




**Validation report form for renewal of CDM programme of activities period  
(Version 02.0)**

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

**BASIC INFORMATION**

<b>Title and UNFCCC reference number of the programme of activities (PoA)</b>	Energy Efficient Stoves Program (EESP)(UNFCCC reference number: <b>PoA 9769</b> ) <sup>1</sup>
<b>Number and duration of the next period</b>	2 <sup>nd</sup> renewal crediting period : (17 October 2020 to 16 October 2027)
<b>Version number of the validation report</b>	01
<b>Completion date of the validation report</b>	29/07/2020
<b>Version number of PoA-DD to which this report applies</b>	07
<b>Coordinating/managing entity (CME)</b>	World Vision Australia
<b>Host Parties</b>	Federal Democratic Republic of Ethiopia
<b>Applied methodologies and standardized baselines</b>	<p><b>Methodology:</b> AMS-II.G: "Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass" (Version 11.1)</p> <p><b>Standardized Baseline:</b> (ASB0044-2019): Improved Institutional Cookstoves in Ethiopia, Version 01.0</p>
<b>Mandatory sectoral scopes</b>	03
<b>Conditional sectoral scopes, if applicable</b>	NA
<b>Estimated amount of annual average GHG emission reductions or GHG removals by sinks in the next programme of activities period</b>	36,040 tCO <sub>2e</sub>
<b>Name and UNFCCC reference number of the DOE</b>	LGAI Technological Center, S.A. (Applus+ Certification) UNFCCC Ref. No.: E-0032
<b>Name, position and signature of the approver of the validation report</b>	<p>Mr. Juan Sendín Caballero Applus+ Certification Business Unit Managing Director</p> <p>Signature: </p>

<sup>1</sup> [https://cdm.unfccc.int/ProgrammeOfActivities/poa\\_db/5TE6HLP1Z4KOABSDI873YQCFGXW2RM/view](https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/5TE6HLP1Z4KOABSDI873YQCFGXW2RM/view)

## SECTION A. Executive summary

### 1. General operating and implementing framework of PoA:

Assessment team via desk and document review confirm that this small scale PoA involves the distribution of energy efficient cooking stoves to households in The Federal Democratic Republic of Ethiopia. The majority of households in rural areas of The Federal Democratic Republic of Ethiopia cook over open fires<sup>2</sup>, and this leads to a very significant consumption of wood, as well as a major health risk. To combat this problem, this PoA will distribute low cost, high efficiency stove designs that use considerably less wood than conventional open fires. Users are households who previously used inefficient, traditional open fireplaces. Deforestation and degradation have become a major concern in rural areas of Africa, as wood demand for household energy largely exceeds the available renewable woody biomass. By reducing the fuel wood consumption, the project activity hence reduces greenhouse gas emissions stemming from the use of non-renewable biomass.

Different types of stoves may be distributed as part of the PoA depending on local cooking requirements in the program area. Efficient stoves will be tested to determine their specified efficiency relative to the baseline scenario (for example a three stone open fire). The CPA implementer will be responsible for transporting and distributing stoves to households, and also providing training on how to use and maintain the stoves effectively.

### 2. Policy/measure or stated goal of the PoA

Assessment team via telephonic interview<sup>3</sup>, desk review and standard auditing techniques confirms that the goal of the SSC-PoA is to distribute and install fuel efficient cook stoves to rural households cooking with firewood. The stoves will reduce the amount of non-renewable biomass used by households, therefore decreasing Greenhouse Gas (GHG) emissions. Significant environmental, social and economic benefits will also be yielded by the replacement of the traditional cooking system with fuel efficient stoves as outlined in "Contribution to sustainable development" below.

*Confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity*

This SSC-PoA being implemented is a voluntary action by the CME. There is no law or policy in the area of implementation which requires households to use fuel efficient stoves or other means of reducing fuel wood consumption.

*Contribution to sustainable development*

Benefits of this project will include both emission reduction and reduced pressure on the environment due to the decreased need for firewood as well as a number of significant socio-economic and health related improvements:

*Environmental:*

- Significant reduction in GHG emissions through a reduction in the use of non-renewable biomass, preventing carbon dioxide being released into the atmosphere per stove per year.
- Reduced pressure on the environment. In Ethiopia for example, approximately 141,000 hectares of forest are cleared each year (FAO)<sup>4</sup>. Reducing the need to collect firewood will reduce deforestation, decrease pressure on biodiversity, increase water quality, protect land from erosion, and ultimately protect communities from degradation of their agricultural land.

<sup>2</sup> Lawrence Berkeley National Laboratory 2010, 'Berkeley Lab Makes Cookstoves for Ethiopia', LBNL, U.S. Dept of Energy, < <https://newscenter.lbl.gov/2010/06/29/berkeley-lab-makes-cookstoves-for-ethiopia/> >

<sup>3</sup> Assessment team via telephonic interview with CME confirmed that there is no change in registered POA and baseline. There is no policy upgradation in the host country which could effect the baseline. The latest methodology also reveals the same baseline as was considered in the first registration of the POA

<sup>4</sup> FAO. 2009. Change in extent of forest and other wooded land 1990-2005. <http://www.fao.org/forestry/32033/en/>

Access of July 20<sup>th</sup> 2012

*Social:*

- Reduced time collecting fuel wood means women can spend more time at home, in business, or in employment. In many cases children are kept home from school to collect wood. This project will therefore decrease the time children have to miss school.
- Reduced risk of respiratory diseases due to smoke inhalation. Many families cook over an open fire indoors, and air quality is therefore very poor. Energy efficient stoves reduce the use of fuel wood, therefore reducing the volume of smoke produced. They also burn wood with a primary as well as secondary combustion, significantly reducing toxic gases and reducing particulate matter.
- Reduced risk of house fires. Many homes, particularly in rural areas of Africa for example are burned down each year due to the use of open fires in thatched roof homes. As energy efficient stoves contain the burning process within the stove, they significantly reduce the risk of homes catching alight.

*Economic:*

- Reduced fuel costs for households who purchase wood, due to a reduction in total amount of wood fuel used for cooking, which increases available household budget.
- In most cases stoves are manufactured or assembled locally, creating local employment and building the local economy.
- The reduction in GHG emissions will lead to the creation of CERs. The CERs generated by the project will be sold to help meet the costs of delivering the project, with any remaining funds generated being returned to communities participating in the project.

The PoA will deliver long-term environmental, social and economic benefits as described above, and these would not be delivered without carbon finance.

**Validation Scope:** The scope is defined as an independent and objective review of the programme of activities –design document (POA-DD). The POA-DD is reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords and the relevant decisions by the CDM Executive Board, including the approved baseline and monitoring methodology AMS-II.G: “Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass” (Version 11.1). The validation was based on the requirements in the CDM validation and verification standard for programme of activities, version 02.

The validation is not meant to provide any consulting towards the CME or authorized participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the PoA-DD.

**Validation Process:** The project assessment is based on the “CDM validation and verification standard for programme of activities, version 02 and is conducted using standard auditing techniques to assess the correctness of the information provided by the project participants. Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the CDM programme of activities are appointed.

Following activities were performed by the Validation team member once initial PoA-DD is available:

- I A desk review of the programme of activities –design document (POA-DD)
- II Follow-up interviews with project stakeholders;
- III The resolution of outstanding issues and the issuance of the final validation report and opinion.

The prepared validation report and other supporting documents then undergo an internal quality control at the HQ (Accredited office) before being submitted to the CDM-EB.

In order to ensure transparency, assumptions must be clear and stated explicitly and background material must also be referenced. Applus+ Certification has developed a specific Checklist customized for the programme of activities. The checklist demonstrates, in a transparent manner, the programme of activities criteria (requirements), discussion on each criterion by the assessment team, and the results from validating the identified criteria.

## **Appointment of the assessment team**

According to the sectoral scope / technical area and experience in the sectoral or national business environment, Applus+ Certification has composed a programme of activities assessment team in accordance with the appointment rules in the internal Quality Management System of Applus+ Certification.

The composition of audit team shall be approved by Applus+ Certification ensuring that the required skills are covered by the team.

The four qualification levels for team members that are assigned by formal appointment rules are as presented below:

- Lead Auditor (LA).
- Auditor (A) / Auditor in Training (AiT).
- Technical Expert (TE).
- Technical Reviewer (TR).

The sectoral scope / technical area knowledge linked to the applied methodology/ies shall be covered by the assessment team.

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Mr. Sukanta Das	LA/TE	YES	YES	YES	YES
Mr. Miguel Cortes Diaz	TR	YES	YES	YES	NA

The complete list of CVs is included as Appendix 2 of this report.

## **Document review**

The POA-DD by the Client was reviewed against the approved methodology and other relevant criteria to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources like 3<sup>rd</sup> party Government documents has been done. A complete list of all documents and evidence material reviewed is included in Appendix 3 of this report.

## **Follow-up interviews**

Applus+ Certification performed interviews, telephone conferences, with stakeholders to confirm selected information and to resolve issues identified in the document review. The detail is provided in section C.2 and C.3 of this report.

## **Resolution of Clarification and Corrective Action Request**

The objective of this phase of the validation was to resolve the requests for corrective actions and clarification and any other outstanding issues which need to be clarified for Applus+ Certification positive conclusion on the PoA-DD. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the Client and Applus+ Certification to guarantee the transparency of the validation process, the concerns raised and responses given are summarized in Appendix 4 below.

The final PoA-DD version 07 submitted by PP on 27/07/2020 serves as the basis for the final assessment presented. Additional changes to the PoA-DD during the validation process are not considered to be significant with respect to the main CDM objectives. The two CDM main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

**Internal quality control**

As final step of a validation of the final documentation including the validation report and the checklist have to undergo an internal quality control by the technical review committee, i.e. each report has to be finally approved either by the head of the technical review committee or the deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one to avoid any conflict of Interest.

After confirmation of the PP the validation opinion and relevant documents are submitted to the EB through the UNFCCC web-platform.

**Conclusion**

Applus+ Certification has performed a validation of the “Energy Efficient Stoves Program (EESP)”. The renewable validation was performed on the basis of UNFCCC criteria and host country criteria, as well as criteria, e.g. AMS.II.G version 11.1, given to provide for consistent project operations, monitoring and reporting.

The review of the renewal of programme of activities period and the subsequent follow-up interviews have provided Applus+ Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the PoA-DD meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria. The PoA-DD will hence be recommended by Applus+ Certification for renewal registration with the UNFCCC.

Applus+ Certification has checked the confirmation (obtained in 1<sup>st</sup> CP) from the host Party that the programme of activities assists it in achieving sustainable development.

By displacing fossil fuel-based electricity with electricity generated from a renewable source, the POA-DD results in reductions of CO<sub>2e</sub> emissions that are real, measurable and give long-term benefits to the mitigation of climate change. An analysis of the positive list of renewable project demonstrates that the proposed programme of activities is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the programme of activities. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of annual average emission reductions of 36,040 tCO<sub>2e</sub>.

The validation has been performed following the requirements of the latest version of the CDM validation and verification standard for programme of activities, version 02 and on the basis of the contractual agreement. The single purpose of this report is its use during the renewal registration process as part of the CDM/UNFCCC project cycle.

**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			
						Desk/document review	On-site inspection	Interview(s)	Validation findings
1.	Lead Auditor/ Technical Expert	O R	DAS	SUKANTA	True Quality Certifications Private Limited- Outsourced entity	YES	NO	YES	YES

**B.2. Technical reviewer and approver of the validation report for renewal of PoA period**

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	EI	Cortés Díaz	Miguel	Applus+ Certification
2.	Approver	IR	Sendín Caballero	Juan	Applus+ Certification

## SECTION C. Means of validation

### C.1. Desk/document review

The details of the document observed during desk review /validation process are listed below in Appendix 3 of this report.

### C.2. On-site inspection

**As per the requirement of Para 183 of CDM validation and verification standard for programme of activities, version 02**, Para (a) since the emission reduction estimated is less than 100,000 tCO<sub>2eq</sub>, assessment team didn't conducted site visit for 2<sup>nd</sup> renewal of registered POA (UNFCCC reference number:9769). To validate the POA design, eligibility criteria CPA to be included, monitoring & management practices as mentioned in the PoA-DD; assessment team has conducted telephonic interviews with CME. After telephonic interviews with concerned CME person and applying standard auditing techniques; assessment team concluded that the design PoA for 2<sup>nd</sup> renewal is same as envisaged in 1<sup>st</sup> CP. There is no change in the eligibility of PoA design or operation and monitoring practices as mentioned in the registered PoA-DD of 1<sup>st</sup> CP which can alter the applicability or additionality of the programme of activities/methodology applied. Assessment team therefore of the opinion that project is implemented as described in the registered PoA- DD for 1st crediting period and no change is envisaged for the proposed 2<sup>nd</sup> renewal crediting period.

