ₂ . Thus, the site visit is mandatory as per § 321 (c). Justification of alternative, credible and sufficient means for the purpose of verification of on-ground information is provided in detail below under para "Applied Other Credible means of verification"
Justification to avail temporary measures as per agreement to relax mandatory site visit by DOE			
2.	Can the site visits be postponed	N	Client has the delivery deadlines of CER's so postponing site visit will cause negative impact on CER delivery commitment by CME ^{/OSVE/} (CER delivery commitment by project participants). Thus, site visit cannot be postponed.
3.	Is it possible to travel to host country Bangladesh and undertake site visits	N	Global Travel Ban is not allowing the VT to visit to Host country Bangladesh.

Applied Other Credible means of verification:

The credible other means of verification is applied to cross check on-ground information as described below:

Photographs of sampled stove users: These include the photos of the actual monitored end users which are utilized to verify the information stated in the monitoring records^{/SUR/,/USAGE/,/WBT/} e.g. demonstrating implementation of the project ICS (Bondhu Chulha), continuous use of baseline stove (if any), stove serial number, stove model etc. The photograph records are stored in the QMS system of DOE; these records are retrievable and assessable.

Skype Video Calls (Recorded): This tool has allowed to connect multiple stakeholders such as CME, project developer/ consultant, relevant personnel from monitoring survey team and the WBT Team, all other relevant persons as per the organogram of the PoA/ CPA including QA/ QC key personnel and sampled end users. The VT could virtually verify the implementation of the project against the requirements in the registered CPAs via interviews with all the above-mentioned parties including sampled end users using this tool. The selected end users were interviewed by the verification team to verify individual end user records (Stove serial number, stove model, date of sale^{/DB/}, usage status, baseline stove usage (if any)^{/SUR/,/USAGE/,} WBT (as applicable)^{/WBT/}) submitted by PP and were found correct and consistent with the observations made on video calls. The video calls were recorded, stored and maintained so that the assessments of the Verification Team are traceable and reproducible if required.

Furthermore, the data collected during the above steps are further utilized for assessments which is described in relevant parts of the Verification Report.

The sampling approach conducted is in accordance with "Guidelines for Sampling and Surveys for CDM Project Activities and Programme Activities" version 04.0^{/SAMPLE-G/} and the "Standard for Sampling and Surveys for CDM Project Activities and Programme Activities version 08.0"^{/SAMPLE-S/}.

Since the CPAs included in the PoA implements technologies/measures with high degree of standardization and the stove capacities in terms of energy savings per year in the CPAs are smaller

than 1% of small scale CDM thresholds, the verification team decided to draw samples mainly from the project samples selected by PP. i.e. the acceptance sampling approach has been applied.

The verification team followed the “Standard for Sampling and Surveys for CDM Project Activities and Programme Activities” version 08/^{SAMPLE-S/}, para 29 to 32 and 39, esp. for taking sample out of the CME’s sample. Verification team has adopted the acceptance sampling approach (AS) in accordance with § 29, 30, 31 to 32 and 39 of the Sampling Standard/^{SAMPLE-S/}. The verification Team checked provisions of the para 39 of the applied standard to apply the producer risk and consumer risk following the provision of para 39 as assessed below:

Statement of para 39: <i>A DOE may select a different sample size than the one indicated in paragraph 32 above, either by choosing a different value for the consumer risk and producer risk (e.g. 20 per cent for the consumer risk) when applying acceptance sampling or by using another approach, if any of the following conditions apply:)</i>		
Sr. No.	Requirement of para	DOE Assessment
a)	The estimated volume of annual GHG emission reductions of the project activity or the PoA being verified is equal to or less than 100,000 t CO ₂ eq.;	Not Applicable. The estimated emission reductions amount to 7,132,152 tCO₂ .
b)	The security conditions in the project region prevents inspection of many samples (e.g. conflict zones); or	The COVID-19 was declared pandemic WHO which has created a health situation which was tangible and globally apparent. Thus, the DOE has availed the sampling size accordingly.
c)	The project activity or the PoA is located in a least developed country or a host Party with 10 or fewer registered CDM project activities at the end of the monitoring period being verified	The CPAs under PoA are located in the LDC i.e. Host Country Bangladesh as per https://unfccc.int/topics/resilience/workstreams/national-adaptation-programmes-of-action/lcd-country-information

Thus, Verification team has adopted the acceptance sampling approach in accordance with § 29, 30, 31 and 32 of the “Standard: Sampling and surveys for CDM project activities and programmes of activities, Version 08.0”/^{SAMPLE-S/}, AQL 1% and UQL 20%. Producer risk of 10% and consumer risk of 20%. Given Bangladesh (Host country) is a Least Developed country and thus, DOE could accordingly adjust the approach in line with Guideline: Sampling and surveys for CDM project activities and programmes of activities, Version 04.0/^{SAMPLE-G/}, and Standard: Sampling and surveys for CDM project activities and programmes of activities, Version 08.0/^{SAMPLE-S/}. Considering the above § under applied sampling standard, the verification team has verified 15 samples covering all three vintages (2018,2019, 2020) and 2 sizes; (1-Pot and 2-Pot). The 15 samples verified, covered all of PP’s WBT samples (08) which were also usage survey samples and 07 other usage survey only samples. Therefore, verification team covered 100% samples for WBT (08 samples) and in total 15 usage survey samples applying above AQL/UQL/Producers and consumers [risk stipulated under Sampling guideline/^{SAMPLE-G/} and standard/^{SAMPLE-S/} as above](#). Verification team verified samples applying the acceptance sampling approach with acceptance (c) number 0. These verified samples are randomly picked from CME’s samples covering related sampling/monitoring parameters. The list of samples was verified using remote assessment techniques covering CME’s samples for usage related surveys as well as WBT results under CPAs as presented under section D.3 of this report above.

Table 7: Applied sampling standard

AQL	1%
UQL	20%
Producer risk	10%
Consumer risk	20%
Sample size required	8
Acceptance Number	0
Samples covered	15

CME sampling-based monitoring records/data results^{/SUR/,/USAGE/,/WBT/} were found inline with those verified during the DOE remote onsite audit and further verification of results/records and no discrepant records were found. All the 15 samples (07 Usage Survey only samples and 08 WBT + Usage Survey sample) were found to be operational/WBT tested (as applicable), during the remote onsite audit interview/verification. Verification team further compared the remote assessment result with submitted Survey and WBT records^{/SUR/,/USAGE/,/WBT/} and were found to be consistent. Details on each ICS sample verified through remote assessment are presented under Section D.3 above. Based on the assessment of 15 remotely assessed samples, observing records of each sample monitored and submitted by CME before remote assessment, together with audio/video interview of end users, and monitoring team, it could be confirmed that the result presented for all the monitored parameters e.g. Usage rate, utilization of project stoves (μ_y) etc. and thermal efficiencies are reproducible and thus, sampling result^{/RC/,/XLS/} could be confirmed and deemed acceptable. Further, the verification team reviewed all the primary monitoring records^{/SUR/,/USAGE/,/WBT/} before and during remote audit assessment to assess the consistency of information with ER calculation spreadsheet^{/XLS/} and found the monitoring data to be correctly transcribed into the ER sheet^{/XLS/} and MR^{/MR/}. Based on above assessment, the verification team concludes that sampling results and values presented by CME in the MR and ER calculation spreadsheet^{/XLS/} and results of survey and WBT records^{/SUR/,/USAGE/,/WBT/} are consistent with the remote remote onsite observation and interview with the end users.

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

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
General	-	-	-
Compliance of the monitoring report with the monitoring report form	0	0	0
Remaining forward action requests from validation and/or previous verifications	0	0	0
CPAs considered for verification and covered in this report	0	0	0
Programme of activities	-	-	-
Compliance of the programme implementation with the registered PoA-DD	0	0	0
Implementation and operation of the management system	0	0	0
Post-registration changes	-	-	-
• Corrections	0	0	0
• Inclusion of a monitoring plan	0	0	0
• Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents ⁷	0	0	0
• Changes to the programme design	0	0	0
• Addition of CPA inclusion template	0	0	0
• Change of coordinating/managing entity			
• Changes specific to afforestation and reforestation activities	0	0	0
Component project activities	-	-	-
Compliance of the CPA implementation with the included CPA design document	0	0	0
Post-registration changes	-	-	-
• Temporary deviations from registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents	0	0	0
• Corrections	0	0	0

⁷ Other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the applied(selected) methodologies are collectively referred to as the other (applied) methodological regulatory documents).

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
• Changes to the start date-of the crediting period	0	0	0
• Inclusion of a monitoring plan	0	0	0
• Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents	0-	0	0
• Changes to the project design	0	0	0
• Changes specific to afforestation and reforestation activities	0	0	0
Compliance of the registered monitoring plan with applied methodologies and standardized baselines	0	0	0
Compliance of monitoring activities with the registered monitoring plan	-	-	-
• Data and parameters fixed ex ante or at renewal of crediting period	0	0	0
• Data and parameters monitored	1	1	0
• Implementation of sampling plan	0	0	0
Compliance with the calibration frequency requirements for measuring instruments	0	0	0
Assessment of data and calculation of emission reductions or net removals	-	-	-
• Calculation of baseline GHG emissions or baseline net GHG removals by sinks	0	0	0
• Calculation of project GHG emissions or actual net GHG removals by sinks	0	0	0
• Calculation of leakage GHG emissions	0	0	0
• Summary of calculation of GHG emission reductions or net GHG removals by sinks	0	0	0
• Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates in included CPA	0	0	0
• Remarks on difference from estimated value in included CPA	0	0	0
Assessment of reported sustainable development co-benefits	-	-	-
Global stakeholder consultation	0	0	0
Others (pending documents)	0	1	0
Total	1	2	0

SECTION E. Verification findings

E.1. General

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

Means of verification	<p>A draft monitoring report was submitted to the verification team by the CME. The DOE has made this report publicly available prior to the start of the verification activities. No comments were received. By means of the UNFCCC website it has been checked whether the latest applicable MR template CDM-PoA-MR-FORM has been used.</p> <p>Further it has been checked whether the latest instructions for filling out the MR template have been followed. Every section has been checked against the respective guidance. The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /MRT/ • /unfccc/ 	
Findings	<input checked="" type="checkbox"/>	The latest reporting template CDM-PoA-MR-FORM as listed on the UNFCCC website has been used for the Monitoring Report to be uploaded.
	<input checked="" type="checkbox"/>	The latest instructions for filling out the MR have been followed. No adverse finding has been identified in the course of this verification.
	<input type="checkbox"/>	The respective requirements have widely been complied with; however; the following issues needed to be addressed in this context:
		-
Conclusion	<input checked="" type="checkbox"/>	No CARs/CLs have been raised in this context. No correction was required in the context. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs/CLs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
		The latest instructions for filling out the MR 3.0 have been followed.

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

During the validation the validating DOE might have raised issues that could not be closed or resolved during the validation stage. For this purpose, FARs might have been raised. Likewise, FARs might have been raised in the course of previous verifications.

In the course of this verification the PoA/CPA validation reports^{/VAL/}, latest version of the last issued MR^{/VERIF/} and the PoA Verification report^{/VERIF/}, have been checked in order to identify any remaining forward action requests. For the current monitoring period the following applies:

(i) Open issues from validation:

<input checked="" type="checkbox"/>	There were no open issues which have been addressed in the latest version of the validation report.
<input type="checkbox"/>	All open issues from the validation have been appropriately addressed in the context of previous verifications.
<input type="checkbox"/>	All issues related to the validation have been appropriately addressed in the course of the current monitoring period (for details please refer to appendix 4)
<input type="checkbox"/>	The following issues related to the validation have not yet been appropriately addressed (for details please refer to appendix 4):

(ii) Open issues from previous verifications:

<input type="checkbox"/>	N/A – as this is the first monitoring period for this CDM project activity.
<input checked="" type="checkbox"/>	There were no open issues which have been addressed in the previous verification report
<input type="checkbox"/>	All issues related to the previous verification have been appropriately addressed in the course of the current monitoring period (for details please refer to appendix 4)

<input type="checkbox"/>	The following issues related to the previous verification have not yet been appropriately addressed (for details please refer to appendix 4):

E.1.3. CPAs considered for verification and covered in this report

Title and UNFCCC reference number of the CPA included in the PoA as of the end of this monitoring period	Is the CPA considered for this verification? (yes/no)	The date when the CPA was included	Version of the PoA-DD	Confirmation that a request for issuance including the CPA has been published for the previous monitoring period
Improved cookstove program in Bangladesh supported by the Republic of Korea - CPA 01 10431-P1-0001-CP1	yes	31/08/2018	4.0	Y
Improved cookstove program in Bangladesh supported by the Republic of Korea - CPA 02 10431-P1-0002-CP1	yes	13/03/2020	4.0	Y
Improved cookstove program in Bangladesh supported by the Republic of Korea - CPA 03 0 10431-P1-0003-CP1	yes	13/03/2020	4.0	Y

E.2. Programme of activities**E.2.1. Compliance of the programme implementation with the registered programme design document**

