



**Programme design document form for
small-scale CDM programmes of activities
(Version 04.0)**

Complete this form in accordance with the Attachment "Instructions for filling out the programme design document form for small-scale CDM programmes of activities" at the end of this form.

PROGRAMME DESIGN DOCUMENT (PoA-DD)

Title of the PoA	Ethiopia – Clean Cooking Energy Program
Version number of the PoA-DD	5.0
Completion date of the PoA-DD	11/11/2015
Coordinating/ managing entity	Development Bank of Ethiopia
Host Party(ies)	Federal Democratic Republic of Ethiopia
Sectoral scope(s) and selected methodology(ies), and where applicable, selected standardized baseline(s)	<u>Sectoral Scopes:</u> Sectoral Scope 1 – Energy Industries (renewable- / non-renewable sources) Sectoral Scope 3 – Energy Demand AMS-I.E Version 6 Switch from non-renewable biomass for thermal applications by the user AMS-I.I Version 4 Biogas/biomass thermal applications for households/small users AMS-II.G Version 6 Energy efficiency measures in thermal applications of non-renewable biomass

PART I. Programme of activities (PoA)

SECTION A. General description of PoA

A.1. Title of the PoA

Ethiopia – Clean Cooking Energy Program

Version 5.0

Date of Completion: 11/11/2015

A.2. Purpose and general description of the PoA

Policy Measure/Stated Goal:

The Ethiopia – Clean Cooking Energy Program (the PoA) is a nationwide program for Ethiopia that targets poor and vulnerable households, who rely primarily on wood fuels for cooking; national statistics show that 85% of cooking fuel currently used in Ethiopia is either collected or purchased¹. The purpose of the PoA is to provide improved energy access to such households, with associated benefits for poverty alleviation, while simultaneously reducing greenhouse gas emissions from the exploitation of non-renewable biomass (NRB) resources and from fossil fuels.

The PoA seeks to promote the goals stated by the Government of Ethiopia (GoE) in its Growth and Transformation Plan 2010/11–2014/15 (GTP). Specifically, the PoA promotes the GTP goals for Alternative Energy Development and Promotion, where the GTP aims to disseminate the use of improved alternative technologies that can minimize deforestation, reduce indoor air pollution and associated health problems and save women's and children's working time collecting wood fuels.² The PoA also contributes to the GTP implementation strategy of supporting and motivating private investors to involve in bio-fuel development activities on the short term.

To this end, three alternative energy technologies are implemented under the PoA. Via the PoA, households are encouraged to adopt domestic biogas plants (DBPs), which generate biogas for cooking and lighting, ethanol stoves for cooking, and improved cookstoves fuelled by non-renewable biomass. These technologies permit the substitution or reduced use of wood fuels, including non-renewable biomass (NRB), or fossil fuels, by a renewable fuel, either biogas or ethanol, thereby reducing mainly CO₂ emissions. DBPs were selected for promotion because of the high prevalence of suitable conditions for successful DBPs among rural Ethiopian households. For example, 80% of the rural population is involved in animal husbandry and many regions have plentiful water availability³, both of which provide the necessary inputs for a household level biogas digester. The other technology, ethanol stoves, was chosen because of the excellent potential for bio-ethanol production in Ethiopia⁴, which is largely untapped but targeted for growth. Improved cookstoves were included for the households that do not have the waste biomass to support a DBP or access to biofuels such as ethanol.

¹ Central Statistical Agency. *Welfare Monitoring Survey 2011*. Page 79 Table 8.7(a)

² Ministry of Finance and Economic Development. *Growth and Transformation Plan 2010/11 – 2014/15*. November 2010.

³ SNV – Ethiopia. *Report on the feasibility study of a national programme for domestic biogas in Ethiopia*. Page 10. May 2006.

⁴ The World Bank. *The Federal Democratic Republic of Ethiopia Joint IDA-IMF Staff Advisory Note on the Growth and Transformation Plan (GTP) (2010/11-2014/15)*. Page 37. August 15th 2011.

The unique feature of this PoA is that it takes advantage of useful experience that GoE has accumulated with DBPs in Ethiopia through the National Biogas Program Ethiopia (NBP), which began in a demonstration phase in 2008, and since 2009 has been a national program implemented by the Ministry of Water and Energy (MoWE) and financed by a combination of rural households contribution, Government of Ethiopia funds, and donor funds from development organizations SNV and Hivos. Since 2008, a total of 6,252 biogas plants have been installed, whereas the government program planned to install about double this amount. Donor funds subsidized directly about 36% of the cost of each DBP for its purchaser. However, the existing donor, Hivos, manifested that it will only fund the DBP subsidy through the end of 2013⁵, and the GoE is unable to provide funds to continue the existing subsidy. Carbon finance is sought to contribute to part of the budget shortfall to continue and expand NBP implementation.

The CME of the PoA is the Development Bank of Ethiopia (DBE), a public enterprise that comprises a specialized financial institution established to promote the national development agenda through development finance and technical support to viable projects from the priority areas of the government. DBE mobilizes funds from domestic and foreign sources while ensuring its sustainability. The Carbon Initiative for Development (Ci-Dev) of the World Bank supports the PoA and will assist the program through direct support and capacity building to register the carbon component of the program in a timely manner and potentially purchase the generated credits.

Framework for the Implementation of the PoA:

The PoA provides improved energy access through three types of technologies. The PoA covers biogas digesters, ethanol stoves, and improved cookstoves. The PoA implements these three technology types through the following methodologies:

- AMS-I.E Version 6 Switch from non-renewable biomass for thermal applications by the user; and
- AMS-I.I Version 4 Biogas/biomass thermal applications for households/small users
- AMS-II.G Version 6 Energy efficiency measures in thermal applications of non-renewable biomass

The PoA will implement four different types of CPAs, namely:

- Biogas digesters under AMS-I.E Version 6 (CPA Type 1)
- Ethanol stoves under AMS-I.E Version 6 (CPA Type 2)
- Ethanol stoves under AMS-I.I Version 4 (CPA Type 3)
- Improved cookstoves under AMS-II.G Version 6 (CPA Type 4)

Cross-effects (if any) between the methodologies are accounted for in section B.3 below.

The Coordinating/Managing Entity (CME), Development Bank of Ethiopia (DBE), has developed an initial framework for the implementation of the proposed PoA that is described in more detail in Section C of this PoA-DD. DBE has tailored procedures for inclusion of CPAs for each technology, since each individual CPA will include implementation of only one of the three technologies. The implementation framework has sub-components covering domestic biogas plants, ethanol stoves, and improved cookstoves. In all cases, carbon finance is the vehicle to generate resources that could be used to incentivize the private sector to expand the market and increase the uptake of these technologies among households.

DBE, as the CME, will serve as the central warehouse for program information, the clearinghouse for carbon finance, and as the source of loan finance funds for micro-finance institutions (MFIs). The implementation of CPAs will rely upon CPA Implementers, separate entities from DBE, which will communicate implementation information directly to DBE. In the case of domestic biogas plants, the CPA implementer will be the National Biogas Program Ethiopia (NBP), which will utilize

⁵ Hivos. Annual Plan 2013 Implications. Page 2. December 17th 2012

and expand upon its existing implementation framework. In the case of ethanol stoves, a variety of entities may serve as CPA implementers. The CME will use the implementation information it receives to assign carbon finance to the CPA implementers, from where it will be redistributed to the subsequent levels of implementation.

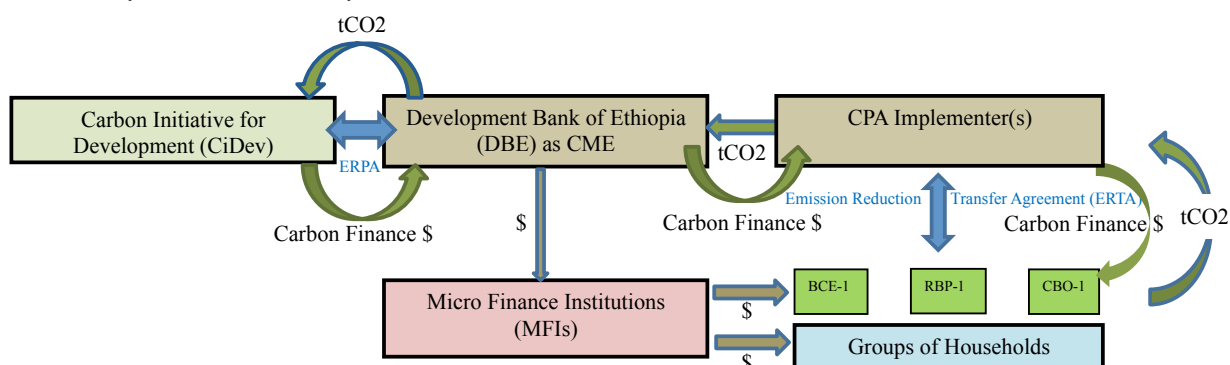


Figure 1. General implementation framework of the PoA

Environmental and Social Benefits of the PoA:

The program contributes to sustainable development in Ethiopia through both individual impacts on households, as well as macro impacts on Ethiopia's forest resources.

- The technologies promoted through this program will reduce the use of fuelwood for cooking, thereby lowering fuelwood collection time and freeing households' productive time for other productive uses.
- The program will reduce indoor air pollution, and its associated health impacts
- The program brings about savings in cost of fuels to the households
- The program reduces hardship and generates welfare improvement of women and children who are largely engaged in fuelwood collection
- The program reduces pressure on Ethiopia's diminishing forest resources

Confirmation that it is voluntary:

DBE confirms that the PoA is a voluntary action. The PoA will contribute to the scaling-up of implementation of the NBP, which began in a demonstration phase in 2008, and since 2009 has been a national program implemented by the Ministry of Water and Energy (MoWE), as described above. However the NBP is not mandatory, and the PoA will address the shortcomings of NBP, enable it to continue and grow significantly in its impact.

The other technologies that will be supported by the PoA, namely ethanol stoves and improved cookstoves, are also targeted by the GoE as part of its goals for alternative and efficient energy development and promotion; however achievement of the goals is not mandatory. DBE's involvement in the case of both technologies is not mandated by the GoE; rather the DBE has accepted the role as a way to support the people of Ethiopia, and the experience with carbon finance operations may enable DBE to raise concessional financing from other sources and use it to offer attractive financial products for the household renewable energy and energy efficiency sector, in the future.

A.3. CME and participants of PoA

The CME of the PoA is the Development Bank of Ethiopia (DBE) is a state owned financial institution. The DBE is headquartered in Addis Ababa, with further staff in the branches and regions of Ethiopia. The address of the DBE is the following:

Development Bank of Ethiopia

Kirkos
Addis Ababa
Ethiopia

Other Project participants to the PoA are described in the table in Section A.4.

A.4. Party(ies)

Name of Party involved (host) indicates host Party	Private and/or public entity(ies) project participants, CME (as applicable)	Indicate if the Party involved wishes to be considered as project participant (Yes/No)
Federal Democratic Republic of Ethiopia (host)	Development Bank of Ethiopia (CME)	No
Sweden	International Bank for Reconstruction and Development (IBRD) as trustee of the Carbon Initiative for Development (Ci- Dev)	No

A.5. Physical/ Geographical boundary of the PoA

The geographical boundary is the borders of the Federal Democratic Republic of Ethiopia. The program will be implemented across Ethiopia, as shown in Figure 2 below.



Figure 2. Map of Ethiopia

The capital city, Addis Ababa, is located at 9.0300° N and E 38.7400° E.

The location of each individual DBP or ethanol stove will be recorded at implementation. DBE, via its CPA Implementers, will maintain a database of all DBPs and ethanol stoves and their specific locations.

A.6. Technologies/measures

The following three technologies/measures will be implemented in CPAs under the PoA: domestic biogas plants, ethanol stoves, and improved cookstoves.

1. Domestic Biogas Plants

Domestic Biogas Plants (DBPs) use animal dung and other waste as input, fermenting them in an underground anaerobic digester to produce biogas, which can be used for cooking and lighting, and bio-slurry, an organic fertilizer with high value for agricultural production. Domestic Biogas Plants are well-suited to the rural Ethiopian context since it is common for rural residents to undertake animal husbandry, for example a couple cows per household, meaning an appropriate amount of input material is available.

The DBPs to be installed under this PoA draw from the technical experience of the first phase of the NBP. The possible designs of DBPs include a “fixed dome” design, which is capable of significant gas pressure, advantageous for use in cooking and lighting. Fixed dome plants require a high level of on-site workmanship at installation, which will be provided by trained masons, potentially organized in “Biogas Construction Enterprises” (BCEs). The fixed-dome DBPs include an inlet, a digester dome, gas line pipings and fittings, a slurry outlet, and two slurry pits. The appliances installed with the system include a biogas stove, and may include a biogas lamp and a gas pressure meter. The system may also include a toilet or latrine, with its own inlet device, providing the additional benefit of improved sanitation. Given the existing experience, the most common dome size expected under the PoA is 6 m³, although this is not a restriction and other sizes may be appropriate for individual households or communities.

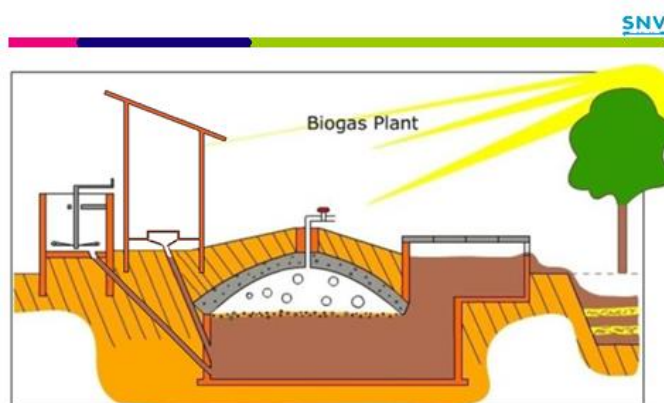


Figure 3. Diagram of a domestic biogas plant (source: SNV Ethiopia)

The installation of the DBP generally will be sold along with a maintenance package, which will provide support for smaller or larger maintenance and repair requirements, preferably via locally available and affordable resources. The plant technology is quite simple and maintenance costs are estimated to be as low as USD 2 per year.⁶

Since DBPs generate fuel from destruction of organic material that also would have decayed in the baseline, they generate a zero-emissions fuel. A DBP of this PoA is expected to produce

⁶ SNV – Ethiopia. *National Biogas Program Ethiopia – II Program Document*. Page 12. 2013.

approximately 1 to 1.5 m³ biogas per household per day.⁷ DBPs will replace inefficient use of wood fuels, including NRB, for cooking. For cooking, households currently utilize a mix of biomass fuels, including about 20 kg of wood per week and about 2t total biomass fuels per year.⁸ The baseline is the continued use of wood fuels, including Non-Renewable Biomass, for cooking, which emits CO₂. The DBPs also generate bio-slurry, which is utilized as a fertilizer for increased agricultural production, which may prevent the application of chemical fertilizer; however, no emissions reductions are claimed from this source.

2. Ethanol stoves

Ethanol stoves are a off-the-shelf technology that utilize renewable ethanol fuel from biomass sources for household cooking. In Ethiopia, stoves currently are available of the make “CleanCook” in one and two burner models; however, these and other models will be eligible under the PoA. The “CleanCook” stoves have an efficiency of 53%,⁹ versus about 40% for kerosene stoves and 12% for a three- stone fire¹⁰. Currently the main supply of ethanol is from Ethiopia’s sugar industry, although initiatives to generate ethanol from micro-distilleries are underway, financed by UNDP and spearheaded by GAIA Association of Ethiopia. Ethanol stoves replace inefficient use of wood fuels, including NRB, or kerosene for cooking. The baseline is the continued use of wood fuels, including Non-Renewable Biomass, or kerosene for cooking, both of which emit CO₂.

