



Validation report form for post-registration changes for component project activities

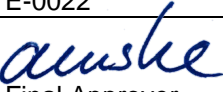
(Version 02.0)

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

BASIC INFORMATION

Title and UNFCCC reference number of the component project activity (CPA)	7997-P1-0003-CP1	CPA 003 – BioLite HomeStove in Kenya
	7997-P1-0008-CP1	CPA 008 – Charcoal Stoves in Kenya
	7997-P1-0009-CP1	CPA 009 – Charcoal Stoves in Kenya
Version number of the validation report	01	
Completion date of the validation report	21/06/2021	
Version number of PoA-DD and CPA-DD applicable to this validation report	POA-DD	Version 20
	7997-P1-0003-CP1	Version 16
	7997-P1-0008-CP1	Version 6
	7997-P1-0009-CP1	Version 5 ¹
Title and UNFCCC ref. no. of the registered PoA into which the CPA is included	UNFCCC Ref number – 7997 BioLite Improved Cook stoves Programme (7997-P1-0003-CP1, 7997-P1-0008-CP1, 7997-P1-0009-CP1)	
Type(s) of CPA PRCs	<input type="checkbox"/> Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents <input checked="" type="checkbox"/> Corrections <input type="checkbox"/> Changes to the start date of the crediting period <input type="checkbox"/> Inclusion of monitoring plan <input type="checkbox"/> Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents <input type="checkbox"/> Changes to the project design <input type="checkbox"/> Changes specific to afforestation and reforestation activities	
Coordinating/managing entity (CME)	BioLite India Private Limited	
Host Parties	Kenya	
Applied methodologies and standardized baselines	AMS-II.G. "Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass" Version 03 Standardized baseline: ASB0035: Baseline woody biomass consumption for household cookstoves in Kenya (version 01.0)	

¹ Only CPAs 3, 8 and 9 were selected as other CPAs do not have any ICS distribution

Mandatory sectoral scopes	Scope: 3 / Technical Area: 3.1
Conditional sectoral scopes, if applicable	NA
Name and UNFCCC reference number of the DOE	TÜV NORD CERT GmbH E-0022
Name, position and signature of the approver of the validation report	 Final Approver Alexandra Nuske

SECTION A. Executive summary

BioLite India Private Limited has commissioned the TÜV NORD JI/CDM Certification Program to carry out the validation of the Post Registration Changes (corrections) for

- CPA 003 – BioLite HomeStove in Kenya– 7997-P1-0003-CP1/^{CPA-DD/}
- CPA 008 – Charcoal Stoves in Kenya- 7997-P1-0008-CP1/^{CPA-DD/}
- CPA 009 – Charcoal Stoves in Kenya- 7997-P1-0009-CP1/^{CPA-DD/}, and

The independent Validation by the DOE is required to confirm the post registration changes of the CPAs. This report summarises the post registration changes of the project with respect to requirements of CDM VVS for PoAs (version 02.0)^{VVS/}. This report contains the findings and resolutions from the validation and a validation opinion.

As this assessment was carried out as part of the 3rd verification of the component project activities please refer to chapter 2 of the related verification report.

Summary of CPAs

The programme of activities reduces GHG emissions due to substitution of traditional and inefficient cook stoves with efficient biomass cook stoves (wood, charcoal) in rural and/or urban household in India, Kenya and Uganda. The CPAs under consideration (7997-P1-0003-CP1 997-P1-0008-CP1 to 7997-P1-0009-CP1) reduce GHG by disseminating fuel efficient Charcoal and woodstoves (ICS) in Kenya. HomeStove is the only woodstove type distributed by CPA-003. Jiko Fresh, Jiko Bora, Jiko Bora Mama Yao are the ICS models (charcoal fuel based) distributed to households in Kenya, by the other CPAs covered under this verification. In the absence of the CPAs three stone fire cookstoves or other rudimentary technology without improved combustion would have been used in the baseline.

Scope of the Validation

The scope of the PRC validation is defined as an independent and objective review of the revised CPA-DDs which represent the corrections from the incompleteness Notification, regarding PoA 7997 “BioLite Improved Cook stoves Programme” (UNFCCC Ref. no. 7997), received on 02/09/2020 (for the 2nd Monitoring Period 01/01/2019 - 25/01/2020) ^{FVR/} The reference of parameter “urban/rural mix” under the CPA’s (as stated above) were revised.