Means of verification	<p>By means of an in-depth review of the latest PoA-DD – as downloaded from the UNFCCC project site - and the checks carried out during the remote assessment whether the project has been implemented and operated in line with the latest approved version of the PoA-DD and whether all physical features of the project are in place. The following has been checked:</p> <ul style="list-style-type: none"> • Implemented technology, project equipment as well as monitoring plan in line with registered monitoring plan and equipment. • Interviews with operational personnel were carried out, QMS records, maintenance records were checked in this context. • Special focus was laid to determine whether a potential phase wise implementation has occurred within the crediting period or any delays with respect to the starting dates have occurred <p>Further it has been checked if relevant technical equipment of the project activity has been exchanged or modified during the monitoring period and consistent notations of key equipment (meters etc.) in PoA-DD, MR and calculation spreadsheet are applied.</p> <p>Interviews with, CME, CPA implementer and operational personnel have been carried out, QMS records, maintenance records, instruments were checked in this context.</p> <p>Special focus has further been laid to determine whether a potential phase wise implementation has occurred within the crediting period or any delays with respect to the starting dates have occurred.</p> <p>Further it has been checked whether any observed deviations from the registered project design have been correctly addressed as PRC.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /PoA-DD/ • /CPA-DD/
------------------------------	--

	<ul style="list-style-type: none"> • /MR/ • /VVS/ • /XLS/ • /QMS/ • /unfccc/ • /TRG/ • /CAL/,/INV/ 	
Findings	<input checked="" type="checkbox"/>	The project has been implemented as described in the latest version of the PoA-DD as well as in section B.1 of the monitoring report. No deviations thereof have been identified in the course of this verification.
	<input type="checkbox"/>	The following deviations from the registered / approved project design and or the project description in the MR have been identified in the course of this verification (for further details please refer to section E.4):
	<input type="checkbox"/>	In this context the following CARs, CLs have been raised:
		-
		<i>In case of phased implementation:</i>
	<input checked="" type="checkbox"/>	N/A
	<input type="checkbox"/>	The phased implementation has correctly and in sufficient detail been described in the latest version of the PoA-DD.
	<input type="checkbox"/>	The description in section 3.1 of the MR differs in content or the level of detail from the latest version of the PoA-DD. However, the description in the MR is correct and reflects the situation during the site inspection.
	<input type="checkbox"/>	The project description in the PoA-DD/MR is not deemed sufficient. The detailed implementation timeline is as follows: N/A or add as appropriate
Conclusion	<input checked="" type="checkbox"/>	No CARs/CLs have been raised in this context. No correction was required in the context. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs/CLs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
		On the basis of remote assessment and the reviewed project documentation it can be confirmed that w.r.t. the realized energy efficiency measures, the project has been implemented as described in the registered CPA-DDs.

E.2.2. Implementation and operation of the management system

Means of verification	The verification team carried out remote assessment for the CPA included during this monitoring period and interviewed key personnel. Interviewees included the CME, stove manufacturer, and project developer. It was established that the programme management system has been implemented and operated as described.
Findings	N/A
Conclusion	<p>The CDM PoA is managed by Ecoeye Co., Ltd. (EECL) as the CME. The management structure is comprised of plant operational staff, monitoring officer and CDM advisor. The entities responsible for monitoring are:</p> <ul style="list-style-type: none"> • Project Development Director • Programme Manager • CPA Implementer • Programme Associate • Field measurement personnel • External QA/QC <p>Below important functions are undertaken</p> <ul style="list-style-type: none"> • Arrangements for training and capacity development for local sales and distribution partner personnel by CME and CPA implementer^{/TRG/}, • System/procedure to avoid double counting (by aggregating the unique database like Serial numbers, date of installation, address, contact details)^{/DB/}

	<ul style="list-style-type: none"> • Provisions to ensure that those operating the CPA are aware and have agreed that their activity is being subscribed to the PoA (Informational material, training social media and contractual agreements as applicable) • Measures for continuous improvement of the PoA management • Ex-post monitoring and maintaining record system for each CPA under the PoA/SSQ/ • Conduct on the ground monitoring of end users. Sample size determination, monitoring of samples, development of suitable template to capture the templates, develop the working sheets to analyze the results of monitoring /SSQ/, /WBT/, /XLS/ • Verify the monitoring work done to ensure accuracy before submission; review protocols, interview enumerators, spot check data • Assist with the completion of monitoring reports with input • Coordination and communication with the verifier and the UNFCCC (as applicable) <p>Below data checks were undertaken by the Verification Team:</p> <ul style="list-style-type: none"> • The customer Database sheet was verified to check the details of the ICS (Bondhu Chulha) (which captured the Bondhu Chulha ID, CPA No., Date of installation and other details) /DB/ • Consistency check was performed between the sales database and sample invoice, installation log data to confirm that information for ICS installed (Serial Number, Pot type, year of installation etc) were internally consistent • Check on the avoidance of double counting was initiated by checking the unique IDs of the ICS and it is confirmed that the all the numbers are unique. • The training requirements were verified and deemed as acceptable and in line with the requirements of PoA-DD and CPA-DD^{TRG/}. • The Organogram was checked and it is noted that Programme Manager at the CME is responsible for QA/QC of the data^{/IM01/}, analysis and subsequent reporting in the monitoring report. The Verification Team confirms that QA/QC procedures were found being followed. • The Verification Team interviewed the CME team responsible for monitoring for sampling techniques, data formats, trainings, competence, and undertaking the surveys^{/SUR/, /USAGE/, /TRG/, /WBT/}. The Verification Team confirms that appropriate provisions in line with the requirement for the PoA-DD and CPA-DD are being followed. <p>Based on and Remote Assessments and desk review and web-based and telephonic interviews; DOE has found that the system is in place, appropriate and effective. The management system is implemented as per the registered PoA-DD & CPA-DDs.</p>
--	--

E.2.3. Post-registration changes

E.2.3.1. Corrections

It has been checked whether any corrections to project information or parameters fixed at validation have been approved during this monitoring period or submitted with this monitoring report. The result is summarized in the table below.

<input checked="" type="checkbox"/>	During this verification of the current MP no need for corrections has been identified.
<input type="checkbox"/>	The following corrections have been applied:
<input type="checkbox"/>	A related post registration change has been submitted prior to the issuance request.
<input type="checkbox"/>	No related post registration change is submitted along with this issuance request. Please refer to the related PRC report submitted along with this issuance request for further details w.r.t. the assessment of the PRC.

E.2.3.2. Inclusion of a monitoring plan

<input checked="" type="checkbox"/>	N/A - as this monitoring plan was part of the registered PoA-DD /CPA-DD
<input type="checkbox"/>	In line with PS § 281 or § 282 the PP has forwarded a monitoring plan to the DOE for validation. No prior approval of the monitoring plan was required as the PP in line with PS § 282 wished to submit the monitoring plan together with the request for issuance for the first monitoring period. Please refer to the related PRC report submitted along with this issuance request for further details w.r.t. the assessment of the PRC.
<input type="checkbox"/>	In line with § 282 the PP submitted a monitoring plan prior to the submission of the request for issuance for validation to the DOE. A DOE has assessed the monitoring plan in line with related VVS requirements and submitted a related PRC report for prior approval. The approval has been received on DD/MM/YYYY via approval number

E.2.3.3. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents

It has been checked whether any permanent changes from the registered monitoring plan (PCfMP) or applied methodologies (PCfMM) including standardized baselines (PCfSB) have been approved prior or during this monitoring period or submitted with this monitoring report. The result is summarized in the table below.

<input checked="" type="checkbox"/>	No PCfMP, PCfMM or PCfSB have been submitted to the UNFCCC prior to the current monitoring period		
<input type="checkbox"/>	The following PCfMP, PCfMM or PCfSB have been approved or are under approval by the UNFCCC		
	1	Title	
		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved
		Approval	
		Ref. No.	
<input checked="" type="checkbox"/>	During the verification of the current MP no need for a PCfMP, PCfMM or PCfSB has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA		
<input type="checkbox"/>	An approval of the following PCfMP, PCfMM or PCfSB is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.		
	1	Issue:	
	2	Issue:	
<input type="checkbox"/>	The following PCfMP, PCfMM or PCfSB for which appendix 1 of the PS is applicable have been applied:		
	1	Issue:	
	2	Issue:	

E.2.3.4. Changes to the programme design

It has been checked whether any changes to the project design (CoPD) have been approved prior or during this monitoring period or submitted with this monitoring report. The result is summarized in the table below.

<input checked="" type="checkbox"/>	No CoPD has been submitted to the UNFCCC prior to the current monitoring period		
<input type="checkbox"/>	The following CoPD have been approved or are under approval by the UNFCCC		
	1	Title	
		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved
		Appr. date	
		Ref. No.	

	2	Title	
		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved
		Appr.date	
		Ref.No.	
<input checked="" type="checkbox"/>	During the verification of the current MP no need for a CoPD has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA		
<input type="checkbox"/>	An approval of the following CoPD is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.		
	1	Issue:	
	2	Issue:	
<input type="checkbox"/>	The following CoPD for which appendix 1 of the PS is applicable have been applied:		
	1	Issue:	
	2	Issue:	

E.2.3.5. Addition of CPA inclusion template

N/A

E.2.3.6. Change of coordination/managing entity

Not applicable. The registered PoA-DD mentions Ecoeye Co., Ltd. (EECL) as the CME.

E.2.3.7. Changes specific to afforestation and reforestation activities

<input checked="" type="checkbox"/>	N/A
-------------------------------------	-----

E.3. Component project activities**E.3.1. Compliance of the CPA implementation with the included CPA design document**

Means of verification	<p>By means of an in-depth review of the latest CPA-DD – as downloaded from the UNFCCC project site - and the checks carried out during remote assessment whether the project has been implemented and operated in line with the latest approved version of the CPA-DD and whether all physical features of the project are in place. The following has been checked: implemented technology i.e. project stoves, project monitoring and implemented monitoring plan in line with approved monitoring plan in the PoA-DD and corresponding CPA-DDs.</p> <p>Further it has been checked if relevant technical equipment of the project activity has been exchanged or modified during the monitoring period and consistent notations of key equipment (meters etc.) in CPA-DD, MR and calculation spreadsheet are applied.</p> <p>Interviews with operational personnel have been carried out, QMS records, maintenance records, instrument specifications were checked in this context. Special focus has further been laid to determine whether a potential phase wise implementation has occurred within the crediting period or any delays with respect to the starting dates have occurred.</p> <p>Further it has been checked whether any observed deviations from the registered project design have been correctly addressed as PRCs.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /CPA-DD/ • /MR/ • /VVS/ • /XLS/
------------------------------	---

	<ul style="list-style-type: none"> • /unfccc/ • /DB/
Findings	-
Conclusion	The verification team confirms that the CPAs under this MP are implemented and operated in line with latest approved versions of CPA-DDs and all physical feature of the project are in place. However, during course of verification findings were raised and closed successfully. Please refer Appendix-4 of this report.

E.3.2. Post-registration changes

E.3.2.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents

It has been checked whether Temporary deviations from the registered monitoring plan (TDfrMP) or Temporary deviations from monitoring methodology or standardized baseline (TDfMM) have been applied during this monitoring period. The result is summarized in the table below.

<input checked="" type="checkbox"/>	No Temporary deviations from the registered monitoring plan (TDfrMP) or Temporary deviations from monitoring methodology or standardized baseline (TDfMM) have been submitted to the UNFCCC prior to the current monitoring period.									
<input type="checkbox"/>	The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC									
	1	<table border="1"> <tr> <td>Title</td> <td></td> </tr> <tr> <td>Status</td> <td><input type="checkbox"/> under approval; <input type="checkbox"/> approved (approval No.:)</td> </tr> <tr> <td>Appr.date</td> <td></td> </tr> <tr> <td>Ref. No.</td> <td></td> </tr> </table>	Title		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved (approval No.:)	Appr.date		Ref. No.	
Title										
Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved (approval No.:)									
Appr.date										
Ref. No.										
	2	<table border="1"> <tr> <td>Title</td> <td></td> </tr> <tr> <td>Status</td> <td><input type="checkbox"/> under approval; <input type="checkbox"/> approved (approval No.:)</td> </tr> <tr> <td>Appr.date</td> <td></td> </tr> <tr> <td>Ref.No.</td> <td></td> </tr> </table>	Title		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved (approval No.:)	Appr.date		Ref.No.	
Title										
Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved (approval No.:)									
Appr.date										
Ref.No.										
<input checked="" type="checkbox"/>	During the verification of the current MP no need for a TDfrMP or TDfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA									
<input type="checkbox"/>	An approval of the following TDfrMP or TDfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply. Please refer to the related PRC report submitted along with this issuance request for further details w.r.t. the assessment of the PRC.									
	1	Issue:								
	2	Issue:								
<input type="checkbox"/>	The following TDfrMP or TDfMM for which appendix 1 of the PS is applicable have been applied:									
	1	Issue:								
	2	Issue:								

E.3.2.2. Corrections

It has been checked whether any corrections to project information or parameters fixed at validation have been approved during this monitoring period or submitted with this monitoring report. The result is summarized in the table below.