3. Improved Cookstoves

Improved cookstoves are the third technology employed under the PoA. The technologies will have a high thermal efficiency relative to the baseline technology: a three stone fire, or a conventional system with no improved combustion air supply or flue gas ventilation system, i.e. without a grate or a chimney. The efficient cooking stove will have a thermal efficiency rating of at least 20 per cent. The thermal efficiency will be certified by an accredited local or international organization.

The efficient cooking stove relies on two main design principles to achieve a high thermal efficiency, namely forced airflow and thermal insulation. Forced airflow increases the rate at which oxygen is delivered to the combustion chamber. The increased flow rate of oxygen allows the combustion to occur at a higher temperature. The thermal insulation of the efficient cooking stove ensures thermal energy is directed to the cooking surface and is does not become waste heat.

Combining these design principles allows users to prepare meals faster and with less fuel compared to conventional systems. In addition, combustion at high temperatures release less particulate and carbon monoxide emissions, which reduces the health hazard of cooking with non-renewable biomass.

A.7 Public funding of PoA

Public funding from Annex 1 countries will be used to support the Ci-Dev Readiness Fund of the World Bank, which provides funding for up-front costs related to CDM preparation.

Public funding from the GoE will cover a limited amount of the Program Costs of NBP including the initial seed money.

Appendix 2 provides affirmations from Parties involved in the Ci-Dev Readiness Fund regarding applicable provisions related to official development assistance.

⁷ SNV – Ethiopia. *Report on the feasibility study of a national programme for domestic biogas in Ethiopia*. Page 58. May 2006.

⁸ SNV – Ethiopia. *National Biogas Program Ethiopia – II Program Document*. Page 2. 2013.

⁹ Aprovecho Research Center. *Results of Testing of the CleanCook Stove for Fuel Use and Carbon Emissions*. Page 8. June 2009.

¹⁰ Ethio Research Group (ERG). *GAIA Association Feasibility Assessment for Ethanol Micro Distillery (EMD) in Ethiopia*. Page 22. January 2012.

SECTION B. Demonstration of additionality and development of eligibility criteria

B.1. Demonstration of additionality for PoA

According to the methodological tool *Demonstration of Additionality of Small-Scale Project Activities*, Version 10.0, “documentation of barriers... is not required for the positive list of technologies and project activity types that are defined as automatically additional for project sizes up to and including the small-scale CDM thresholds (e.g. installed capacity up to 15 MW or less than 60 GWh thermal saved per annum).”

This positive list includes, paragraph 11(c), “project activities composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size of each unit is no larger than 5% of the small-scale CDM thresholds.”

All the technologies included in this program comply with the requirement of paragraph. 11(c), because first, all the users will be households, communities or SMEs, and second, for Type I projects, the installed capacity of each unit is far less than 2.250 kW thermal. For DBPs, the estimated installed capacity is 1.65 kW thermal per unit¹¹. For ethanol stoves, testing provides an average capacity of 1.375 kW per burner¹², giving 2.75 kW of installed capacity for the larger 2-burner model. For Type II projects, the emission reductions for each sub-component will not exceed 3 GWh thermal saved per annum.

As the CPAs under the PoA will be demonstrated to be small-scale activities, the methodological tool *Demonstration of Additionality of Small-Scale Project Activities Version 10.0* applies to the demonstration of additionality for CPAs under the PoA.

Each CPA will demonstrate it is exempt from a de-bundling check as each subsystem is no more than 1 per cent of the small-scale threshold (150 kW for Type 1 projects).

As each CPA under the PoA meets the requirements of item c) under the positive list, it follows that each CPA under the PoA is automatically additional and further documentation of Barriers are not required.

The information presented here constitutes the demonstration of additionality of the PoA as a whole.

B.2. Eligibility criteria for inclusion of a CPA in the PoA

CPA Type 1

Criteria Number	Criteria Name	Description
1	Technology	Each CPA covers improved energy access through biogas digesters
2	Location	Each CPA will be located within the physical/geographical boundary of the PoA
3	Additionality	Each CPA will satisfy the criteria for demonstrating

¹¹ SNV – Ethiopia. *Report on the feasibility study of a national programme for domestic biogas in Ethiopia*. Page 123. May 2006.

¹² Aprovecho Research Center. *Results of Testing of the CleanCook Stove for Fuel Use and Carbon Emissions*. Page 18. June 2009.

		<p>additionality by satisfying the criteria of the positive list:</p> <ul style="list-style-type: none"> • Each CPA will have a size limit of 15 MW • Each sub-system under the CPA will be below 750kW of capacity • The target group of each will be households or institutions/SMEs
4	Size Limit	Each CPA will be below the small-scale limit of 15 MW of capacity
5	De-Bundling	Each CPA will demonstrate that it is exempt from a de-bundling check as each sub-system is no more than 1 per cent of the small-scale threshold of 15 MW capacity
6	Double Counting	Each biogas digester will be uniquely identifiable, to avoid double counting through recording of the GPS coordinates of each plant installed along with a unique serial number visible on each system and recorded in the customer database
7	Start Date	Each CPA will prove that the start date of the CPA is on or after the start date of the PoA. The start date of the CPA is the date on which construction, implementation, or real action concerning the CPA
8	Crediting Period	Each CPA will have a renewable crediting period
9	Public Funding	Each CPA will confirm that it is not receiving funding dedicated as Official Development Assistance (ODA) through a two-stage process. The first stage is a statement by the CPA Implementer if it is receiving public funding. If the CPA is receiving public funding second statement is required from the funder affirming that the public funding is not ODA
10	CME Approval	Each CPA will prove it has received the approval of the CME of the PoA
11	Methodologies	Each CPA will apply the CDM baseline and monitoring methodology AMS-I.E Version 6, adhere to all applicability conditions and other requirements of the methodology
12	Target Group	Each CPA targets households or institutions/SMEs
13	Sampling	Each CPA will adhere to the sampling requirements stipulated by the CME in section C of the PoA-DD
14	Stakeholder Consultation and Environmental Analysis	The Local Stakeholder Consultation and Environmental Impact Analysis have been conducted at the PoA level. Each CPA will take into consideration the comments from the Stakeholder Consultation and abide by the environmental regulations of the host country
15	Distribution	<p>Each CPA will use one or multiple of the following methods for distribution of appliances implemented under the CPA:</p> <ol style="list-style-type: none"> 1. Direct sale/service to end-users 2. Bulk sales to distributors who sell on to the end user 3. Distribution to the end-user by an organization receiving the products/measures from the CME
16	CER Ownership	Each CPA will assure ownership of the CERs is secured by the CME

CPA Type 2

Criteria Number	Criteria Name	Description
1	Technology	Each CPA covers improved energy access through ethanol stoves
2	Location	Each CPA will be located within the physical/geographical boundary of the PoA
3	Additionality	Each CPA will satisfy the criteria for demonstrating additionality by satisfying the criteria of the positive list: <ul style="list-style-type: none"> • Each CPA will have a size limit of 15 MW • Each sub-system under the CPA will be below 750kW of capacity • The target group of each will be households or institutions/SMEs
4	Size Limit	Each CPA will be below the small-scale limit of 15 MW of capacity
5	De-Bundling	Each CPA will demonstrate that it is exempt from a de-bundling check as each sub-system is no more than 1 per cent of the small-scale threshold of 15 MW capacity
6	Double Counting	Each ethanol stove sold under the CPA will be uniquely identifiable, to avoid double counting through a unique serial number clearly visible on the stove and recorded in the customer database
7	Start Date	Each CPA will prove that the start date of the CPA is on or after the start date of the PoA. The start date of the CPA is the date on which construction, implementation, or real action concerning the CPA
8	Crediting Period	Each CPA will have a renewable crediting period
9	Public Funding	Each CPA will confirm that it is not receiving funding dedicated as Official Development Assistance (ODA) through a two-stage process. The first stage is a statement by the CPA Implementer if it is receiving public funding. If the CPA is receiving public funding second statement is required from the funder affirming that the public funding is not ODA
10	CME Approval	Each CPA will prove it has received the approval of the CME of the PoA
11	Methodologies	Each CPA will apply the CDM baseline and monitoring methodology AMS-I.E Version 6, adhere to all applicability conditions and other requirements of the methodology
12	Target Group	Each CPA targets households or institutions/SMEs
13	Sampling	Each CPA will adhere to the sampling requirements stipulated by the CME in section C of the PoA-DD
14	Stakeholder Consultation and Environmental Analysis	The Local Stakeholder Consultation and Environmental Impact Analysis have been conducted at the PoA level. Each CPA will take into consideration the comments from the Stakeholder Consultation and abide by the environmental regulations of the host country
15	Distribution	Each CPA will use one or multiple of the following methods for distribution of appliances implemented under the CPA: <ul style="list-style-type: none"> 4. Direct sale/service to end-users 5. Bulk sales to distributors who sell on to the end user

		6. Distribution to the end-user by an organization receiving the products/measures from the CME
16	CER Ownership	Each CPA will assure ownership of the CERs is secured by the CME

CPA Type 3

Criteria Number	Criteria Name	Description
1	Technology	Each CPA covers improved energy access through ethanol stoves
2	Location	Each CPA will be located within the physical/geographical boundary of the PoA
3	Additionality	Each CPA will satisfy the criteria for demonstrating additionality by satisfying the criteria of the positive list: <ul style="list-style-type: none"> • Each CPA will have a size limit of 15 MW • Each sub-system under the CPA will be below 750kW of capacity • The target group of each will be households or institutions/SMEs
4	Size Limit	Each CPA will be below the small-scale limit of 15 MW of capacity
5	De-Bundling	Each CPA will demonstrate that it is exempt from a de-bundling check as each sub-system is no more than 1 per cent of the small-scale threshold of 15 MW capacity
6	Double Counting	Each ethanol stove sold under the CPA will be uniquely identifiable, to avoid double counting through a unique serial number clearly visible on the stove and recorded in the customer database
7	Start Date	Each CPA will prove that the start date of the CPA is on or after the start date of the PoA. The start date of the CPA is the date on which construction, implementation, or real action concerning the CPA
8	Crediting Period	Each CPA will have a renewable crediting period
9	Public Funding	Each CPA will confirm that it is not receiving funding dedicated as Official Development Assistance (ODA) through a two-stage process. The first stage is a statement by the CPA Implementer if it is receiving public funding. If the CPA is receiving public funding second statement is required from the funder affirming that the public funding is not ODA
10	CME Approval	Each CPA will prove it has received the approval of the CME of the PoA
11	Methodologies	Each CPA will apply the CDM baseline and monitoring methodology AMS-I.I Version 4, adhere to all applicability conditions and other requirements of the methodology
12	Target Group	Each CPA targets households or institutions/SMEs
13	Sampling	Each CPA will adhere to the sampling requirements stipulated by the CME in section C of the PoA-DD
14	Stakeholder Consultation and Environmental	The Local Stakeholder Consultation and Environmental Impact Analysis have been conducted at the PoA level. Each CPA will take into consideration the comments from

	Analysis	the Stakeholder Consultation and abide by the environmental regulations of the host country
15	Distribution	Each CPA will use one or multiple of the following methods for distribution of appliances implemented under the CPA: <ol style="list-style-type: none"> 7. Direct sale/service to end-users 8. Bulk sales to distributors who sell on to the end user 9. Distribution to the end-user by an organization receiving the products/measures from the CME
16	CER Ownership	Each CPA will assure ownership of the CERs is secured by the CME

CPA Type 4

Criteria Number	Criteria Name	Description
1	Technology	Each CPA covers improved energy access through improved cookstoves
2	Location	Each CPA will be located within the physical/geographical boundary of the PoA
3	Additionality	Each CPA will satisfy the criteria for demonstrating additionality by satisfying the criteria of the positive list: <ul style="list-style-type: none"> • Each CPA will have a size limit of 60 GWh thermal saved per annum • Each sub-system under the CPA will be below 3 GWh thermal saved per annum • The target group of each will be households or institutions/SMEs
4	Size Limit	Each CPA will be below the small-scale limit of 60 GWh thermal saved per annum
5	De-Bundling	Each CPA will demonstrate that it is exempt from a de-bundling check as each sub-system is no more than 1 per cent of the small-scale threshold of 60 GWh thermal saved per annum
6	Double Counting	Each improved cookstove sold under the CPA will be uniquely identifiable, to avoid double counting through a unique serial number clearly visible on the stove and recorded in the customer database
7	Start Date	Each CPA will prove that the start date of the CPA is on or after the start date of the PoA. The start date of the CPA is the date on which construction, implementation, or real action concerning the CPA
8	Crediting Period	Each CPA will have a renewable crediting period
9	Public Funding	Each CPA will confirm that it is not receiving funding dedicated as Official Development Assistance (ODA) through a two-stage process. The first stage is a statement by the CPA Implementer if it is receiving public funding. If the CPA is receiving public funding second statement is required from the funder affirming that the public funding is not ODA
10	CME Approval	Each CPA will prove it has received the approval of the CME of the PoA
11	Methodologies	Each CPA will apply the CDM baseline and monitoring methodology AMS-II.G Version 6, adhere to all

		applicability conditions and other requirements of the methodology
12	Target Group	Each CPA targets households or institutions/SMEs
13	Sampling	Each CPA will adhere to the sampling requirements stipulated by the CME in section C of the PoA-DD
14	Stakeholder Consultation and Environmental Analysis	The Local Stakeholder Consultation and Environmental Impact Analysis have been conducted at the PoA level. Each CPA will take into consideration the comments from the Stakeholder Consultation and abide by the environmental regulations of the host country
15	Distribution	Each CPA will use one or multiple of the following methods for distribution of appliances implemented under the CPA: <ul style="list-style-type: none"> 10. Direct sale/service to end-users 11. Bulk sales to distributors who sell on to the end user 12. Distribution to the end-user by an organization receiving the products/measures from the CME
16	CER Ownership	Each CPA will assure ownership of the CERs is secured by the CME

B.3. Application of technologies/measures and methodologies

Domestic biogas plants, ethanol stoves, and improved cookstoves are the three technologies/measures to be implemented by the CPAs in the PoA. These technologies will be applied in four different configurations, as follows:

CPA Type	Type 1	Type 2	Type 3	Type 4
Technology	Biogas plant, biogas stove	Ethanol stove	Ethanol stove	Improved cookstoves
Activity	Switch from wood fuels to renewable biogas	Switch from wood fuels to renewable ethanol	Switch from fossil fuel (kerosene or other) to renewable ethanol	Switch to improved cookstoves
Methodology	AMS-I.E. Switch from non-renewable biomass for thermal applications by the user, Version 6.0	AMS-I.E. Switch from non-renewable biomass for thermal applications by the user, Version 6.0	AMS-I.I. Biogas/ biomass thermal applications for households / small users, Version 4.0	AMS-II.G Energy efficiency measures in thermal applications of non-renewable biomass Version 6.0
Measure	Switch of technology with change of energy source, or switch of technology			
Type	Type I - Renewable Energy Projects and Type II – Energy Efficiency			
Sectoral scope	Sectoral Scope: 1, Energy industries (renewable - / non-renewable sources), and Sectoral Scope: 2, Energy Demand			

B.4. Date of completion of application of methodology and standardized baseline and contact information of responsible person(s)/ entity(ies)

The application of the methodologies was completed on 15/04/2015.

The Carbon Initiative for Development is responsible for the completion of the application of the methodologies.