Validation process and conclusion

The validation has been performed as described in the CDM VVS for PoAs and constitutes the following steps:

- Review of the revised CPA-DDs/^{CPA-DD/} and ER calculation
- Desk review of relevant documents e.g Final Verification Report for 3rd Monitoring period (26/01/2020 – 31/12/2020, ^{FVR/};
- Interview with representatives of the CME/^{IM/}

Conclusion

This report is the assessment opinion of the proposed corrections under the CPA-DDs (as already documented above). The validation team confirms that the proposed changes to the included CPA-DDs are in compliance with the latest version of PoA-DD/^{PoA-DD/} and applied methodology and, thus, do not require any changes to the registered PoA. In addition, the proposed changes meet all relevant requirements of UNFCCC. In line with paragraph 256 and 258 of CDM validation and verification standard for programmes of activities^{VVS/}, and para 253 of CDM project standard for programmes of activities the proposed changes to the CPAs require prior approval. Thus, these changes are being notified to the UNFCCC secretariat as per paragraph 172 of the CDM PCP for PoAs (version 02.0). Additionally, the Validation Team is also reviewed the application of the recent version of the CPA-DD template (version 09) following the requirements of para 289 (b) of CDM validation and verification standard for programmes of activities, and confirms that the most recent applicable CPA-DD form and corresponding guidelines were applied.

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

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Document review	On-site inspection	Interviews	Validation findings
1.	Team Leader+ Technical Expert	IR	Mishra	Prakash Kumar	TÜV NORD CERT	x	x	x	x

B.2. Technical reviewer and approver of the validation report on CPA PRCs

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	Stöhr	Christina	TÜV NORD CERT
2.	Technical reviewer	IR	Winter	Stefan	TÜV NORD CERT
3.	Approver	IR	Nuske	Alexandra	TÜV NORD CERT

SECTION C. Means of validation**C.1. Document review**

The *assessment of post registration changes* consisted of the following steps:

- Appointment of team members and technical reviewers
- A desk review of the registered and revised CPA-DD^{/PDD/} submitted by the client and additional supporting documents
- On-Site assessment (remote)
- Background investigation and follow-up interviews with personnel of the project developer and its contractors,
- Resolution of corrective actions (CARs / CLs)
- Final reporting
- Technical review
- Final approval.

In this case all activities were carried out as part of the 3rd verification of this component project activities.

The registered as well as the revised CPA-DDs and supporting background documents related to the project design and the post registration changes were reviewed.

As far as required the assessment team used additional documentation by third parties like host party legislation, technical reports referring to the project design or to the basic conditions and technical data.

A list all documents reviewed or referenced during this validation is presented in Appendix 3.

C.2. On-site inspection

A remote audit was conducted for MP 3 along with this notification of changes using other means of verification due to Pandemic of COVID-19 and related lockdown in the host country of Kenya. Please refer MP3 verification report for details

Duration of on-site inspection:				
No.	Activity performed on-site	Site location	Date	Team member
1.				
...				

C.3. Interviews

A remote audit was conducted for MP 3 along with this notification of changes. Please refer MP3 verification report for details

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.						
...						

C.4. Clarification requests, corrective action requests and forward action requests raised

Areas of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with CPA-DD form	-	-	-
Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents	-	-	-
Corrections	-	2	-
Changes to the start date of the crediting period	-	-	-
Inclusion of monitoring plan	-	-	-
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents	-	-	-
Changes to the project design	-	-	-
Changes specific to afforestation and reforestation activities	-	-	-
Others (please specify)	-	-	-
Total	1	2	-

SECTION D. Validation findings**D.1. Compliance with CPA-DD form**

Means of validation	<p>CPA-DDs (As listed above) were submitted (both in tracked-change and clean versions) to the validation team by the CME.</p> <p>By means of the UNFCCC website it has been checked whether the latest applicable CPA-DD template CDM-CPA-DD-FORM (version 09) has been used.</p> <p>Further it has been checked whether the latest instructions for filling out the CPA-DD template have been followed. Every section has been checked against the respective guidance.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> • /CPA-DD/ • /VVS/ • /PS/ • /unfccc/
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Findings	NA
Conclusion	The submitted CPA-DDs (As listed above) have been filled appropriately. While adopting the newer form (CDM-CPA-DD-FORM, Version 09) ^{FORM/} , no material changes except as deemed required for the corrections were made.