<input checked="" type="checkbox"/>	During the verification of the current MP no need for corrections has been identified.	
<input type="checkbox"/>	The following corrections have been applied:	
	1	Issue:
	2	Issue:

	<input type="checkbox"/> A related post registration change has been submitted prior to the issuance request. <input type="checkbox"/> A related post registration change is submitted along with this issuance request. Please refer to the related PRC report submitted along with this issuance request for further details w.r.t. the assessment of the PRC.
--	---

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

N/A

E.3.2.4. Inclusion of a monitoring plan

<input checked="" type="checkbox"/>	N/A - as this monitoring plan was part of the included CPA-DD
<input type="checkbox"/>	In line with PS § 281 or § 282 the PP has forwarded a monitoring plan to the DOE for validation. No prior approval of the monitoring plan was required as the PP in line with PS § 282 wished to submit the monitoring plan together with the request for issuance for the first monitoring period. Please refer to the related PRC report submitted along with this issuance request for further details w.r.t. the assessment of the PRC.
<input type="checkbox"/>	In line with § 282 the PP submitted a monitoring plan prior to the submission of the request for issuance for validation to the DOE. A DOE has assessed the monitoring plan in line with related VVS requirements and submitted a related PRC report for prior approval. The approval has been received on DD/MM/YYYY via approval number PRC-XXXX-00Z.

E.3.2.5. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents

It has been checked whether any permanent changes from the registered monitoring plan (PCfrMP) or applied methodologies (PCfMM) including standardized baselines (PCfSB) have been approved prior or during this monitoring period or submitted with this monitoring report. The result is summarized in the table below.

<input checked="" type="checkbox"/>	No PCfrMP, PCfMM or PCfSB have been submitted to the UNFCCC prior to the current monitoring period		
<input type="checkbox"/>	The following PCfrMP, PCfMM or PCfSB have been approved or are under approval by the UNFCCC		
	1	Title	
		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved
		Appr.date	
		Ref. No.	
	2	Title	
		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved
		Appr.date	
		Ref. No.	
<input checked="" type="checkbox"/>	During the verification of the current MP no need for a PCfrMP, PCfMM or PCfSB has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA		
<input type="checkbox"/>	An approval of the following PCfrMP, PCfMM or PCfSB is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.		
	1	Issue:	
	2	Issue:	
<input type="checkbox"/>	The following PCfrMP, PCfMM or PCfSB for which appendix 1 of the PS is applicable have been applied:		

	1	Issue:	
	2	Issue:	

E.3.2.6. Changes to the project design

It has been checked whether any changes to the project design (CoPD) have been approved prior or during this monitoring period or submitted with this monitoring report. The result is summarized in the table below.

<input checked="" type="checkbox"/>	No CoPD has been submitted to the UNFCCC prior to the current monitoring period		
<input type="checkbox"/>	The following CoPD have been approved or are under approval by the UNFCCC		
	1	Title	
		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved
		Appr. date	
		Ref. No.	
	2	Title	
		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved
		Appr. date	
		Ref. No.	
<input checked="" type="checkbox"/>	During the verification of the current MP no need for a CoPD has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA		
<input type="checkbox"/>	An approval of the following CoPD is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.		
	1	Issue:	
	2	Issue:	
<input type="checkbox"/>	The following CoPD for which appendix 1 of the PS is applicable have been applied:		
	1	Issue:	
	2	Issue:	

E.3.2.7. Changes specific to afforestation and reforestation activities

<input checked="" type="checkbox"/>	N/A - as this registered PoA is not an afforestation and reforestation activity
-------------------------------------	---

E.3.3. Compliance of the registered monitoring plan with applied methodologies and standardized baselines

Means of verification	<p>By means of comparison of the MR with</p> <ul style="list-style-type: none"> (i) the applied CDM methodology (ii) all applicable CDM Meth tools and (iii) if applicable, a standardized baseline <p>the verification team has checked whether the MP is in compliance with the MP related requirements of the applied methodology/tools/SB.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /AMS II. G./ • /unfccc/ • /TOOL30/
------------------------------	--

Findings	<input checked="" type="checkbox"/>	The MP is completely in accordance with the approved methodology applied by the CDM PoA project (last registered/approved version of the PoA-DD)		
	<input type="checkbox"/>	The breakdown of MP accordance of the referenced guidelines is as follows:		
		1	Title (of the guideline) MP compliance	Calculation of the fraction of non-renewable biomass version 1.0 <input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A (for MP)
		2	Title (of the tool) Version MP compliance	<input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A
		<input type="checkbox"/>	The breakdown of MP accordance of the applicable SB is as follows:	
	1		Title (of the SB) Version MP compliance	Name of SB
<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised:			
Conclusion	<input checked="" type="checkbox"/>	No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.		
	<input type="checkbox"/>	The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.		
	-			

E.3.4. Compliance of monitoring activities with the registered monitoring plan

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

Means of verification	<p>By means of comparison of the MR and the ER calculation with the latest version of the registered PoA-DD, the verification team has checked whether all parameters fixed ex-ante or at renewal of the crediting period have been applied correctly.</p> <p>Parameters which are fixed ex-ante are listed as below have been found to be adequately provided in the section E.1 of the MR. Corresponding values in the ER sheet are also verified to be correct.</p> <ol style="list-style-type: none"> 1. $B_{old,p}$ 2. $N_{p,HH}$ 3. $B_{old,HH}$ 4. $f_{NRB,y}$ 5. $EF_{project_fossilfuel}$ 6. LAF_y 7. $NCV_{biomass}$ 8. $\eta_{old,i,j}$ <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /XLS/ • /PoA-DD/ • /CPA-DD/ • /PS/ • /VVS/ • /unfccc/ • /AMS II. G./
------------------------------	--

Findings	<input checked="" type="checkbox"/>	The MR and the ER calculation have considered the parameters fixed ex-ante or at the renewal of the crediting period correctly, no deviations have been observed.
	<input type="checkbox"/>	The following deviations from the parameters fixed ex-ante or at renewal of crediting period have been identified in the course of this verification: - N/A
	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: -
		For details please refer to appendix 4
Conclusion	<input checked="" type="checkbox"/>	No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out.
		The fixed ex-ante parameters corresponding with the provisions of CPA-DD are appropriately applied for the ER calculation.

E.3.4.2. Data and parameters monitored

Means of verification	During the verification all relevant monitoring parameters (as listed in the PoA-DD) have been verified with regard to the (i) appropriateness of the applied measurement / determination method, (ii) the correctness of the values applied for ER calculation, (iii) the accuracy and applied QA/QC measures. The results as well as the verification procedure are described parameter-wise in the project specific verification checklist (Appendix 5).	
Findings	CL 01 and CAR 01	
Conclusion	<input type="checkbox"/>	No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input checked="" type="checkbox"/>	The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
		During the verification all relevant monitoring parameters (as listed in chapter D.7.1 of the registered CPA-DD) have been verified with regard to the appropriateness of the applied measurement / determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC ^{/MR/,/XLS/} measures. The results as well as the verification procedure are described parameter-wise in the project specific verification checklist (Appendix 5). After appropriate corrections were carried out by the project participant it can be confirmed that all monitoring parameters have been measured / determined without material misstatements and in line with all applicable standards and relevant requirements.

E.3.4.3. Implementation of sampling plan

Means of verification	The verification team checked whether the PP applied a sampling approach to determine the monitored values. Further it has been checked whether the PP correctly applied the implemented sampling plan including (i) description of the implemented sampling design (ii) collected data (iii) analysis of collected data (iv) demonstration on whether the required confidence/precision has been met. The following sources of information have been used in this context: • /MR/ • /RC/ • /XLS/ • /SUR/,/USAGE/ • /WBT/ • /PoA-DD/ • /CPA-DD/
------------------------------	--

Findings	<input type="checkbox"/>	The PPs have not applied sampling approaches for the parameters monitored.	
	<input checked="" type="checkbox"/>	The PPs have applied sampling approaches for the following parameters monitored.	
		N_{y,i,j}	
		Name:	Number of project devices of type i and batch j operating during year y
	Description on how the sampling efforts and survey comply with the validated sampling plan:	<p>The CPA implementer is maintaining database of all the stove installed^{/DB/} under the CPA. At the point of Bodhu Chulha installation, the presence of existing Bondhu Chulha, if any, is checked in the CPA Distribution record^{/SSQ/}. Subsequent (secondary) Bondhu Chulha, if any, is not included in the CPA. A review of the total installation database^{/DB/} confirms that absence of other project ICS is ensured at the time of installation and only one ICS is installed per household.</p> <p>A monitoring survey was conducted in January 2021^{/SUR//USAGE/} to determine the number of operating stoves of type i and batch j on a sampling basis, calculated as: $N_{y,i,j} = (n_{i,j,operational} / n_{i,j,total}) * N_{y,i,j,installed}$ Where: N = total number of stoves in population n = number of samples monitored</p> <p>The formula used to calculate the sample size to determine number of operational stoves of type i and batch j is as follows:</p> <p>For Proportion based parameters (N_{y,i,j} and μ_y)</p> $V = \frac{SD^2}{p^2} \text{ Where:}$ $SD^2 = \frac{\sum_{i=1}^k g_i * p_i * (1 - p_i)}{N}$ $p = \frac{\sum_{i=1}^k g_i * p_i}{N}$ <p>Where, g_i = weight of strata i in the population p_i = expected proportion of strata i in the population k = total number of strata in the population</p> <p>A sample size was calculated based on estimated proportion values based on project developer's knowledge and experience in line with para 13(b) and 13(c) of the Sampling and surveys for CDM project activities and programmes of activities^{/SAMPLE-S/}.</p> <p>The samples were drawn from the installation database^{/DB/} of project stoves for the aforesaid 6 strata using online random number generator^{/DB/}. A total of 50 samples ((35 1-Pot and 15 2-Pot) in line with Standard: Sampling and surveys for CDM project activities and programme of activities^{/SAMPLE-S/}, were identified by PP with expected response rate of 90%. Subsequently, all 50 stove users samples identified were surveyed^{/SUR//USAGE/} as illustrated below:</p>	

Strata	Total population (N) ⁸	Reliability	Sample Size (n) required	Samples covered during monitoring
N _{y,1-Pot, 2018}	46,047	95/10	1	5
N _{y,2-Pot, 2018}	38,530	95/10	1	5
N _{y,1-Pot, 2019}	497,851	95/10	10	15
N _{y,2-Pot, 2019}	230,806	95/10	5	5
N _{y,1-Pot, 2020}	535,802	95/10	11	15
N _{y,2-Pot, 2020}	183,654	95/10	4	5

Also, the presence of one Bondhu Chulha in a household is further cross-checked on sampling basis during the ex-post monitoring survey^{/SSQ/}. A review of complete survey records^{/SUR//USAGE/} confirms that all monitored samples have only one project ICS installed in the corresponding households.

Procedures for sampling have been duly articulated in the MR, ER spreadsheet^{/XLS/}, and complete survey records^{/SUR//USAGE/} has been furnished to verification team. However, during course of verification, relevant findings were raised and same can be referred in detail in Appendix-4 of this report.

μ_y

Name:	Adjustment to account for any continued use of pre-project devices during the year y
Description on how the sampling efforts and survey comply with the validated sampling plan:	<p>The sampled households are checked for presence of baseline stove and if it is being used along with project stove for cooking. For samples where baseline stove was found not being used, μ_y = 1.0.</p> <p>For samples where the baseline stove is found to be in use, μ_y is determined as ratio of frequency of usage (i.e. number of meals cooked on ICS Vs Total number of meals cooked on ICS and baseline stove).</p> <p>A monitoring survey was conducted in January 2021^{/SUR//USAGE/} to determine the “Adjustment to account for any continued use of pre-project devices during the year y” on a sampling basis. The formula used to calculate the sample size for parameter number of operational stoves of type i and batch j is as follows</p> $n \geq \frac{z^2 * N * V}{(N - 1) * precision^2 + z^2 * V}$ <p>Where, n = number of ICS to be sampled N = Total number of ICS in the population Z = Constant referring to level of confidence (1.96 for 95 % confidence) Precision = Required precision (e.g. 10% = 0.1)</p> <p>For Proportion based parameters (N_{y,i,j} and μ_y)</p> $V = \frac{SD^2}{p^2} \text{ Where:}$

⁸These are rounded figures of total strata population for calculating sample size only.

$$SD^2 = \frac{\sum_{i=1}^k g_i * p_i * (1 - p_i)}{N}$$

$$\bar{p} = \frac{\sum_{i=1}^k g_i * p_i}{N}$$

Where,

g_i = weight of strata i in the population

p_i = expected proportion of strata i in the population

k = total number of strata in the population

A sample size was calculated based on estimated proportion values based on project developer's knowledge and experience in line with para 13(b) and 13(c) of the Sampling and surveys for CDM project activities and programmes of activities^{/SAMPLE-S/}. A total of 46 samples ((32 1-Pot and 14 2-Pot) in line with Standard: Sampling and surveys for CDM project activities and programme of activities^{/SAMPLE-S/}, were identified by PP with expected response rate of 90%. Subsequently, all 46 stove users samples identified were surveyed^{/SUR//USAGE/} as illustrated below:

Strata	Total population (N)	Reliability	Sample Size (n) required	Samples covered during monitoring
μ_y , 1-Pot	1,079,700	95/10	22	32
μ_y , 2-Pot	452,990	95/10	9	14

Procedures for sampling have been duly articulated in the MR, ER spreadsheet^{/XLS/} and corresponding survey forms containing survey records^{/SUR//USAGE/} were furnished to DOE for assessment.