The contact information for the Carbon Initiative for Development is the following:

Carbon Initiative for Development
1818 H Street NW
Washington
District of Columbia, 20433
United States of America
Phone: +1 202-473-1368
E-mail: ibrd-carbonfinance@worldbank.org

SECTION C. Management system

Development Bank of Ethiopia (DBE), the CME, will be the overarching authority for the PoA. Other organizations will act as CPA Implementers for the implementation of the individual activities. The planned management systems are similar for the CPAs under the PoA. However some differences exist between CPAs encompassing fixed biogas facilities and for the CPAs covering portable stoves. All CPAs under the PoA have the following roles and responsibilities in common;

CME Entities and Their Responsibilities Concerning Inclusion of a CPA

Role	Responsibility	Competency
CME Program Manager	<ul style="list-style-type: none"> - Manages the review process of the documentation submitted by the CPA implementer for inclusion of the proposed CPA - Notifies the CPA Implementer of acceptance or rejection of the proposed CPA 	<ul style="list-style-type: none"> - Previous experience overseeing and implementing training and managing information databases
CME Program Associate	<ul style="list-style-type: none"> - Advises the CPA Implementer in the preparation of the required documentation for inclusion of the CPA under the PoA and performs the initial review of the documentation - Review UNFCCC database and CME's CPA database to no double-counting 	<ul style="list-style-type: none"> - Technical degree in science or engineering - Previous experience with CDM activities
CPA Implementer	<ul style="list-style-type: none"> - Applies for inclusion of the CPA under the PoA to the CME by submitting the completed CPA-DD and all supporting material 	<ul style="list-style-type: none"> - Previous experience implemented activities similar to those proposed in the CPA
Carbon Initiative for Development	<ul style="list-style-type: none"> - Provides training and support from time to time to the CME on matters related to the 	<ul style="list-style-type: none"> - Extensive experience in the

	CPA inclusion process - Review of submitted CPA-DDs upon request by the CME	development, monitoring, and verification of CDM activities
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CME Entities and Their Responsibilities Concerning Management and Training

Role	Responsibility	Competency
CME Program Manager	<ul style="list-style-type: none"> - Manage the electronic database and ensure the data collected on each CPA is of high quality and complete. - Continuously improve the training and support offered to partner organization implementing the CPAs - Communicate with the CDM EB 	<ul style="list-style-type: none"> - Previous experience overseeing and implementing training and managing information databases
CME Program Associate	<ul style="list-style-type: none"> - Review the data collected on a weekly basis and ensure it is complete - Communicate with all partner organizations implementing the CPAs - Prepare monitoring reports 	<ul style="list-style-type: none"> - Technical degree in science or engineering - Previous experience with CDM activities
CME Field Personnel	<ul style="list-style-type: none"> - Verify a sample of the data collected for newly established CPAs - Train the entities collecting the CPA data on the proper use of the electronic database and data management system. 	<ul style="list-style-type: none"> - Knowledge of local culture and proficiency in local or national language as well as previous training to avoid bias and ensure neutrality when performing on the ground monitoring
Carbon Initiative for Development	<ul style="list-style-type: none"> - Review procedures and activities undertaken by the CME in the management and training activities under the PoA 	<ul style="list-style-type: none"> - Extensive experience in the development, monitoring, and verification of CDM activities
External QA/QC	<ul style="list-style-type: none"> - Verify the monitoring work done to ensure accuracy before submission; review protocols, interview enumerators, spot check data 	Not applicable

For all CPAs under the PoA, at the time of renewal of the crediting period for a CPA Type the CME will ensure that all methodologies applied by the CPAs are still valid, i.e. the latest version of the methodology is applied. If the methodology applied in the previous crediting period was withdrawn or has been replaced by a consolidated methodology, the CME shall use the valid version of the methodology, i.e. the consolidated version of the methodology, if applicable, or the previous version of the methodology.

Project participants may at any time request the removal of a CPA under the PoA. CPAs removed from the PoA cannot be added back to the PoA.

While the table above covers all CPAs under the PoA, detailed management systems are provided for different CPA types below.

Management system- CPA Type 1

The intended structure for implementation, operation and management is as follows, subject to revisions resulting from practical concerns that arise during implementation.

DBE, as CME, serves as the central clearinghouse for information and communication with the UNFCCC. The National Biogas Program Ethiopia (NBP) will implement and manage the CPAs under the PoA. The NBP has been managing activities around biogas in Ethiopia since 2008.

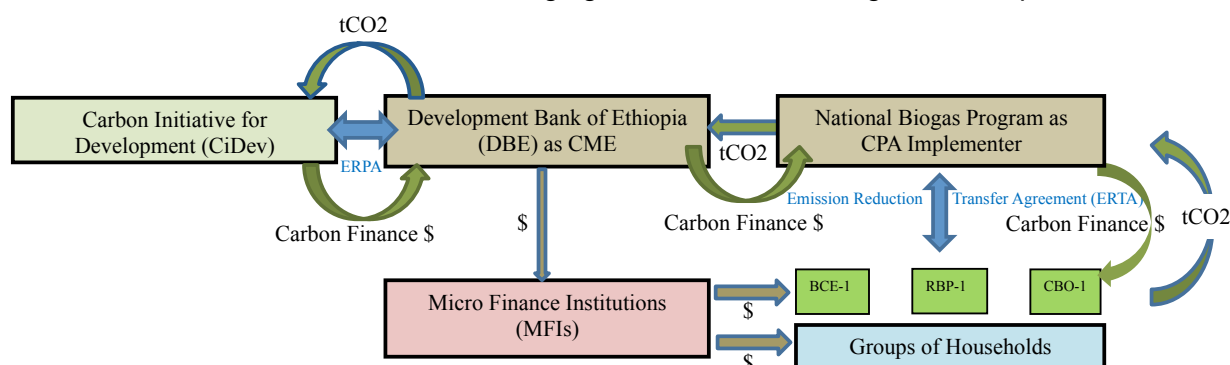


Figure 4. Overview of Management System for Domestic Biogas Plants CPAs

The roles and responsibilities of the entities involved in the PoA and subsequent Type 1 CPAs are shown in the table below:

Table 1. Roles and Responsibilities under the Management System for Type 1 CPAs

Program Phase	Actor	Roles and Responsibilities
Propagation	CME (DBE)	<p>DBE will make MFIs aware of the opportunity to acquire financing via the lines of credit administered by the DBE, to enable on-lending from MFIs to BCEs and end-user households.</p> <p>The DBE will enable enhanced reporting from MFIs regarding their on-lending to BCEs or end-users for implementation of DBPs, to provide an independent data source on DBP implementation.</p>
	CPA Implementer (NBP)	<p>As an ongoing activity, NBP will make biogas construction enterprises (BCEs) aware of the opportunity to sell DBPs to rural households, using its branches of Regional Biogas Program offices (RBP offices).</p> <p>NBP via RBP offices and Woreda¹³ contacts will make households aware of the opportunity to acquire a DBP and of the potential financing available through Micro-Finance Institutions (MFIs).</p> <p>DBE and NBP will make MFIs aware of the opportunity to acquire financing via the lines of credit administered by DBE, to enable on-lending from MFIs to BCEs and end-user households.</p>
	Micro-Finance Institutions	As MFIs take on loans from DBE, they will be registered with DBE within the existing DBE structures for loan management.

¹³ Third-level administrative divisions of Ethiopia; Woredas are composed of a number of wards, or neighbourhood associations, which are the smallest unit of local government in Ethiopia.

	(MFIs)	
Operation	CME	DBE will register the CDM reporting information in its CDM database. This information can be cross-checked against the data collected from MFIs reporting to DBE on loans in the domestic biogas sector.
	NBP	NBP will record in its database the information on sales and installation of DBPs by BCEs and Masons. NBP undertakes quality checks of the installed systems and registers these results in the NBP database, as well. NBP reports to DBE on the installation of DBPs, including all information relevant to CDM reporting and reporting to the GoE.
	Biogas construction enterprises (BCEs)	BCEs will take loans from MFIs for the growth of their own operations in installing DBPs. Large BCEs potentially could take loans directly from DBE, via its line of credit aimed directly at private enterprises dealing with renewable energy technologies/products. BCEs, or independent and trained Masons, will sell and install DBPs to households, and register the information on installation with NBP.
	End-users	End-user households will take micro-loans for financing DBPs from the MFIs.
CPA Inclusion	CME	Once the CPA-DD is submitted to DBE, the CDM technical team of DBE will review the CPA against the registered eligibility criteria for inclusion in the PoA Any member of the DBE CDM technical team will have undertaken, as a minimum, training on the following: (a) CDM PoA rules & regulations, (b) domestic biogas plant and ethanol stove technologies and their quality criteria, and (c) assessment of PoA eligibility criteria. The CDM technical team also will check the described CPA against the UNFCCC database and the DBE database to ensure no double-counting. The report from the CDM technical team on CPA eligibility and double-counting will be provided to the DBE PoA Manager for cross-check and final approval. DBE will then provide the CPA-DD to the DOE for official inclusion in the PoA.
	NBP	When a suitable group of DBPs has been planned or implemented, NBP will prepare a CPA-DD for inclusion in the PoA, and submit the CPA-DD to DBE.
CPA Monitoring	CME	The CDM technical team of DBE will review the accuracy of the monitoring reports against the information recorded in DBE's CDM database, and if consistent, submit them to the DOE. The functionaries at DBE will have an internal feedback mechanism by which feedback on potential improvements in the PoA management system may be sent, either named or anonymously, to the PoA manager at DBE, to permit ongoing review and improvement in the system.
	NBP	NBP, as CPA Implementer, is responsible for monitoring of the ongoing activity of the DBPs. From time to time, NBP will

		prepare monitoring reports for the included biogas CPAs and submit these to DBE.
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Management system – CPA Types 2, 3 and 4

The intended structure for implementation, operation and management is as follows, subject to revisions resulting from practical concerns that arise during implementation.

DBE, as CME, serves as the central clearinghouse for information and communication with the UNFCCC. The CME will act as the CPA Implementer; in this case, “Partner Organizations” (POs) will act under the CPA Implementer in the direct implementation of ethanol and improved cookstoves with the participating households. GAIA Association, and Ethiopian NGO, may be one of these POs, and as such will continue the role it has developed during the implementation of the ethanol stove piloting since 2004.

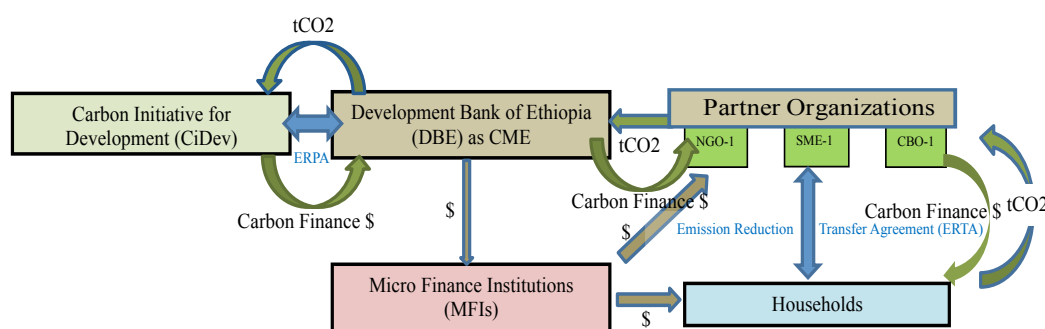


Figure 5. Overview of Management System for Ethanol Stoves CPAs

The roles and responsibilities of the entities involved in the PoA and subsequent CPA Types 2, 3, and 4 are shown in the table below:

Program Phase	Actor	Roles and Responsibilities
Propagation	CME	DBE may make potential private sector company(ies) and community based organizations aware of the opportunity to participate in ethanol stove import and sales, including in the role of the PO As an ongoing activity, DBE will make MFIs aware of the opportunity to acquire financing via the lines of credit administered by DBE, to enable on-lending from MFIs to POs and end-user households DBE will require enhanced reporting from MFIs regarding their on-lending to POs or end-users for purchase of ethanol and improved cookstoves, to provide an independent data source on ethanol stove implementation
	CPA Implementer	Initially, GAIA Association will make potential private sector company(ies) and community based organizations aware of the opportunity to participate in ethanol and improved cookstove import and sales, including in the role of the PO.
	Partner Organizations (POs)	As an ongoing activity, POs will make households aware of the opportunity to acquire stoves
	MFIs	As MFIs take on loans from DBE, they will be registered with DBE within the existing DBE structures for loan management
Operation	CME	DBE will register the CDM reporting information in its CDM

		database. This information can be cross-checked against the data collected from MFIs reporting to DBE on loans in the stove sector
	POs	<p>POs will take loans from MFIs for the growth of their operations in sourcing and marketing stoves</p> <p>The PO registers acceptance testing and household information in an stove database managed by the PO, in line with a standard format provided by the CME</p> <p>For ethanol stoves, the PO registers ethanol quantities and characteristics in an ethanol stove database managed by the PO, in line with a standard format provided by the CME</p> <p>The POs report to DBE on the stoves (and possibly ethanol sales), including all information relevant to CDM reporting and reporting to the GoE</p>
	End-users	<p>End-user households potentially will take micro-loans for financing stoves from the MFIs</p> <p>Households will purchase stoves with facilitation from a PO</p> <p>Households will purchase ethanol with facilitation from a PO</p>
CPA Inclusion	CME	<p>The CDM technical team of DBE will review the CPA against the registered eligibility criteria for inclusion in the PoA</p> <p>Any member of the DBE CDM technical team will have undertaken, as a minimum, training on the following: (a) CDM PoA rules & regulations, (b) ethanol or improved cookstove technologies and their quality criteria, and (c) Assessment of PoA eligibility criteria</p> <p>The CDM technical team also will check the described CPA against the UNFCCC database and the DBE database to ensure no double-counting. The report from the CDM technical team on CPA eligibility and double-counting will be provided to the DBE PoA Manager for cross-check and final approval</p> <p>DBE will then provide the CPA-DD to the DOE for official inclusion in the PoA</p>
	CPA Implementer	When a suitable group of stoves has been planned or implemented by the POs, the CPA Implementer will prepare a CPA-DD for inclusion in the PoA and submit to DBE
CPA Monitoring	CME	<p>The CDM technical team of DBE will review the accuracy of the monitoring reports against the information recorded in DBE's CDM database, and if consistent, submit them to the DOE.</p> <p>The functionaries at DBE will have an internal feedback mechanism by which feedback on potential improvements in the PoA management system may be sent, either named or anonymously, to the PoA manager at DBE, to permit ongoing review and improvement in the system</p>
	CPA Implementer	The CPA Implementer will be responsible for monitoring of the ongoing activity of the stoves; however, it is expected that the CPA Implementer will rely on the POs for monitoring at the household level and at the level of ethanol supply

		From time to time, the CPA Implementer will prepare monitoring reports for the included stove CPAs and officially submit these to DBE
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SECTION D. Duration of PoA

D.1. Start date of PoA

The PoA start date is 23/12/2014. This is the start date of the global stakeholder consultation.

D.2. Duration of the PoA

The length of the PoA is 28 years.

SECTION E. Environmental impacts

E.1. Level at which environmental analysis is undertaken

The environmental analysis is undertaken at the PoA level to ensure that the impacts across all regions of the PoA are considered at the time of registration.

E.2. Analysis of the environmental impacts

The boundary of the PoA is Ethiopia. No negative boundary or transboundary impacts were identified and as a whole the activities under the PoA will benefit the environment and contribute to the sustainable development of the host country/countries.

A letter from Ethiopia's Ministry of Environment and Forest stating the same has been provided. The letter is in accordance with the Environmental Policy of Ethiopia Conservation Strategy of Ethiopia, approved in 1997, and the Environmental Impact Assessment Proclamation, adopted in 2002.

SECTION F. Local stakeholder consultation

F.1. Solicitation of comments from local stakeholders

Comments from local stakeholders are solicited at the PoA level to ensure comments/concerns from all regions covered by the PoA are included at the time of registration.