Duration of on-site inspection: DD/MM/YYYY to DD/MM/YYYY				
No.	Activity performed on-site	Site location	Date	Team member
NA	NA	NA	NA	NA

### C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Bhatta	Anil <sup>5</sup>	CME representative	18/05/2020	POA design, monitoring & management practices of the PoA DD, eligibility criteria CPA to be included etc	Mr. Sukanta Das

### C.4. Sampling approach

The assessment team did not apply any sampling approach for the PoA-DD assessment.

### C.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Area of validation findings	No. of CL	No. of CAR	No. of FAR
<b>Programme of activities</b>			
Compliance with PoA-DD form	00	01	00
Programme of activities period	00	00	00
Coordinating/managing entity and the project participants	00	00	00
Post-registration changes	00	00	00
<b>Generic component project activities</b>			
Application and selection of methodologies and standardized baselines	00	01	00
Validity of original baseline or its update	00	01	00
Estimated emission reductions or net anthropogenic removals	00	00	00

<sup>5</sup> Telephonic Interview only

Validity of monitoring plan	00	02	00
Eligibility criteria for inclusion of CPAs	00	01	00
Others (please specify)	00	00	00
<b>Total</b>	00	06	00

## SECTION D. Validation findings

### D.1. Programme of activities

#### D.1.1. Compliance with PoA-DD form

<b>Means of validation</b>	Assessment team checked the PoA DD version 09.0 form supplied by the project participant and found that the latest form applicable in the UNFCCC web site is used for the presentation of the PoA DD.
<b>Findings</b>	CAR 01 was raised during the validation process. Please refer Appendix 4 of this report for the detail closure of the CAR.
<b>Conclusion</b>	<p>The information transferred to the version 09 of the PoA-DD form is materially the same as that in the registered PoA-DD of 1<sup>st</sup> crediting period. Stove producers will be contracted to manufacture standardized stoves for each CPA. The CPA implementer will be responsible for monitoring the distribution and installation of stoves in each CPA to ensure that each stove meets pre-determined quality standards and has a unique identification number.</p> <p>Assessment team confirm via document review (along with 1<sup>st</sup> registered POA-DD) that renewable PoA will distribute low cost, high efficiency stove designs that use considerably less wood than conventional open fires. Users are households who previously used inefficient, traditional open fireplaces. Deforestation and degradation have become a major concern in rural areas of Africa, as wood demand for household energy largely exceeds the available renewable woody biomass. By reducing the fuel wood consumption, the project activity hence reduces greenhouse gas emissions stemming from the use of non-renewable biomass.</p> <p>Different types of stoves may be distributed as part of the PoA depending on local cooking requirements in the program area. Efficient stoves will be tested to determine their specified efficiency relative to the baseline scenario (for example a three stone open fire). The CPA implementer will be responsible for transporting and distributing stoves to households, and also providing training on how to use and maintain the stoves effectively.</p> <p>The proposed PoA is a Sectoral scope 3 programme (Energy Demand).</p>

#### D.1.2. Programme of activities period

<b>Means of validation</b>	<p>As per Paragraphs 390(a)(v) of the VVS for PoAs version 02.0 the DOE shall confirm that the next PoA period commences on the day immediately after the expiration of the current PoA period.</p> <p>The DOE through checking the revised PoA-DD version 7.0 dated on 27/07/2020, in its Section D.1. cross-checking the information with the one available at UNFCCC Website that the Start Date of PoA is well stated.</p> <p>By same approach and cross-check the DOE confirmed that the duration of PoA in its Section D.2. is consistent with the duration stated in the registered PoA-DD of 1<sup>st</sup> CP and it is stated as 28 years and 00 months.</p> <p>The Crediting Period Type and duration are consistent as it is a 7 years renewable crediting period starting from (17 October 2020 to 16 October 2027) for this 2<sup>nd</sup> CP of the PoA that commences on the day immediately after the expiration of the current period.</p>
<b>Findings</b>	No findings raised for the section



<b>Conclusion</b>	This is 2 <sup>nd</sup> renewable crediting period and the duration is 7-year renewable (17 October 2020 to 16 October 2027)
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### D.1.3. Coordinating/managing entity and the project participants

Means of validation	The CME and PP names were checked from UN homepage <a href="https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/5TE6HLP1Z4KOABSDI873YQCFGXW2RM/view">https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/5TE6HLP1Z4KOABSDI873YQCFGXW2RM/view</a>																
Findings	No findings raised for the section																
Conclusion	<table><tr><td>Coordinating/Managing Entity</td><td colspan="2">World Vision Australia</td></tr></table>			Coordinating/Managing Entity	World Vision Australia												
	Coordinating/Managing Entity	World Vision Australia															
	No change is envisaged from 2 <sup>nd</sup> CP as the CME is same as in 1 <sup>st</sup> CP and registered PoA.																
	Assessment team also confirmed that the PP name is correct as mentioned in the 1 <sup>st</sup> CP. The detail are as below:																
	<table><tr><th>Parties involved</th><th>Project participants</th><th>Indicate if the Party involved wishes to be considered as project participant (Yes/No)</th></tr><tr><td>Federal Democratic Republic of Ethiopia (host)</td><td>World Vision Ethiopia (private)</td><td>No</td></tr><tr><td>Commonwealth of Australia</td><td>World Vision Australia (private)</td><td>No</td></tr><tr><td>Kingdom of Sweden</td><td>Swedish Energy Agency (government agency)</td><td>No</td></tr><tr><td>Federal Republic of Germany</td><td>First Climate Markets AG (Private)</td><td>No</td></tr></table>			Parties involved	Project participants	Indicate if the Party involved wishes to be considered as project participant (Yes/No)	Federal Democratic Republic of Ethiopia (host)	World Vision Ethiopia (private)	No	Commonwealth of Australia	World Vision Australia (private)	No	Kingdom of Sweden	Swedish Energy Agency (government agency)	No	Federal Republic of Germany	First Climate Markets AG (Private)
Parties involved	Project participants	Indicate if the Party involved wishes to be considered as project participant (Yes/No)															
Federal Democratic Republic of Ethiopia (host)	World Vision Ethiopia (private)	No															
Commonwealth of Australia	World Vision Australia (private)	No															
Kingdom of Sweden	Swedish Energy Agency (government agency)	No															
Federal Republic of Germany	First Climate Markets AG (Private)	No															

### D.1.4. Post-registration changes

Type of post-registration changes (PRCs)	Confirmation (Y/N)	Validation report for PRCs	
		Version	Completion date
Corrections	N	NA	NA
Inclusion of monitoring plan	N	NA	NA
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents	N	NA	NA
Changes to the programme design	N	NA	NA
Addition of CPA inclusion template	N	NA	NA
Changes specific to afforestation and reforestation activities	N	NA	NA
Change of coordinating/managing entity	N	NA	NA

## D.2. Generic component project activities

### D.2.1. Application and selection of methodologies and standardized baselines

Means of validation	The assessment team has validated the documentation referred to in the revised PoA-DD for renewable of crediting period and verified the documentation content for verifying the justification of the applicability of the AMS.II.G version 11.1 and confirmed that the documentation referred to in the PoA-DD is correctly quoted and interpreted.	
	Moreover, assessment team have the applied following alternate route to confirm the detail as mentioned in the PoA-DD applied for renewable.  - Interview with the concerned person(CME) mentioned in this report  The assessment of the PoA's compliance with the applicability criteria of AMS.II.G are documented in detail in section I.1 of the PoA DD	
Findings	CAR 02 was raised during the validation process and closed successfully. Please refer Appendix 4 for the closure of the CAR	
Conclusion	The applied baseline methodology is justified as it has been demonstrated that the proposed programme of activities:	
	Applicability of methodologies and standardized baselines. The applicability criteria of AMS.II.G version 11.1 are the following:	Methodology <sup>6</sup> (Latest available at UN home page)AMS.II.G version 11.1 is applicable to an generic CPA under the proposed PoA because:
	This methodology comprises efficiency improvements in thermal applications of non- renewable biomass. Examples of applicable technologies and measures include the introduction of high efficiency biomass fired project devices (cookstoves or ovens or dryers) to replace the existing devices and/or energy efficiency improvements in existing biomass fired cookstoves or ovens or dryers.	Assessment team confirm via document review that in present renewal POA –DD the CPAs will consist of the dissemination of high efficiency biomass fired cook stoves. It will save non-renewable biomass, which would otherwise have been consumed by less efficient three stone open fire (Open fire Stone were the baseline stove used normally in the region). Assessment team checked the previous CPA-(1 <sup>st</sup> POA registration) verification and confirm the above creteria. Hence applicability creteria is meet.
	In the case of cookstoves, the methodology is applicable to the introduction of single pot or multi pot portable or in-situ cookstoves with rated efficiency of at least 20 per cent.	Assessment team checked and confirm that at this stage of Validation the CPA under this POA-DD shall include only those stoves that have a rated thermal efficiency of at least 20%. The Mirt stove and Tikikil stove that the CPAs under this POA-DD will distribute has a thermal efficiency of 22% and 28% respectively. A letter from GIZ Ethiopia confirms the efficiency of Mirt and Tikikil stove of 22% and 28% respectively. The letter is checked by the assessment team and found correct. Hence applicability creteria is meet.

<sup>6</sup> <https://cdm.unfccc.int/methodologies/DB/ZI2M2X5P7ZLRGFO37YBVDYOW62UHQ>

	The aggregate energy savings of a single project activity shall not exceed the equivalent of 60 GWh per year or 180 GWh thermal per year in fuel input.	Assessment team at this stage of Validation confirm that the aggregate energy savings of a single CPA shall not exceed the equivalent of 60 GWh per year or 180 GWh thermal per year in fuel input The POA thus meet the applicability criteria.
	Non-renewable biomass has been used in the project region since 31 December 1989, using survey methods or referring to published literature, official reports or statistics.	Assessment team confirm that Non-renewable biomass has been used since 31 December 1989 in Ethiopia. According to FAO (Food and Agriculture Organization), total forestry area in Ethiopia has declined between 1990 and 2005, with an estimated loss of 141,000 ha/year representing an annual deforestation rate of 1.0 % (1990-2000) and 1.1 % (2000-2005) <sup>7</sup> . The POA thus meet the applicability criteria.
	For cases where the biomass is sourced from renewable sources, the project participants should use a corresponding Type I methodology.	Assessment team at this stage of Validation confirm that this condition is not applicable for the POA-DD. All the future CPAs will be using non-renewable biomass.
	If the project device requires a specific fuel for this device (e.g. briquettes, pellets, woodchips), the consumption of the fuel should be monitored during the crediting period.	Assessment team at this stage of Validation confirm that this criterion is not applicable for the CPAs, as the project cook stoves do not require any specific fuel such as briquettes, pellets or woodchips.
	The CDM-PDD or CDM-PoA-DD/CPA-DD shall explain the proposed method for distribution of project devices including the method to avoid double counting of emission reductions such as unique identifications of product and end-user locations (e.g. programme logo).	Assesment team at this stage of validation confirm that the CPA will explain the proposed method of distribution of project devices in the CPA-DD. To avoid double counting of emission reduction, the CPA shall explain the unique identification of the product and end user locations.  Section B of the PoA-DD provides an example of unique identification of the project cook stoves that will be included under the CPAs. Assessment team found that the process is correct and the procedure adopted to avoid double counting is conservative.  The POA thus meet the applicability criteria.