However, findings were raised on this during the verification process and CME has sufficiently taken the appropriate action and hence all findings could be resolved. For more detail, Appendix-4 of this report can be referred.

Parameter $\eta_{new,i,j}$

Name: Efficiency of the project device of each type i and batch j

Description on how the sampling efforts and survey comply with the validated sampling plan: Efficiency of the project device of each type i and batch j was determined using option c of para 25 of the applied methodology AMS II.G Ver 08.0.

Thus, the WBTs were conducted for first batch of stoves (2018)^{/DB/} only and the values were applied to subsequent batches as applicable.

The sample size has been calculated according to the following equations:

$$n \geq \frac{z^2 * N * V}{(N - 1) * precision^2 + z^2 * V}$$

Where,

n = number of ICS to be sampled

N = Total number of ICS in the population

Z = Constant referring to level of confidence (1.96 for 95 % confidence)

Precision = Required precision (e.g. 10% = 0.1)

Where:

$$V = \left(\frac{SD}{Mean} \right)^2$$

Where

$$SD^2 = \frac{\sum_{i=1}^k g_i * SD_i^2}{N}$$

$$Mean = \frac{\sum_{i=1}^k g_i * m_i}{N}$$

Where

SD_i = expected standard deviation of strata i in the population

m_i = expected mean of strata i in the population

A sample size was calculated based on estimated proportion values based on project developer's knowledge and experience in line with para 13(b) and 13(c) of the Sampling and surveys for CDM project activities and programmes of activities^{/SAMPLE-S/}.

WBTs were conducted in February 2021^{/WBT/} to determine the efficiency for ICS which are in third year of their operation i.e. ICS installed in 2018 $\eta_{new,i,2018(age\ 3)}$. Below approach s followed by the CME

Age in years	Present Verification
3	$\eta_{new, 1-Pot, 2018}$, $\eta_{new, 2-Pot, 2018}$ Determined based on WBTs were conducted in February 2021
Other vintages efficiency (age 2 and age1) are coming from previously verified monitoring reports (MP3 and MP2 respectively ^{/VERIF/}) and values are assessed to be correctly applied during the current monitoring period for calculation of savings.	

CME's approach of monitoring the thermal efficiency at the end of monitoring period is assessed to be appropriate and in accordance with § 25, options (c) of applied methodology (AMS II.G version 8.0)^{/AMS.II-G/}.

A total of 08 samples ((4 1-Pot and 4 2-Pot) in line with Standard: Sampling and surveys for CDM project activities and programme of activities, version 08^{/SAMPLE-S/} were identified by CME with expected response rate of 90% for each monitoring event / batch (Feb 2021). Subsequently, all 8 stove users samples identified were tested^{/WBT//XLS/} as illustrated below:

Feb 2021

Strata	Total population (N)	Reliability	Sample Size (n) required	Samples covered during monitoring
1-Pot,2018 (age 3)	46,047	95/10	4	4
2-Pot,2018 (age 3)	38,530	95/10	4	4

		<p>* ICS Installed in 2020 are in first year of their age and denoted as (age 1), ICS installed in 2019 are in second year of their age, hence denoted as (age 2) and ICS installed in 2018 are in third year of their age, hence denoted as (age 3) accordingly.</p> <p>Procedures for sampling have been duly articulated in the field MR, ER spreadsheet^{/XLS/} and corresponding WBT forms containing WBT test readings^{/WBT/} furnished to DOE for assessment.</p> <p>Monitoring WBTs^{/WBT/} were conducted by trained personnel^{/TRG/} using stratified random sampling following the standard^{/SAMPLE-S/} and guideline^{/SAMPLE-G/} for Sampling and surveys for CDM project activities and programme of activities. As described above, it can be said that sampling was accurate. However, findings were raised on this during the verification process and CME has sufficiently taken the appropriate action and hence all findings could be resolved.</p> <p>For more detail, Appendix-4 of this report can be referred.</p>
	<input checked="" type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: CL 01, CAR 01
Conclusion	<input type="checkbox"/>	No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input checked="" type="checkbox"/>	The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
		<p>Based on the assessment of survey and sampling records^{/SUR/USAGE/} including WBT and their analysis sheets^{/WBT/} for the related parameters, it is concluded that all the parameters have been monitored correctly in accordance with registered monitoring plan and the applied methodology.</p> <p>The verification team concludes that all sampled parameters have been calculated correctly in line with the registered corresponding CPA-DDs^{/CPA-DD/} and the sampling standard^{/SAMPLE-S/}. For all the parameters, the achieved relative precision of 10% and 95% confidence level is demonstrated to be met^{/RC/XLS/}.</p> <p>Based on above along with the remote assessment of the project stoves installation in Bangladesh, the verification team concludes the approach and result deemed appropriate and acceptable.</p>

E.3.5. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	<p>During the verification, the relevant monitoring equipment has been checked whether the calibration requirements have been met; especially if the calibration frequency is in line with the requirements of the validated CPA-DD and/or the applicable calibration standards.</p> <p>The results as well as the verification procedure are described equipment-wise in the project specific verification checklist (Appendix 6).</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /XLS/ • /CAL/, /INV/ • /PoA-DD/ • /CPA-DD/
Findings	<p><input checked="" type="checkbox"/> Calibration is not under the purview of the CME, however, third party WBT agency has provided the complete calibration detail of the equipment in the report which were also checked during remote assessment by the verification team and found to be appropriate. Thus, the verification team can confirm that all installed monitoring equipment has been duly calibrated for this entire monitoring period.</p>

	<input type="checkbox"/>	Based on the assessment and information as per appendix 6 delay(s) in calibration have been identified. The PP has applied the maximum permissible error of the instrument to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration. From the related calibration certificates and emission reduction calculation the verification team confirms that the maximum permissible error has been applied in a conservative manner so that the adjusted measured values due to the delayed calibration result in fewer claimed emission reductions. For details please refer to appendix 6
	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: -
Conclusion	<input checked="" type="checkbox"/>	No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
		Though the applied methodology ^{/AMS.II-G/} and registered PoA monitoring plan do not make provision for calibration, however, it was checked during the verification and interview with Water Boiling testing team that all the equipment used for WBT were duly calibrated (during the year test conducted). All the relevant equipment including thermometer, moisture meters, weighing scale were duly purchased (purchase receipt dated 06/01/2021) ^{/INV/} . BBF/PP has submitted all purchase receipts during the remote verification audit for all the relevant tools and equipment ^{/CAL/} . During document review (remote assessment), these tools and equipment were assessed and found to be working properly and accurately. Test conducted ^{/WBT/} were also verified to be in line with WBT protocol ^{/WBTP/} requirement.

E.3.6. Assessment of data and calculation of emission reductions or net removals

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

Means of verification	<p>During the verification the calculation of baseline GHG emissions has been checked. In detail the following has been verified:</p> <ul style="list-style-type: none"> <i>Transparency:</i> It has been checked whether the calculation of baseline emissions is fully traceable and, where used, the Excel calculation provides all calculation formulae. <i>Parameter consistency:</i> It has been checked whether all internal and external parameters and data used for the calculation are applied consistently in the monitoring report and the calculation spreadsheet. <i>Correctness:</i> It has been checked whether the applied formulae and methods for calculating baseline emissions are in accordance with the monitoring plan and the approved methodology. <i>Completeness:</i> It has been checked whether all calculations are complete and without omissions. <p>The quantity of woody biomass i.e. saved due to the project activity is calculated as follows:-</p> $B_{y,savings,i,j} = B_{old,i,j} \times \left(1 - \frac{\eta_{old,i,j}}{\eta_{new,i,j}} \right)$ <p>Where</p> <p>$B_{old,i,j}$ = Annual quantity of woody biomass that would have been used in the absence of the project activity to generate useful thermal energy equivalent to that provided by the project device type i and batch j</p> <p>$\eta_{new,i,j}$ = Efficiency of the device of each type i and batch j implemented as part of the project activity.</p>
------------------------------	--

	<p>$\eta_{old,i,j}$ = Efficiency of pre - project device, which is a three-stone fire using firewood (not charcoal), or a conventional device with no improved combustion air supply or flue gas ventilation, that is without a grate or a chimney;</p> $B_{old,i,j} = B_{old,HH} = B_{old,p} \times N_{p,HH}$ <p>$B_{old,HH}$ = Annual quantity of woody biomass that would have been used in the household in the absence of the project activity to generate useful thermal energy equivalent to that provided by the project devices</p> <p>$B_{old,p}$ = Annual quantity of woody biomass that would have been used per person in the household in the absence of the project activity to generate useful thermal energy equivalent to that provided by the project devices</p> <p>$N_{p,HH}$ = Average number of persons served per household prior to the project implementation</p> <p>The calculation of baseline emission reduction and emission reduction is further addressed under section E.3.6.4 of this report below. The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /PoA-DD/ • /CPA-DD/ • /XLS/ • /USAGE/ • /WBT/ 						
Findings	<table border="1"> <tr> <td data-bbox="437 1055 528 1424" style="text-align: center; vertical-align: middle;"><input checked="" type="checkbox"/></td> <td data-bbox="528 1055 1445 1424"> <p>The calculation of the baseline emissions was found to be fully compliant with the above stated principles.</p> <p>The calculations of baseline GHG emissions or baseline net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values other reference values have been correctly applied.</p> <p>No errors, miscalculations, omissions, misstatements or incomplete information has been identified.</p> </td> </tr> <tr> <td data-bbox="437 1424 528 1491" style="text-align: center; vertical-align: middle;"><input type="checkbox"/></td> <td data-bbox="528 1424 1445 1491">The verification team has identified mistakes in the baseline emissions calculation or the underlying calculation approaches.</td> </tr> <tr> <td data-bbox="437 1491 528 1554" style="text-align: center; vertical-align: middle;"><input type="checkbox"/></td> <td data-bbox="528 1491 1445 1554"> <p>In this context the following CARs, CLs, FARs have been raised:</p> <p>-</p> </td> </tr> </table>	<input checked="" type="checkbox"/>	<p>The calculation of the baseline emissions was found to be fully compliant with the above stated principles.</p> <p>The calculations of baseline GHG emissions or baseline net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values other reference values have been correctly applied.</p> <p>No errors, miscalculations, omissions, misstatements or incomplete information has been identified.</p>	<input type="checkbox"/>	The verification team has identified mistakes in the baseline emissions calculation or the underlying calculation approaches.	<input type="checkbox"/>	<p>In this context the following CARs, CLs, FARs have been raised:</p> <p>-</p>
<input checked="" type="checkbox"/>	<p>The calculation of the baseline emissions was found to be fully compliant with the above stated principles.</p> <p>The calculations of baseline GHG emissions or baseline net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values other reference values have been correctly applied.</p> <p>No errors, miscalculations, omissions, misstatements or incomplete information has been identified.</p>						
<input type="checkbox"/>	The verification team has identified mistakes in the baseline emissions calculation or the underlying calculation approaches.						
<input type="checkbox"/>	<p>In this context the following CARs, CLs, FARs have been raised:</p> <p>-</p>						
Conclusion	<table border="1"> <tr> <td data-bbox="437 1554 528 1621" style="text-align: center; vertical-align: middle;"><input checked="" type="checkbox"/></td> <td data-bbox="528 1554 1445 1621">No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.</td> </tr> <tr> <td data-bbox="437 1621 528 1711" style="text-align: center; vertical-align: middle;"><input type="checkbox"/></td> <td data-bbox="528 1621 1445 1711">The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 5.</td> </tr> </table> <p>Based on above and verification of all input values (fixed ex-ante), it can be concluded by verification team that, baseline GHG emissions calculation presented in the MR and corresponding ER sheet is deemed as appropriate.</p>	<input checked="" type="checkbox"/>	No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.	<input type="checkbox"/>	The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 5.		
<input checked="" type="checkbox"/>	No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.						
<input type="checkbox"/>	The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 5.						