D.2. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents

Means of validation	NA
Findings	-
Conclusion	-

D.3. Corrections

Means of validation	Start Date: Please provide the start date of the change		26/01/2020	End Date: Please provide the end date of the change, if applicable		-																																																																																																					
	Description: Please give a detailed description of the change(s)		<p>These corrections account to CPA003, CPA008 and CPA009.</p> <ol style="list-style-type: none"> During the 2nd verification it was found that it was not clear if the parameter urban/rural mix is a monitoring parameter or an ex-ante parameter, therefore, the fixed parameter B_{old} has been updated. Parameter f_{NRB} is a default value provided by the DNA, however this value has expired, therefore, the fixed parameter f_{NRB} has been updated. 																																																																																																								
	Assessment of post registration change – Corrections																																																																																																										
	Accuracy: Please give a detailed assessment whether the correction is likely to lead to a reduction in the accuracy of the ER calculation.		<p>1. B_{old}</p> <p>The Average HH Size and the Urban/rural mix is fixed in the CPA-DDs now which lead to the values of “Quantity of woody biomass used in the absence of the project activity” (t/HH/yr) as:</p> <table border="1"> <thead> <tr> <th></th> <th>HH size (urban)</th> <th>HH size (rural)</th> <th>Urban proportion</th> <th>Rural proportion</th> <th>Quantity of woody biomass used in the absence of the project activity (t/HH/yr)</th> </tr> </thead> <tbody> <tr> <td>CPA3</td> <td>4.8</td> <td>6.8</td> <td>27%</td> <td>73%</td> <td>4.85</td> </tr> <tr> <td>CPA8</td> <td>4.8</td> <td>6.8</td> <td>52%</td> <td>48%</td> <td>4.55</td> </tr> <tr> <td>CPA9</td> <td>4.8</td> <td>6.8</td> <td>52%</td> <td>48%</td> <td>4.55</td> </tr> </tbody> </table> <p>The following are the values that had been used/derived during validation and 1st and 2nd verification:</p> <table border="1"> <thead> <tr> <th></th> <th>HH size (urban)</th> <th>HH size (rural)</th> <th>Urban proportion</th> <th>Rural proportion</th> <th>Quantity of woody biomass used in the absence of the project activity (t/HH/yr)</th> </tr> </thead> <tbody> <tr> <td colspan="6">Ex ante values</td> </tr> <tr> <td>CPA3</td> <td>4.8</td> <td>6.8</td> <td>27%</td> <td>73%</td> <td>4.85</td> </tr> <tr> <td>CPA8</td> <td>4.8</td> <td>6.8</td> <td>50%</td> <td>50%</td> <td>4.58</td> </tr> <tr> <td>CPA9</td> <td>4.8</td> <td>6.8</td> <td>50%</td> <td>50%</td> <td>4.58</td> </tr> <tr> <td colspan="6">1st verification (monitored values)</td> </tr> <tr> <td>CPA3</td> <td>5.0</td> <td>7.0</td> <td>9%</td> <td>91%</td> <td>5.23</td> </tr> <tr> <td>CPA8</td> <td>5.0</td> <td>7.0</td> <td>52%</td> <td>48%</td> <td>4.71</td> </tr> <tr> <td>CPA9</td> <td>5.0</td> <td>7.0</td> <td>52%</td> <td>48%</td> <td>4.71</td> </tr> <tr> <td colspan="6">2nd verification (monitored values)</td> </tr> <tr> <td>CPA3</td> <td>4.9</td> <td>6.8</td> <td>9%</td> <td>91%</td> <td>5.10</td> </tr> <tr> <td>CPA8</td> <td>4.9</td> <td>6.8</td> <td>51%</td> <td>49%</td> <td>4.64</td> </tr> <tr> <td>CPA9</td> <td>4.9</td> <td>6.8</td> <td>51%</td> <td>49%</td> <td>4.64</td> </tr> </tbody> </table>					HH size (urban)	HH size (rural)	Urban proportion	Rural proportion	Quantity of woody biomass used in the absence of the project activity (t/HH/yr)	CPA3	4.8	6.8	27%	73%	4.85	CPA8	4.8	6.8	52%	48%	4.55	CPA9	4.8	6.8	52%	48%	4.55		HH size (urban)	HH size (rural)	Urban proportion	Rural proportion	Quantity of woody biomass used in the absence of the project activity (t/HH/yr)	Ex ante values						CPA3	4.8	6.8	27%	73%	4.85	CPA8	4.8	6.8	50%	50%	4.58	CPA9	4.8	6.8	50%	50%	4.58	1 st verification (monitored values)						CPA3	5.0	7.0	9%	91%	5.23	CPA8	5.0	7.0	52%	48%	4.71	CPA9	5.0	7.0	52%	48%	4.71	2 nd verification (monitored values)						CPA3	4.9	6.8	9%	91%	5.10	CPA8	4.9	6.8	51%	49%	4.64	CPA9	4.9	6.8	51%	49%
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	<p>The lowest HH size for urban and rural areas and the urban proportion (highlighted in bold in the above table) have been applied to receive the most conservative value of “Quantity of woody biomass used in the absence of the project activity” (t/HH/yr) for each CPA.</p> <p>The applied HH size for urban and rural areas are the values from validation, therefore they have already been validated. The VT reviewed the validation report^{/VAL/} and confirms that the applied values are correct and reasonable.</p> <p>The applied urban/rural proportion are the values from 1st verification. As the validation team is the same as the verification team for the 1st verification, the steps taken during 1st verification are known. The verification team under MP#1 reviewed the sampling data. The key observation of the sampling also included the comparison of this parameter with the actual monitored value derived from survey and sampling. The Verification Team also assessed the supportive documents:</p> <ul style="list-style-type: none"> • 04 - Homestove CRF Database_2018-2019_Ver6 /REC/ • 05a - EcoZoom CRF Database_2017-2018 Ver6 /REC/ • 05b - EcoZoom CRF Database_2019_ver /REC/ • 01 - PoA 7997 MP2 ER calculator_Norway_ver6.xlsx /REC/ <p>The validation Team confirms below results (for 1st verification):</p> <ul style="list-style-type: none"> • HomeStove database, Average HH Size Rural = 6.847 and Urban = 4.885 /REC/ • EcoZoom database, Average HH Size Rural = 6.834 and Urban = 4.947 /REC/ Rural = 6.969 and Urban = 5.010 /REC/ <p>VT confirms that the applied values for urban/rural mix are correct and reasonable. A higher urban population yields lower “Quantity of woody biomass used in the absence of the project activity” (t/HH/yr), this fact was independently validated by the Assessment Team. The VT also confirms that the Assumptions worksheet appropriately captures the logic of selection of “Urban/rural mix”.