<sup>7</sup> FAO. 2009. Change in extent of forest and other wooded land 1990-2005.  
<http://www.fao.org/forestry/32033/en/>

	<p>The CDM-PDD or CDM-PoA-DD/CPA-DD shall also explain how the proposed procedures prevent double counting of emission reductions, for example to avoid that project stove manufacturers, wholesale providers or others claim credit for emission reductions from the project devices.</p>	<p>Assesment team at this stage of validation confirm that the CPA shall explain the proposed procedures to prevent double counting of emission reductions, for example to avoid that project stove manufacturers, wholesale providers or others claim credit for emission reductions from the project devices in the CPA-DD.</p> <p>Furthermore, in order to avoid double counting of emission reductions, for example to avoid that project stove manufacturer or wholesale providers do not claim credit from emission reductions from the project cook stove, the CPA implementer will obtain a written confirmation from those parties (i.e. stove manufacturer or wholesale provider) that they would not claim credits from emission reductions from the project cook stoves. Assessment team found that the process is correct and the procedure adopted to avoid double counting is conservative.</p> <p>The POA thus meet the applicability creteria.</p>
	<p>Applicability criteria as per (Stand. Baseline) Improved Institutional Cookstoves in Ethiopia, Version 01.0</p>	
	<p>Creteria as per the Standaralized baseline</p>	<p>DOE assessment</p>
	<p>The scope of the standardized baseline covers the values of baseline woody biomass consumption per capita, the efficiency of pre-project institutional cook-stoves, and the fraction of woody biomass that can be established as non-renewable biomass (fNRB) in Ethiopia. The standardized baseline is only applicable to cook-stoves of the following type of institutions:</p> <ul style="list-style-type: none"> <li>(a) Category 1: Prisons, hospitals/clinics, refugee camps, military barracks;</li> <li>(b) Category 2: Restaurants and other food services in rural areas;</li> <li>(c) Category 3: Boarding schools, universities;</li> <li>(d) Category 4: Day schools; and</li> <li>(e) Category 5: Injera bakers using Mirt stoves.</li> </ul>	<p>Assessment team observed that the majority of households in rural areas of The Federal Democratic Republic of Ethiopia cook over open fires, and this leads to a very significant consumption of wood, as well as a major health risk. To combat this problem, this PoA will distribute low cost, high efficiency stove designs (The Mirt stove and rocket cook stove to name a few as per section A.3 of the PoA-DD) that use considerably less wood than conventional open fires. Users are households who previously used inefficient, traditional open fireplaces. Deforestation and degradation have become a major concern in rural areas of Africa, as wood demand for household energy largely exceeds the available renewable woody biomass. By reducing the fuel wood consumption, the project activity hence reduces greenhouse gas emissions stemming from the use of non-renewable biomass.</p> <p>Assessment team conclude that the</p>

		<p>CPA under this PoA-DD don't fall under any category from 1 to 5, as the CPAs will consist of dissemination of high efficiency biomass fired cook stoves in the Ethiopian households. The CPAs will save non-renewable biomass (NRB), which would otherwise have been consumed by less efficient three stone open fire in Ethiopia. The CPAs will <b>only utilise the standardized baseline for the purpose of using the referred value for fraction of woody biomass that can be established as non-renewable biomass (fNRB)</b> in Ethiopia from ASB0044-2019 (version 01.0).</p>
	<p>CDM project activities may apply this standardized baseline under the following conditions:</p> <ul style="list-style-type: none"> <li>(a) The project activity is implemented in Ethiopia; and</li> <li>(b) The approved CDM methodology applied to the project activity is small-scale methodology AMS-II.G. "Energy efficiency measures in thermal applications of non-renewable biomass" and/or small-scale methodology AMS-I.E. "Switch from non-renewable biomass for thermal applications by the user"; and</li> <li>(c) The standardized values are not applicable to institutions using LPG and/or kerosene in the baseline as a cooking fuel; 3 and</li> <li>(d) The standardized values are not applicable to standalone renewable energy based water treatment technologies under AMS-I.E.</li> <li>(e) To use the default value under Category 5, the average weight of an injera is monitored once at the beginning of the crediting period and once every year, where required on a sample basis. It is demonstrated that weight of each injera is equal to or more than 0.368 kg (i.e. the number of injera per kg of injera baked should be equal to or less than 2.72). In addition, annual average number of injera baked per injera baker should also be monitored.</li> </ul>	<p>Assessment team conclude the criteria as below:</p> <ul style="list-style-type: none"> <li>a. The CPA under this PoA-DD will be implemented in Ethiopia. The same is confirmed from the 1<sup>st</sup> registered PoA-DD and also checked from the implemented CPA under 1<sup>st</sup> registered PoA-DD. The criteria therefore meet</li> <li>b. The CPAs will apply small-scale methodology AMS-II.G version 11.1. "Energy efficiency measures in thermal applications of non-renewable biomass". All the applicability criteria of the methodology is explained above this table in Section D.2.1. The applicability criteria therefore is meet</li> <li>c. Assessment team concludes that this criterion is not applicable as the CPAs will not be the institutions using LPG and/or kerosene in the baseline as a cooking fuel.</li> <li>d. Assessment team conclude that as the CPAs will not be an energy based water treatment technologies under AMS-I.E therefore this criteria is not applicable for the CPAs under this PoA</li> </ul>
		<ul style="list-style-type: none"> <li>e. The criteria is not applicable as as the CPAs don't fall under Category 5.</li> </ul>

## D.2.2. Validity of original baseline or its update

<b>Means of validation</b>	<p>In accordance with paragraphs 288-291 of the PS for PoAs version 02.0 and paragraph 382 of the VVS for PoAs version 02.0, the validation team appointed by Applus+ Certification reviewed the validity of the current baseline scenario for the PoA against the requirements of methodological tool “Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period” (version 03.0.1).</p> <p>The baseline scenario as depicted in the PoA-DD version 07 is confirmed from the interview and applying standard auditing techniques with the CME. Assessment team also checked that there is no policy change in the host country which could effect the baseline scenario. The baseline as identified in 1<sup>st</sup> POA registration is still valid for 2<sup>nd</sup> renewal.</p>
<b>Findings</b>	<p>CAR 03 was raised during the validation process and closed successfully. Please refer Appendix 4 for the closure of the CAR.</p>
<b>Conclusion</b>	<p>Assessment team referred “Methodological tool (EB 66, Annex 47) “Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period.” (Version 03.0.1)” and CDM validation and verification standard for program activities, version 02” to check the originality of the baseline. Following are the observation of the assessment team regarding selected baseline for the programme of activities in this present 2<sup>nd</sup> renewable crediting period:</p> <p><b><u>Step 1.1 (EB 66, Annex 47): Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies</u></b></p> <p>Assessment team confirm that there are no mandatory national and/or sectoral policies that affect the baseline scenario during the renewal of the crediting period. There is no law or policy in the areas of project implementation, which requires households to use fuel-efficient stoves or other means of reducing fuel wood consumption.</p> <p><b><u>Step 1.2 (EB 66, Annex 47) : Assess the impact of circumstances</u></b></p> <p>There is no impact of circumstances existing at the time of requesting renewal of the crediting period on the current baseline emissions. The conditions used to determine the baseline emissions in the previous crediting period are still valid as in absence of project cook stoves the households would continue to use three stone open fire that would lead to a significant consumption of firewood. Each SSC-CPA will provide fuel efficient stoves to households using fuel wood in the geographic area of the PoA. These stoves are to replace inefficient traditional open fireplaces that would otherwise be used in the absence of the project activity. The stove design utilised in each CPA may vary as traditions demand, however will have a specified efficiency of at least 20%, as required under AMS-II.G Version 11.1. Multiple cook stove technologies (Mirt stove and Tikikil stove that the CPAs under this POA-DD will distribute has a thermal efficiency of 22% and 28% respectively) may be utilised in any given CPA given the unique cooking needs and requirements of households within the geographic area of the PoA.</p> <p>There are no new circumstances that can impact the original baseline at this stage of validation.</p> <p><b><u>Step 1.3 (EB 66, Annex 47): Assess whether the continuation of the use of current baseline equipment(s) or an investment is the most likely scenario for the crediting period for which renewal is requested</u></b></p> <p>Assessment team confirm that this PoA was a voluntary investment which other wise would Continued use of current baseline equipment (i.e. three stone open fire) is the most likely scenario for the crediting period for which renewal is requested. Since the baseline equipment/technology (i.e. three stone open fire) is replaced by</p>

	<p>project cook stoves, analysis of the end of the technical lifetime of the baseline equipment is not applicable in this case. However, the project cook stove will have specific operational lifetime and when the project stoves ends its operational lifetime, those stoves will be replaced by new project stoves throughout the crediting period.</p> <p>The CME was not bound to incur this investment; hence absence of programme of activities (i.e. the investment) does not lead to any continued baseline practice for CME within their scope whereas the continued operation of the programme of activities would continue to replace current baseline equipment (i.e. three stone open fire). Hence, the same baseline as identified in the previous crediting period is still valid for the project. Therefore, the assessment of the changes in market characteristics is not required for the renewal of the project's crediting period under CDM.</p> <p><b><u>Step 1.4 (EB 66, Annex 47): Assessment of the validity of the data and parameters</u></b></p> <p>The following parameters that were determined at the start of the first crediting period and not monitored during the first crediting period and not valid anymore have been updated in line with AMS-II.G, Version 11.1 that provides new guidance on key parameters, default values and emission reduction calculation formulas:</p> <ul style="list-style-type: none"> <li>- Fraction of woody biomass that can be established as non-renewable biomass (fNRB)</li> <li>- IPCC default for fuel wood</li> <li>- Emission factor for the fossil fuels projected to be used for substitution of non-renewable woody biomass by similar consumers (EF<sub>projected_fossilfuel</sub>)</li> <li>- 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 (Bold,p)</li> </ul> <p><b>Application of Steps 1.1, 1.2, 1.3 and 1.4 confirmed that the current baseline is valid for the Second crediting period but data and parameters needs to be updated. Therefore step 2 is used</b></p> <p><b>Step 2.1: Update the current baseline</b></p> <p>As evident from the explanation provided above the baseline scenario remains unchanged.</p> <p><b>Step 2.2: Update the data and parameters</b></p> <p>As outlined in Step 1.4 above, parameters that were determined at the start of the first crediting period and not monitored during the first crediting period and not valid anymore have been updated in line with AMS-II.G, Version 11.1. The details on updated data and parameters can be found in section I.6.2 and I.6.3 of this PoA-DD which is checked and found correct by the assessment team.</p> <p>The above selected baseline is correct and thus applicable to the programme of activities and in line with approved methodology for the applied renewable of crediting period.</p>
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### D.2.3. Estimated emission reductions or net anthropogenic removals

<b>Means of validation</b>	<p>Assessment team checked the following document for estimation of emission reduction:</p> <ul style="list-style-type: none"> <li>• The emission reduction sheet version 02 dated 27/07/2020,</li> <li>• General Guidelines for SSC CDM Methodologies", Version 23.0</li> <li>• "Demonstration of additionality of smallscale project activities", Version 10.0</li> <li>• "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities", Version 3.0</li> <li>• "Guidelines on the Demonstration of Additionality of Small-Scale Project</li> </ul>
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	<p>Activities", Version 09.0</p> <ul style="list-style-type: none"> <li>• "Guidelines on assessment of de-bundling for SSC project activities", Version 03.0</li> <li>• "General Guidance on Leakage in Biomass Project Activities" Version 04.0</li> <li>• "Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities", Version 4.0</li> <li>• "Guidelines for Sampling and Surveys for CDM Project Activities and Programme of Activities", Version 4.0</li> <li>• PoA-DD version 07</li> </ul>
<b>Findings</b>	No CAR is raised for this section.
<b>Conclusion</b>	<p>The emission reduction calculation is checked by the assessment team and found correct. The details are as below:</p> <p><b>Emissions Reductions</b></p> <p>Emissions reductions for the project activity are calculated as follows:</p> $ER_y = \sum_i \sum_j ER_{y,i,j} - LE_y \quad (\text{Equation 1})$ <p>Where:</p> <p>i Indices for the situation where more than one type of project device is introduced to replace the pre-project devices<sup>8</sup></p> <p>j Indices for the situation where there is more than one batch of project device</p> <p>ER<sub>y</sub> Emission reductions during year y in t CO<sub>2e</sub></p> <p>ER<sub>y,i,j</sub> Emission reductions by project device of type i and batch j during year y in t CO<sub>2e</sub></p> <p>LE<sub>y</sub> Leakage emissions in the year y</p> <p>ER<sub>y,i,j</sub> is calculated based on below equation 2 of the methodology</p> <p>As per equation 2 of AMS-II.G Version 11.1, the emissions reductions created by each type of project device implemented by the project activity are calculated as follows:</p>

<sup>8</sup> For example, in some instances, full replacement of the pre-project device would require the implementation of more than one project device (e.g. one stove suitable for cooking and the other stove suitable for cooking/boiling water).



$$ER_{y,i,j} = B_{y,savings,i,j} \times N_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected\_fossil\_fuel} \quad \text{Equation 2}$$

Where,

$B_{y,savings,i,j}$	Quantity of woody biomass that is saved in tonnes per cookstove 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 (fNRB)
$NCV_{biomass}$	Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.0156 TJ/tonne, based on the gross weight of the wood that is 'air-dried')
$EF_{projected\_fossil\_fuel}$	Emission factor for the fossil fuels projected to be used for substitution of non-renewable woody biomass by similar consumers
$N_{y,i,j}$	Number of project devices of type i and batch j operating during year y
$\mu_y$	Adjustment to account for any continued use of pre-project devices during the year y when applying equations 7 and 9 (fraction). Use 1.0 in other cases

$N_{y,i,j}$  is monitored directly, for  $NCV_{biomass}$  and  $EF_{projected\_fossil\_fuel}$ ,

the default values provided under the methodology are used, and LEy is set to zero, since leakage is considered by multiplying  $B_{y,savings,i,j}$  with net to gross adjustment factor of 0.95.  $\mu_y$

will be monitored.