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

Means of verification	<p>During the verification the calculation of project GHG emissions has been checked. In detail the following has been verified:</p> <ul style="list-style-type: none"> • <i>Transparency</i>: It has been checked whether the calculation of project emissions is fully traceable and, where used, the Excel calculation provides all calculation formulae.
------------------------------	---

	<ul style="list-style-type: none"> • <i>Parameter consistency</i>: It has been checked whether all internal and external parameters and data used for the calculation are applied consistently in the monitoring report and the calculation spreadsheet. • <i>Correctness</i>: It has been checked whether the applied formulae and methods for calculating project emissions are in accordance with the monitoring plan and the approved methodology. • <i>Completeness</i>: It has been checked whether all calculations are complete and without omissions. <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /PoA-DD/ • /CPA-DD/ • /XLS/.
Findings	<input type="checkbox"/> The calculation of the project emissions was found to be fully compliant with the above stated principles. The calculations of project GHG emissions or actual net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values and other reference values have been correctly applied. No errors, miscalculations, omissions, misstatements or incomplete information have been identified.
	<input type="checkbox"/> The verification team has identified mistakes in the project emissions calculation or the underlying calculation approaches.
	<input type="checkbox"/> In this context the following CARs, CLs, FARs have been raised:
	-
Conclusion	<input checked="" type="checkbox"/> No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input type="checkbox"/> The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
	Project emissions are not applicable by the applied methodology for the registered PoA

E.3.6.3. Calculation of leakage GHG emissions

Means of verification	<p>During the verification the calculation of leakage has been checked. In detail the following has been verified:</p> <ul style="list-style-type: none"> • <i>Transparency</i>: It has been checked whether the calculation of leakage is fully traceable and, where used, the Excel calculation provides all calculation formulae. • <i>Parameter consistency</i>: It has been checked whether all internal and external parameters and data used for the calculation are applied consistently in the monitoring report and the calculation spreadsheet. • <i>Correctness</i>: It has been checked whether the applied formulae and methods for calculating project emissions are in accordance with the monitoring plan and the approved methodology. • <i>Completeness</i>: It has been checked whether all calculations are complete and without omissions. <p>Leakage is to be considered by the methodology for non-renewable woody biomass. This can be done either via survey or by applying a default factor of 0.95 to the parameter B_{old}. As per PoA-DD as well as generic and specific CPA-DD PP has applied the default factor to the parameter B_{old}.</p> <p>Besides, leakage is to be considered in case equipment is transferred from outside the boundary to the project activity.</p> <p>The following sources of information have been used in this context:</p>
------------------------------	---

	<ul style="list-style-type: none"> • /MR/ • /CPA-DD/ • /XLS/ • /AMS II.G./ 	
Findings	<input checked="" type="checkbox"/>	<p>The calculation of the leakage was found to be fully compliant with the above stated principles.</p> <p>The calculations of leakage GHG emissions or actual net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values and other reference values have been correctly applied.</p> <p>No errors, miscalculations, omissions, misstatements or incomplete information have been identified.</p>
	<input type="checkbox"/>	The verification team has identified mistakes in the project emissions calculation or the underlying calculation approaches.
	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised:
		-
Conclusion	<input checked="" type="checkbox"/>	No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
		<p>PP has applied related default factor (LAF_y) correctly to the parameter B_{old}. Therefore, no further leakage emission result is separately indicated in monitoring report or this report.</p> <p>Besides, DOE could not identify that any equipment is transferred from outside the boundary to the project activity, based on interviews taken and households visited as well as check of PoA set-up and organisation. Cookstoves are newly produced before distribution.</p>

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

Means of verification	The verification team has checked if the MR includes a summary table of the emission reductions calculation specifying separately.		
	<ul style="list-style-type: none"> - Total baseline emissions, - Total project emissions, - Total leakage, - Total emission reductions. 		
	The MR demonstrate the summary of GHG emission reductions for the monitoring period and calculated according to the applied methodology AMS-II.G as follows:		
	$ER_y = \sum_i \sum_j ER_{y,i,j} - LE_y$		
	Where		
	<i>i</i>	=	Indices for the situation where more than one type of project device is introduced to replace the pre-project devices ⁷
	<i>J</i>	=	Indices for the situation where there is more than one batch of project device
	<i>ER_y</i>	=	Emission reductions during year <i>y</i> in t CO ₂ e
	<i>ER_{y,i,j}</i>	=	Emission reductions by project device of type <i>i</i> and batch <i>j</i> during year <i>y</i> in t CO ₂ e
	<i>LE_y</i>	=	Leakage emissions in the year <i>y</i>

Where

$$ER_{y,i,j} = B_{y,savings,i,j} \times N_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossil\ fuel}$$

Where

$B_{y,savings,i,j}$	=	Quantity of woody biomass that is saved in tonnes per cook stove device of type i and batch j during year y
$f_{NRB,y}$	=	Fraction of woody biomass that can be established as non-renewable biomass using survey methods or government data or default country specific fraction of non-renewable woody biomass (f_{NRB}) values available on the CDM website
$NCV_{biomass}$	=	Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.015 TJ/tonne, based on the gross weight of the wood that is 'air-dried')
$EF_{projected_fossilfuel}$	=	Emission factor for the fossil fuels projected to be used for substitution of non-renewable woody biomass by similar consumers. Use a value of 81.6 t CO ₂ /TJ
$N_{y,i,j}$	=	Number of project devices of type i and batch j operating during year y
μ_y	=	Adjustment to account for any continued use of pre-project devices during the year y when applying equations 6 (fraction).

Data/Parameter	Data Unit	10431-P1-0001-CP1	10431-P1-0002-CP1	10431-P1-0003-CP1
N_y , 1-Pot, 2020 Operational	Number	300914	99584	99584
N_y , 2-Pot, 2020 Operational	Number	111757	35948	35949
N_y , 1-Pot, 2019 Operational	Number	464661	-	-
N_y , 2-Pot, 2019 Operational	Number	230806	-	-
N_y , 1-Pot, 2018 Operational	Number	36838	-	-
N_y , 2-Pot, 2018 Operational	Number	30824	-	-
η_{new} 1-Pot, 2018(age 3)	Fraction	0.3260	0.3260	0.3260
η_{new} 2-Pot, 2018(age 3)	Fraction	0.3292	0.3292	0.3292
Efficiency Loss 1-Pot, 2018(age 3)	Fraction	0.0140	0.0140	0.0140
Efficiency Loss 2-Pot, 2018(age 3)	Fraction	0.0170	0.0170	0.0170
η_{new} 1-Pot, 2020	Fraction	0.3331	0.3331	0.3331
η_{new} 2-Pot, 2020	Fraction	0.3375	0.3375	0.3375
η_{new} 1-Pot, 2019	Fraction	0.3312	-	-
η_{new} 2-Pot, 2019	Fraction	0.3340	-	-
η_{new} 1-Pot, 2018	Fraction	0.3260	-	-
η_{new} 2-Pot, 2018	Fraction	0.3292	-	-
$B_{y,saving}$, 1-Pot, 2020	Tonnes/year	1.464	1.368	1.368
$B_{y,saving}$, 2-Pot, 2020	Tonnes/year	1.473	1.377	1.377
$B_{y,saving}$, 1-Pot, 2019	Tonnes/year	1.459	-	-
$B_{y,saving}$, 2-Pot, 2019	Tonnes/year	1.465	-	-
$B_{y,saving}$, 1-Pot, 2018	Tonnes/year	1.448	-	-
$B_{y,saving}$, 2-Pot, 2018	Tonnes/year	1.455	-	-
$\mu_{y,1-Pot}$	fraction	1.00	1.00	1.00
$\mu_{y,2-Pot}$	fraction	1.00	1.00	1.00
Stove _{year}	Fraction	0.741	0.254	0.254
ER _y	tCO ₂ e	1,315,083	48,737	48,737

It has been assessed whether the values are correct or need to be revised as a consequence of issues identified during the desktop reviews and remote assessments. Findings have been raised and all monitored parameters have been duly verified.

	The following sources of information have been used in this context: <ul style="list-style-type: none"> • /MR/ • /XLS/ • /CPA-DD/ • /PoA-DD/ • /AMS II.G/ • /SUR/,/USAGE/ • /WBT/ 	
Findings	<input checked="" type="checkbox"/>	Section F.4 of the MR includes in a summary table of the emission reductions calculation.
	<input type="checkbox"/>	The summary table specified the total baseline, project and leakage emissions as well as the total emission reductions separately.
	<input checked="" type="checkbox"/>	The values as specified in the ER summary table are correct; no issues have been identified during the verification which requires changes in the ER calculation.
	<input checked="" type="checkbox"/>	During the verification issues with impact on the ER calculation have been identified. CAR 01
Conclusion	<input type="checkbox"/>	No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input checked="" type="checkbox"/>	The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
	The summary table in MR has been filled correctly and the values are in line with related emission reduction calculation spreadsheet.	

Title and UNFCCC reference number of the CPA	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)		
				Amount achieved before 1 January 2013	Amount achieved from 1 January 2013	Amount achieved in the entire monitoring period
Improved cookstove program in Bangladesh supported by the Republic of Korea - CPA 01 10431-P1-0001-CP1	1,315,083	0	0	0	1,315,083	1,315,083
Improved cookstove program in Bangladesh supported by the Republic of Korea - CPA 02 10431-P1-0002-CP1	48,737	0	0	0	48,737	48,737
Improved cookstove program in Bangladesh supported by the Republic of Korea - CPA 03 10431-P1-0003-CP1	48,737	0	0	0	48,737	48,737
Total	1,412,557	0	0	0	1,412,557	1,412,557

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

Means of verification	The verification team has checked if the MR includes a comparison of actual values of the monitoring period with the estimations in the included CPA-DD. It has further checked which of the below listed cases is applicable for the calculated ER of the current monitoring period.	
Findings	<input checked="" type="checkbox"/>	Case 1: The ex-ante estimated value was found to be proportionally higher than the ex-post determined value. No further action is deemed required.

	<input type="checkbox"/>	Case 2: The ex-ante estimated value fits very good to the actually monitored value. No further justification is deemed required.
	<input type="checkbox"/>	Case 3: The ex-ante estimated value was found to be proportionally lower than the ex-post determined value.
	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: -
Conclusion	<input checked="" type="checkbox"/>	No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
	-	

Title and UNFCCC reference number of the CPA	Actual values achieved by the CPAs during this monitoring period (tCO ₂)	Value estimated in ex ante calculation in the included CPA-DD(s) (tCO ₂) ⁹
Improved cookstove program in Bangladesh supported by the Republic of Korea - CPA 01 10431-P1-0001-CP1	1,315,083	4,983,878
Improved cookstove program in Bangladesh supported by the Republic of Korea - CPA 02 10431-P1-0002-CP1	48,737	1,074,137
Improved cookstove program in Bangladesh supported by the Republic of Korea - CPA 03 10431-P1-0003-CP1	48,737	1,074,137
Total	1,412,557	7,132,152

E.3.6.6. Remarks on difference from estimated value in included CPA

Means of verification	On the basis of the above comparison of actual values of the monitoring period with the estimations in the registered PoA-DD (E.8.5) and section F.5 of the MR, the verification team has checked whether (in case 3) an appropriate explanation is included in the MR.	
Findings	<input checked="" type="checkbox"/>	No further justification or explanation is deemed required as actual emissions of this MP do not exceed significantly the ex-ante calculated emission reductions (applicable for case 1 and 2).
	<input type="checkbox"/>	For case 3: The PP has provided a related justification in the MR. The reasons for the increase are as follows: - N/A
	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised: -
Conclusion	<input checked="" type="checkbox"/>	No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
	-	

⁹The estimated amount covers the time from CP start of each CPA (which is within this MP) until the end of MP. The calculation is done on pro-rata basis, as per ER calculation spreadsheet submitted by CME. The estimated ER are appropriately calculated as

$$=4,575,416 \times (152/366) + (9,150,832 \times (123/365)) + 1,425,673 \times (275/365) + 1,425,673 \times (275/365)$$

$$= 7,132,152 \text{ tCO}_2\text{e}$$

E.3.7. Assessment of reported sustainable development co-benefits

Means of verification	<input checked="" type="checkbox"/>	N/A – as the PP has not monitored the sustainable development co-benefits of the registered CDM project activity or not requested the DOE to verify them.
	<input type="checkbox"/>	<p>The project participants have monitored the sustainable development co-benefits of the registered CDM project activity and requested the DOE to verify them.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /PoA-DD/ • /CPA-DD/ • /unfccc/.
Findings	<input checked="" type="checkbox"/>	N/A – as the PP has not monitored the sustainable development co-benefits of the registered CDM project activity or not requested the DOE to verify them.
	<input type="checkbox"/>	<p>Therefore, the DOE has assessed and confirms that:</p> <p>(a) The monitoring has been carried out in accordance with the document for monitoring sustainable development co-benefits, if such document was developed and published on the UNFCCC CDM website in accordance with the “CDM project standard for project activities”;</p> <p>(b) The reported monitoring results correspond to the sustainable development co-benefits of the project activity as observed by the DOE.</p>
	<input type="checkbox"/>	<p>In this context the following CARs, CLs, FARs have been raised:</p> <p>-</p>
Conclusion	<input checked="" type="checkbox"/>	No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
	<input checked="" type="checkbox"/>	N/A – as the PP has not monitored the sustainable development co-benefits of the registered CDM project activity or not requested the DOE to verify them.
		-

E.3.8. Global stakeholder consultation

Means of verification		<p>In accordance with the PCP the DOE has submitted the initial version of the monitoring report provided by the PP for this monitoring period to be published on the UNFCCC webpage.</p> <p>The monitoring report has been published for the period from 24/02/2021.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /MR/ • /unfccc/.
Findings	<input checked="" type="checkbox"/>	No comments have been received on the published monitoring report for this monitoring period.
	<input type="checkbox"/>	Comments have been received and the DOE has concluded that comments are related to issues outside the CDM rules and requirements. Please refer to the list provided under Conclusion of this Section below for related information.
	<input type="checkbox"/>	<p>Comments have been received.</p> <p>The DOE has</p> <ul style="list-style-type: none"> - requested further information from the submitters of the comments - informed the project participants of the comments received, and requested their feedback within a specified timeframe, - considered the input received and has assessed whether such comments are relevant to the CDM project activity, - acknowledged receipt of all submitted comments on the MR of the proposed CDM project activity, - assessed whether the comments are related to the CDM rules and requirements (if so related findings have been raised as per below), - used all possible means to determine the authenticity of the name and contact details of the individual or organization on whose behalf the comments have been submitted,

		<ul style="list-style-type: none"> - contacted the secretariat to make them publicly available (if only addressed to the DOE), - determined whether authentic and relevant comments in the global stakeholder consultation were taken into due account in the PDD of the proposed CDM project activity.
	<input type="checkbox"/>	In this context the following CARs, CLs, FARs have been raised, i.e. as the DOE concludes that the comments are related to the CDM rules and requirements:
		-
Conclusion	<input checked="" type="checkbox"/>	No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.
	<input type="checkbox"/>	The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.
	<input checked="" type="checkbox"/>	No comments received during the stakeholder consultation process.