</p> <p>The calculation of “Quantity of woody biomass used in the absence of the project activity” (t/HH/yr) is transparent and leads to the most conservative value of “Quantity of woody biomass used in the absence of the project activity” (t/HH/yr), for each CPA included in this PRC. The applied values do not negatively affect the ER calculation. There is no over estimation of ER's.</p> <p>The CPA-DDs and the ER spreadsheets of CPA003, CPA008 and CPA009 have been updated and do transparently show the evaluation of “Quantity of woody biomass used in the absence of the project activity” (t/HH/yr). The VT checked the CPA-DDs and the ER spreadsheets of CPA003, CPA008 and CPA009 and confirms that the applied values are reasonable, correct and conservative.</p> <p>However, following the clarification request from the UNFCCC secretariat, the unit and the corresponding values of the parameter B_{old} were reinstated inline with the applied methodology. The parameter is calculated as multiplying the default baseline values in “t/person/yr” by the average household population “persons,” converting the unit to “t/year”</p>
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	<p>(in the CPA a single appliance serves a single household). The calculations are traceable under the tab "Assumptions" and "CER Sheet" of the submitted ER worksheet.</p> <p>The parameter is now expressed with unit "t/year", and deemed in line with the applied methodology. No material changes were incorporated during the course of responding to the UNFCCC clarification.</p> <p>2. f_{NRB}</p> <p>The applied values are:</p> <table border="1"> <thead> <tr> <th></th> <th>f_{NRB}</th> <th>f_{NRB} (expired default value by DNA)</th> </tr> </thead> <tbody> <tr> <td>CPA3</td> <td>0.915</td> <td>0.92</td> </tr> <tr> <td>CPA8</td> <td>0.915</td> <td>0.92</td> </tr> <tr> <td>CPA9</td> <td>0.915</td> <td>0.92</td> </tr> </tbody> </table> <p>The calculation follows the TOOL30, "Calculation of the fraction of non-renewable biomass", as the default value for the Host Country of Kenya had been expired.</p> <p>$NRB = H - RB$</p> <p>Where</p> <table border="1"> <thead> <tr> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>NRB</td> <td>quantity of non-renewable biomass consumed in the applicable area</td> </tr> <tr> <td>H</td> <td>total consumption of woody biomass in the applicable area</td> </tr> <tr> <td>RB</td> <td>quantity of renewable biomass that can be sustainably harvested in the applicable area</td> </tr> </tbody> </table> <p>CME updated the ER worksheet, tab: "fNRB Calculation", to present the calculation in coherence with TOOL30 applying the stepwise approach in a transparent manner. The VT assessed to calculation to be in line with the applied tool. The validation team is the same as the verification team for the 1st verification. During the 1st Verification it was clearly demonstrated and assessed how values for $f_{NRB,y}$ were determined. TOOL30 "Calculation of the fraction of non-renewable biomass" in its most recent version had been applied. All input values were verified to be appropriate ^{/VER/}</p> <p>It is noteworthy that the ex-post determined value of 0.915 compared to expired default value of 0.92 is more conservative.</p> <p>In sum the calculation of f_{NRB} is transparent and leads to the most conservative value, for each CPA included in this PRC. The applied value does not negatively affect the ER calculation. There is no over estimation of ER's.</p> <p>The CPA-DDs and the ER spreadsheets of CPA003, CPA008 and CPA009 have been updated and do transparently show the evaluation of f_{NRB}. The VT checked the CPA-DDs and the ER spreadsheets of CPA003, CPA008 and CPA009 and confirms that the applied value is reasonable, correct and conservative.</p>		f_{NRB}	f_{NRB} (expired default value by DNA)	CPA3	0.915	0.92	CPA8	0.915	0.92	CPA9	0.915	0.92			NRB	quantity of non-renewable biomass consumed in the applicable area	H	total consumption of woody biomass in the applicable area	RB	quantity of renewable biomass that can be sustainably harvested in the applicable area
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	<p>Conservative -ness: Please give a detailed assessment whether conservative assumptions or discount factors have been applied to ensure</p> <p>1. B_{old}</p> <p>The CME has derived this parameter in a conservative and traceable manner. The CPA-DDs and ER worksheets have been checked against the applied methodology and standardized baseline during PRC Validation.</p> <p>The applied values are as following:</p> <table border="1"> <thead> <tr> <th></th> <th>HH size (urban)</th> <th>HH size (rural)</th> <th>Urban proportion</th> <th>Rural proportion</th> <th>Quantity of woody biomass used in the</th> <th>B_{old} (t/year)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		HH size (urban)	HH size (rural)	Urban proportion	Rural proportion	Quantity of woody biomass used in the	B_{old} (t/year)													
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that ER will not be overestimated.