Value for  $f_{NRB,y}$ , has been taken from the Standardised Baseline

(ASB0044-2019): Improved Institutional Cookstoves in Ethiopia, Version 01.0.

The same is checked by the assessment team in the ER sheet and found correct.

**Determination of  $B_{y,savings,i,j}$** 

As per paragraph 32 and 33 of AMS-II.G Version 11.1,  $B_{y,savings,i,j}$  is calculated using the following equations:

$$B_{y,savings,i,j} = B_{old,i,j} \times \left( 1 - \frac{\eta_{old,i,j}}{\eta_{new,i,j}} \right) \quad \text{Equation 7}$$

Where,

$B_{old,i,j}$  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

$\eta_{old,i,j}$  Efficiency of the old devices being replaced by project devices of type i and batch j

$\eta_{new,i,j}$  Efficiency of the project device i and batch j

$$B_{y,savings,i,j} = B_{old,i,j} \times \left( 1 - \frac{SC_{new,i,j}}{SC_{old}} \right) \quad \text{(Equation 9)}$$

Where:

**SC**  
Specific fuel consumption or fuel consumption rate of the pre-project devices

**SC**  
Specific fuel consumption or the fuel consumption rate of the devices of type i and batch j deployed as part of the project

**Determination of  $B_{old,i,j}$  and  $B_{old,HH}$** 

$B_{old,i,j}$  and  $B_{old,HH}$  are calculated as per equation 10 and 11 of AMS-II.G Version 11.1 as below.

$$B_{old,i,j} = B_{old,HH} \div N_{d,HH}$$

(Equation 10)

$$B_{old,HH} = B_{old,p} \times N_{p,HH}$$

(Equation 11)

Where,

$B_{old,HH}$	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 (tonnes/household/year)
$N_{d,HH}$	Number of project devices per household (number)
$B_{k_{old,p}}$	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 (tonnes/person/year )

Np,HH

Average number of persons per household (number)

**Leakage Emissions**

For all CPAs to be included in this PoA,  $B_{old,i,j}$  will be multiplied by a net to gross adjustment factor of 0.95 to account for leakages, and therefore surveys are not required.

The emissions reductions achieved by the Mirt stove and Tikikil Stove are calculated as per the above equation of AMS-II.G Version 11.1:

Sample Calculation as per the above equations

$$ER_{y,Mirt} = 18,544 \text{ tCO}_2\text{e}$$

$$ER_{y,Tikikil} = 17,496 \text{ tCO}_2\text{e}$$

Therefore,

$$ER_y = 18,544 + 17,496 = 36,040 \text{ tCO}_2\text{e}$$

The sample data for calculation is checked and found correct by the assessment team:

Parameter	Unit	Value	Reference
Bold,p	tonnes/person/year	0.91	Calculated based on the country specific historical data. Assessment team checked the ER sheet and found the calculated value to be appropriate at this stage of validation.
Np,HH	-	4.6	Ethiopia Planning and Development Commission 2018. The value is found to be correct. Hence estimation of ER at this stage of validation is correct.
Nd,HH	-	2	The project distributes 2 stoves per household. The 2 types of cook stoves is determined and explained in the FVR. The

				estimation is therefore correct.
	Bold,HH	tonnes/house hold/year	4.18	Calculated as per equation 11, AMS.II.G Version 11.1. The ER sheet version 02 is checked and found correct by the assessment team.
	Bold,Mirt		2.09	Calculated as per equation 10, AMS.II.G Version 11.1. The ER sheet version 02 is checked and found correct by the assessment team.
	Bold,Tikikil		2.09	Calculated as per equation 10, AMS.II.G Version 11.1. The ER sheet version 02 is checked and found correct by the assessment team.
	Leakage	-	0.95	Default leakage adjustment factor of 0.95 as per paragraph 39 of AMS.II.G Version 11.1. The value is sourced from Methodology and therefore correct.
	SCold	g/kg	1031	Validated at the time of project registration. CCT Results: Open Fire (specific fuel consumption), page 6 of GTZ-SUN: Energy Mirt stove test report. The test report at the time of 1st registration is checked and found correct.
	SCnew,Mirt	g/kg	328.53	Value approved at the post registration change (PRC-9769-001). The POA-DD with approved PRC is checked and found correct. The PRC is sought in 1st CP and the same is approved by UN. The value is therefore considered correct.
	By, savings,Mirt	t/device/year	1.35	Calculated as per equation 9, AMS.II.G Version 11.1. The ER sheet version 02 is checked and found correct by the assessment team.
	$\eta_{old,M}$	%	10%	Default value of 10% as per data/parameter table 18 (Option 1) of AMS-II.G Version 11.1. The value is sourced from Meth and therefore correct.
	$\eta_{new,Tikikil}$	%	28%	Validated at the time of project registration. WBT Results: Double skirt Tikikil (thermal efficiency), Annex 1 of GTZ SUN: Energy Project: Water Boiling Test Results of Various Types of Household and Institutional Wood Stoves for Non-Injera Cooking. The value is considered correct.
	By, savings,Tiki kil	t/device/year	1.28	Calculated as per equation 7, AMS.II.G Version 11.1. The ER sheet version 02 is checked and found correct by the assessment team.

	fNRB,y	%	76%	Standardised Baseline (ASB0044-2019): Improved Institutional Cookstoves in Ethiopia, Version 01.0, page 7. The value is therefore correct as sourced from Standardised Baseline (ASB0044-2019). The value is fixed ex-ante for the whole 2nd CP.
	NCVbiomass	TJ/t	0.0156	IPCC default for wood fuel, 0.0156 TJ/tonne, based on the gross weight of the wood that is 'air-dried' as per paragraph 24 of AMS-II.G Version 11.1. The assumptions is correct and therefore the value is conservative.
	EFprojected_fossilfuel	tCO2/TJ	73.2	Default regional value for sub-saharan Africa (73.2 tCO2/TJ) as per paragraph 25 of AMS-II.G Version 11.1. The assumptions is correct and therefore the value is conservative
	Ny,Mirt	-	15,795	For the purposes of ex-ante calculations, the total number of cook stoves that will be deployed and operational . The assumptions is correct and therefore the value is conservative
	Ny,Tikikil	-	15,795	For the purposes of ex-ante calculations, the total number of cook stoves that will be deployed and operational . The assumptions is correct and therefore the value is conservative
	$\mu_y$	-	1	For the purposes of ex-ante calculations, the value is taken as 1, however, this parameter will be monitored. The assumptions is correct and therefore the value is conservative
	ERy,Mirt	tCO2e	18,544	Calculated as per equation 2, AMS.II.G Version 11.1. The ER sheet version 02 is checked and found correct by the assessment team.
	ERy,Tikikil	tCO2e	17,496	Calculated as per equation 2, AMS.II.G Version 11.1. The ER sheet version 02 is checked and found correct by the assessment team.
	ERy	tCO2e	36,040	Calculated as per equation 1, AMS.II.G Version 11.1. The ER sheet version 02 is checked and found correct by the assessment team.

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#### D.2.4. Validity of monitoring plan

<b>Means of validation</b>	<p>In accordance with Paragraph 378 and paragraph 390 (a) clause (iv) of the VVS for PoAs version 02.0, the validation team appointed by Applus+ Certification reviewed whether monitoring plan mentioned in the PoA-DD version 7.0 is valid and correct.</p> <p>Assessment team checked the monitoring practice of generic CPA and also checked the requirement of AMS.II.G version 11.1 and procedure mentioned in the registered PoA DD of 1<sup>st</sup> CP.</p>										
<b>Findings</b>	<p>CAR 04 and CAR 05 were raised during the validation process and closed successfully. Please refer Appendix 4 of this report for the complete closure of the CAR</p>										
<b>Conclusion</b>	<p>The monitoring plan presented in the PoA-DD complies with the requirements of the applicable methodology. The validation team has checked all parameters in the monitoring plan against the requirements of the methodology and no deviations have been found, this is in line with applied methodology AMS.II.G version 11.1.</p> <p>The procedures have been reviewed by the validation team through document review and interviews with the CME for the renewable crediting period. The information provided has allowed the validation team to confirm that the proposed monitoring plan is feasible within the project design. The relevant points of monitoring plan have been discussed with the PoA managing entity. The management system document of the CME provide sufficient information which forms the confirmation by the validation team on the issues related but not limited to the monitoring methodology, data management, and the quality assurance and quality control procedures to be implemented in the context of the Programme. Therefore, the PoA managing entity and/or CPA implementer(s) will be able to implement the monitoring plan and the achieved emission reductions can be reported ex-post and verified.</p> <p><b>Parameters determined ex-ante</b></p> <table border="1"> <thead> <tr> <th>SL number-</th><th>Parameter-</th><th>Description-</th><th>DOE assessment</th></tr> </thead> <tbody> <tr> <td>1</td><td><math>f_{NRB,y}</math></td><td>Fraction of woody biomass that can be established as non-renewable biomass (<math>f_{NRB}</math>)- in %</td><td> <p>Assessment team found that the value is sourced from Standardised Baseline (ASB0044-2019): Improved Institutional Cookstoves in Ethiopia, Version 01.0, page 7</p> <p>The value is Fixed ex-ante at the PoA level for the total 2<sup>nd</sup> CP. The value will be used for baseline emission calculations.</p> <p>The same is thus acceptable to the</p> </td></tr> </tbody> </table>			SL number-	Parameter-	Description-	DOE assessment	1	$f_{NRB,y}$	Fraction of woody biomass that can be established as non-renewable biomass ( $f_{NRB}$ )- in %	<p>Assessment team found that the value is sourced from Standardised Baseline (ASB0044-2019): Improved Institutional Cookstoves in Ethiopia, Version 01.0, page 7</p> <p>The value is Fixed ex-ante at the PoA level for the total 2<sup>nd</sup> CP. The value will be used for baseline emission calculations.</p> <p>The same is thus acceptable to the</p>
SL number-	Parameter-	Description-	DOE assessment								
1	$f_{NRB,y}$	Fraction of woody biomass that can be established as non-renewable biomass ( $f_{NRB}$ )- in %	<p>Assessment team found that the value is sourced from Standardised Baseline (ASB0044-2019): Improved Institutional Cookstoves in Ethiopia, Version 01.0, page 7</p> <p>The value is Fixed ex-ante at the PoA level for the total 2<sup>nd</sup> CP. The value will be used for baseline emission calculations.</p> <p>The same is thus acceptable to the</p>								

			assessment team.
2	NCV <sub>biomass</sub>	Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.0156 TJ/tonne, based on the gross weight of the wood that is 'air-dried')	The value is sourced from IPCC default for wood fuel, 0.0156 TJ/tonne, based on the gross weight of the wood that is 'air-dried' as per paragraph 24 of AMS-II.G Version 11.1 The same is thus acceptable to the assessment team.
3	EE <sub>projected_fossilfuel</sub>	Emission factor for the fossil fuels projected to be used for substitution of non-renewable woody biomass by similar consumers	The value is sourced from Regional sub-saharan Africa (73.2 tCO <sub>2</sub> /TJ) as per paragraph 25 of AMS-II.G Version 11.1. The value is default and as per the methodology and thus acceptable to the assessment team
4	B <sub>old,p</sub>	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	The value is calculated and the same estimation is checked in the ER sheet version 02. The value is assumed to be correct. The value is Calculated based on the data published by the Ministry of Environment, Forest and Climate Change of Ethiopia. The value is Fixed ex-ante at the PoA level for the total 2 <sup>nd</sup> CP. The value will be used for baseline emission calculations.  The same is thus acceptable to the assessment team.
5	η <sub>old,t,j</sub>	Efficiency of the old device (three stone fire) being replaced by Tikikil	The value is sourced from As per Data/parameter