A Local Stakeholder Consultation meeting was held in order to give stakeholders an opportunity to provide comments and inputs for the proposed programme. The meeting was held on November 26th 2014 at the Elilly Hotel in Addis Ababa.

Comments from stakeholders unable to attend the meeting were also invited by email and telephone as per the newspaper announcement, email invitations and the hand delivered invitations.

A total of 58 people participated in the stakeholder consultation meeting. Participants included NGOs, community representatives, the private sector, the media, research institutions, representatives of other efficient cooking stove projects, and members of the general public.

During the meeting a presentation was given to provide, first, an overview and update of the programme status including:

- Introduction to the programme and a background on the DBE
- The baseline situation in Ethiopia
- The proposed measures/technologies to be implemented
- The proposed structure to implement the programme

Second, the presentation focused on the background and fundamentals of the CDM and how the DBE is expected to generate carbon credits. The presentation included the following points:

- An explanation of climate change
- Overview of the Kyoto Protocol
- Overview of the Clean Development Mechanism
- How the programme will result in emission reductions
- How the programme will develop and apply for carbon credits under the CDM
- How the programme will benefit from carbon credits

The presentations were followed by a detailed questions and answer session with the participants of the meeting. Participants also provided their comments and inputs on the project in evaluation forms that were filled out at the end of the meeting.

A summary of the comments received and proposed consideration of the comments is shown below. A complete list of attendees and comments is shown in the Local Stakeholder Consultation (LSC) report attached as Appendix 3.

F.2. Summary of comments received

Stakeholders were given the opportunity to comment on the proposed programme at the meeting. Comments received by stakeholders were generally positive and most related to the implementation of the programme and how it will be structured. A summary of the comments received is shown below.

a) Stakeholders from the non-governmental sector inquired about how the program will address the quality problems often associated with energy efficient, and clean cooking technologies, will there be any minimum performance standards required?

b) Stakeholders from the private sector inquired about the process of being involved in the program as technology distributors and what requirements would be asked of them.

c) Stakeholders from the general public inquired about when the programme is expected to commence and its expected geographical reach.

d) Stakeholders from the government commented that the clean cooking technologies should be distributed equally across Ethiopia to maximize the benefit of the program.

e) Stakeholders from the private sector asked if eligible technologies that have already been distributed in the PoA boundary can be included in the activity.

F.3. Report on consideration of comments received

The comments received during the LSC were taken into consideration as shown below.

a) Stakeholders from the non-governmental sector inquired about how the program will address the quality problems often associated with energy efficient, and clean cooking technologies, will there be any minimum performance standards required?

DBE explained that there are requirements for the performance of cooking technologies in the

CDM methodologies that will need to be met and in addition the Ministry of Water, Irrigation, and Energy will vet all proposed technologies. DBE finished by saying that it would welcome the development of national standards around energy efficient and clean cooking technologies.

b) Stakeholders from the private sector inquired about the process of being involved in the program as technology distributors and what requirements would be asked of them.

DBE explained that technology providers would need to have their products vetted by the Ministry of Water, Irrigation, and Energy. If approved by the ministry a business plan with technical specifications is submitted to DBE.

c) Stakeholders from the general public inquired about when the programme is expected to commence and its expected geographical reach.

DBE explained that the programme would officially start after a validator publicly lists the carbon credit documents and that this is expected by January 2015. Prior to this DBE is engaging with all interested actors keen on being involved in the implementation of the programme and that the activity will cover all of Ethiopia.

d) Stakeholders from the government commented that the clean cooking technologies should be distributed equally across Ethiopia to maximize the benefit of the program.

DBE explained that while the program covers all of Ethiopia it is difficult to force the equal distribution of cooking technologies and the market demand may vary by region depending on the local climate, availability of biomass, and local cooking culture.

e) Stakeholders from the private sector asked if eligible technologies that have already been distributed in the PoA boundary can be included in the activity.

DBE explained that unfortunately only technologies distributed after the ministry has vetted the project and the DBE has approved it can be included under the program.

SECTION G. Approval and authorization

The Letter of Approval from the host country of Ethiopia has been provided.

PART II. Generic component project activity (CPA)

SECTION A. General description of a generic CPA

A.1. Purpose and general description of generic CPAs

The CPA targets poor and vulnerable households mainly in rural areas¹⁴, who rely primarily on wood fuels for cooking, to provide improved energy access to such households, with associated benefits for poverty alleviation, while simultaneously reducing greenhouse gas emissions from avoiding the exploitation of non-renewable biomass (NRB) resources and from reduced use of fossil fuels. This CPA includes the installation of domestic biogas plants that generate biogas for cooking and lighting, for households or other end-users in the [LOCATION] in Ethiopia. It is expected that this CPA will include approximately [QUANTITY] domestic biogas plants to be

¹⁴ Urban and peri-urban households may also benefit from the activity

installed in [LOCATION] between [DATES]¹⁵. The CPA is a Type 1 CPA as defined in section B.3 of the PoA-DD.

The CPA reduces GHGs by substituting the renewable fuel biogas for the use of wood fuels, including NRB, for cooking. This substitution reduces mainly CO₂ emissions. It also will reduce the use of fossil fuel kerosene for lighting; however, these emission reductions are not quantified under the CPA. In the baseline scenario, end-users, targeted by the CPA, use wood fuels for cooking.

Target Group

The project activity targets households and SMEs/institutions, who will receive a biogas system.

Technology

The technology to be installed will be domestic biogas plants (DBPs), which use animal dung and other waste as an input to an underground anaerobic digester to produce biogas. The DBPs will likely be of a “fixed dome” design¹⁶, which is capable of significant gas pressure, advantageous for use in cooking and lighting. The appliances installed with the system include a biogas stove, and may include a biogas lamp and a gas pressure meter. The system may also include a toilet or latrine, with its own inlet device, providing the additional benefit of improved sanitation. The most common dome size expected under the CPA is 6 m³, although this is not a restriction and other sizes may be appropriate for individual households or end-users.

Distribution Mechanism

CPAs will distribute the technologies under the CPA through direct retail sales or bulk sales to distributors, or a combination of both depending on which method is optimal to the CPA.

CPA Boundary

The CPA has a project boundary covering the physical, geographic site of the use of biomass or the renewable energy system.

The geographic boundary of the CPA is the country of Ethiopia.

CPAs will be differentiated by time with each CPA covering technologies distributed during a different time period. For example, a CPA will cover systems installed between the start date of the CPA until a specified end date. The next CPA cover technologies distributed after the end date of the first CPA. The time period covered by each CPA is 2 years.

Record Keeping System

The CPA will utilize an electronic monitoring system to record the end-users who have purchased or received biogas systems. The record keeping system to prove adherence to the management system detailed in Section C in the Part I, above.

CPAs under the PoA apply following methodology combinations:

- AMS-I.E. Version 6 Switch from non-renewable biomass for thermal applications by the user

The CPA Implementer, CME, and various local partners work together to disseminate a range of eligible technologies to households and institutions within the CPA boundary. Carbon credit revenue through the sale of CERs is crucial to the sustainability of the programme.

The CPA Implementer adheres to the CME management system and provides the CME with information required to include the project activity under the PoA, and perform monitoring and verification of the activity.

The CPA contributes to sustainable development by:

¹⁵ The exact number and dates are subject to change

¹⁶ Other designs also are eligible under the CPA

- reducing the use of fuelwood for cooking, thereby lowering fuelwood collection time and freeing households' productive time for other productive uses.
- reducing indoor air pollution, and its associated health impacts
- bringing about significant savings in cost of fuels to the households
- reducing hardship and generating welfare improvement of women and children who are largely engaged in fuelwood collection
- reducing pressure on Ethiopia's diminishing forest resources

SECTION B. Application of a baseline and monitoring methodology and standardized baseline

B.1. Reference of methodology(ies) and standardized baseline(s)

AMS-I.E. Version 6 Switch from non-renewable biomass for thermal applications by the user

Which references the following methodologies, tools, and guidelines:

- AMS-I.I Biogas/biomass thermal applications for households/small users Version 4
- Project emissions from the cultivation of biomass Version 1

B.2. Applicability of methodology(ies) and standardized baseline(s)

CPAs under AMS-I.E Version 6 are required to demonstrate the following:

1. The CPA comprises activities to displace the use of non-renewable biomass by introducing renewable energy technologies; and
2. Non-renewable biomass has been used since 31/12/1989.

The CPA satisfies both eligibility criteria as the biogas technology implemented under the CPA uses renewable energy that displaces non-renewable biomass, currently used by 85% of the population within the CPA boundary.¹⁷

Non-renewable biomass has been used within the CPA boundary since 31/12/1989 as evidenced by the decrease in forest area since 1990 in the Food and Agriculture Organization of the United Nations Global Forest Resources Assessment of Ethiopia.¹⁸

B.3. Sources and GHGs

For biogas stoves, the project boundary is the physical, geographical site of the use of biomass or the renewable energy; in other words, the locations of the biogas stoves under the CPA.

All of the previous locations are within the geographical boundary of the proposed PoA, which is the borders of the Federal Democratic Republic of Ethiopia, as confirmed using criterion 2 in section B.5.

	Source	Gas	Included?	Justification / Explanation
Baseline	Fossil fuels used for meeting similar thermal energy needs for cooking	CO ₂	Yes	Carbon dioxide is the main GHG from combustion of fossil fuel
		CH ₄	No	Minor emission source; this is conservative
		N ₂ O	No	Minor emission source; this is conservative

¹⁷ Central Statistical Agency. *Welfare Monitoring Survey 2011*. Page 79 Table 8.7(a)

¹⁸ FAO. *Global Forest Resources Assessment 2010 Country Report: Ethiopia*. Rome 2010.

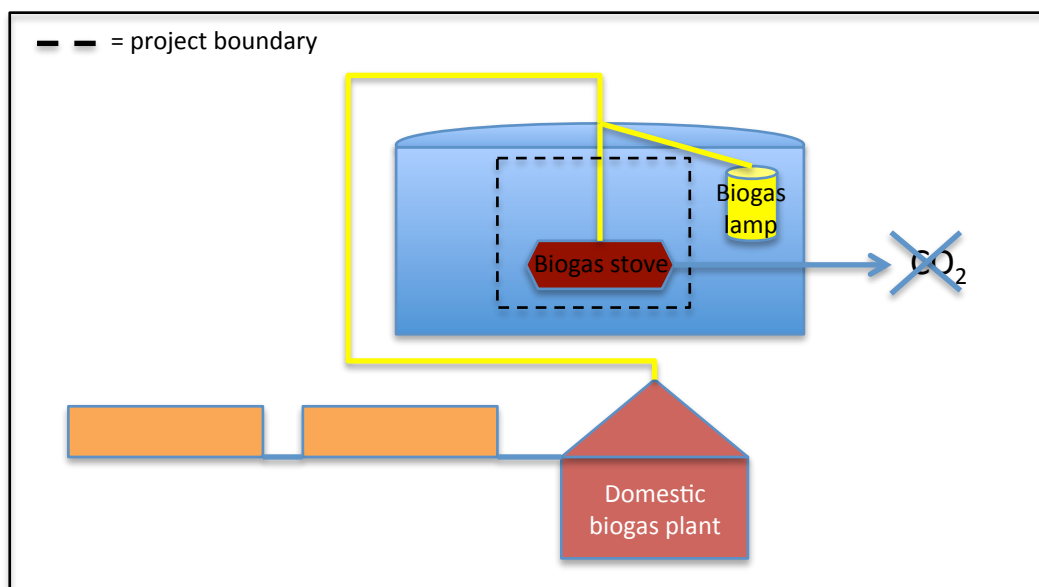


Figure 6. Flow diagram of the CPA

B.4. Description of baseline scenario

According to AMS-I.E., for biogas cooking stoves, it is assumed that in the absence of the project activity, the baseline scenario would be the use of fossil fuels for meeting similar thermal energy needs.

Baseline parameter	Description	Value	Source
$EF_{projected_fossilfuel}$	Emission factor for the substitution of non-renewable woody biomass by similar consumers	81.6 tCO ₂ /TJ	AMS-I.E. v 6.0
η_{old}	Efficiency of the system being replaced (conventional stove)	10%	AMS-I.E. v 6.0
LE_y	Leakage related to the non-renewable woody biomass saved by the project activity	0.95	AMS-I.E. v 6.0
f_{NRB}	Fraction of non-renewable biomass in year y	0.88	Value endorsed by the DNA of Ethiopia and approved by the Board is available at http://cdm.unfccc.int/DNA/fNRB/index.html

As the emission reductions are determined based on the default usage and emission factors listed above, suppressed demand is already reflected in the baseline emissions calculation and need not be considered further.

In the CPA boundary, there are neither national and/or sectoral policies or regulations that give comparative advantages to more emissions-intensive technologies or fuels, nor national and/or sectoral policies or regulations that give comparative advantages to less emissions-intensive technologies, implemented before the adoption of the Kyoto Protocol (December 1997) or since the adoption of the CDM M&P (November 2001).

B.5. Demonstration of eligibility for a generic CPA

Criteria Number	Criteria Name	Description	Criteria Evidence	Criteria Met?
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1	Technology	Each CPA covers improved energy access through biogas digesters	Description of the technologies as required by the methodology is provided in section A.5 of the specific CPA-DD and may be supported by user manuals or technical specifications	(Yes/No) (Explanation)
2	Location	Each CPA will be located within the physical/geographical boundary of the PoA	The boundary of the CPA is stated in section A.3 of the specific CPA-DD and will be within the PoA boundary, in addition geographic reference showing the activity is within the physical/geographical boundary of the PoA provided in section A.7 of the specific CPA-DD	(Yes/No) (Explanation)
3	Additionality	Each CPA will satisfy the criteria for demonstrating additionality by satisfying the criteria of the positive list: <ul style="list-style-type: none"> • Each CPA will have a size limit of 15 MW • Each sub-system under the CPA will be below 750kW of capacity • The target group of each will be households or institutions/SMEs 	The CPA meets the criteria for additionality: <ul style="list-style-type: none"> • The size limit of the specific CPA is below 15 MW as shown in section D.2 of the specific CPA and in an Excel Calculation • Each sub-system under the CPA is below 750kW capacity as shown in section A.12 of the specific CPA-DD and in an Excel Calculation • The target group of the CPA are households or SMEs/institutions as shown in section A.3 of the specific CPA-DD 	(Yes/No) (Explanation)
4	Size Limit	Each CPA will be below the small-scale limit of 15 MW of capacity	The activity has a total capacity less than 15 MW as shown in the specific CPA-DD in section D.2 and in an Excel Calculation	(Yes/No) (Explanation)
5	De-Bundling	Each CPA will demonstrate that it is exempt from a de-bundling check as each sub-system is no more than 1 per cent of the small-scale	Each subsystem represents less than 1% of the project activity threshold as shown in section A.12	(Yes/No) (Explanation)

		threshold of 15 MW capacity	of the CPA and in an Excel Calculation	
6	Double Counting	Each biogas digester will be uniquely identifiable, to avoid double counting through recording of the GPS coordinates of each plant installed along with a unique serial number visible on each system and recorded in the customer database	The specific CPA will provide a sample form showing the information to be collected for each system under the CPA containing the information required such as contact information, serial number, and GPS coordinates as well as an image of the physical serial number on the system	(Yes/No) (Explanation)
7	Start Date	Each CPA will prove that the start date of the CPA is on or after the start date of the PoA. The start date of the CPA is the date on which construction, implementation, or real action concerning the CPA	The start date of the activity as shown through a purchase order, service agreement, sales receipt, or other type of contract	(Yes/No) (Explanation)
8	Crediting Period	Each CPA will have a renewable crediting period	The type of crediting period is renewable as shown in section A.9	Yes/No) (Explanation)
9	Public Funding	Each CPA will confirm that it is not receiving funding dedicated as Official Development Assistance (ODA) through a two-stage process. The first stage is a statement by the CPA Implementer if it is receiving public funding. If the CPA is receiving public funding second statement is required from the funder affirming that the public funding is not ODA	A statement that the activity is not receiving public funding or the public funding is not ODA is shown in Appendix 2	(Yes/No) (Explanation)
10	CME Approval	Each CPA will prove it has received the approval of the CME of the PoA	A letter showing the CME has approved the CPA	(Yes/No) (Explanation)
11	Methodology	Each CPA will apply the CDM baseline and monitoring methodologies AMS-I.E Version 6, adhere to all applicability conditions and other requirements of the methodology.	Application of CDM methodology AMS-I.E Version 6 as shown in section B.2.	(Yes/No) (Explanation)
12	Target Group	Each CPA targets households or institutions/SMEs	Target groups are households or institutions as shown in section A.3 of the specific CPA	(Yes/No) (Explanation)
13	Sampling	Each CPA will adhere to the sampling requirements	Adherence to the sampling requirements of	Yes/No)

		stipulated by the CME in section C of the PoA-DD	the PoA is shown in section D.7.2 of the specific CPA	(Explanation)
14	Stakeholder Consultation and Environmental Analysis	The Local Stakeholder Consultation and Environmental Impact Analysis have been conducted at the PoA level. Each CPA will take into consideration the comments from the Stakeholder Consultation and abide by the environmental regulations of the host country	Consideration of the comments from Local Stakeholder Consultation, and a statement that the CPA will adhere to the environmental regulations of the host country as shown in sections B.1 and C.1 of the specific CPA	Yes/No) (Explanation)
15	Distribution	Each CPA will use one or multiple of the following methods for distribution of appliances implemented under the CPA: 13. Direct sale/service to end-users 14. Bulk sales to distributors who sell on to the end user 15. Distribution to the end-user by an organization receiving the products/measures from the CME	Description of the distribution method is provided in section A.3 of the specific CPA	Yes/No) (Explanation)
16	CER Ownership	Each CPA will assure ownership of the CERs is secured by the CME	A statement by the CPA Implementer that it has yielded the rights to any CERs to the CME and that the CPA Implementer will ensure any distributors, manufacturers, or service providers cede their rights to the resulting CERs as well is	Yes/No) (Explanation)

Confirmation of additionality of the CPA

Since the CPA complies with criterion 3 above, its additionality is confirmed in line with the PoA requirements.