					absence of the project activity (t/HH/yr)	
CPA3	4.8	6.8	27%	73%	4.85	58,180
CPA8	4.8	6.8	52%	48%	4.55	61,463
CPA9	4.8	6.8	52%	48%	4.55	61,463

CPA	Quantity of woody biomass used in the absence of the project activity (t/HH/yr)		Number of Installations	
	During CPA inclusion	During PRC	During CPA inclusion	During PRC
003	4.85	4.85	12,000	12,000
008	4.58	4.55	13,400	13,500
009	4.58	4.55	13,400	13,500

The VT checked that the CME applied reasonable data in a transparent way. The VT assessed and confirms that the CME has availed the logic of selection of the lowest “Quantity of woody biomass used in the absence of the project activity” (t/HH/yr) value for each CPA. (please see also the assessment of accuracy above)

A lower “Quantity of woody biomass used in the absence of the project activity” (t/HH/yr) value always ensures lower emission per stove and thus gives a real time impact on emission reduction at the implementation stage.

Conservative assumptions have been applied to ensure that there is no over estimation of ER's.

The CPA-DDs and the ER spreadsheets of CPA003, CPA008 and CPA009 have been updated and do transparently show the evaluation of “Quantity of woody biomass used in the absence of the project activity” (t/HH/yr). The VT checked the CPA-DDs and the ER spreadsheets of CPA003, CPA008 and CPA009 and confirms that the applied values are conservative.

2. f_{NRB}

The CME has derived this parameter in a conservative and traceable manner. The CPA-DDs and ER worksheets have been checked against the applied methodology and standardized baseline and the applied tool during PRC Validation.

The applied values are as following:

	f_{NRB}
CPA3	0.915
CPA8	0.915
CPA9	0.915

The VT checked that the CME applied reasonable data in a transparent way. The VT assessed and confirms that the CME has selected the lowest f_{NRB} value for each CPA. (please see also the assessment of accuracy above)

A lower f_{NRB} value ensures lower emission reductions.

Conservative assumptions have been applied to ensure that there is no over estimation of ER's.