			Stove	<p>table 18 (Option 1) of AMS-II.G Version 11.1.</p> <p>The value is default and as per the methodology and thus acceptable to the assessment team</p>
	6	SC <sub>old</sub>	Specific fuel consumption or fuel consumption rate of the pre-project devices	<p>This value will be determined at the time of inclusion of the first CPA under this PoA-DD and the determined value will be applicable for all subsequent CPAs included under the PoA.</p> <p>The determination can be done by following 3 criteria as per the requirement of the methodology:</p> <p>Specific fuel consumption or fuel consumption rate of the pre-project devices, that is fuel consumption per quantity of item/s processed (e.g. food cooked) or fuel consumption per hour, respectively.</p> <p>Specific fuel consumption or fuel consumption rate are to be determined using the CCT protocol carried out in accordance with national standards (if available) or international standards or guidelines (e.g. the CCT Protocol listed by Clean Cooking Alliance (See <a href="https://www.cleancookingalliance.org/technology-and-">https://www.cleancookingalliance.org/technology-and-</a></p>

				<p>fuels/testing/protocols.html)).</p> <p>Use weighted average values if more than one type of device is being replaced (taking the amount of woody biomass consumed by each device as the weighting factor).</p> <p>When the CCT is conducted on a sample basis, the sampling requirements indicated in section 6.2 of the methodology AMS-II.G Version 11.1 and guidance provided in the "Standard for sampling and surveys for CDM project activities and programme of activities" shall be followed</p> <p>For the estimation purpose at this stage of validation the value is sourced from the Validated document at the time of project registration-1<sup>st</sup> CP. CCT Results: Open Fire (specific fuel consumption), page 6 of GTZ-SUN: Energy Mirt stove test report. The same is thus acceptable to the assessment team</p>
	7	NTG	Net to Gross Adjustment factor	<p>The value is sourced As per paragraph 39 of AMS-II.G Version 11.1. <math>B_{y,saving,i,j}</math> is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case</p>

				surveys are not required. The same is thus acceptable to the assessment team.
	8	$N_{p,HH}$	Average number of persons served per household prior to project implementation	The value is sourced from Ethiopia Planning and Development Commission 2018 <sup>9</sup> . The value is Fixed ex-ante at the PoA level for the total 2 <sup>nd</sup> CP. The value will be used for baseline emission calculations.
	9	$Bold,HH$	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	The Value will be determined at CPA level. For the estimation purpose the value is calculated using equation 11, AMS.II.G Version 11.1. Option 1: $Bold,p$ times $N_{p,HH}$ will be used for the calculation of this parameter. The same is thus acceptable to the assessment team.
	10	$Bold,i,j$	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 $j$	The Value will be determined at CPA level. For the estimation purpose the value is calculated using equation 10, AMS.II.G Version 11.1. the value will be calculated as $Bold,HH$ divided $N_{d,HH}$ and the same will be used for ER calculation. The approach is thus acceptable to the assessment team

<sup>9</sup> <https://www.undp.org/content/dam/dagethiopia/documents/Poverty%20&%20Economic%20Growth%20in%20Ethiopia-mon,%20feb,%202011,%202019.pdf>, page 52, Table 6.2

**Parameters determined ex-post**

According to the approved methodology AMS.II.G version 11.1 the following parameters will be monitored:

SL number-	Parameter-	Description-	DOE assessment
1	$N_{y,i,j}$	Number of project devices of type $i$ and batch $j$ operating during year $y$	<p>The value will be sourced from Database records (to determine the total number of stoves distributed, and the number of days that stoves have been operational), the results of the Project Operability Sample Group (POSG).</p> <p>The proportion of cook stoves of type <math>i</math> that are operating will be determined based on a representative sample of the Project Operability Sample Group (POSG) as outlined in Section I.7.2 of the PoA-DD.</p> <p>Entries made into the electronic database are undertaken by the project participant staff. Copies of the database records will be kept by the project participant in addition to hard copies of the purchase agreements. These hard copies will be used to cross check the database records. In case of inconsistencies, the project participant will</p>

				<p>take the appropriate corrective actions.</p> <p>All records of stoves distributed will be stored in a secure database.</p> <p>Survey results will be stored in an electronic database for a minimum of 2 years after the end of the crediting period of the CPA.</p> <p>The details as presented in Section 1.7.2 is found correct. Hence, ex-post determination of the parameter is appropriate and correct.</p> <p>Monitoring frequency: At least once every two years (biennial)</p> <p>The parameter will be determined at CPA level.</p>
	2	$\mu_y$	Adjustment to account for any continued use of pre-project devices during the year y	<p>The value will be sourced from Fraction based on monitoring results. This parameter will be monitored using the following method:</p> <p>The sample households will be checked and if the pre-project devices are decommissioned and no longer used, as determined by the monitoring survey <math>\mu_y</math> value is 1.0.</p> <p>The surveys would be designed to</p>

				<p>capture the cooking habits and stove usage of households in the region, including quantification of use of baseline devices, by formulating questions and/or collecting evidences to determine the frequency of usage of both the project devices and baseline devices. For example, if there were 3 pre-project devices per household and it was determined during the survey that use of one of them continues during the crediting period then a conservative adjustment factor of 0.66 is applied for the relevant monitoring period. Another example would be the case where there was only one pre-project device per household and its use during the project period continues along with the project stove to meet 25% of the cooking needs of the household in which case the adjustment factor will be 0.75.</p> <p>Monitoring frequency: At least once every two years (biennial)</p> <p>The approach is adaptable and acceptable to the assessment team.</p>
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				The parameter will be determined at CPA level.
	3	$\eta_{new,i,j}$	Efficiency of the device of each type i and batch j implemented as part of the project activity	<p>The value will be sourced from Water Boiling Test (WBT) Result.</p> <p>Efficiency of the project stove will be monitored through Water Boiling Test (WBT) in line with paragraph 37, option (d) of AMS-II.G Version 11.1 that states "Determine the loss in efficiency annually from a representative sample of each batch and use the actual loss rate that is measured". ex-ante calculation of the CPAs will be based on the efficiency of the project stove as per manufacturers specification or certification by a national standards body or appropriate certifying agent recognized by that body. WBT of project stoves will be conducted annually based on a representative sample of the Project Efficiency Sample Group (PESG) as outlined in Section I.7.2 of the PoA-DD and found acceptable.</p> <p>The parameter will be determined at CPA level.</p>

	4	SC <sub>new,ly</sub>	Specific fuel consumption (i.e. t fuel/unit) or fuel consumption rate (t fuel/hour) in year y of the device(s) deployed as part of the project that is fuel consumption per quantity of item/s processed (e.g. food cooked) or fuel consumption per hour respectively	<p>The value will be sourced from Results of the Controlled Cooking Test (CCT).</p> <p>The CCT shall be carried out in accordance with national standards (if available) or international standards or guidelines (e.g. the CCT Protocol listed by Clean Cooking Alliance (See <a href="https://www.cleancookingalliance.org/technology-and-fuels/testing/protocols.html">https://www.cleancookingalliance.org/technology-and-fuels/testing/protocols.html</a>)).</p> <p>When the CCT is conducted on a sample basis, the sampling requirements indicated in section 6.2 and guidance provided in the “Standard for sampling and surveys for CDM project activities and programme of activities” shall be followed .</p> <p>Monitoring frequency of yearly determination</p>



				<p>should be followed at CPA level.</p> <p>Results of the CCT under the PESG will be stored in an electronic database and will be stored for a minimum of 2 years after the end of the crediting period of the CPA.</p> <p>The approach is acceptable and hence the same is deemed correct. The parameter will be determined at CPA level.</p>
	5	<b>Date of commissioning of project device i</b>	Actual date of commissioning of the project device	<p>The value will be sourced from Project Database. To account for potential delays in between distribution and commissioning of cook stoves, the date of commissioning will be taken from the 1<sup>st</sup> day of the next month following the date of distribution of the cook stove up until the end of the monitoring period. For example, for a cookstove distributed on the 7<sup>th</sup> of September 2021, the date of commissioning of that project device would be 1<sup>st</sup> October 2021 and the number of days will be counted from the 1<sup>st</sup> of October up until the end of</p>

				the monitoring period.  The parameter will be determined at CPA level.
	6	<b>Date of commissioning of batch j</b>	To establish the date of commissioning, the Project Participant may opt to group the devices in "batches" and the latest date of commissioning of a device within the batch shall be used as the date of commissioning for the entire batch (where applicable)	The value will be sourced from Project Database.  The batch will be based on "Year of Commissioning" of the project cook stoves, where applicable. For instance, cook stoves distributed in 2021, 2022 and 2023 may be batched as "Year 2021", "Year 2022" and "Year 2023", where applicable.  The parameter will be determined at CPA level.
	7	<b>Life Span</b>	The operating lifetime of the project device.	The value will be sourced from Manufacturer (certified by a national standards body or an appropriate certifying agent recognized by that body).  The monitoring will be Fixed and recorded at the time of commissioning/distribution.  The parameter will be determined at CPA level.
	8	<b>N<sub>d,HH</sub></b>	Number of project devices distributed per household	The value will be sourced from Project Database.  Each project household signs a purchase contract that will have information on type and number

of stove purchased by that household. This information is then fed into an electronic database. All sales of the stoves are recorded within a secure database.

The monitoring will be Fixed and recorded at the time of commissioning/distribution.

The parameter will be determined at CPA level.

#### Sampling procedure to be adopted at CPA level:

Assessment team confirm that the following monitoring sample groups will be selected for each stove of type  $i$ :

- The Project Efficiency Sample Group (PESG) to determine the annual quantity of woody biomass used, thermal efficiency, or specific fuel consumption or fuel consumption rate of the project cook stoves of type  $i$  through either Water Boiling Test (WBT) or Controlled Cooking Test (CCT).
- The Project Operationality Sample Group (POSG) to determine the number of operational project cook stoves of type  $i$ .
- A random sub-sample of POSG will be used to monitor  $\mu_y$  (i.e. adjustment to account for any continued use of pre-project devices during the year) if the sample size of POSG is larger than the sample size of  $\mu_y$ . If sample size of  $\mu_y$  is larger than the POSG sample size then random sub-sample of  $\mu_y$  will be used for POSG survey.

For POSG simple random sampling has been selected to calculate the minimum sample size required for obtaining representative samples for each stove of type  $i$  in each CPA. The justification for this approach is as follows:

- As per "Guideline: Sampling and surveys for CDM project activities and programmes of activities (Version 04.0)", simple random sampling is suited to populations that are homogeneous. The CPAs that are grouped will have same type of cook-stove technology distributed and the CPAs will share the same geographical boundary.

Simple random sampling has been selected for unbiased and reliable estimates of  $\mu_y$  under each CPA. The  $\mu_y$  survey will be designed to capture the cooking habits and project stove usage of households, including quantification of use of baseline devices, by formulating questions to determine the frequency of usage of both the project devices and baseline devices.

For PESG, a stratified random sampling has been selected to calculate the minimum sample size required for obtaining representative samples for each stove of type  $i$  for the group of CPAs.

The justification for this approach is as follows:

As per "Guideline: Sampling and surveys for CDM project activities and programmes of activities (Version 04.0)", stratified simple random sampling is

suited to populations when the population under study is not homogeneous but instead consists of several sub-populations which are known (or thought) to vary. Although the CPAs that are grouped will have same type of cook-stove technology distributed and the CPAs will share the same geographical boundary, however, timing of distribution of the stoves (i.e. vintage of the stoves) may impact the efficiency and specific fuel consumption parameters of stove type i making the population non-homogenous. Therefore, stratified random sampling is deemed to be more suitable for PESG.

As outlined above, the minimum sample size will apply to each CPA where the POSG and  $\mu_y$  is sampled and CPA groups where the PESG is sampled. CME may choose to use the same samples to monitor more than one parameter, where applicable.