SECTION F. Internal quality control

Before the submission of the final verification report a technical review of the whole verification procedure was carried out. The technical reviewers are competent GHG auditors where at least one is being appointed for the scope this project falls under. The technical reviewers are not considered to be part of the verification team and thus not involved in the decision-making process up to the technical review.

As a result of the technical review process the verification opinion and the topic specific assessments as prepared by the verification team leader may have been confirmed or revised. Furthermore, reporting improvements might have been achieved.

After the successful technical review an overall (esp. procedural) assessment of the complete verification has been carried out by a senior assessor located in the accredited premises of TÜV NORD.

After this step the submission for requesting for issuance is conducted.

SECTION G. Verification opinion

Ecoeye Co., Ltd. has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 4th periodic verification of the CDM PoA: ***“Improved cookstove program in Bangladesh supported by the Republic of Korea”***, with regard to the relevant requirements for CDM Programme of Activities. The PoA reduces GHG emissions due to dissemination of fuel-efficient wood stoves compared to the baseline scenario.

This verification covers the period from 01/04/2020 – 31/12/2020 (both days included).

The programme of activities reduces GHG emissions by disseminating biomass based improved cookstoves (“Bondhu Chulha”) to households / SMEs in Bangladesh. The CPAs under consideration (CPA 10431-P1-0001-CP1 to CPA 10431-P1-0003-CP1) reduce GHG by disseminating biomass based improved cookstoves (“Bondhu Chulha”) to households / SMEs in Bangladesh. Bondhu Chulha of two types (1-Pot and 2-Pot) have been installed in project households in Bangladesh, replacing the cookstoves used in the baseline scenario (3 stone fire / traditional unimproved clay stoves).

As a result of this verification, the verifier confirms that:

- all operations of the project are implemented and installed as planned and described in the validated project design documents,

- the monitoring plan is in accordance with the applied approved CDM methodology, i.e., AMS II.G. Version 08.0,
- the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately,
- the monitoring system is in place and functional. The project has generated GHG emission reductions,
- the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner.

TÜV NORD JI/CDM CP further confirms that the project has achieved emission reductions in the above-mentioned reporting period as follows:

Emission reductions: **1,412,557 tCO₂e**

SECTION H. Certification statement

As a duly accredited DOE, TÜV NORD CERT confirms that the CDM PoA

“Improved cookstove program in Bangladesh supported by the Republic of Korea”

registered under

UNFCCC-No.: 10431

has achieved emission reductions in accordance with all applicable requirements for registered CDM project activities during the current monitoring period

MP-No.: 4
from: 01/04/2020
to: 31/12/2020

(including both days) as follows:

Emission reductions: **1,412,557 tCO₂e**

New Delhi, 19/05/2021




Prakash Kumar Mishra
Team Leader
TÜV NORD JI/CDM Certification Program

Appendix 1. Abbreviations

Abbreviations	Full texts
ADM	Assistant District Managers
DM	District Managers
BBF	Bangladesh Bondhu Foundation
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CME	Coordinating/Managing Entity
CO ₂	Carbon dioxide
CO _{2eq}	Carbon dioxide equivalent
CL	Clarification Request
DOE	Designated Operational Entity
DVerR	Draft Verification Report
EECL	Ecoeye Co., Ltd.
ER	Emission Reduction
FAR	Forward Action Request
FMR	Field Monitoring Records
GHG	Greenhouse gas(es)
ICS	Improved Cookstove
IM	Interview Memo
IRC	Information & Reporting Check by UNFCCC Secretariat
MP	Monitoring Plan
MR	Monitoring Report
PA	Project Activity
POA-DD	Project of Activities Design Document
CPA-DD	Component Project Activities Design Document
PP	Project Participant
QA/QC	Quality Assurance / Quality Control
RC	Reliability check work sheets for WBT and field monitoring test
SD	Standard deviation
UNFCCC	United Nations Framework Convention on Climate Change
VT	Verification Team
VVS	Validation and Verification Standard
WBT	Water Boiling Test
WBTP	Water Boiling Test Protocol
XLS	Emission Reduction Calculation Spread Sheet
ZMs	Zonal Managers

Appendix 2. Competence of team members and technical reviewers



TUV NORD

 Certification

Statement of Competence

Appointment and authorization according to the procedures of the TUV NORD JICDM Certification Program

Mr. Prakash Kumar Mishra

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2025-12-17
VCS / ISO 14064-2	Senior Assessor Technical Reviewer	2025-12-17

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewables
3.1	Energy demand

148 - Rev. 6, Date: 2016-11-21

LM_2019-08-02_2019-11-01_aml.docx

2019-08-02-03 / 2019-10-05

Appendix 3. Documents reviewed or referenced

No.	Author	Reference	Title	References to the document	Provider
1	UNFCCC	/AMS.II-G/	AMS-II.G: Energy efficiency measures in thermal applications of non-renewable biomass”, version 08.0	https://cdm.unfccc.int/methodologies/DB/ZI2M2X5P7ZLRGF037YBVDYOW62UHQ	Other
2	PP	/CAL/ /INV/	Monitoring Equipment Photos: <ul style="list-style-type: none"> • Thermometers – 2 • Weighingscales – 2 • Moisture meters – 2 Purchase invoice dated 06/01/2021		Other
3	PP	/CPA-DD/	<ul style="list-style-type: none"> • CPA-DD titled “Improved cookstove program in Bangladesh supported by the Republic of Korea - CPA 01, version 5.1, dated 29/08/2018 • CPA-DD titled “Improved cookstove program in Bangladesh supported by the Republic of Korea - CPA 02, 		Other

No.	Author	Reference	Title	References to the document	Provider
			<ul style="list-style-type: none"> version 3,0, dated 03/03/2020 CPA-DD titled "Improved cookstove program in Bangladesh supported by the Republic of Korea - CPA 03 version 3,0, dated 03/03/2020" 		
4	DOE	/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)		Other
5	IPCC	/IPCC/	<ul style="list-style-type: none"> 1996 IPCC Guidelines for National Greenhouse Gas Inventories: work book 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book 	www.ipcc-nggip.iges.or.jp	Other
6	UNFCCC	/KP/	Kyoto Protocol (1997)	http://unfccc.int/kyoto_protocol/items/2830.php	Other
7	UNFCCC	/MA/	Decision 3/CMP.1 (Marrakesh – Accords)	http://cdm.unfccc.int/Reference/COPMOP/index.html	Other
8	CME	/MR/	<ul style="list-style-type: none"> Monitoring Report titled "Improved cook stove program in Bangladesh supported by the Republic of Korea" version 1.0 dated 19/02/2021 Monitoring Report titled "Improved cook stove program in Bangladesh supported by the Republic of Korea" version 2.0 dated 19/04/2021 		Other
9	UNFCCC	/MRT/	Monitoring Report Form (CDM-PoA- MR-FORM), Version 03.0	https://cdm.unfccc.int/Reference/PDDs_Forms/index.html	Other
10	CME	/PoA-DD/	Project Design Document for CDM PoA project: "Improved cook stove program in Bangladesh supported by the Republic of Korea" version 04.0, dated 21/06/2018		Other
11	UNFCCC	/PS/	CDM Project Standard for PoA (Version 2.0)	http://cdm.unfccc.int/Reference/Standards/index.html	Other
12	PP	/DB/	<ol style="list-style-type: none"> PoA Installation Database <ol style="list-style-type: none"> 10431 PoA Installation (Vintage 2018) 10431 PoA Installation (Vintage 2019) 10431 PoA Installation (Vintage 2020) Evidence for random number generator for sampling Contractual agreement in between the CME and the DO Customer terms & conditions document provided as Proof of Carbon Credits waiver by End user 	-	CME

No.	Author	Reference	Title	References to the document	Provider
			5. Sample Customer Agreements provided as proof of ICS distribution receipt		
13	PP	/SSQ/	<ul style="list-style-type: none"> CPA Distribution Record Template Monitoring Survey Questionnaire Template WBT Data Recording Template 	-	Other
14	Clean Cooking Alliance	/WBTP/	The Water Boiling Test protocol, version 4.2.3	-	Other
15	CME	/RC/	<ul style="list-style-type: none"> Sample Size and Reliability Check for Usage Survey parameters integrated into the ER worksheet Sample size and Reliability check for WBT integrated into the ER worksheet 	-	PP
16	PP	/TRG//QMS/	<p>Training records of imparted for below fields :</p> <ul style="list-style-type: none"> BBF Partner Training Manual.pdf BBF Training Attendance Sheets.pdf BBF Partner Training Workshop Photographs Monitoring survey training photographs Attendance of Monitoring survey training Sheets.pdf WBT team training records BBF Experience - Field monitoring and performance testing 	-	Other
17	DOE	/VAL/	<ul style="list-style-type: none"> Validation Report for PoA-DD Title-“ Improved cookstove program in Bangladesh supported by the Republic of Korea” Version 2.0 Dated 22/06/2018 Validation Report for CPA-DD Title-“ Improved cookstove program in Bangladesh supported by the Republic of Korea” Version 2.0 Dated 29/08/2018 (CPA 01) Validation Report for CPA-DD Title-“ Improved cookstove program in Bangladesh supported by the Republic of Korea” Version 1.0 Dated 12/03/2020 (CPA 02 and CPA 03) 	https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/42JAZDVK00EHNFRX85C9LQUWMTB71Y/view	Other
18	PP	/XLS/	PoA10431 MP4 ER Calculator version 1.0 190221.xlsx (Draft and Final Version)	-	CME
19	UNFCCC	/VVS/	CDM validation and verification standard for programmes of activities (Version 2.0)	http://cdm.unfccc.int/Reference/Standards/index.html	
20	UNFCCC	/SAMPLE-S/	Standard: Sampling and Survey for project activity and PoA version 08.0		Other

No.	Author	Reference	Title	References to the document	Provider
		/SAMPLE-G/	Guideline: Sampling and Survey for project activity and PoA version 04.0		
21	PP	/SUR/ /USAGE/	1. Monitoring Survey Records 2. Monitoring Survey worksheets 3. Monitoring Survey Photos		Other
22	PP	/WBT/	1. WBT Records February 2021 2. WBT Calculator sheet 3. WBT Photos		
23	PP	/TS/	Technical Specification of Bondhu Chulha		
24	PP	/OSVE/	Evidence to support onsite visit exemption – BBF ERPA showing delivery commitments dated 20/11/2017		Other
25	UNFCCC	/TOOL30/	Calculation of the fraction of non-renewable biomass version 1.0		Other
26	Other	/VERIF/	<ul style="list-style-type: none"> MP2 Monitoring Report - PoA10431_MR_MP2_version 3.0_06042020 MP2 Verification Report - VerificationReport_MP2-07-04-2020 MP3 Monitoring Report - MP3 MR version 4.0 Final MP3 Verification Report - VerificationReport_MP3-05-10-2020_final 	https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/42JAZDVK00EHNFRX85C9LQUWMTB71Y/view	Other
27	DoE	/IM01/ /IM02/ IM/03/	<ul style="list-style-type: none"> PP's/CME's representative Consultant management representative Stakeholders 		Other

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

Table 3. Remaining FARs from validation and/or previous verification

FAR ID	-	Section no.	-	Date: DD/MM/YYYY
Description of FAR				
CME response				Date: DD/MM/YYYY
Documentation provided by the CME				
DOE assessment				Date: DD/MM/YYYY

Table 4. CLs from this verification

CL ID	01	Section no.	Survey	Date: 10/04/2021
Description of CL				

As per the assessment of the ER worksheet "PoA10431 MP4 WBT Calculator final 19022021", tab "Monitoring Data" with "CPA Distribution Database / End User Database"	
<ul style="list-style-type: none"> • "10431 MP#4 Installation and Sampling Database Final (Vintage 2018)", • "10431 MP#4 Installation and Sampling Database Final (Vintage 2019)", • "10431 MP#4 Installation and Sampling Database Final (Vintage 2020)"; 	
The Verification Team observed that most of the respondents were not the users as per "CPA Distribution Database / End User Database". Clarification is requested for the same.	
CME response	Date: 19/04/2021
The End user database has the name of Owner of the project ICS (who is generally the head of the beneficiary family). Column F of tab "Monitoring Data" of the ER workbook "PoA10431 MP4 ER Calculator version 1.0 190221" on the other hand, lists the name of respondent who was present in the corresponding sampled household at the time of visit by the monitoring survey team for usage survey. Under monitoring survey, in case the respondent is different from the user mentioned in the database, the relationship between the user and respondent for the corresponding sample is captured (refer columns G:H). In total 36 samples out of 50, samples monitored, the respondent is different from the user specified in the database. However, in such cases, the respondents were confirmed to be related to the user as specified in the ER calculator (refer column H of the tab "Monitoring Data"). Also refer, Question number 8 of the original monitoring usage survey forms (Refer "4.0 PoA 10431 MP4 Survey Records") already submitted.	
Documentation provided by the CME	
-	
DOE assessment	Date: 03/05/2021
The Verification Team confirms that the explanation as provided by the CME could be cross verified and confirmed during the remote assessments also. During the interviews, the VT could see the same pattern. The stoves were purchased in the name of the head of the family. Please also refer the list of the interviewed end users under section "D.3 Interviews" of this FVR.	
Finding has been CLOSED.	