The CPA-DDs and the ER spreadsheets of CPA003, CPA008 and CPA009 have been updated and do transparently show the evaluation of “Quantity of woody biomass used in the absence of the project activity” (t/HH/yr) and B_{old} . The VT

		checked the CPA-DDs and the ER spreadsheets of CPA003, CPA008 and CPA009 and confirms that the applied value is conservative.	
	Appendix 2 PoA-PS: Check if the changes fall under one of the scenarios of appendix 2 of the PoA-PS.	In accordance with PoA-PS §227, post-registration changes to an included CPA do not require approval by the Board. However the changes shall be notified to the secretariat in line with § 250.	
Findings	CAR 1		
Conclusion	The corrections are undertaken appropriately in line with applied methodology, the standardized baseline and the applied tool. Based on the above stated the corrections to the registered CPA-DDs are in accordance with applicable validation requirements (applied methodology requirement and other applicable requirement as assessed above) related to the corrections in the VVS.		
	Revised CPA-DD		
	Rev. of CPA-DD: Check whether the changes have been fully addressed in a revised CPA-DD.	<input checked="" type="checkbox"/>	The changes have correctly been reflected in the revised CPA-DD.
		<input type="checkbox"/>	A revision of the CPA-DD is not required (in case of temp. changes).
		<input checked="" type="checkbox"/>	The revised CPA-DD has been forwarded in (i) track-change and (ii) clean version.
	Prior Approval		
	Prior approval: Assess whether the change requires prior approval of the board	<input checked="" type="checkbox"/>	In accordance with PoA-PS §227 post-registration changes to an included CPA do not require approval by the Board, but such changes shall be notified to the secretariat as referred to in paragraph 250.

D.4. Changes to the start date of the crediting period

Means of validation	NA
Findings	-
Conclusion	-

D.5. Inclusion of monitoring plan

Means of validation	NA
Findings	-
Conclusion	-

D.6. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents

Means of validation	NA
Findings	-
Conclusion	-

D.7. Changes to the project design

Means of validation	NA
Findings	-
Conclusion	-

D.8. Changes specific to afforestation and reforestation activities

Means of validation	NA
Findings	-
Conclusion	-

SECTION E. Internal quality control

Before the submission of the final valid 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 F. Validation opinion

The below listed changes have occurred after the inclusion of the CPAs

<i>Type of Change occurred</i>	<i>Total No. of changes</i>	<i>No. of changes which require prior approval</i>
<input type="checkbox"/> Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents	-	-
<input checked="" type="checkbox"/> Corrections	2	-
<input type="checkbox"/> Changes to the start date of the crediting period	-	-
<input type="checkbox"/> Inclusion of monitoring plan	-	-
<input type="checkbox"/> Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents	-	-
<input type="checkbox"/> Changes to the project design	-	-
<input type="checkbox"/> Changes specific to afforestation and reforestation activities	-	-

The above listed post registration changes do not require prior approval of the Board.


New Delhi, 21/06/2021

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

Appendix 1. Abbreviations

Abbreviations	Full texts
CAR	Corrective Action Request
CAF	Customer Agreement Forms
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CIRCODU	Centre for Integrated Research and Community Development
CL	Clarification Request
CME	Coordinating/Managing Entity
CO ₂	Carbon dioxide
CO ₂ eq	Carbon dioxide equivalent
CPA-DD	Component Project Activities Design Document
CRF	Customer Registration Form
DOE	Designated Operational Entity
DVerR	Draft Verification Report
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse gas(es)
ICS	Improved Cookstove
IM	Interview Memo
MP	Monitoring Plan
MR	Monitoring Report
MS	Mild Steel
OSVEJ	On-site Visit Exemption Justification
PA	Project Activity
POA-DD	Project of 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(P)	Water Boiling Test(Protocol)
XLS	Emission Reduction Calculation Spread Sheet

Appendix 2. Competence of team members and technical reviewers



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Prakash Kumar Mishra

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification)	2023-12-16
VCS / ISO 14064-2	Senior Assessor	2023-12-16


Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewables
3.1	Energy demand

146 - Rev. 7, Date: 2020-12-17

146_S01-VA065-F20_2020-12-17_rev7

S01-VA065-F20 rev3 / 2013-10-25



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Ms. Christina Stöhr

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor (Validation, Verification) Technical Reviewer	2023-05-05
VCS / ISO 14064-2	Lead Assessor/ Technical Reviewer	2023-05-05


Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.1	Thermal energy generation
1.2	Renewables
13.1	Solid waste and wastewater

200 - Rev. 7 Date: 2020-10-07

200_S01-VA065-F20_2020-10-07_rev7

S01-VA065-F20 rev3 / 2013-10-25



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Stefan Winter

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2023-07-27
VCS / ISO14064-2	Senior Assessor (Validation, Verification) Technical Reviewer	2023-07-27

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.1	Thermal energy generation
1.2	Renewables
2.1	Energy distribution
3.1	Energy demand
4.1	Cement and lime production
4.2	Paper
5.2	Caprolactam, nitric and adipic acid
9.1	Aluminium and magnesium production
9.2	Iron, steel and Ferro-alloy production
10.1	Fugitive emissions from oil and gas
13.1	Solid waste and wastewater
13.2	Manure

163 - Rev. 7, Date: 2020-07-22

163_S01-VA065-F20_2020-07-22_rev7

S01-VA065-F20 rev3 / 2013-10-25

Appendix 3. Documents reviewed or referenced

No.	Author	Reference	Title	References to the document	Provider
1.	UNFCCC	/AMSII-G/	<ul style="list-style-type: none"> AMS-II.G: Energy efficiency measures in thermal applications of non-renewable biomass", version 03.0 		Other
2.	UNFCCC	/ASB0035/	<ul style="list-style-type: none"> ASB0035: Baseline woody biomass consumption for household cookstoves in Kenya (version 01.0) 		Other
3.	PP	/CPA-DD/	<ul style="list-style-type: none"> CPA-DD titled 'CPA 003 – BioLite HomeStove in Kenya', Version 16.0, dated 18/06/2021 CPA-DD titled 'CPA 008 – Charcoal Stoves in Kenya', Version 6, dated 18/06/2021 CPA-DD titled 'CPA 009 – Charcoal Stoves in Kenya', Version 5, dated 18/06/2021 		Other
4.	PP	/REC/	<ul style="list-style-type: none"> 04 - Homestove CRF Database_2018-2019_Ver6 05a - EcoZoom CRF Database_2017-2018 Ver6 and 05b - EcoZoom CRF Database_2019_ver 01 - PoA 7997 MP2 ER calculator_Norway_ver6.xlsx 		Other
5.	DOE	/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)		Other
6.	IPCC	/IPCC/	<ul style="list-style-type: none"> 1996 IPCC Guidelines for National Greenhouse Gas Inventories: workbook 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book 	www.ipcc-nggip.iges.or.jp	Other
7.	UNFCCC	/KP/	Kyoto Protocol (1997)	http://unfccc.int/kyoto_protocol/items/2830.php	Other
8.	UNFCCC	/MA/	Decision 3/CMP. 1 (Marrakesh – Accords)	http://cdm.unfccc.int/Reference/COPMOP/index.html	Other
9.	UNFCCC	/FORM/	CPA-DD filling Form and guidelines Version 09	https://cdm.unfccc.int/Reference/PDDs_Forms/index.html	Other
10.	UNFCCC	/PoA-DD/	<p>Project Design Document for CDM PoA project: "BioLite Improved Cook stoves Programme" version 5, dated 26/12/2012</p> <p>Project Design Document for CDM PoA project: "BioLite Improved Cook stoves Programme" version 20.0, dated 16/11/2017</p>	https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/YNXCPIJ5ZO7DTRGMV0F2AKEU486LQS	Other
11.	PP	/PRC/	PRC-7997-002, Improved Cookstoves Programme-India, 05/01/2018	-	Other
12.	UNFCCC	/PS/	CDM Project Standard for Programme	http://cdm.unfccc.int	Other