The sample size for each of the groups listed above will be calculated with the following considerations:

- PESG: Groups of CPAs will be monitored either annually or biennially with 95% confidence and 10% precision
- POSG: Each CPA will be monitored either annually (90% confidence and 10% precision), or biennially (95% confidence and 10% precision).
- $\mu_y$ : Each CPA will be monitored either annually (90% confidence and 10% precision), or biennially (95% confidence and 10% precision).

The above frequency, confidence and precision requirements are compliant with paragraph 46 of AMS-II.G “Energy Efficiency Measures in Thermal Applications of Non-renewable Biomass” (Version 11.1).

For each sample group, a pre-defined number of samples will be randomly selected based on the minimum sample size calculations in sections as stated below. Where pre-existing test data can be obtained for a particular parameter, the CME may choose to apply this data to the sample size equations and adjust the sample size accordingly. In addition, by applying ex-post monitored results to the minimum sample size equations after each monitoring period, the CME may choose to alter the number of samples that are randomly selected in subsequent monitoring periods.

Where applicable, in compliance with paragraph 47 of AMS.II.G Version 11.1, efficiency of project stoves may be monitored in a common survey with other monitoring parameters; therefore, a random sub-sample within the common survey may be taken for which stove efficiency is tested, as long as the required precision for stove efficiency is achieved.

### **Sample Size**

#### **Sample Size for PESG**

A stratified random sample for each type of cook stoves based on its “Year of Commissioning” will be selected for monitoring of the PESG.

Groups of CPAs will be monitored annually with 95% confidence and 10% precision, and the sample size is calculated as per equation 19, Appendix 3 of “Guideline: Sampling and surveys for CDM project activities and programmes of activities (Version 04.0)”:

$$n \geq \frac{1.96^2 NV}{(N-1) \times 0.1^2 + 1.96^2 V}$$

Where:

$$V = \frac{SD^2}{\bar{m}^2} = \frac{\text{weighted overall expected variance}}{\text{weighted overall expected mean, squared}}$$

Where pre-existing test data exists, the CME may choose to recalculate V and the resultant sample size based on this data. As per “Standard: Sampling and surveys for CDM project activities and programmes of activities (Version 08.0)” paragraph

14, if the sample size calculation returns a value of less than 30 samples and the parameter of interest is a numeric value, the Student's t- distribution shall be used to ascertain the final sample size. If the sample size that is monitored does not meet the confidence/precision requirements, the CME may choose to take additional samples until the required confidence and precision is met. Alternatively, the lower bound of the confidence interval may be used as per AMS-II.G Version 11.1.

PESG sample size calculation of CPAs will be provided in the CPA-DDs during inclusion and verification.

#### **Sample Size for POSG**

A random sample of households will be selected for spot checks either annually or biennially to determine the number of project cook stoves that are operational for each CPA. Please note that where multiple stove types have been distributed to each household within a CPA, the sample size calculated is the number of households to be surveyed and all stove types will be checked for operability within each household.

Where annual sampling is chosen, the sample size for obtaining results with 90% precision and 10% confidence can be calculated as per "Guideline: Sampling and surveys for CDM project activities and programmes of activities (Version 04.0), paragraph 12, Appendix 1.

$$n \geq \frac{1.645^2 N \times p(1-p)}{(N-1) \times 0.1^2 \times p^2 + 1.645^2 p(1-p)}$$

Where:

$n$  = the minimum sample size required

$N$  = total number of households

$p$  = expected proportion

1.645 = Represents the 90% confidence required

0.1 = Represents the 10% relative precision

Where biennial sampling is chosen, the sample size for obtaining results with 95% precision and 10% confidence can be calculated as per "Guideline: Sampling and surveys for CDM project activities and programmes of activities (Version 04.0), paragraph 12, Appendix 1.

$$n \geq \frac{1.96^2 N \times p(1-p)}{(N-1) \times 0.1^2 \times p^2 + 1.96^2 p(1-p)}$$

Where:

$n$  = the minimum sample size required

$N$  = total number of households

$p$  = expected proportion

1.96 = Represents the 95% confidence required

0.1 = Represents the 10% relative precision

As per "Standard: Sampling and surveys for CDM project activities and programmes of activities (Version 08.0)" paragraph 14, If the sample size calculation returns a value of less than 30 samples, a minimum sample size of 30 shall be chosen when the parameter of interest is a proportion. Based on the monitoring results the CME may choose to adjust the sample size in subsequent sampling periods. If the sample size that is monitored does not meet the confidence/precision requirements, the CME may choose to take additional samples until the required confidence and precision is met. Alternatively, the lower bound of the confidence interval may be used as per paragraph 46 of AMS-II.G Version 11.1.

POSG sample size calculation of CPAs will be provided in the CPA-DDs during

inclusion and verification.

### **Sample Size for $\mu_y$**

Where annual sampling is chosen, the sample size for obtaining results with 90% precision and 10% confidence can be calculated as per "Guideline: Sampling and surveys for CDM project activities and programmes of activities (Version 04.0), paragraph 12, Appendix 1.

$$n \geq \frac{1.645^2 N \times p(1-p)}{(N-1) \times 0.1^2 \times p^2 + 1.645^2 p(1-p)}$$

Where:

$n$  = the minimum sample size required

$N$  = total number of households

$p$  = expected proportion

1.645 = Represents the 90% confidence required

0.1 = Represents the 10% relative precision

Where biennial sampling is chosen, the sample size for obtaining results with 95% precision and 10% confidence can be calculated as per "Guideline: Sampling and surveys for CDM project activities and programmes of activities (Version 04.0), paragraph 12, Appendix 1.

$$n \geq \frac{1.96^2 N \times p(1-p)}{(N-1) \times 0.1^2 \times p^2 + 1.96^2 p(1-p)}$$

Where:

$n$  = the minimum sample size required

$N$  = total number of households

$p$  = expected proportion

1.96 = Represents the 95% confidence required

0.1 = Represents the 10% relative precision

Since  $\mu_y$  is a proportion (or percentage) parameter, therefore in line with "Standard: Sampling and surveys for CDM project activities and programmes of activities (Version 08.0)" paragraph 14, if the sample size calculation for  $\mu_y$  returns a value of less than 30 samples, a minimum sample size of 30 shall be chosen.

$\mu_y$  sample size calculation of CPAs will be provided in the CPA-DDs during inclusion and verification.

### **Implementation, Quality Assurance, and Quality Control**

The CPA implementers are responsible to implement the CPAs and assist the CME in conducting monitoring. The CME will be responsible for organising all monitoring

procedures under the PESG, POSG,  $\mu_y$  and will ensure that those responsible will be suitably trained and qualified in the appropriate national or international standards for all monitoring procedures<sup>33</sup>.

The CME will ensure that all CPA specific data are recorded in a standard format and the data is auditable. During the CPA operation, in the event that the project cook stove/s is no longer operational in a household, the user is required to inform the CPA implementer, who will record the date at which the stove became non-operational and enter this information into the project database. This will ensure that the number of days that any given stove is non-operational can be factored into the calculation of  $N_{y,ij}$ . The user will then obtain a replacement stove and inform the CPA implementer who will then record the date at which the stove has been replaced, record the type of stove replaced and then enter this information into the project database. The CPA implementer will then provide the information on stove replacement, type of replaced stove, date of replacement to the CME and the CME will record the information in the CME database. The CME will utilise this

<sup>33</sup> For example, those responsible for monitoring will be capable of Controlled Cooking Test in accordance with the specific guidelines as defined by national and international standards.

information to prepare monitoring report.

#### Analysis

The mean value parameters of interest sampled under the PESG will be extrapolated to all cook stoves of the type tested within their CPA group. The mean value parameter of interest will be evaluated against 95/10 confidence/precision requirements to confirm the data collected is adequate to meet CDM requirements. As per paragraph 46 of AMS-II.G Version 11.1, in the event where the results indicate that 95/10 or 90/10 confidence/precision is not achieved, **the lower bound of the 95% or 90% confidence interval of the parameter value may be chosen as an alternative to repeating the survey efforts to achieve the 95/10 precision/confidence.**

The proportion of project cook stoves of type  $i$  that are in operation as determined by the POSG will be extrapolated to all cook stoves of the same type that are included in the CPA for the calculation of  $N_{y,i,j}$ . This proportion will be evaluated against the 95/10 or 90/10 confidence/precision requirements (depending upon the frequency of monitoring) to confirm the data collected is adequate to meet CDM requirements. As per paragraph 46 of AMS-II.G Version 11.1, in the event where the results indicate that 95/10 or 90/10 confidence/precision is not achieved, **the lower bound of the 95% or 90% confidence interval of the parameter value may be chosen as an alternative to repeating the survey efforts to achieve the 95/10 or 90/10 precision/confidence.**

In the instances where  $\mu_y$  do not meet the desired confidence/precision (95/10 or 90/10), the upper bound of 95% or 90% confidence interval may be chosen, as an alternative to repeating the survey efforts.

To reduce the monitoring efforts, for POSG survey, a single sample set will be drawn based on which operationality of project stoves will surveyed. A subset of POSG sample households will be monitored for any continued use of pre-project devices (i.e.  $\mu_y$ ), if the sample size of POSG is larger than  $\mu_y$ . If sample size of  $\mu_y$  is larger than the POSG sample size then random sub-sample of  $\mu_y$  will be used for POSG survey.

In order to determine the specific fuel consumption or fuel consumption rate of the project cook stoves of type  $i$  through Controlled Cooking Test (CCT), PESG survey will be conducted.

During the survey, there may be non-response from the target population. Over-sampling may be used to avoid non-response, however, sample survey may be ceased once required confidence/precision is met.

Please note that leakage is excluded from the monitoring plan, as all CPAs included in this PoA will use the default net to gross adjustment factor of 0.95 for leakage assessment as per AMS-II.G Version 11.1.

The CPA implementer will be responsible for organising monitoring of all sample groups.

In order to ascertain that project Mirt stoves are functional, the survey team will need to check that the Mirt stoves are sealed properly with mud. Since the Mirt stoves without mud sealing will have lower efficiency, to be conservative, such stoves will be considered as a non-functional stove.

The survey data will be provided to the Coordinating/Managing Entity (CME) who will produce periodic monitoring reports. Please note that with the exception of the Project Operationality Sample Group (POSG), which will be monitored at the CPA level, the sample size for PESG, will be selected based on CPA groups. The CPA groups will be homogeneous as they implement the same type of cook-stove technology in the same geographical boundary.