B.6. Estimation of emission reductions of a generic CPA

B.6.1. Explanation of methodological choices

In line with paragraph 11 of AMS-I.E Version 6,

$$ER_y = B_y * f_{NRB,y} * NCV_{biomass} * EF_{projected_fossilfuel} - PE_{BC,y}$$

Where

ER_y	Emission reductions during the year y in tCO ₂ e
B_y	Quantity of woody biomass that is substituted or displaced in tonnes
$f_{NRB,y}$	Fraction of woody biomass used in the absence of the project activity in year y
$NCV_{biomass}$	Net calorific value of the non-renewable woody biomass that is substituted
$EF_{projected_fossilfuel}$	Emission factor for the substitution of non-renewable woody biomass by similar consumers
$PE_{BC,y}$	Project emissions due to cultivation of biomass

For [LOCATION], where the annual average ambient temperature is higher than 20°C, in line with paragraph 6(b),

B_y is determined following option a) of paragraph 12 under AMS-I.E Version 6, which states that B_y is calculated as the product of the number of appliances multiplied by the estimate of the average consumption of woody biomass per appliance (tonnes/year). This is derived from historical data or estimated using survey methods, as follows:

In line with paragraph 14 of AMS-I.E Version 6, Project participants shall determine the shares of renewable and non-renewable woody biomass in B_y and then determine $f_{NRB,y}$. The approved default country specific fraction of non-renewable woody biomass (f_{NRB}) value available on the CDM website will be applied. The value endorsed by the DNA of Ethiopia and approved by the Board is available at <http://cdm.unfccc.int/DNA/fNRB/index.html>.

In line with paragraph 19 of AMS-I.E Version 6, Leakage related to the non-renewable woody biomass saved by the project activity shall be assessed based on *ex post* surveys of users and the areas from which this woody biomass is sourced. Alternatively, B_y is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required. In this case, the latter will be applied.

In line with paragraph 20 of AMS-I.E Version 6, since equipment under the project is new, leakage will not be considered from the transfer of equipment from outside to inside the project boundary.

B.6.2. Data and parameters fixed ex-ante

Ex-Ante Parameters for Type 1 CPAs

Data / Parameter	$B_{y,household}$
Data Unit	tonnes/year/household
Description	Quantity of annual woody biomass used per household
Source of data	Historical data or derived from surveys
Value(s) applied	[Value]
Choice of data or Measurement methods and procedures	[Source of data and survey methods used]
Purpose of data	Calculation of baseline emissions
Additional comment	

Data / Parameter	$EF_{projected_fossilfuel}$
------------------	------------------------------

Unit	tCO ₂ /TJ
Description	Emission factor for the substitution of non-renewable woody biomass by similar consumers
Source of data	AMS-I.E. v 6.0
Value(s) applied	81.6
Choice of data or Measurement methods and procedures	Methodology default value
Purpose of data	Calculation of baseline emissions
Additional comment	

Data / Parameter	η_{old}
Unit	-
Description	Efficiency of the system being replaced (conventional stove)
Source of data	AMS-I.E. v 6.0
Value(s) applied	0.1
Choice of data or Measurement methods and procedures	Methodology default value
Purpose of data	Calculation of baseline emissions
Additional comment	

Data / Parameter	LE_y
Unit	-
Description	Leakage related to the non-renewable woody biomass saved by the project activity
Source of data	AMS-I.E. v 6.0
Value(s) applied	0.95
Choice of data or Measurement methods and procedures	Methodology default value
Purpose of data	Calculation of leakage
Additional comment	

Data / Parameter	f_{NRB}
Unit	-
Description	Fraction of non-renewable biomass in year y
Source of data	CDM Executive Board
Value(s) applied	0.88
Choice of data or Measurement methods and procedures	Value endorsed by the DNA of Ethiopia and approved by the Board is available at http://cdm.unfccc.int/DNA/fNRB/index.html
Purpose of data	Calculation of leakage
Additional comment	

Data / Parameter	$NCV_{biomass}$
------------------	-----------------

Unit	TJ/Ton
Description	Net calorific value of the non-renewable woody biomass that is substituted
Source of data	AMS-I.E. v 6.0
Value(s) applied	0.015
Choice of data or Measurement methods and procedures	Methodology default value
Purpose of data	Calculation of baseline emissions
Additional comment	

B.6.3. Ex-ante calculations of emission reductions

The amount of woody biomass is calculated as:

$$\begin{aligned}
 B_y &= B_{y,household} * N_d \\
 &= [\text{VALUES}] \\
 &= [\text{VALUE}] \text{ t}
 \end{aligned}$$

And emission reductions are calculated as follows:

$$\begin{aligned}
 ER_y &= B_y * \text{Net-to-gross adjustment factor} * f_{NRB,y} * NCV_{biomass} * EF_{projected_fossilfuel} * L_y \\
 &= [\text{VALUES}] \\
 &= [\text{UNROUNDED VALUE}] \text{ tCO}_2 \\
 &= [\text{VALUE ROUNDED FOR CONSERVATIVENESS}] \text{ tCO}_2
 \end{aligned}$$

B.7. Application of the monitoring methodology and description of the monitoring plan

B.7.1. Data and parameters to be monitored by each generic CPA

For the proposed PoA, the submission of the monitoring plan delayed and submitted either at any time prior to the submission of request for issuance for the first monitoring period, or together with the request for issuance for the first monitoring period.

Therefore this section is intentionally blank.

Data / Parameter	
Data Unit	
Description	
Source of data	
Value(s) applied	
Measurement methods and procedures	
Monitoring frequency	
QA/QC procedures	
Purpose of data	
Additional comments	

B.7.2. Description of the monitoring plan for a generic CPA

For the proposed PoA, the submission of the monitoring plan delayed and submitted either at any time prior to the submission of request for issuance for the first monitoring period, or together with the request for issuance for the first monitoring period.

There is no additional background information available at this time.

PART III. Generic component project activity (CPA)

SECTION A. General description of a generic CPA

A.1. Purpose and general description of generic CPAs

The CPA targets poor and vulnerable households mainly in rural areas¹⁹, who rely primarily on wood fuels for cooking, to provide improved energy access to such households, with associated benefits for respiratory health and use of productive time, while simultaneously reducing greenhouse gas emissions from avoiding the exploitation of non-renewable biomass (NRB) resources. This CPA includes the implementation of ethanol stoves for cooking, for households or other end-users in the [LOCATION] in Ethiopia. It is expected that this CPA will include approximately [QUANTITY] ethanol stoves to be installed in [LOCATION] between [DATES]²⁰. The CPA is a Type 2 CPA as defined in section B.3 of the PoA-DD.

Target Group

The project activity targets households and SMEs/institutions, who will receive an ethanol stove.

Technology

The technology to be installed will be ethanol stoves, an off-the-shelf technology that utilizes renewable ethanol fuel from biomass sources for household cooking. In Ethiopia, during the design phase of the PoA, stoves are available of the make “CleanCook” in one and two burner models; these and other makes and models may be eligible under the PoA. The specific makes and models planned to be implemented under this CPA are described in section A.5 of the specific CPA-DD. Ethanol stoves generally provide a significant fuel efficiency improvement as compared to conventional cooking stoves or fires. Historically the main supply of ethanol is from Ethiopia’s sugar industry; the ethanol to be utilized under this CPA is described in more detail in section A.5 of the specific CPA-DD.

Distribution Mechanism

CPAs will distribute the technologies under the CPA through direct retail sales or bulk sales to distributors, or a combination of both depending on which method is optimal to the CPA.

CPA Boundary

The CPA has a project boundary covering the physical, geographic site of the use of biomass or the renewable energy system.

The geographic boundary of the CPA is the country of Ethiopia.

CPAs will be differentiated by time with each CPA covering technologies distributed during a different time period. For example, a CPA will cover ethanol stoves sold between the start date of

¹⁹ Urban and peri-urban households may also benefit from the activity

²⁰ The exact number and dates are subject to change

the CPA until a specified end date. The next CPA cover technologies distributed after the end date of the first CPA. The time period covered by each CPA is 2 years.

Record Keeping System

The CPA will utilize an electronic monitoring system to record the end-users who have purchased or received ethanol stoves. The record keeping system to prove adherence to the management system detailed in Section C in the Part I, above.

CPAs under the PoA apply following methodology combinations:

- AMS-I.E. Version 6 Switch from non-renewable biomass for thermal applications by the user

The CPA Implementer, CME, and various local partners work together to disseminate a range of eligible technologies to households and institutions within the CPA boundary. Carbon credit revenue through the sale of CERs is crucial to the sustainability of the programme.

The CPA Implementer adheres to the CME management system and provides the CME with information required to include the project activity under the PoA, and perform monitoring and verification of the activity.

The CPA reduces GHGs by substituting the renewable fuel ethanol for the use of wood fuels, including NRB, for cooking. This substitution reduces mainly CO₂ emissions. In the existing scenario, end-users targeted by the CPA use wood fuels, including NRB, for cooking.

The CPA contributes to sustainable development by:

- reducing the use of fuelwood for cooking, thereby lowering fuelwood collection time and freeing households' productive time for other productive uses.
- reducing indoor air pollution, and its associated health impacts
- reducing hardship and generating welfare improvement of women and children who are largely engaged in fuelwood collection
- reducing pressure on Ethiopia's diminishing forest resources

SECTION B. Application of a baseline and monitoring methodology and standardized baseline

B.1. Reference of methodology(ies) and standardized baseline(s)

AMS-I.E. Version 6 Switch from non-renewable biomass for thermal applications by the user

Which references the following methodologies, tools, and guidelines:

- AMS-I.I Biogas/biomass thermal applications for households/small users Version 4
- Project emissions from the cultivation of biomass Version 1

B.2. Applicability of methodology(ies) and standardized baseline(s)

CPAs under AMS-I.E Version 6 are required to demonstrate the following:

1. The CPA comprises activities to displace the use of non-renewable biomass by introducing renewable energy technologies; and
2. Non-renewable biomass has been used since 31/12/1989.

The CPA satisfies both eligibility criteria as the biogas technology implemented under the CPA uses renewable energy that displaces non-renewable biomass, currently used by 85% of the population within the CPA boundary.²¹

Non-renewable biomass has been used within the CPA boundary since 31/12/1989 as evidenced by the decrease in forest area since 1990 in the Food and Agriculture Organization of the United Nations Global Forest Resources Assessment of Ethiopia.²²

B.3. Sources and GHGs

For ethanol stoves, the project boundary is the physical, geographical site of the use of biomass or the renewable energy; in other words, the locations of the ethanol stoves under the CPA.

All of the previous locations are within the geographical boundary of the proposed PoA, which is the borders of the Federal Democratic Republic of Ethiopia, as confirmed using criterion 2 in section B.5.

	Source	Gas	Included?	Justification / Explanation
Baseline	Fossil fuels used for meeting similar thermal energy needs for cooking	CO ₂	Yes	Carbon dioxide is the main GHG from combustion of fossil fuel
		CH ₄	No	Minor emission source; this is conservative
		N ₂ O	No	Minor emission source; this is conservative

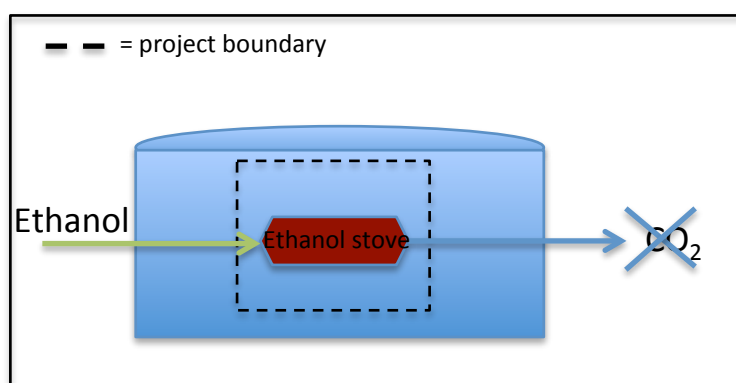


Figure 7. Flow diagram of the CPA.

B.4. Description of baseline scenario

According to AMS-I.E., for ethanol cooking stoves, it is assumed that in the absence of the project activity, the baseline scenario would be the use of fossil fuels for meeting similar thermal energy needs. The average annual wood consumption, B_y , is derived from [Relevant Study or Survey].

Baseline parameter	Description	Value	Source
$EF_{projected_fossilfuel}$	Emission factor for the substitution of non-renewable woody biomass by similar consumers	81.6 tCO ₂ /TJ	AMS-I.E. v 6.0

²¹ Central Statistical Agency. *Welfare Monitoring Survey 2011*. Page 79 Table 8.7(a)

²² FAO. *Global Forest Resources Assessment 2010 Country Report: Ethiopia*. Rome 2010.

η_{old}	Efficiency of the system being replaced (conventional stove)	10%	AMS-I.E. v 6.0
LE_y	Leakage related to the non-renewable woody biomass saved by the project activity	0.95	AMS-I.E. v 6.0
f_{NRB}	Fraction of non-renewable biomass in year y	0.88	Value endorsed by the DNA of Ethiopia and approved by the Board is available at http://cdm.unfccc.int/DNA/fNRB/index.html
$NCV_{Biomass}$	Net calorific value of the non-renewable woody biomass that is substituted	0.015 TJ/Ton	AMS-I.E. v 6.0

As the emission reductions are determined based on the default usage and emission factors listed above, suppressed demand is already reflected in the baseline emissions calculation and need not be considered further.