Table 5. CARs from this verification

CAR ID	01	Section no.	E.3	Date: 16/04/2021
Description of CAR				
Para d “Analysis of data collected and confidence/precision achieved” of section E.3 of the draft monitoring report reproduces table outcome of the calculation for stove efficiency (Stove Efficiency $\eta_{new,i,2018}(\text{age } 3)$) where values of mean efficiency is found inconsistent with ER worksheet.				
CME response				Date: 19/04/2021
The table which reproduces the outcome of the calculation for stove efficiency (Stove Efficiency $\eta_{new,i,2018}(\text{age } 3)$) in para d “Analysis of data collected and confidence/precision achieved” of section E.3 of the monitoring report has been revised as per the excel sheet. Revised MR is being submitted.				
Documentation provided by the CME				
PoA 10431 MP4 MR version 2.0 19042021				
DOE assessment				Date: 03/05/2021
The consistency is now maintained between the ER and MR. Finding has been CLOSED.				

CAR ID	02	Section no.	Supporting Documents	Date: 10/04/2021
Description of CAR				
Below supporting documents are requested:				
<ol style="list-style-type: none"> 1. Contractual agreement between the CME and the DO 2. BBF Training Attendance Sheets are provided dated 2018 whereas our monitoring covers period from 01/04/2020 to 31/12/2020 3. Attendance of Monitoring survey training Sheets in the form of email is provided dated 2021 whereas our monitoring covers period from 01/04/2020 to 31/12/2020 4. Sample Enduser agreement document provided as proof of ICS distribution receipt 5. CPA Distribution database Records 6. Survey sample ICS photos- MP4 7. ODA Declaration by Ecoeye Co.Ltd. 8. ODA Declaration by Bangladesh Bondhu Foundation 9. Evidence related to Justification to UN interim exemption clause by CME for not postponing mandatory onsite visit 				
CME response	Date: 19/04/2021			

1. Contractual agreement between the CME and the DO is being submitted.
2. BBF conducts various relevant trainings under the PoA as follows:
 - a. Local Partner training – This training includes capacity development of local partners as required, towards ICS production, installation, maintenance and after-sales service etc. The following documents are being submitted in this regard:
 - i. Local Partner training Manual
 - ii. Sample Local partner training photographs
 - iii. Sample Local partner training attendance sheets

In 2018, when the programme initiated, then BBF conducted multiple local partner training sessions/events to train the local partners. Subsequently, partners have gained direct experience related to production, installation, maintenance and after-sales service etc. of project ICS and hence no new local partner training has been conducted. The training record dated 2018 referred in CAR above, pertains to Local partner training.
 - b. Monitoring usage survey team training – This training includes capacity development of local monitoring usage survey team towards the monitoring survey questionnaire, conducting the usage survey in the field, recording the respondent response in the survey form and maintaining proper records etc. The following documents are being submitted in this regard:
 - i. Monitoring usage survey team training photographs
 - ii. Monitoring usage survey team training attendance sheet.

This training is conducted prior to every monitoring event, unless the monitoring team has no new member or existing members have received the training in the past. For the concerned monitoring period ending in 31 Dec 2020, the monitoring usage survey training was conducted on 13 Jan 2021, before starting the physical monitoring event on 14 Jan 2021.
 - c. WBT team training - This training includes capacity development of local WBT team towards the WBT protocol and testing procedure, handling and reading measurement equipment, recording the data collected in the WBT record sheet etc. The following documents are being submitted in this regard:
 - i. BBF WBT team experience certificate

Thus, BBF has dedicated in-house WBT team that conducts all WBT for identified samples. The team has received WBT trainings from GIZ, IFRD and Approvecho Research Centre and subsequently has extensive experience in conducting WBTs (more than 8 year's experience with over 700 WBTs conducted in the past) and. This dedicated team at BBF has been conducting the WBT in the concerned PoA since its inception and remains unchanged. Hence no new WBT training was deemed required for this monitoring period.
3. Please Refer 2(b) above.
4. Sample end user agreements are being submitted
5. The complete CPA installation database for ICSs installed under the PoA is being submitted. This is same as the end user database referred in CL 01 above.
6. Survey sample ICS photos are being submitted
7. ODA Declaration by Ecoeye Co. Ltd. Is being submitted.
8. ODA Declaration by BBF is being submitted.
9. Evidence related to Justification to UN interim exemption clause by CME for not postponing mandatory onsite visit is being submitted.

Documentation provided by the CME

Refer above

DOE assessment

Date: 03/05/2021

1. The Agreement titled "Joint Agreement for ICS Dissemination and GHG mitigation CDM project in Bangladesh" between the Bangladesh Bondhu Foundation and Ecoeye Ct., Ltd, dated 20/11/2017 is submitted which covers their respective roles and responsibilities which are in line with the provision of CPA-DD. Finding is CLOSED.
2. The assessment is as below^{TRG/}
 - a. Local Partner training – During the remote assessment, the VT confirmed that additional training was not deemed necessary as the local partners gained direct experience and

expertise pertaining to production, installation, maintenance and after-sales service etc. Thus, need for additional training was not necessary. CME's explanation is accepted. The documentary evidences

- Local Partner training Manual (in regional language)
- Sample Local partner training photographs
- Sample Local partner training attendance sheets

were assessed to confirm the Local partner Training

b. Monitoring usage survey team training – The Verification Team is in receipt of the monitoring usage survey training which was conducted on 13/01/2021, before starting the physical monitoring event on 14/01/2021. The VT has reviewed the training photographs, attendance sheet and also reconfirmed about the training with the survey team, during the Remote interviews.

c. WBT team training – The in-house WBT team received WBT trainings from GIZ, IFRD and Approvecho Research Centre. The Team has experience of approximately 08 years in performing the WBT. The Verification Team noted that the same team is performing the WBT and the Team Leader has interviewed them in past also.

Finding is CLOSED.

3. Please refer the VT assessment under 2(b) above. Finding is CLOSED.

4. The Sample end user agreement was reviewed to primarily confirm if below particulars are covered

- a. Name of the end user
- b. Address
- c. ID. No
- d. Type of the stove (1-Pot/ 2-Pot)
- e. Material of construction
- f. Type of baseline fuel
- g. Presence of other ICS
- h. Transfer of Carbon Credit to Bangladesh Bondhu Foundation etc

The Sample end user agreements were found to cover all the relevant and necessary details. Finding is CLOSED.

5. The data base is submitted and reviewed by the Verification Team. No further findings are identified. Finding is CLOSED.

6. The survey sample photographs are submitted for 1-Pot (2018,2019,2020) and 2-Pot (2018,2019,2020). Finding is CLOSED.

7. ODA Declaration by Ecoeye Co. Ltd. is being submitted and deemed as appropriate. Finding is CLOSED.

8. ODA Declaration by BBF is being submitted and deemed as appropriate. Finding is CLOSED.

9. BBF ERPA showing delivery commitments dated 20/11/2017 is being submitted. Finding is CLOSED.

Table 6. FARs from this verification

FAR ID	Xx	Section No.	Date: DD/MM/YYYY
Description of FAR			
-			
CME response			Date: DD/MM/YYYY
Documentation provided by the CME			