In summary, the validation team is convinced of compliance of the monitoring plan

	<p>with the requirements of the monitoring methodology of AMS.II.G version 11.1. During Interview with the CME, the validation team interviewed the PP that the monitoring arrangements described in the monitoring plan are feasible within the project design. The emission reductions resulting from the future CPA can be reported ex post and verified. The DOE has applied two-step process to assessing compliance with the requirements of monitoring plan, as follows:</p> <ul style="list-style-type: none"> <li>i) Compliance of the monitoring plan with the approved methodology: Identified the list of parameters required by the selected approved methodology by means of document review, interview with CME team; Confirmed that the monitoring plan contains all necessary parameters, that they are clearly described and that the means of monitoring described in the plan complies with the requirements of the applied methodology AMS.II.G version 11.1.;</li> <li>ii) Implementation of the plan: The monitoring arrangements described in the monitoring plan are feasible within the POA design; The means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the CPA can be reported ex-post and verified.</li> </ul> <p>The assessment has been conducted by the DOE by means of reviewing of the documented procedures, interviewing with relevant personnel and project plans of the PoA-CPA. In summary, the validation team is convinced of compliance of the monitoring plan with the requirements of the monitoring methodology of AMS.II.G version 11.1. During the assessment, the validation team interviewed the CME/PP and confirmed that the monitoring arrangements described in the monitoring plan are feasible within the project design. The emission reductions resulting from the future CPA can be reported ex post and verified.</p> <p>Assessment team also confirmed that the CME has a well-defined project management structure for monitoring of the CPA which can be verified from the PoA-DD. The monitoring plan describes the Organization chart, Monitoring plan objective and Organization, Monitoring and archiving data, QA and QC procedures, data storage etc.</p> <p>Proper QA/QC has been implemented for monitoring parameters, part of the month calculation, calibration, emergency preparedness, discrepancies etc. This was confirmed by interviewing CME team during telephonic interview which is in line with the explanations provided in the PoA-DD.</p> <p>All the monitored data will be archived until 2 years after the CPA crediting period to facilitate cross-checking during the crediting period.</p>
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#### D.2.5. Eligibility criteria for inclusion of CPAs

<b>Means of validation</b>	The eligibility criteria has been developed to meet the references in Standard. Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities Version 03.0.			
<b>Findings</b>	CAR 06 was raised during the validation process and closed successfully. Please refer Appendix 4 of this report for the complete closure of the CAR			
<b>Conclusion</b>	A CPA to be included in the present PoA fulfils the following conditions:			
	<b>No</b>	<b>Eligibility criterion - Category</b>	<b>Eligibility criterion - Required condition</b>	<b>Supporting evidence for inclusion</b>
	1	Geographical boundary	Each CPA will be located within the physical/geographical boundary of the PoA	The CPA implementer will provide the GPS coordinates of CPA location that prove that the CPA falls within the physical/geographic



				boundary of the PoA..
	2	Double Counting existing reservoir with no change in the volume of the reservoir; or where the volume of the reservoir is increased considering a final power,	For each CPA to be included under the PoA, it must be ensured that no double counting has occurred. Each project device must be new and equipped with a unique serial code. The CPA will not already be included in another PoA or bundled CDM project activity, nor developed as a stand-alone CDM project.	Stoves to be implemented under each CPA will be new and equipped with a unique serial code to ensure that no double counting has occurred. Each CPA will provide an example of the unique serial code to be used for project cook stoves that are distributed. In addition, the CME will confirm that the proposed CPA has not been included under another PoA through the use of the CME Inclusion Management System and by checking the UNFCCC website.
	3	Technology	The technology/ies to be implemented are new, fuel efficient stoves for cooking with firewood in domestic households with a specified efficiency of at least 20%.	The CPA will provide evidence such as manufacturer specification that each project cook stove is new, with a specified efficiency of at least 20% and will be distributed to domestic households.
	4.	Start Date	The start date for each CPA to be included under this PoA (the earliest date at which real action has occurred, e.g. the date of the first stove installation/distribution) is confirmed with documentary evidence (e.g. installation/distribution records) and will not occur before the 5 <sup>th</sup> of September 2012, the date that the CDM-PoA-DD and 1 <sup>st</sup> CDM-CPA-DD were published on the UNFCCC-CDM website for global stakeholder consultation.	The CPA operator will provide cookstove distribution database as an evidence of the start date of the CPA (i.e. the earliest date at which real action has occurred, e.g. the date of the first stove installation/distribution), which will not occur prior to the date of commencement of DOE validation of the PoA. The CME will record the start date and confirm that a document check has been done.
	5.	Methodology	All CPAs to be included in the PoA comply with all applicability conditions of the methodology AMS-II.G "Energy efficiency measures in thermal	The CPA will follow all applicability conditions of the methodology AMS-II.G "Energy efficiency measures in thermal applications of non-renewable biomass"

		applications of non-renewable biomass” Version 11.1.	Version 11.1. The CME will confirm that the CPA follows the provisions of the methodology.
6	Additionality	All CPAs to be included in the PoA meet the requirements pertaining to the demonstration of additionality as specified in section C of the PoA-DD.	As per paragraph 2C of “Guidelines on the Demonstration of Additionality of Small-Scale Project Activities” Version 09.0 (EB 68 Annex 27) the CME will confirm that the CPA remains part of the positive list of small scale technologies that are considered automatically additional prior to inclusion under the PoA, and that each unit will save no more than 5% of the small-scale CDM threshold.
7.	Stakeholder Consultation	Local Stakeholder Consultation (LSC) must be conducted for each CPA to be included in the PoA.	The CPA implementer shall provide evidence such as stakeholder consultation meeting report. The CME will then confirm that the LSC has been completed for the CPA to be included under the PoA.
8.	Public Funding	Each CPAs will provide an affirmation that funding from Annex 1 party, if any, does not result in a diversion of official development assistance.	Affidavit on No Public Funding from Annex 1 party
9.	Target Group	Domestic communities and/or households are the target group of the CPA.	The CPA implementer will confirm through the signed copies of user agreement that the project cook stoves have been distributed to communities and/or domestic households.
10.	Sampling	Each CPA must follow sampling guideline as mentioned in Section I.7.2 of the POA-DD and Section D.2.4 of the FVR	Each CPA must follow sampling guideline as mentioned in Section I.7.2 of the POA-DD and Section D.2.4 of the FVR
11.	Size Limit	The CPA in aggregate meets the small-scale threshold criteria of 180	The CPA implementer will confirm that the aggregated project cook

			GWh thermal energy savings, and remains within this threshold throughout the crediting period.	stoves implemented do not claim emissions reductions exceeding the small-scale threshold of 180 GWh thermal <sup>10</sup> , and that this threshold will not be exceeded at any time within the crediting period.
	12.	De-Bundling	The CPA satisfies the debundling rules for PoA.	The CME will demonstrate that the CPA satisfies debundling rules for PoA.
	13	Approval	The CME approves the participation of the CPA in the PoA.	A letter from the CME will be provided confirming participation of the CPA in the PoA.

## SECTION E. Internal quality control

As final step of a validation of the final documentation including the Renewable crediting period validation report and the checklist have to undergo an internal quality control by the technical review committee, i.e. each report has to be finally approved either by the head of the technical review committee or the deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one to avoid any conflict of interest.

## SECTION F. Validation opinion

Applus+ Certification has performed a validation of the “Energy Efficient Stoves Program (EESP)”. The renewable validation was performed on the basis of UNFCCC criteria and host country criteria, as well as criteria, e.g. AMS.II.G version 11.1, given to provide for consistent project operations, monitoring and reporting.

The review of the renewal programme of activities and the subsequent follow-up interviews have provided Applus+ Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria. The PoA-DD will hence be recommended by Applus+ Certification for renewal registration with the UNFCCC.

Applus+ Certification has checked the confirmation (obtained in 1<sup>st</sup> CP) from the host Party that the programme of activity assists it in achieving sustainable development.

By displacing fossil fuel-based electricity with electricity generated from a renewable source, the project results in reductions of CO<sub>2e</sub> emissions that are real, measurable and give long-term benefits to the mitigation of climate change. An analysis of the positive list of renewable project demonstrates that the proposed programme of activities is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the programme of activities. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of annual emission reductions of 36,040 tCO<sub>2e</sub>.

The validation has been performed following the requirements of the latest version of the CDM validation and verification standard for programme of activities, version 02 and on the basis of the contractual agreement. The single purpose of this report is its use during the renewal registration process as part of the CDM/UNFCCC project cycle.

<sup>10</sup> [http://cdm.unfccc.int/filestorage/A/M/\\_/AM\\_CLAR\\_VIIC5MTUUWR9PRPJL0EXOT3G2CKSFQ/Response%20SSC%20WG%20provided.pdf?t=dWp8bWUyb2tlfDCAFFUKuQ1gHYdZreEBd0e3](http://cdm.unfccc.int/filestorage/A/M/_/AM_CLAR_VIIC5MTUUWR9PRPJL0EXOT3G2CKSFQ/Response%20SSC%20WG%20provided.pdf?t=dWp8bWUyb2tlfDCAFFUKuQ1gHYdZreEBd0e3)

## Appendix 1. Abbreviations

Abbreviations	Full texts
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction(s)
CL	Clarification request
CMS	Central Monitoring system
CP	Crediting period
CM	Combined Margin
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EF	Emission Factor
ER	External Resource
EIA	Environmental Impact Assessment
ER	Emission Reductions
FAR	Forward Action Request
GHG	Greenhouse gas(es)
IR	Internal Resource
OR	Outside resource
OEM	Original Equipment manufacturer
OM	Operating Margin
PP	Project Participant
POSG	Project Operationality Sample Group
PESG	Project Efficiency Sample Group

## Appendix 2. Competence of team members and technical reviewers

Mr. Sukanta Das	<p>Mr. Sukanta DAS, has done M. SC in (Electronics and Photonics) and M. Tech in (Energy technology) from Tezpur Central University/ Indian Institute of technology Bombay in India. He is a certified lead auditor for ISO 14001 EMS LA and ISO 9001 QMS LA from InternationalSC App for Certified Auditors (IRCA) and Certified Lean Management practitioner from Quality Council of India (QCI). He has more than (11) years of working experience at TUV NoRD/ Re-consult/CRA/APPLUS certifications under various categories of projects stating from Renewable to waste to supercritical projects. He was JI/ CDM Lead Assessor in TUV NoRD and was involved in more than 100 CDM validation and verifications activities in Gold Standard, VCS, CDM projects as a team leader/technical reviewer / validator / verifier covering the sectoral scope 1, 13 technical areas 1.2/1.1/13.1. Currently he is associated with True Quality Certifications Private Limited and is empanelled with APPLUS certification to carry out GHG audit.</p>
Mr. Miguel A. Cortés	<p>Mr. Miguel A. Cortés holds a Bachelor's Science Degree on Civil and Environmental Engineering, being specialized on Hydric Resources.</p> <p>He has worked as CDM/VCS/GS and environmental consultant for different industries of multidisciplinary sectors world widely.</p> <p>Mr. Miguel Cortés counts with several years of GHG assessment experience, working and being qualified as Lead Auditor and Technical Reviewer for different DOEs world widely, as well as has been part of Gold Standard expert's committees.</p> <p>Furthermore, he has performed his professional GHG assessment portfolio career worldwide and focusing in Latin America, developing assessments for projects in Argentina, Mexico, Panama, Colombia and Chile, among others</p>

## Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	NA	Contract of the project participant with the DOE	Contract document signed between PP and DOE	Project participant
2	NA	9769-P1-0001-CP1 to 9769-P1-0003-CP1 for the 1st CP	CPA implemented in 1 <sup>st</sup> CP <a href="https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/5TE6HLP1Z4KOABSDI873YQCFGXW2RM/viewCPAs">https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/5TE6HLP1Z4KOABSDI873YQCFGXW2RM/viewCPAs</a>	UNFCCC
3	NA	1st PoA DD version 06  PoA DD based on which opinion is provided- Version 07	24/10/2018  27/07/2020	Project participant
4	NA	Estimated Emission reduction calculation sheet- version 01  Estimated Emission reduction calculation sheet- version 02	28/04/2020  27/07/2020	Project participant
5	NA	AMS.II.G version 11.1	UNFCCC CDM web site	UNFCCC
6	NA	<ul style="list-style-type: none"> <li>• “General Guidelines for SSC CDM Methodologies”, Version 23.0</li> <li>• “Demonstration of additionality of smallscale project activities”, Version 10.0</li> <li>• “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”, Version 3.0</li> <li>• “Guidelines on the Demonstration of Additionality of Small-Scale Project Activities”, Version 09.0</li> <li>• “Guidelines on assessment of de-bundling for SSC project activities”, Version 03.0</li> <li>• “General Guidance on Leakage in Biomass Project Activities” Version 04.0</li> <li>• “Standard for Sampling and</li> </ul>	UNFCCC CDM web site	UNFCCC

		Surveys for CDM Project Activities and Programme of Activities”, Version 4.0  • “Guidelines for Sampling and Surveys for CDM Project Activities and Programme of Activities”, Version 4.0		
7	NA	Unique GPS coordinates	CPA-DDs of all 3 CPAs <a href="https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/5TE6HLP1Z4KOABSDI873YQCFGXW2RM/viewCPAs">https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/5TE6HLP1Z4KOABSDI873YQCFGXW2RM/viewCPAs</a>	UNFCCC
8	NA	Efficiency letter	A letter from GIZ Ethiopia that confirms the efficiency of Mirt and Tikkil stove 22% and 28% respectively.	PP
9	NA	The Food and Agriculture Organization of the United Nations	FAO. 2009. Change in extent of forest and other wooded land 1990-2005. <a href="http://www.fao.org/forestry/32033/en/">http://www.fao.org/forestry/32033/en/</a>	PP

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

Table 1. ~~CL from this validation~~

CL ID	xx	Section no.	Date: DD/MM/YYYY
<b>Description of CL</b>			
<b>Project participant response</b>			<b>Date: DD/MM/YYYY</b>
<b>Documentation provided by project participant</b>			
<b>DOE assessment</b>			<b>Date: DD/MM/YYYY</b>