In the CPA boundary, there are neither national and/or sectoral policies or regulations that give comparative advantages to more emissions-intensive technologies or fuels, nor national and/or sectoral policies or regulations that give comparative advantages to less emissions-intensive technologies, implemented before the adoption of the Kyoto Protocol (December 1997) or since the adoption of the CDM M&P (November 2001).

B.5. Demonstration of eligibility for a generic CPA

Criteria Number	Criteria Name	Description	Criteria Evidence	Criteria Satisfied?
1	Technology	Each CPA covers improved energy access through ethanol stoves	Description of the technologies as required by the methodology is provided in section A.5 of the specific CPA-DD and may be supported by user manuals or technical specifications	(Yes/No) (Explanation)
2	Location	Each CPA will be located within the physical/geographical boundary of the PoA	The boundary of the CPA is stated in section A.3 of the specific CPA-DD and will be within the PoA boundary, in addition geographic reference showing the activity is within the physical/geographical boundary of the PoA provided in section A.7 of the specific CPA-DD	(Yes/No) (Explanation)
3	Additionality	Each CPA will satisfy the criteria for demonstrating additionality by satisfying the criteria of the positive list: <ul style="list-style-type: none"> Each CPA will have a size limit of 15 MW Each sub-system 	The CPA meets the criteria for additionality: <ul style="list-style-type: none"> The size limit of the specific CPA is below 15 MW as shown in section D.2 of the specific CPA and in an Excel Calculation 	(Yes/No) (Explanation)

		<p>under the CPA will be below 750kW of capacity</p> <ul style="list-style-type: none"> The target group of each will be households or institutions/SMEs 	<ul style="list-style-type: none"> Each sub-system under the CPA is below 750kW capacity as shown in section A.12 of the specific CPA-DD and in an Excel Calculation The target group of the CPA are households or SMEs/institutions as shown in section A.3 of the specific CPA-DD 	
4	Size Limit	Each CPA will be below the small-scale limit of 15 MW of capacity	The activity has a total capacity less than 15 MW as shown in the specific CPA-DD in section D.2 and in an Excel Calculation	(Yes/No) (Explanation)
5	De-Bundling	Each CPA will demonstrate that it is exempt from a de-bundling check as each sub-system is no more than 1 per cent of the small-scale threshold of 15 MW capacity	Each subsystem represents less than 1% of the project activity threshold as shown in section A.12 of the CPA and in an Excel Calculation	(Yes/No) (Explanation)
6	Double Counting	Each ethanol stove sold under the CPA will be uniquely identifiable, to avoid double counting through a unique serial number clearly visible on the stove and recorded in the customer database	Confirmation that ownership and contact information for recipients of ethanol stove will be collected is provided in section D.7.2 of the specific CPA and a picture of the unique serial number is provided	(Yes/No) (Explanation)
7	Start Date	Each CPA will prove that the start date of the CPA is on or after the start date of the PoA. The start date of the CPA is the date on which construction, implementation, or real action concerning the CPA	The start date of the activity as shown through a purchase order, service agreement, sales receipt, or other type of contract	(Yes/No) (Explanation)
8	Crediting Period	Each CPA will have a renewable crediting period	The type of crediting period is renewable shown in section A.9	(Yes/No) (Explanation)
9	Public Funding	Each CPA will confirm that it is not receiving funding dedicated as Official Development Assistance (ODA) through a two-stage process. The first stage is a statement by the CPA Implementer if it is receiving public funding. If the CPA is receiving public funding second statement is	A statement that the activity is not receiving public funding or the public funding is not ODA is shown in Appendix 2	(Yes/No) (Explanation)

		required from the funder affirming that the public funding is not ODA		
10	CME Approval	Each CPA will prove it has received the approval of the CME of the PoA	A letter showing the CME has approved the CPA	(Yes/No) (Explanation)
11	Methodology	Each CPA will apply the CDM baseline and monitoring methodology AMS-I.E Version 6 and adhere to all applicability conditions and other requirements of the methodology	Application of CDM methodology AMS-I.E Version 6 shown in section B.2 of the specific CPA	(Yes/No) (Explanation)
12	Target Group	Each CPA targets households or institutions/SMEs	Target groups are households or SMEs/institutions as shown in section A.3 of the specific CPA	(Yes/No) (Explanation)
13	Sampling	Each CPA will adhere to the sampling requirements stipulated by the CME in section C of the PoA-DD	Adherence to the sampling requirements of the PoA is shown in section D.7.2 of the specific CPA	(Yes/No) (Explanation)
14	Stakeholder Consultation and Environmental Analysis	The Local Stakeholder Consultation and Environmental Impact Analysis have been conducted at the PoA level. Each CPA will take into consideration the comments from the Stakeholder Consultation and abide by the environmental regulations of the host country	Consideration of the comments from Local Stakeholder Consultation, and a statement that the CPA will adhere to the environmental regulations of the host country as shown in sections B.1 and C.1	(Yes/No) (Explanation)
15	Distribution	Each CPA will use one or multiple of the following methods for distribution of appliances implemented under the CPA: 16. Direct sale/service to end-users 17. Bulk sales to distributors who sell on to the end user 18. Distribution to the end-user by an organization receiving the products/measures from the CME	Description of the distribution method is provided in section A.3 of the specific CPA	(Yes/No) (Explanation)

16	CER Ownership	Each CPA will assure ownership of the CERs is secured by the CME	A statement by the CPA Implementer that it has yielded the rights to any CERs to the CME and that the CPA Implementer will ensure any distributors, manufacturers, or service providers cede their rights to the resulting CERs as well	(Yes/No) (Explanation)
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Confirmation of additionality of the CPA

Since the CPA complies with criterion 3 above, its additionality is confirmed in line with the PoA requirements.

B.6. Estimation of emission reductions of a generic CPA

B.6.1. Explanation of methodological choices

In line with paragraph 11 of AMS-I.E,

$$ER_y = B_y * f_{NRB,y} * NCV_{biomass} * EF_{projected_fossilfuel} - PE_{BC,y}$$

Where

ER_y	Emission reductions during the year y in tCO ₂ e
B_y	Quantity of woody biomass that is substituted or displaced in tonnes
$f_{NRB,y}$	Fraction of woody biomass used in the absence of the project activity in year y
$NCV_{biomass}$	Net calorific value of the non-renewable woody biomass that is substituted
$EF_{projected_fossilfuel}$	Emission factor for the substitution of non-renewable woody biomass by similar consumers
$PE_{BC,y}$	Project emissions due to cultivation of biomass

B_y is determined following option a) of paragraph 12 under AMS-I.E Version 6, which states that B_y is calculated as the product of the number of appliances multiplied by the estimate of the average consumption of woody biomass per appliance (tonnes/year). This is derived from historical data or estimated using survey methods, as follows:

$$B_y = N_y * B_{y,household}$$

Where

N_y	Number of operational appliances in year y
$B_{y,household}$	Average annual consumption of woody biomass per household (tonnes/year)

In line with paragraph 14 of AMS-I.E Version 6, Project participants shall determine the shares of renewable and non-renewable woody biomass in B_y and then determine $f_{NRB,y}$. The approved default country specific fraction of non-renewable woody biomass (f_{NRB}) value available on the CDM website will be applied. The value endorsed by the DNA of Ethiopia and approved by the Board is available at <http://cdm.unfccc.int/DNA/fNRB/index.html>.

In line with paragraph 19 of AMS-I.E Version 6, Leakage related to the non-renewable woody biomass saved by the project activity shall be assessed based on *ex post* surveys of users and the areas from which this woody biomass is sourced. Alternatively, B_y is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required. In this

case, the latter will be applied and a net to gross adjustment factor of 0.95 to account for leakages is utilized.

In line with paragraph 20 of AMS-I.E Version 6, since equipment under the project is new, leakage will not be considered from the transfer of equipment from outside to inside the project boundary.

B.6.2. Data and parameters fixed ex-ante

Ex-Ante Parameters for Type 2 CPAs

Data / Parameter	$f_{NRB,y}$
Data Unit	Fraction
Description	Fraction of woody biomass used in the absence of the project activity in year y
Source of data	Value endorsed by the DNA of Ethiopia and approved by the Board is available at http://cdm.unfccc.int/DNA/fNRB/index.html
Value(s) applied	0.88
Choice of data or Measurement methods and procedures	Country-specific default value
Purpose of data	Calculation of baseline emissions
Additional comment	This value shall be updated if the value endorsed by the DNA of Ethiopia and approved by the Board is updated

Data / Parameter	$EF_{projected_fossilfuel}$
Unit	tCO ₂ /TJ
Description	Emission factor for the substitution of non-renewable woody biomass by similar consumers
Source of data	AMS-I.E. v 6.0
Value(s) applied	81.6
Choice of data or Measurement methods and procedures	Methodology default value
Purpose of data	Calculation of baseline emissions
Additional comment	

Data / Parameter	η_{old}
Unit	-
Description	Efficiency of the system being replaced (conventional stove)
Source of data	AMS-I.E. v 6.0
Value(s) applied	0.1
Choice of data or Measurement methods and procedures	Methodology default value
Purpose of data	Calculation of baseline emissions
Additional comment	

Data / Parameter	LE_y
Unit	-
Description	Leakage related to the non-renewable woody biomass saved by the project activity
Source of data	AMS-I.E. v 6.0
Value(s) applied	0.95
Choice of data or Measurement methods and procedures	Methodology default value
Purpose of data	Calculation of leakage
Additional comment	

Data / Parameter	$B_{y,household}$
Data Unit	Tonnes/year
Description	Average annual consumption of woody biomass per household
Source of data	Historical data or estimated through surveys
Value(s) applied	[Value]
Choice of data or Measurement methods and procedures	[Source of data and survey methods used]
Purpose of data	Calculation of baseline emissions
Additional comment	

Data / Parameter	$NCV_{biomass}$
Unit	TJ/Ton
Description	Net calorific value of the non-renewable woody biomass that is substituted
Source of data	AMS-I.E. v 6.0
Value(s) applied	0.015
Choice of data or Measurement methods and procedures	Methodology default value
Purpose of data	Calculation of baseline emissions
Additional comment	

B.6.3. Ex-ante calculations of emission reductions

The amount of woody biomass is calculated as:

$$\begin{aligned}
 B_y &= N_y * B_{y,household} \\
 &= [\text{VALUES}] \\
 &= [\text{VALUE}] \text{ t}
 \end{aligned}$$

And emission reductions are calculated as follows:

$$ER_y = B_y * L_y * f_{NR,y} * NCV_{biomass} * EF_{projected_fossilfuel}$$

= [VALUES]
 = [UNROUNDED VALUE] tCO₂
 = [VALUE ROUNDED FOR CONSERVATIVENESS] tCO₂

B.7. Application of the monitoring methodology and description of the monitoring plan

B.7.1. Data and parameters to be monitored by each generic CPA

For the proposed PoA, the submission of the monitoring plan delayed and submitted either at any time prior to the submission of request for issuance for the first monitoring period, or together with the request for issuance for the first monitoring period.

Therefore this section is intentionally blank.

Data / Parameter	
Data Unit	
Description	
Source of data	
Value(s) applied	
Measurement methods and procedures	
Monitoring frequency	
QA/QC procedures	
Purpose of data	
Additional comments	

B.7.2. Description of the monitoring plan for a generic CPA

For the proposed PoA, the submission of the monitoring plan delayed and submitted either at any time prior to the submission of request for issuance for the first monitoring period, or together with the request for issuance for the first monitoring period.

There is no additional background information available at this time.

PART IV. Generic component project activity (CPA)

SECTION A. General description of a generic CPA

A.1. Purpose and general description of generic CPAs

The CPA targets poor and vulnerable households mainly in urban and peri-urban areas²³, who rely primarily on kerosene fossil fuel for cooking, to provide improved energy access to such households, with associated benefits for respiratory health, while simultaneously reducing greenhouse gas emissions from reducing the exploitation of fossil fuel resources. This CPA includes the implementation of ethanol stoves for cooking, for households or other end-users in the [LOCATION] in Ethiopia. It is expected that this CPA will include approximately [QUANTITY]

²³ Rural households may also benefit from the activity

ethanol stoves to be installed in [LOCATION] between [DATES]²⁴. The CPA is a Type 3 CPA as defined in section B.3 of the PoA-DD.

The technology to be installed will be ethanol stoves, an off-the-shelf technology that utilizes renewable ethanol fuel from biomass sources for household cooking. In Ethiopia, during the design phase of the PoA, stoves are available of the make “CleanCook” in one and two burner models; these and other makes and models may be eligible under the PoA. The specific makes and models planned to be implemented under this CPA are described in section A.5 of the specific CPA-DD. Ethanol stoves generally provide a fuel efficiency improvement as compared to conventional kerosene cooking stoves. Historically the main supply of ethanol is from Ethiopia’s sugar industry; the ethanol to be utilized under this CPA is described in more detail in section A.5 of the specific CPA-DD.

Target Group

The project activity targets households and SMEs/institutions, who will receive an ethanol stove.

Technology

The technology to be installed will be ethanol stoves, an off-the-shelf technology that utilizes renewable ethanol fuel from biomass sources for household cooking. In Ethiopia, during the design phase of the PoA, stoves are available of the make “CleanCook” in one and two burner models; these and other makes and models may be eligible under the PoA. The specific makes and models planned to be implemented under this CPA are described in section A.5 of the specific CPA-DD. Ethanol stoves generally provide a fuel efficiency improvement as compared to conventional kerosene cooking stoves. Historically the main supply of ethanol is from Ethiopia’s sugar industry; the ethanol to be utilized under this CPA is described in more detail in section A.5 of the specific CPA-DD.

Distribution Mechanism

CPAs will distribute the technologies under the CPA through direct retail sales or bulk sales to distributors, or a combination of both depending on which method is optimal to the CPA.

CPA Boundary

The CPA has a project boundary covering the physical, geographic site of the equipment producing thermal energy during the crediting period.

The geographic boundary of the CPA is the country of Ethiopia.

CPAs will be differentiated by time with each CPA covering technologies distributed during a different time period. For example, a CPA will cover ethanol stoves sold between the start date of the CPA until a specified end date. The next CPA cover technologies distributed after the end date of the first CPA. The time period covered by each CPA is 2 years.

Record Keeping System

The CPA will utilize an electronic monitoring system to record the end-users who have purchased or received ethanol stoves. The record keeping system to prove adherence to the management system detailed in Section C in the Part I, above.

CPAs under the PoA apply following methodology combinations:

- AMS-I.I. Version 4 Biogas/biomass thermal applications for households/small users

The CPA Implementer, CME, and various local partners work together to disseminate a range of eligible technologies to households and institutions within the CPA boundary. Carbon credit revenue through the sale of CERs is crucial to the sustainability of the programme.

²⁴ The exact number and dates are subject to change

The CPA Implementer adheres to the CME management system and provides the CME with information required to include the project activity under the PoA, and perform monitoring and verification of the activity.

The CPA reduces GHGs by substituting the renewable fuel ethanol for the use of the fossil fuel kerosene for cooking. This substitution reduces mainly CO₂ emissions. In the existing scenario, end-users targeted by the CPA use kerosene fossil fuel for cooking.

The CPA contributes to sustainable development by:

- reducing indoor air pollution, and its associated health impacts
- financial savings for the households that switch from kerosene stoves, due to reduced fuel expenses

SECTION B. Application of a baseline and monitoring methodology and standardized baseline

B.1. Reference of methodology(ies) and standardized baseline(s)

AMS-I.I Version 4 Biogas/biomass thermal applications for households/small users

B.2. Applicability of methodology(ies) and standardized baseline(s)

CPAs under AMS-I.I Version 4 are required to demonstrate the following:

1. The CPA comprises activities to displace the use of fossil fuel using renewable thermal energy or biogas for use in residential, commercial, or institutional applications;
2. The total installed/rated thermal energy generation capacity of the project equipment is equal to or less than 45 MW thermal;
3. Each unit shall have a rated capacity equal to or less than 150 kW thermal; and
4. For the specific case of biomass residues processed as fuel it shall be demonstrated that, it is produced solely using renewable biomass.