No.	Author	Reference	Title	References to the document	Provider
			of activities (Version 2.0)	/Reference/Standards/index.html	
13.	PP	/VAL/	<ul style="list-style-type: none"> Validation Report for CPA-DD titled 'CPA 003 – BioLite HomeStove in Kenya', Version 5.0, dated 09/01/2018 Validation Report for CPA-DD titled 'CPA 004 – BioLite HomeStove in Kenya', Version 5.0, dated 05/01/2018 Validation Report for CPA-DD titled 'CPA 005 – BioLite HomeStove in Kenya', Version 5.0, dated 05/01/2018 Validation Report for CPA-DD titled 'CPA 006 – BioLite HomeStove in Kenya', Version 5.0, dated 05/01/2018 Validation Report for CPA-DD titled 'CPA 008 - Charcoal Stoves in Kenya', Version 3.0, dated 11/04/2018 Validation Report for CPA-DD titled 'CPA 009 - Charcoal Stoves in Kenya', Version 3.0, dated 11/04/2018 Validation Report for CPA-DD titled 'CPA 010 - Charcoal Stoves in Kenya', Version 3.0, dated 11/04/2018 		Other
14.	PP	/VER/	<ul style="list-style-type: none"> 1st Verification Report for CPA 0003 – CPA 0010, Version 1.1, dated 30/09/2019 2nd Verification Report for CPA 0003 – CPA 0010, Version 3.1, dated 16/09/2020 		
15.	UNFCCC	/VVS/	CDM validation and verification standard for programmes of activities (Version 2.0)	http://cdm.unfccc.int/Reference/Standards/index.html	Other
16.	UNFCCC	/GOT/	<ul style="list-style-type: none"> Glossary “CDM terms” (version 10.0) 	https://cdm.unfccc.int/filestorage/e/x/t/extendedfile-20150226124447549-glos_CDM.pdf/glos_CDM.pdf?t=UmZ8bnFjODI3fDCW9A3vJwR03kQQh4sbLiYu	Other
17.	PP	/XLS/	<ul style="list-style-type: none"> Ex-ante worksheets for CPA 003, 008 and 009 submitted along with the revised CPA-DD's 	-	PP
18.	UNFCCC	/unfccc/	UNFCCC	http://cdm.unfccc.int	Other
19.	IPCC	/ipcc/	IPCC publications	www.ipcc-nggip.iges.or.jp	Other
20.	DoE	/IM01/ /IM02/ IM/03/	<ul style="list-style-type: none"> PP's/CME's representative management Consultant representative Stakeholders 	-	Other

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

Table 1. CLs from this validation

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

Table 2. CARs from this validation

CAR ID	01	Section no.	B.4.2, ER worksheet-ER_calculation_CPA 008-009_ver3.xls	Date: 31/05/2021
Description of CAR				
Below findings are raised				
<ol style="list-style-type: none"> 1. The Urban Rural mix is not defined as monitoring or fixed ex-ante parameter under the submitted CPA-DD. Substantiation is requested over the application of the 51 % Urban and 49 % rural population under the submitted ER worksheet (ER_calculation_CPA 008-009_ver3.xls). 2. The transparent declaration of the Urban and rural household size is missing under the submitted CPA-DD 3. The value of the parameter fNRB,y is not clear as the parameter from the DNA of Kenya is expired (Fraction of woody biomass saved by the project activity in period y that can be established as non-renewable biomass) 4. CPA008- Inconsistency is identified between the total value of ER's reported under section B.4.4 of CPA-DD and the submitted ER worksheet 				
CME's response				Date: 07/06/2021
<ol style="list-style-type: none"> 1. The urban / rural split has been fixed and the specific fixed value applied has been identified as an input value to Bold in section B.4.2. 2. The urban and rural household size has been fixed and the specific fixed value applied has been identified as an input value to Bold in section B.4.2. 3. The value for fNRB has been updated and fixed to be consistent with the value that was validated during MP1, included new value for fNRB, fix at new value. This value is lower and more conservative than the expired default value for Kenya, which was provisionally applied at validation until a replacement was calculated at first verification. 4. The inconsistency has been corrected in section B.4.4. 				
Documentation provided by CME				
Revised CPA DD;s				
DOE assessment				Date: 09/06/2021
<ol style="list-style-type: none"> 1. Substantiation is now provided transparently. The basis of selection for the lowest BOLD values is transparently provided under the submitted ER worksheets, tab "Assumption". The lower BOLD value and the corresponding "Average HH Size" ensure conservative emission reductions. Please refer to section D.3 of this report for a detailed assessment. 2. The transparent detailing is included under CPA-DD, section B.4.2, parameter BOLD, Additional comment in a transparent manner. 3. The value of the parameter fNRB,y (Fraction of woody biomass saved by the project activity in period y that can be established as non-renewable biomass) is updated in a conservative manner. The calculation follows the applied tool. Please refer section D.3 of this report for a detailed assessment. 4. The inconsistency under the CPA008 has been correct. CPA-DD has been checked against the ER spreadsheet. 				
CAR has been CLOSED				

Table 3. FARs from this validation

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

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
02.0	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 editorial improvements.
01.0	29 December 2017	Initial publication.

Decision Class: Regulatory
Document Type: Form
Business Function: Registration
Keywords: post-registration change, component project activity, validation report