Table 2. CAR from this validation

CAR ID	01	Section no.	D.1.1	Date: 15/05/2020
<b>Description of CAR</b>				
Following error observed in the PoA DD:				
1. The POA-DD as presented (related to version number) to DOE is not as per the project standard version 02.0 requirement. .				
2. The latitude and longitude for the PoA-DD is missing				
3. A copy of the letter from the Ministry and a copy of the report “GTZ-Sustainable Utilization of Natural Resources for Improved Food Security Program: Energy / GTZ-SUN:E is not provided to the DOE				
4. The ODA finding documentation is not provided to the DOE				
5. CPA Inclusion Management System that satisfies all criteria as outlined in EB 74 Annex 5, paragraph 19 is not provided to the DOE				
6. Sample User agreement justifying points as mentioned on page 8 of the PoA-DD is not submitted to				

the assessment team
7. Tikikil and Mirt stoves described above are responsible for less than 0.0031% and 0.0033% respectively of the 180 GWh thermal small scale threshold. The Calculation is not clear. In case the same is provided by the manufacturer the document is not provided to the DOE
Corrective action is sought for the same
<b>Project participant response</b> <span style="float: right;"><b>Date:</b> 15/06/2020</span>
<ol style="list-style-type: none"> <li>1. The correct Version number of the PoA-DD is Version 07 which has been corrected in the PoA-DD.</li> <li>2. The latitude and longitude is now provided in section A.2 of of the PoA-DD.</li> <li>3. A copy of the GTZ-Sustainable Utilization of Natural Resources for Improved Food Security Program: Energy / GTZ-SUN:E has been provided to the DOE.</li> <li>4. ODA declaration from the CME has been provided to the DOE.</li> <li>5. CPA inclusion Management System is provided to the DOE.</li> <li>6. Sample User agreement is provided to the DOE.</li> <li>7. The calculation is provided in the ER spreadsheet, please refer to the tab "SSC Threshold and ER Cap" in the ER spreadsheet.</li> </ol>
<b>Documentation provided by project participant</b>
<ol style="list-style-type: none"> <li>1. Revised Version of the PoA-DD</li> <li>2. Revised version of the PoA-DD</li> <li>3. GTZ Report: File name: "GTZ Sustainable Utilization of Natural Resources for Improved Food Security Program"</li> <li>4. File name: "WVA ODA declaration"</li> <li>5. File name: "CME Management System_World Vision Australia"</li> <li>6. File name: "EESP PoA_User Agreement"</li> <li>7. ER Spreadsheet "PoA 9769_ER_100620_V2"</li> </ol>
<b>DOE assessment</b> <span style="float: right;"><b>Date:</b> 29/07/2020</span>
<ol style="list-style-type: none"> <li>1. The version number and date of POA-DD is now rectified. CAR is closed</li> <li>2. The latitude and Longitude is now provided in the revised POA-DD. Moreover, supporting documents i.e. GPS screenshot is also provided. CAR is closed</li> <li>3. The letter is now provided with the revised documents. CAR is closed</li> <li>4. The ODA declaration dated 01/06/2020 is now submitted to the assessment team. The project is not intended to use any ODA finance and hence the same is acceptable to the DOE. CAR is closed</li> <li>5. The CME management System has been detailed out regarding CPA inclusion Management System (Page 4/10- CME management System- September 2016). CAR is thus closed</li> <li>6. The sample User agreement is now submitted to the assessment team. The User agreement contains details of the Stove Sold , Unique reference/ID numbers of the Stove, details of the person , address , signature etc. Agreement also detail out type of Stove Sold for a particular CPA (Sample checked as per previous CPA included in 1<sup>st</sup> registered POA-DD). The same is acceptable to the assessment team. CAR is thus closed</li> <li>7. The Spreadsheet calculation is checked and found correct. CAR is closed.</li> </ol>

<b>CAR ID</b>	02	<b>Section no.</b>	D.2.1	<b>Date:</b> 15/05/2020
<b>Description of CAR</b>				
The Applicability criteria as mentioned in Section I.2 of the PoA-DD is not detailed out as per the requirement of the methodology. The supportings to confirm the para is also not submitted to the assessment team. Corrective action is sought for the same				
<b>Project participant response</b>				<b>Date:</b> 15/06/2020
The applicability criteria in Section I.2 of the PoA-DD has been explained in line with the methodology Requirements and relevant supporting documents has been provided to the DOE.				
<b>Documentation provided by project participant</b>				
Revised PoA-DD File name: "Mirt_Tikikil Efficiency" ER Spreadsheet "PoA 9769_ER_100620_V2"				



DOE assessment	Date: 29/07/2020
DOE assessment are as follows:	
<ol style="list-style-type: none"> <li>1. Applicability criteria 1 is fully described. CAR is closed.</li> <li>2. Applicability point 2 mention that "The CPA shall include only those stoves that have a rated thermal efficiency of at least 20%" The detail of the documents provided to the DOE is now mentioned in the POA-DD. CAR is closed.</li> <li>3. The aggregate energy savings of a single CPA shall not exceed the equivalent of 60 GWh per year or 180 GWh thermal per year in fuel input. The same is checked from tab "SSC Threshold and ER Cap" in the ER spreadsheet. Applicability criteria 5 is acceptable. CAR is closed</li> <li>4. Applicability criteria 5 is acceptable. CAR is closed.</li> <li>5. Applicability 6 and 7 is now detailed out in the POA-DD. Hence CAR is thus closed. .</li> <li>6. Applicability 8 and 9 explanation is acceptable to the assessment team. CAR is thus closed.</li> </ol>	

CAR ID	03	Section no.	D.2.2	Date: 15/05/2020
<b>Description of CAR</b>				
Section I.5 of the PoA-DD is not in Compliance with EB 66 Annex 47 i.e. continuity with original baseline guidance and the Tool to determine remaining lifetime of power plant. The Section in thus reserved till the submission of the revised PDD along with supporting's. Corrective action is sought for the same				
<b>Project participant response</b>				Date: 15/06/2020
<i>Section I.5 of the PoA-DD has been revised in line with the methodology tool "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period" (Version 03.0.1)</i>				
<b>Documentation provided by project participant</b>				
<i>Revised version of the PoA-DD</i>				
<b>DOE assessment</b>				Date: 29/07/2020
The baseline now complies with EB 66 Annex 47 i.e. continuity with original baseline guidance. Assessment team observed that the current baseline as in 1 <sup>st</sup> registered POA-DD will continue for the renewal period as well. There are no mandatory national and/or sectoral policies that affect the baseline scenario during the renewal of the crediting period. There is no law or policy in the areas of project implementation, which requires households to use fuel-efficient stoves or other means of reducing fuel wood consumption.				
Since the baseline equipment/technology (i.e. three stone open fire) is replaced by project cook stoves, analysis of the end of the technical lifetime of the baseline equipment is not applicable in this case. However, the project cook stove will have specific operational lifetime and when the project stoves ends its operational lifetime, those stoves will be replaced by new project stoves throughout the crediting period.				
CAR is thus closed.				

CAR ID	04	Section no.	D.2.4	Date: 15/05/2020
<b>Description of CAR</b>				
The Monitoring section is not updated as per the requirement of the latest methodology. Moreover, some parameters are added as per the latest version of the methodology however the supporting for those new parameter is not provided to the DOE. The sampling procedure is not as per the Guidelines for Sampling and Surveys for CDM Project Activities and Programme of Activities", Version 4.0 . Corrective action is sought for the same				
<b>Project participant response</b>				Date: 15/06/2020
<i>The monitoring section of the PoA-DD including sampling procedure has been updated as per the latest methodology.</i>				
<b>Documentation provided by project participant</b>				
<i>Revised PoA-DD</i>				
<b>DOE assessment</b>				Date: 29/07/2020
The Monitoring parameters are now corrected as per the requirement of AMS.II.G version 11.1. The same is acceptable to the assessment team. CAR is thus closed.				

<b>CAR ID</b>	05	<b>Section no.</b>	D.2.4	<b>Date:</b> 15/05/2020
<b>Description of CAR</b>				
<p>The source of data for the monitoring parameters is not submitted to the assessment team. Corrective action is sought for the same.</p> <p>Moreover, following documentation regarding the implementation of the management system by the CME is not provided to the assessment team:</p> <p>(a) A clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies;</p> <p>(b) Records of arrangements for training and capacity development for personnel;</p> <p>(c) A procedure for technical review of inclusion of CPAs;</p> <p>(d) A procedure to avoid double counting (e.g. to avoid the case of including a new CPA that has already been registered either as a CDM project activity or as a CPA of another PoA);</p> <p>(e) Records and documentation control process for each CPA under the PoA;</p> <p>(f) Measures for continuous improvements of the PoA management system;</p> <p>(g) Any other relevant elements.</p>				
<b>Project participant response</b>				<b>Date:</b> 15/06/2020
<p><i>The source of data for the monitoring parameters is submitted to the DOE.</i></p> <p><i>CME Management System is submitted to the DOE that provides information on the aforementioned points.</i></p>				
<b>Documentation provided by project participant</b>				
<p>File name: "East Africa Woodfuel Integrated Supply/Demand Overview Mapping (WISDOM).pdf"</p> <p>File name: "ETHIOPIA FOREST SECTOR REVIEW.pdf"</p> <p>File name: "SB_IICS_ET_Parameter Calculations_rev_02"</p> <p>File name: "ASB0044-2019_Ethiopia_cookstoves.pdf"</p> <p>File name: CME Management System World Vision Australia</p>				
<b>DOE assessment</b>				<b>Date:</b> 29/07/2020
<p>The CME Management System is now submitted to the assessment team. The documents contains all the information for the above aforementioned points in the CAR. The same is acceptable to the assessment team. The part CAR is closed.</p> <p>All the supporting documents are now submitted to the assessment team. Assessment team also confirmed that the CME has a well-defined project management structure for monitoring of the CPA which can be verified from the PoA-DD. The monitoring plan describes the Organization chart, Monitoring plan objective and Organization, Monitoring and archiving data, QA and QC procedures, data storage etc.</p> <p>Proper QA/QC has been implemented for monitoring parameters, part of the month calculation, calibration, emergency preparedness, discrepancies etc. This was confirmed by interviewing CME team during telephonic interview which is in line with the explanations provided in the PoA-DD.</p> <p>All the monitored data will be archived until 2 years after the CPA crediting period to facilitate cross-checking during the crediting period. CAR is thus closed.</p>				

<b>CAR ID</b>	06	<b>Section no.</b>	D.2.5	<b>Date:</b> 15/05/2020
<b>Description of CAR</b>				
<p>The eligibility criteria for inclusion of CPAs does not fulfill the criteria laid down for Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities, Version 2.1. The 3<sup>rd</sup> party documentation to confirm the para eligible under the PoA-DD is not provided to the assessment team. Corrective action is sought for the same.</p>				
<b>Project participant response</b>				<b>Date:</b> 15/06/2020
<p><i>The eligibility criteria for inclusion in Section K of the PoA-DD now complies with the "Standard: Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities Version 03.0". Relevant supporting documents have been submitted to the DOE.</i></p>				
<b>Documentation provided by project participant</b>				
<p>Revised PoA-DD</p> <p>File name: "Mirt_Tikikil Efficiency"</p>				
<b>DOE assessment</b>				<b>Date:</b> 29/07/2020
<p>The latest guideline is used for eligibility criteria for inclusion of CPAs. The relevant supporting for eligibility criteria are now submitted to the DOE. CAR is closed.</p>				

Table 3. FAR from this validation

<b>FAR ID</b>	<b>xx</b>	<b>Section no.</b>	<b>Date: DD/MM/YYYY</b>
<b>Description of FAR</b>			
<b>Project participant response</b>			<b>Date: DD/MM/YYYY</b>
<b>Documentation provided by project participant</b>			
<b>DOE assessment</b>			<b>Date: DD/MM/YYYY</b>

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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"><li>• Ensure consistency with version 02.0 of the “CDM validation and verification standard for programmes of activities” (CDM-EB93-A08-STAN) and version 02.0 of the “CDM project cycle procedure for programmes of activities” (CDM-EB93-A09-PROC);</li><li>• Make editorial improvements.</li></ul>
01.0	29 December 2017	Initial publication.

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Document Type: Form  
Business Function: Renewal of crediting period  
Keywords: crediting period, programme of activities, validation report

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