B.3. Sources and GHGs

For ethanol stoves, the project boundary is the physical, geographical site of the equipment producing thermal energy during the crediting period; in other words, the locations of the ethanol stoves under the CPA.

All of the previous locations are within the geographical boundary of the proposed PoA, which is the borders of the Federal Democratic Republic of Ethiopia, as confirmed using criterion 2 in section B.5.

	Source	Gas	Included?	Justification / Explanation
Baseline	Fossil fuels used for meeting similar thermal energy needs for cooking	CO ₂	Yes	Carbon dioxide is the main GHG from combustion of fossil fuel
		CH ₄	No	Minor emission source; this is conservative
		N ₂ O	No	Minor emission source; this is conservative

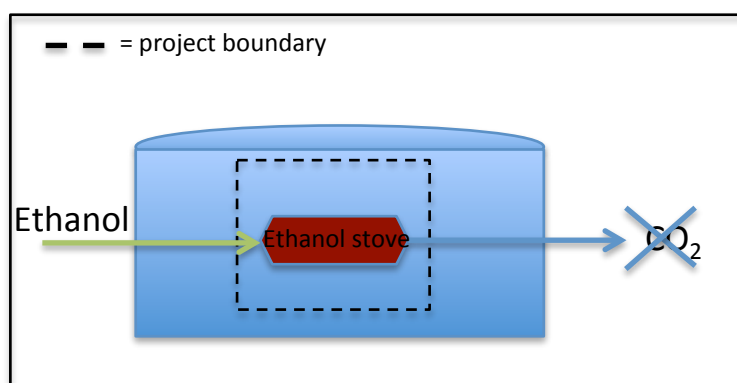


Figure 8. Flow Diagram of the CPA

B.4. Description of baseline scenario

According to AMS-I.I Version 4, for ethanol cooking stoves, the baseline is the fuel consumption of the thermal application that would have been used in the absence of the project activity times an emission factor for the fossil fuel displaced.

Baseline parameter	Description	Value	Source
$EF_{FF,j}$	CO ₂ emission factor of fuel type j used by the baseline thermal applications displaced by biomass/biogas	0.0719 tCO ₂ /GJ	Table 1.4, Vol. 2 (Energy), 2006 IPCC Guidelines
$\eta_{PJ/BL}$	Ratio of efficiencies of project equipment and baseline equipment measured once prior to validation applying the same test procedure (e.g. lab test), as per a national or an international standard.	1.01	Aprovecho Research Center ²⁵

As the emission reductions are determined based on the default usage and emission factors listed above, suppressed demand is already reflected in the baseline emissions calculation and need not be considered further.

In the CPA boundary, there are neither national and/or sectoral policies or regulations that give comparative advantages to more emissions-intensive technologies or fuels, nor national and/or sectoral policies or regulations that give comparative advantages to less emissions-intensive technologies, implemented before the adoption of the Kyoto Protocol (December 1997) or since the adoption of the CDM M&P (November 2001).

B.5. Demonstration of eligibility for a generic CPA

Criteria Number	Criteria Name	Description	Criteria Evidence	Criteria Satisfied?
1	Technology	Each CPA covers improved energy access through ethanol stoves	Description of the technologies as required by the methodology is provided in section A.5 of the specific CPA-DD and may be supported by user manuals	(Yes/No) (Explanation)

²⁵ Aprovecho Research Center. *Results of Testing of the CleanCook Stove for Fuel Use and Carbon Emissions*. Page 8. June 2009.

			or technical specifications	
2	Location	Each CPA will be located within the physical/geographical boundary of the PoA	The boundary of the CPA is stated in section A.3 of the specific CPA-DD and will be within the PoA boundary, in addition geographic reference showing the activity is within the physical/geographical boundary of the PoA provided in section A.7 of the specific CPA-DD	(Yes/No) (Explanation)
3	Additionality	Each CPA will satisfy the criteria for demonstrating additionality by satisfying the criteria of the positive list: <ul style="list-style-type: none"> • Each CPA will have a size limit of 15 MW • Each sub-system under the CPA will be below 750kW of capacity • The target group of each will be households or SMEs 	The CPA meets the criteria for additionality: <ul style="list-style-type: none"> • The size limit of the specific CPA is below 15 MW as shown in section D.2 of the specific CPA and in an Excel Calculation • Each sub-system under the CPA is below 750kW capacity as shown in section A.12 and in an Excel Calculation • The target group of the CPA are households or SMEs/institutions as shown in section A.3 of the specific CPA-DD 	(Yes/No) (Explanation)
4	Size Limit	Each CPA will be below the small-scale limit of 15 MW of capacity	The activity has a total capacity less than 15 MW as shown in the specific CPA-DD in section D.2 and in an Excel Calculation	(Yes/No) (Explanation)
5	De-Bundling	Each CPA will demonstrate that it is exempt from a de-bundling check as each sub-system is no more than 1 per cent of the small-scale threshold of 15 MW capacity	Each subsystem represents less than 1% of the project activity threshold as shown in section A.12 of the CPA and in an Excel Calculation	(Yes/No) (Explanation)
6	Double Counting	Each ethanol stove sold under the CPA will be uniquely identifiable, to avoid double counting through a unique serial number clearly visible on the stove and recorded in the customer database	Confirmation that ownership and contact information for recipients of ethanol stove will be collected is provided in section D.7.2 of the specific CPA and a picture of the unique serial number is provided	(Yes/No) (Explanation)
7	Start Date	Each CPA will prove that the start date of the CPA is on or after the start date of	The start date of the activity as shown through a purchase order, service	(Yes/No) (Explanation)

		the PoA. The start date of the CPA is the date on which construction, implementation, or real action concerning the CPA	agreement, sales receipt, or other type of contract	
8	Crediting Period	Each CPA will have a renewable crediting period	The type of crediting period is renewable shown in section A.9	(Yes/No) (Explanation)
9	Public Funding	Each CPA will confirm that it is not receiving funding dedicated as Official Development Assistance (ODA) through a two-stage process. The first stage is a statement by the CPA Implementer if it is receiving public funding. If the CPA is receiving public funding second statement is required from the funder affirming that the public funding is not ODA	A statement that the activity is not receiving public funding or the public funding is not ODA is shown in Appendix 2	(Yes/No) (Explanation)
10	CME Approval	Each CPA will prove it has received the approval of the CME of the PoA	A letter showing the CME has approved the CPA	(Yes/No) (Explanation)
11	Methodology	Each CPA will apply the CDM baseline and monitoring methodology AMS-I.I Version 4, and adhere to all applicability conditions and other requirements of the methodology	Application of CDM methodology AMS-I.I Version 4 shown in section B.2 of the specific CPA	(Yes/No) (Explanation)
12	Target Group	Each CPA targets households or institutions/SMEs	Target groups are households or SMEs/institutions as shown in section A.3 of the specific CPA	(Yes/No) (Explanation)
13	Sampling	Each CPA will adhere to the sampling requirements stipulated by the CME in section C of the PoA-DD	Adherence to the sampling requirements of the PoA is shown in section D.7.2	(Yes/No) (Explanation)
14	Stakeholder Consultation and Environmental Analysis	The Local Stakeholder Consultation and Environmental Impact Analysis have been conducted at the PoA level. Each CPA will take into consideration the comments from the Stakeholder Consultation and abide by the environmental regulations of the host country	Consideration of the comments from Local Stakeholder Consultation, and a statement that the CPA will adhere to the environmental regulations of the host country as shown in sections B.1 and C.1	(Yes/No) (Explanation)
15	Distribution	Each CPA will use one or multiple of the following methods for distribution of	Description of the distribution method is provided in section A.3 of	(Yes/No) (Explanation)

		appliances implemented under the CPA: 19. Direct sale/service to end-users 20. Bulk sales to distributors who sell on to the end user 21. Distribution to the end-user by an organization receiving the products/measures from the CME	the specific CPA	
16	CER Ownership	Each CPA will assure ownership of the CERs is secured by the CME	A statement by the CPA Implementer that it has yielded the rights to any CERs to the CME and that the CPA Implementer will ensure any distributors, manufacturers, or service providers cede their rights to the resulting CERs as well	(Yes/No) (Explanation)

Confirmation of additionality of the CPA

Since the CPA complies with criterion 3 above, its additionality is confirmed in line with the PoA requirements.

B.6. Estimation of emission reductions of a generic CPA

B.6.1. Explanation of methodological choices

In line with paragraph 13 of AMS-I.I, the emission reduction is calculated based on the thermal energy generated using the measured quantity of biomass fuel, as follows:

$$ER_y = \sum_k N_{k,0} * n_{k,y} * BS_{k,y} * EF * \eta_{PJ/BL} * NCV_{\text{biomass}} - LE_y$$

Where

ER_y	Emission reductions during the year y in tCO ₂ e
$N_{k,0}$	Number of thermal applications k commissioned
$n_{k,y}$	Proportion of $N_{k,0}$ that remain operating in year y , fraction
$BS_{k,y}$	The net quantity of renewable biomass fuel (ethanol) consumed by the thermal application k in year y (mass or volume units, dry basis)
EF	CO ₂ emission factor of the fuel type used by the baseline thermal applications displaced by biomass (tCO ₂ /GJ)
$\eta_{PJ/BL}$	Ratio of efficiencies of project equipment and baseline equipment measured once prior to validation applying the same test procedure (e.g. lab test), as per a national or an international standard
NCV_{biomass}	Net calorific value of the biomass fuel (ethanol) (GJ/unit mass or volume, dry basis)
LE_y	Leakage during the year y (tCO ₂)

Also,

$$EF = \sum_j x_j * EF_{FF,j}$$

Where

x_j Fraction representing fuel type j used by the baseline thermal applications displaced by biomass fuel

$EF_{FF,j}$ CO₂ emission factor of the fuel type j (tCO₂/GJ)

In line with paragraph 14, $BS_{k,y}$ is monitored as per the requirements stipulated in Table 1.

In line with paragraph 15, since equipment under the project is new, leakage will not be considered from the transfer of equipment from outside to inside the project boundary.

In line with paragraph 4(b) in the applicability conditions, according to the “General guidance on leakage in biomass project activities” (attachment C to appendix B of 4/CMP.1 Annex II), for biomass residues, emissions sources from *competing use of biomass* must be assessed by testing if a surplus of the biomass in the region of the project activity, which is not utilised. Demonstrate (e.g., using published literature, official reports, surveys etc.) at the beginning of each crediting period that the quantity of available biomass in the region (e.g., 50 km radius), is at least 25% larger than the quantity of biomass that is utilised including the project activity. If yes, then this source of leakage can be neglected; otherwise this leakage shall be estimated and deducted from the emission reductions (LE_y).

B.6.2. Data and parameters fixed ex-ante

Ex-Ante Parameters for CPA Type 3

Data / Parameter	$\eta_{PJ/BL}$
Data Unit	-
Description	Ratio of efficiencies of project equipment and baseline equipment measured once prior to validation applying the same test procedure (e.g. lab test), as per a national or an international standard
Source of data	Published results of study or test results
Value(s) applied	1.00
Choice of data or Measurement methods and procedures	[Source of data and survey methods used]
Purpose of data	Calculation of baseline emissions
Additional comment	

Data / Parameter	x_j
Data Unit	Fraction
Description	Fraction representing fuel type j used by the baseline thermal applications displaced by biomass fuel, where j = kerosene
Source of data	CPA Implementer
Value(s) applied	1.00
Choice of data or Measurement methods and procedures	The CPA targets exclusively users who in the existing scenario and baseline would use a kerosene stove, as demonstrated by criterion 6 of section B.5
Purpose of data	Calculation of baseline emissions
Additional comment	

Data / Parameter	$EF_{FF,j}$
Data Unit	tCO ₂ /GJ
Description	CO ₂ emission factor of fuel type j used by the baseline thermal applications displaced by biomass/biogas
Source of data	Table 1.4, Vol. 2 (Energy), 2006 IPCC Guidelines
Value(s) applied	0.0719
Choice of data or Measurement methods and procedures	In the absence of national values, IPCC default value is applied
Purpose of data	Calculation of baseline emissions
Additional comment	

B.6.3. Ex-ante calculations of emission reductions

The emission factor for the baseline fuel is calculated as:

$$\begin{aligned}
 EF &= \sum_j x_j * EF_{FF,j} \\
 &= [\text{VALUES}] \\
 &= [\text{VALUE}] \text{ tCO}_2/\text{GJ}
 \end{aligned}$$

And emission reductions are calculated as follows:

$$\begin{aligned}
 ER_y &= \sum_k N_{k,0} * n_{k,y} * BS_{k,y} * EF * \eta_{PJ/BL} * NCV_{\text{biomass}} - LE_y \\
 &= [\text{VALUES}] \\
 &= [\text{UNROUNDED VALUE}] \text{ tCO}_2 \\
 &= [\text{VALUE ROUNDED FOR CONSERVATIVENESS}] \text{ tCO}_2
 \end{aligned}$$

B.7. Application of the monitoring methodology and description of the monitoring plan

B.7.1. Data and parameters to be monitored by each generic CPA

For the proposed PoA, the submission of the monitoring plan delayed and submitted either at any time prior to the submission of request for issuance for the first monitoring period, or together with the request for issuance for the first monitoring period.

Therefore this section is intentionally blank.

Data / Parameter	
Data Unit	
Description	
Source of data	
Value(s) applied	
Measurement methods and procedures	
Monitoring frequency	
QA/QC procedures	
Purpose of data	
Additional comments	

B.7.2. Description of the monitoring plan for a generic CPA

For the proposed PoA, the submission of the monitoring plan delayed and submitted either at any time prior to the submission of request for issuance for the first monitoring period, or together with the request for issuance for the first monitoring period.

There is no additional background information available at this time.

PART V. Generic component project activity (CPA)

SECTION A. General description of a generic CPA

A.1. Purpose and general description of generic CPAs

The CPA targets poor and vulnerable households mainly in rural areas²⁶, who rely primarily on wood fuels for cooking, to provide improved energy access to such households, with associated benefits for respiratory health and use of productive time, while simultaneously reducing greenhouse gas emissions from avoiding the exploitation of non-renewable biomass (NRB) resources. This CPA includes the implementation of improved cookstoves for cooking, for households or other end-users in the [LOCATION] in Ethiopia. It is expected that this CPA will include approximately [QUANTITY] ethanol stoves to be installed in [LOCATION] between [DATES]²⁷. The CPA is a Type 4 CPA as defined in section B.3 of the PoA-DD.

The technology to be installed will be improved cookstoves, an off-the-shelf technology that reduces the non-renewable biomass required for household cooking through efficiency improvements. The specific makes and models planned to be implemented under this CPA are described in section A.5 of the specific CPA-DD. Improved cookstoves provide a significant increase in thermal efficiency as compared to conventional cooking stoves or fires.

Target Group

The project activity targets households and SMEs/institutions, who will receive an efficient cookstove.

Technology

²⁶ Urban and peri-urban households may also benefit from the activity

²⁷ The exact number and dates are subject to change

The technology to be installed will be improved cookstoves, an off-the-shelf technology that reduces the non-renewable biomass required for household cooking through efficiency improvements. The specific makes and models planned to be implemented under this CPA are described in section A.5 of the specific CPA-DD. Improved cookstoves provide a significant increase in thermal efficiency as compared to conventional cooking stoves or fires.

Distribution Mechanism

CPAs will distribute the technologies under the CPA through direct retail sales or bulk sales to distributors, or a combination of both depending on which method is optimal to the CPA.