DOE assessment	Date: DD/MM/YYYY

• Monitored Parameters

Table A-5: Periodic Verification Checklist – Monitored Parameters

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
A. $N_{y,j,i}$		Number of project devices of type i and batch j operating during year y		
<p>a) Measurement / Determination method (VVS, §§ 389-393)</p> <p>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</p> <p>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</p> <p>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</p>	<p>/IM01/ /IM03/ /PoA-DD/ /CPA-DD/ /MR/ /AMS II.G/ /DB/ /SSQ/ /RC/ /XLS/ /VAL/ /VERIF/ /SUR/ /USAGE/</p>	<p><i>Description:</i> The parameter is monitored to determine the baseline emissions. The number of operating stoves is tracked through Sales Database and monitoring survey and recorded appropriately by the CPA implementer. The CPA implementer maintains a database of all the ICSs installed. A usage monitoring survey was conducted in January 2021 to determine the number of operating stoves of type i and batch j on a sampling basis. The formula used to calculate the monitored value of operational ICS of type i and batch j is as follows:</p> $N_{y,i,j} = (n_{i,j,operational} / n_{i,j,total}) * N_{y,i,j,installed}$ <p>Where: N = total number of stoves in population n = number of samples monitored</p> <p>The monitoring (at time of installation) also involves the recording of any existing ICS in the user's household. The CPA implementer excludes the subsequent ICS from the ER calculations, in case an existing Bondhu Chulha is found at the household. The assessment of the database confirmed that no user has more than one ICS in the same household. This is verified by the Assessment Team.</p> <p>CPA implementer undertook surveys to apply cross check by the sampling. Based on the survey result and installation records the ICS/BBF Chulha population is correctly presented.</p>	CL 01, CAR 02	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>Sampling Approach:</p> <p>Data was collected with survey form to enable surveyors to collect applicable and necessary information during site visit. Procedures for sampling have been duly articulated in the field monitoring report, and a sample of survey questionnaires furnished to DOE. The survey form was verified by the Verification Team and deemed as complete and relevant with respect to the monitoring requirements.</p> <p>The verification team confirms that each ICS in the target strata, was identified by uniquely identifiable Stove ID number and sample number was allocated accordingly. The sampling methodology as stated under section E.3 of MR is checked and verified and deemed as correct. It is further noted that a higher number of samples were selected for monitoring than that required to ensure that the desired precision / confidence is achieved as well as have cover for no-responses.</p> <p>1-Pot:</p> <ul style="list-style-type: none"> • A sample size $n = 1$ whereas survey of 5 stoves was carried out for the population of $N_{y,1-Pot,2018} = 46,047$ • A sample size $n = 1$ whereas survey of 15 stoves was carried out for the population of $N_{y,1-Pot,2019} = 497,851$ • A sample size $n = 11$ whereas survey of 15 stoves was carried out for the population of $N_{y,1-Pot,2020} = 535,802$ <p>2-Pot:</p> <ul style="list-style-type: none"> • A sample size $n = 1$ whereas survey of 5 stoves was carried out for the population of $N_{y,2-Pot,2018} = 38,530$ • A sample size $n = 5$ whereas survey of 5 stoves was carried out for the population of $N_{y,2-Pot,2019} = 230,806$ • A sample size $n = 7$ whereas survey of 5 stoves 		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>was carried out for the population of N_{y,2-Pot,2020} = 183,654</p> <p>Inconsistency in reporting is identified and CL 01, CAR 02 has been raised.</p> <p><i>Verifier's action:</i> The verification team remotely pulled random sales records and compared the details with the information in the provided end user database. Furthermore, the team randomly selected households from the database to compare the information in the database with the actual stoves being used. The results of the survey and installation record were also compared.</p> <p><i>Conclusion:</i> The way of recording all stoves data (including end user detail) complies with the registered monitoring plan. Please refer CL 01, CAR 02.</p>		
<p>b) Accuracy and QA/QC Procedure (VVS, §§ 394-400)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance. Include calibration dates and information in validity of the installed monitoring equipment in the table in Annex 2.</i></p>	<p>/DB/ /TRG/ /MR/ /POA-DD/ /CPA-DD/ /AMS II.G/ /XLS/ /VERIF/ /VAL/ /VERIF/</p>	<p><i>Description:</i> The number of stoves installed is confirmed and ensured by checking of the Installation database, survey records and remote assessment verification by contacting end users. The Verification Team assessed the training records of team prior monitoring and it is confirmed that the monitoring staff had the appropriate skills and expertise to administer relevant surveys / tests and quality checks, ensuring the integrity of information flow to the CME.</p> <p><i>Verifier's action:</i> The verifier cross-checked all documents: Installation Records and Sampling surveys and carried out remote interviews.</p> <p><i>Conclusion:</i> No significant discrepancies were noted.</p>	OK	OK
<p>c) Correctness (VVS, §§ 389-393)</p>	<p>/MR/ /DB/ /XLS/ /POA-DD/</p>	<p><input type="checkbox"/> Correct <input checked="" type="checkbox"/> Not correct (initial assessment)</p> <p><i>Description:</i></p>	CL 01, CAR 02	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i></p> <p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p>	/CPA-DD/ /AMS II.G/ /VERIF/ /VAL/ /VERIF/ /SUR/ /USAGE/ /RC/	<p>Inconsistency is identified and CAR 02 and CAR 05 has been raised.</p> <p><i>Verifier's action:</i></p> <p>The verification team compared the value of the parameter cross checking the value in the databases with information given in the MR along with monitoring usage survey results and corresponding remote interviews with the ICS sampled end users</p> <p><i>Conclusion:</i></p> <p>The reported values are deemed as not correct. Please refer CL 01, CAR 02.</p>		
2. μ_y		Adjustment to account for any continued use of pre-project devices during the year y		
<p>a) Measurement / Determination method (VVS, §§ 389-393)</p> <p><i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i></p> <p><i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p>	/IM01/ /IM03/ /PoA-DD/ /CPA-DD/ /XLS/ /MR/ /SUR/ /USAGE/ /RC/	<p><i>Description:</i></p> <p>This is the adjustment to account for any continued use of pre- project devices during year y. The parameter is determined from sampling surveys with prescribed frequency in the registered monitoring plan of the CPA-DD. The value for 1-Pot and 2-Pot stoves is found as 1.</p> <p>The parameter was determined through monitoring surveys, drawing a representative stratified random sample. The determination method includes ratio of frequency of usage (number of meals cooked on ICS Vs total meal cooked on ICS and baseline stove. The data was checked during the monitoring survey in January 2021.</p> <p>Sampling Approach:</p> <p>Already assessed as above.</p> <p>1-Pot:</p> <ul style="list-style-type: none"> A sample size n = 22 whereas survey of 32 stoves was carried out for the population of $\mu_{y1-Pot} = 1,079,700$ <p>2-Pot:</p> <ul style="list-style-type: none"> A sample size n = 09 whereas survey of 14 	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>stoves was carried out for the population of μ_{y2}- Pot = 452,990</p> <p><i>Verifier's action:</i> The verifier checked the field report and procedures to calculate the sample, in line with CDM sampling guidelines/SAMPLE-G/.</p> <p><i>Conclusion:</i> The way of recording all stoves data (including end user detail) complies with the registered monitoring plan.</p>		
<p>b) Accuracy and QA/QC Procedure (VVS, §§ 394-400)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p> <p><i>Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i></p>	<p>/DB/ /TRG/ /MR/ /PoA-DD/ /CPA-DD/ /IM01/ /XLS/</p>	<p><i>Description:</i> Monitoring surveys were conducted using stratified random sampling (year as stratum) following the Sampling and surveys for CDM project activities and programme of activities. As described above, it can be said that sampling was accurate. The Verification Team assessed the training records of team prior to monitoring and it is confirmed that the monitoring staff had the appropriate skills and expertise to administer relevant surveys / tests and quality checks, ensuring the integrity of information flow to the CME.</p> <p><i>Verifier's action:</i> The VT has carried out desktop reviews of the field monitoring reports to establish if the sample sizes and procedures were carried out correctly. Interviews with staff were also conducted during remote audit.</p> <p><i>Conclusion:</i> The CME has followed the sampling plan and procedures for determination of factor for "Adjustment to account for any continued use of pre-project devices during the year y".</p>	OK	OK
<p>c) Correctness (VVS, §§ 389-393)</p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i></p>	<p>/MR/ /IM03/ /SUR/ /USAGE/ /RC/</p>	<p><input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct (initial assessment)</p> <p><i>Description:</i></p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p>		<p>The parameter has been measured correctly in line with monitoring plan.</p> <p><i>Verifier's action:</i> The values given per year were checked against the excel report and calculations.</p> <p><i>Conclusion:</i> The values presented in the MR is in accordance with the verified survey data analysis sheet and remote interview with the team conducted the field monitoring survey.</p>		
3. $\eta_{new,i,j}$		Efficiency of the project device of each type i and batch j		
<p>a) Measurement / Determination method (VVS, §§ 389-393)</p> <p><i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i></p> <p><i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p>	<p>/IM01/ /IM03/ /PoA-DD/ /CPA-DD/ /AMS II.G/ /WBT/ /WBTP/ /XLS/ /CAL/ /INV/ /TRG/ /MR/ /RC/</p>	<p><i>Description:</i> The efficiency of stoves was determined by conducting water boiling tests (WBT), in line with para 25, option (c) of applied version of AMS II.G. The PP employed newly purchased instruments (which are factory calibrated at the time of purchase). The instruments include Digital Thermometer, Digital Weighing Scale and Digital Moisture Meter. The technical specification of the meters were duly verified by the Verification Team and deemed accurate and acceptable. However, please refer CAR 01.</p> <p>Sampling Approach: Already assessed as above.</p> <p>1-Pot:</p> <ul style="list-style-type: none"> A sample size $n = 4$ whereas survey of 4 stoves was carried out for the population of $\eta_{new, 1-Pot, 2018 (age 3)} = 46,047$ <p>2-Pot:</p> <ul style="list-style-type: none"> A sample size $n = 4$ whereas survey of 4 stoves was carried out for the population of $\eta_{new, 2-Pot, 2018 (age 3)} = 38,530$ <p><i>Verifier's action:</i> The verification team has reviewed the step-by-step protocol</p>	CAR 01	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>followed in determining the sample size per age group, selecting appropriate test conditions and conducting the overall WBTs. The key personnel of WBTs were interviewed on procedures, recording calculation and analysis of result and associated training. The WBT records have been analyzed.</p> <p><i>Conclusion:</i></p> <p>The calculations of sample sizes and measurement procedures have largely followed the GACC (Global Alliance for Clean Cooking) WBT protocol and followed the excel calculation sheets, however during course of verification CAR 01 has been raised and closed successful.</p>		
<p>b) Accuracy and QA/QC Procedure (VVS, §§ 394-400)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance. Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i></p>	<p>/CAL/ /INV/ /WBT/ /IM01/ /IM03/ /POA-DD/ /CPA-DD/ /AMS II.G/ /MR/</p>	<p><i>Description:</i></p> <p>During Remote Assessment it was verified that the equipment used in conducting the WBTs (Thermometers, scales, moisturemeter) were newly purchased (factory calibrated at the time of purchase) and applied as per product specifications.</p> <p><i>Verifier's action:</i></p> <p>The audit team visited and interviewed the WBT expert team along with other relevant staff members present. Questions included testing procedures, QA/QC measures, calculations and testing conditions. The stoves selected, and their ages were checked and compared with the information in the WBT records.</p> <p><i>Conclusion:</i></p> <p>It is concluded that the WBT procedures were followed to ensure that the results are as accurate as possible.</p> <p>It was also observed that all the above-mentioned equipment was brand new at the time of conducting WBTs (purchased on 06/01/2021) and all the equipment were factory calibrated at the time of purchase. Further, PP confirmed that measurement equipment will not be recalibrated but for each subsequent</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>measurement new equipment will be purchased. This is reasonable as there is no related entity in the host country as per</p> <p>DOE host country knowledge and experience which is able to conduct related calibrations. Therefore, equipment had to be sent abroad and calibration would be more expensive than a new purchase of the measurement equipment. Therefore, also no validity of calibration is stated in MR which is reasonable and plausible. As verified from the WBT records and subsequent interviews during visit, the WBTs were conducted as per above stated schedules, thus, ensuring that measurement taken were reliable and accurate. Purchase records were verified by the assessment team and found to be duly purchased and hence, appropriate.</p>		
<p>c) Correctness (VVS, §§ 389-393)</p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i></p> <p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p>	<p>/MR/ /IM03/ /IM01/ /WBTP/ /WBT/ /CAL/ /INV/ /XLS/ /TRG/</p>	<p><input type="checkbox"/> Correct <input checked="" type="checkbox"/> Not correct (initial assessment)</p> <p><i>Description:</i> Values have been presented in section E.2 of the MR and as per the provided excel calculations are verified, inconsistency is identified between MR and ER (Refer CAR 01). The VT compared the calculation w.r.t protocol and confirmed that the same is duly followed and therefore the values are deemed to be correct.</p> <p><i>Verifier's action:</i> The random sampling procedures as well as testing procedures have been interrogated.</p> <p>The stove thermal efficiency values were verified by the DoE based on the following:</p> <ol style="list-style-type: none"> 1. Review of the WBT protocol 2. Review of the WBT data recording sheet and its compliance wrt to WBT protocol 3. Review of measuring equipment used during WBTs for calibration and accuracy. 4. Review of original test observation sheets and 	CAR 01	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>corresponding WBT calculator and ER calculator to verify correct transfer of information from point of monitoring to ER calculator</p> <ol style="list-style-type: none"> 5. Review of WBT calculator for correctness of calculations in line with WBT protocol. 6. By conducting interviews of the WBT monitoring team on the following: <ol style="list-style-type: none"> a. Review of the monitoring team prior experience on conducting WBTs. Test procedure followed while conducting WBTs to verify their competence towards performing WBTs correctly and accurately and in line with WBT protocol. c. Usage and handling of the monitoring equipment to verify that the measurements were taken by the monitoring staff correctly and accurately. d. Knowledge of the WBT test observation sheet to verify that measured data was recorded accurately and correctly. 7. Additionally, during the remote assessment the audit team leader interviewed the ICS users (of WBT samples) on the following points: <ol style="list-style-type: none"> a. The date of visit of WBT team for testing stove, and cross verified that with date of test specified on corresponding test observation sheet b. The time taken by the WBT team to complete the test and cross verified that with duration of tests specified on corresponding test observation sheet c. The number of test cycles conducted by the WBT team to be 3 rounds of Cold Start + Hot start each d. The general test procedure followed by the WBT team to verify that tests were performed in the field properly and in line with the WBT protocol e. Review of photographs taken by the WBT monitoring team at the time of conducting tests and cross verifying the same during the actual visit (for type of stove and serial number of stove). <p>Thus, through document review, interviews of WBT team and</p>		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		interviews of end user, the DoE verified the stove thermal efficiency and found it acceptable. <i>Conclusion:</i> The calculations have been checked, and the verification team has no significant doubt about the correctness of the presented values. The conformance on the values is subjected to closure of CAR 01.		
4. Date of commissioning of project device i		Actual date of commissioning of project device		
a) Measurement / Determination method (VVS, §§ 389-393) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.	/IM01/ /PoA-DD/ /CPA-DD/ /MR/ /XLS/ /DB/ /SSQ/	<i>Description:</i> Actual date of commissioning of project device is determined from the sales records. <i>Verifier's action:</i> The verifier checked the sampling records, MR and ER worksheet <i>Conclusion:</i> The parameter is appropriately reported.	OK	OK
b) Accuracy and QA/QC Procedure (VVS, §§ 394-400) In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs. Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance. Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.	/MR/ /XLS/ /DB/ /SSQ/	<i>Description:</i> No QA/ QC procedures are required as parameter is determined based on the Installation Database. <i>Verifier's action:</i> The verifier checked the sampling records, MR and ER worksheet <i>Conclusion:</i> The parameter is appropriately reported	OK	OK
c) Correctness (VVS, §§ 389-393)	/MR/ /XLS/ /DB/	<input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct (initial assessment)	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner. In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given. In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/SSQ/	<i>Description:</i> The parameter has been measured correctly in line with <i>Verifier's action:</i> The values given are correct. <i>Conclusion:</i> No further findings are raised.		

• Calibration dates and validity of installed monitoring equipment

Table A-6: Periodic Verification Checklist – Calibration details

Monitoring equipment	Related monitoring parameter as per applicable registered monitoring plan	Serial number	Type	Accuracy or accuracy class	Previous calibration (last calibration before start of this monitoring period)	Calibration date(s) during this monitoring period	Validity of calibration(s)	Delay in calibration: yes/no	Period of delayed calibration
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<input type="checkbox"/> No <input type="checkbox"/> Yes	From: To:
-	-	-	-	-	-	-	-	<input type="checkbox"/> No <input type="checkbox"/> Yes	From: To:

* All equipments are calibrated by the supplier.

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
04.0	6 April 2021	Revision to: <ul style="list-style-type: none"> • Reflect the “Clarification: Regulatory requirements under temporary measures for post-2020 cases” (CDM-EB109-A01-CLAR).
03.0	31 May 2019	Revision to: <ul style="list-style-type: none"> • Ensure consistency with version 02.0 of the “CDM validation and verification standard for programmes of activities” (CDM-EB93-A08-STAN); • Make structural and editorial improvements.
02.0	29 December 2017	Revision to align with the requirements of the “CDM validation and verification standard for programme of activities” (version 01.0).
01.0	5 June 2015	Initial publication.
Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: programme of activities, verifying and certifying		