CPA Boundary

The CPA has a project boundary covering the physical, geographic site of the efficient devices that burn biomass.

The geographic boundary of the CPA is the country of Ethiopia.

CPAs will be differentiated by time with each CPA covering technologies distributed during a different time period. For example, a CPA will cover improved stoves sold between the start date of the CPA until a specified end date. The next CPA cover technologies distributed after the end date of the first CPA. The time period covered by each CPA is 2 years.

Record Keeping System

The CPA will utilize an electronic monitoring system to record the end-users who have purchased or received improved stoves. The record keeping system to prove adherence to the management system detailed in Section C in the Part I, above.

CPAs under the PoA apply following methodology combinations:

- AMS-II.G. Version 6 Energy efficiency measures in thermal applications of non-renewable biomass

The CPA Implementer, CME, and various local partners work together to disseminate a range of eligible technologies to households and institutions within the CPA boundary. Carbon credit revenue through the sale of CERs is crucial to the sustainability of the programme.

The CPA Implementer adheres to the CME management system and provides the CME with information required to include the project activity under the PoA, and perform monitoring and verification of the activity.

The CPA reduces GHGs by improving the efficiency in the use of wood fuels, including NRB, for cooking. This improvement reduces mainly CO₂ emissions. In the existing scenario, end-users targeted by the CPA use wood fuels, and unimproved cookstoves for cooking.

The CPA contributes to sustainable development by:

- reducing the use of fuelwood for cooking, thereby lowering fuelwood collection time and freeing households' productive time for other productive uses.
- reducing indoor air pollution, and its associated health impacts
- reducing hardship and generating welfare improvement of women and children who are largely engaged in fuelwood collection
- reducing pressure on Ethiopia's diminishing forest resources

SECTION B. Application of a baseline and monitoring methodology and standardized baseline

B.1. Reference of methodology(ies) and standardized baseline(s)

AMS-II.G. Version 6 Energy efficiency measures in thermal applications of non-renewable biomass

B.2. Applicability of methodology(ies) and standardized baseline(s)

CPAs under AMS-II.G Version 6 are required to demonstrate the following:

1. The CPA comprises efficiency improvements in thermal applications of non-renewable biomass; and
2. Non-renewable biomass has been used since 31/12/1989.

The CPA satisfies both eligibility criteria as the cookstove technology implemented under the CPA is an efficiency improvement in thermal applications of non-renewable biomass, currently used by 85% of the population within the CPA boundary.²⁸

Non-renewable biomass has been used within the CPA boundary since 31/12/1989 as evidenced by the decrease in forest area since 1990 in the Food and Agriculture Organization of the United Nations Global Forest Resources Assessment of Ethiopia.²⁹

B.3. Sources and GHGs

For improved cookstoves, the project boundary is the physical, geographical site of the use of biomass; in other words, the locations of the improved stoves under the CPA.

All of the previous locations are within the geographical boundary of the proposed PoA, which is the borders of the Federal Democratic Republic of Ethiopia, as confirmed using criterion 2 in section B.5.

	Source	Gas	Included?	Justification / Explanation
Baseline	Fossil fuels used for meeting similar thermal energy needs for cooking	CO ₂	Yes	Carbon dioxide is the main GHG from combustion of fossil fuel
		CH ₄	No	Minor emission source; this is conservative
		N ₂ O	No	Minor emission source; this is conservative

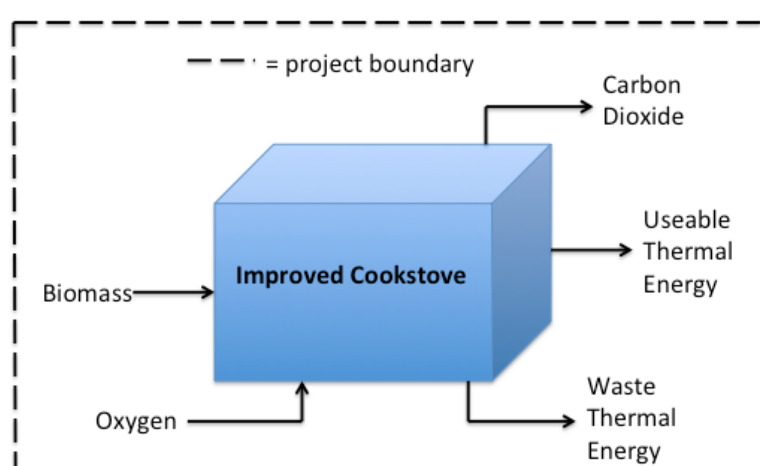


Figure 8. Flow diagram of the CPA.

²⁸ Central Statistical Agency. *Welfare Monitoring Survey 2011*. Page 79 Table 8.7(a)

²⁹ FAO. *Global Forest Resources Assessment 2010 Country Report: Ethiopia*. Rome 2010.

B.4. Description of baseline scenario

According to AMS-II.G., for improved cookstoves, it is assumed that in the absence of the project activity, the baseline scenario would be the projected use of fossil fuels to meet similar thermal energy needs as those provided by the project devices. The annual quantity of woody biomass that would be used in absence of the project activity, $B_{old,i}$, is derived from historical data or a sample survey of local usage.

Baseline parameter	Description	Value	Source
$EF_{projected_fossilfuel}$	Emission factor for the substitution of non-renewable woody biomass by similar consumers	81.6 tCO ₂ /TJ	AMS-II.G. v 6.0
η_{old}	Efficiency of the system being replaced (conventional stove)	10%	AMS-II.G. v 6.0
$NCV_{biomass}$	Net calorific value of the non-renewable woody biomass that is substituted	0.015 TJ/ton	AMS-II.G. v 6.0
L_y	Net to gross adjustment factor for leakages	0.95	AMS-II.G. v 6.0
f_{NRB}	Non-renewable biomass factor	0.88	Value endorsed by the DNA of Ethiopia and approved by the Board is available at http://cdm.unfccc.int/DNA/fNRB/index.html

As the emission reductions are determined based on the default usage and emission factors listed above, suppressed demand is already reflected in the baseline emissions calculation and need not be considered further.

In the CPA boundary, there are neither national and/or sectoral policies or regulations that give comparative advantages to more emissions-intensive technologies or fuels, nor national and/or sectoral policies or regulations that give comparative advantages to less emissions-intensive technologies, implemented before the adoption of the Kyoto Protocol (December 1997) or since the adoption of the CDM M&P (November 2001).

B.5. Demonstration of eligibility for a generic CPA

Criteria Number	Criteria Name	Description	Criteria Evidence	Criteria Satisfied?
1	Technology	Each CPA covers improved energy access through improved cookstoves	Description of the technologies as required by the methodology is provided in section A.5 of the specific CPA-DD and may be	(Yes/No) (Explanation)

			supported by user manuals or technical specifications	
2	Location	Each CPA will be located within the physical/geographical boundary of the PoA	The boundary of the CPA is stated in section A.3 of the specific CPA-DD and will be within the PoA boundary, in addition geographic reference showing the activity is within the physical/geographical boundary of the PoA provided in section A.7 of the specific CPA-DD	(Yes/No) (Explanation)
3	Additionality	Each CPA will satisfy the criteria for demonstrating additionality by satisfying the criteria of the positive list: <ul style="list-style-type: none"> • Each CPA will have a size limit of 180 GWh of thermal energy saved per annum • Each sub-system under the CPA will be below 9 GWh thermal energy saved per annum • The target group of each will be households or SMEs 	The CPA meets the criteria for additionality: <ul style="list-style-type: none"> • The size limit of the specific CPA is below 60 GWh thermal energy saved per annum as shown in section D.2 of the specific CPA and in an Excel Calculation • Each sub-system under the CPA is below 9 GWh thermal energy saved per annum as shown in section A.12 of the specific CPA-DD and in an Excel Calculation • The target group of the CPA are households or SMEs/institutions as shown in section A.3 of the specific CPA-DD 	(Yes/No) (Explanation)
4	Size Limit	Each CPA will be below the small-scale limit of 180 GWh of thermal energy saved per annum	The activity has a total capacity less than 180 GWh of thermal energy saved as shown in the specific CPA-DD in section D.2 and in an Excel Calculation	(Yes/No) (Explanation)
5	De-Bundling	Each CPA will demonstrate that it is exempt from a de-bundling check as each sub-system is no more than 1 per cent of the small-scale threshold of 180 GWh thermal energy saved per annum	Each subsystem represents less than 1% of the project activity threshold as shown in section A.12 of the CPA and in an Excel Calculation	(Yes/No) (Explanation)
6	Double Counting	Each improved cookstove sold under the CPA will be uniquely identifiable, to	Confirmation that ownership and contact information for recipients of cookstoves will	(Yes/No) (Explanation)

		avoid double counting through a unique serial number clearly visible on the stove and recorded in the customer database	be collected is provided in section D.7.2 of the specific CPA and a picture of the unique serial number	
7	Start Date	Each CPA will prove that the start date of the CPA is on or after the start date of the PoA. The start date of the CPA is the date on which construction, implementation, or real action concerning the CPA	The start date of the activity as shown through a purchase order, service agreement, sales receipt, or other type of contract	(Yes/No) (Explanation)
8	Crediting Period	Each CPA will have a renewable crediting period	The type of crediting period is renewable shown in section A.9	(Yes/No) (Explanation)
9	Public Funding	Each CPA will confirm that it is not receiving funding dedicated as Official Development Assistance (ODA) through a two-stage process. The first stage is a statement by the CPA Implementer if it is receiving public funding. If the CPA is receiving public funding second statement is required from the funder affirming that the public funding is not ODA	A statement that the activity is not receiving public funding or the public funding is not ODA is shown in Appendix 2	(Yes/No) (Explanation)
10	CME Approval	Each CPA will prove it has received the approval of the CME of the PoA	A letter showing the CME has approved the CPA	(Yes/No) (Explanation)
11	Methodology	Each CPA will apply the CDM baseline and monitoring methodology AMS-II.G Version 6 and adhere to all applicability conditions and other requirements of the methodology.	Application of CDM methodology AMS-II.G Version 6 shown in section B.2 of the specific CPA	(Yes/No) (Explanation)
12	Target Group	Each CPA targets households or institutions/SMEs	Target groups are households or SMEs/institutions as shown in section A.3 of the specific CPA	(Yes/No) (Explanation)
13	Sampling	Each CPA will adhere to the sampling requirements stipulated by the CME in section C of the PoA-DD	Adherence to the sampling requirements of the PoA is shown in section D.7.2	(Yes/No) (Explanation)
14	Stakeholder Consultation and Environmental Analysis	The Local Stakeholder Consultation and Environmental Impact Analysis have been conducted at the PoA level. Each CPA will take into consideration the comments	Consideration of the comments from Local Stakeholder Consultation, and a statement that the CPA will adhere to the environmental regulations of the host country as	(Yes/No) (Explanation)

		from the Stakeholder Consultation and abide by the environmental regulations of the host country	shown in sections B.1 and C.1	
15	Distribution	Each CPA will use one or multiple of the following methods for distribution of appliances implemented under the CPA: 22. Direct sale/service to end-users 23. Bulk sales to distributors who sell on to the end user 24. Distribution to the end-user by an organization receiving the products/measures from the CME	Description of the distribution method is provided in section A.3 of the specific CPA	(Yes/No) (Explanation)
16	CER Ownership	Each CPA will assure ownership of the CERs is secured by the CME	A statement by the CPA Implementer that it has yielded the rights to any CERs to the CME and that the CPA Implementer will ensure any distributors, manufacturers, or service providers cede their rights to the resulting CERs as well	(Yes/No) (Explanation)

Confirmation of additionality of the CPA

Since the CPA complies with criterion 3 above, its additionality is confirmed in line with the PoA requirements.

B.6. Estimation of emission reductions of a generic CPA

B.6.1. Explanation of methodological choices

In line with paragraph 13 of AMS-II.G,

$$ER_y = \sum_i ER_{y,i}$$

Where

i Indices for the situation where more than one type of project device is introduced to replace the pre-project devices

ER_y Emission reduction during year y in t CO₂e

$ER_{y,i}$ Emission reductions by project device of type i during year y in tCO₂e

Following paragraph 13 of AMS-Il.G, $ER_{y,i}$ is defined differently for household cookstoves, or ovens and dryers. The CPA applies the definition of $ER_{y,i}$ as it applies to household cookstoves, with:

$$ER_{y,i} = \sum_{a=1}^{a=y} B_{y,savings,i,a} \times N_{y,i,a} \times \frac{\mu_{y,i}}{365} \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossilfuel} - LE_y$$

The quantity of woody biomass that is saved in tonnes during the monitoring period is determined either as per paragraph 15 or 17 of the methodology:

Option 1

$$B_{y,savings,i,a} = B_{old,i} - B_{a=1,i,KPT} \times \Delta B_{y,i,a}$$

Where

$B_{old,i}$ Annual quantity of woody biomass that would be used in the absence of the project activity to generate thermal energy equivalent to that provided by the project device type i , if the project device operated throughout the year y . Value in tonnes per year per device of type i , determined as per paragraph 19 of the methodology.

$B_{a=1,i,KPT}$ Annual quantity of woody biomass used in tonnes per device of type i , measured as per the KPT protocol, for the initial efficiency determined in the year of its installation ($a=1$). The KPT shall be carried out in accordance with national standards (if applicable) or international standards or guidelines (e.g. the KPT procedures specified by the partnership for clean indoor air (PCIA)).

$\Delta B_{y,i,a}$ Factor to consider the efficiency loss of the project device type i due to its aging at the year y .

With

$$\Delta B_{y,i,a} = \frac{B_{a,i,KPT}}{B_{a=1,i,KPT}}$$

Where $B_{a,i,KPT}$ is the biomass consumption of the device i with age a determined using the KPT (in tonnes per year per device) and $B_{a=1,i,KPT}$ is the biomass consumption for the device at its first year of operation. $\Delta B_{y,i,a}$ may be determined through sample surveys of project device type i for batches of stoves with the same age at each year of the crediting period. Alternatively, the monitoring may determine annually the biomass consumption of the devices installed at the first year of the crediting period, through the directing period and the efficiency loss of this population may be used to correct the initial efficiency of the population of stoves later on.

Option 2

$$B_{y,savings,i,a} = B_{old,i} \times \left(1 - \frac{\eta_{old}}{\eta_{new,i,a=1} \times \Delta \eta_{y,i,a}}\right)$$

Where

η_{old} Efficiency of the pre-project device (fraction)

$\eta_{new,i,a=1}$ Thermal efficiency of the device of type i being deployed as part of the project activity (fraction), using the WBT protocol carried out in accordance with national standards or international standards or guidelines for the initial efficiency determined in the year of its installation ($a=1$)

$\Delta \eta_{y,i,a}$ Factor to consider the efficiency loss of the project device type i due to its aging at the year y

$B_{old,i}$ Annual quantity of woody biomass that would be used in the absence of the project

activity to generate thermal energy equivalent to that provided by the project device type i , if the project device operated throughout the year y . Value in tonnes per year per device of type i , determined as per paragraph 19 of the methodology.

Following option a) of paragraph 19 under AMS-II.G Version 6, which states that $B_{old,i}$ is estimated as the average annual consumption of woody biomass per device (tonnes/year). This may be derived from historical data or a sample survey of local usage. Alternatively option c) under paragraph 19 may be followed and a default value of 0.5 tonnes of woody biomass per capita per year may be used.

In line with paragraph 27 of AMS-II.G Version 6, Project participants shall determine the shares of renewable and non-renewable woody biomass in $B_{old,i}$ and then determine $f_{NRB,y}$. The approved default country specific fraction of non-renewable woody biomass (f_{NRB}) value available on the CDM website will be applied. The value endorsed by the DNA of Ethiopia and approved by the Board is available at <http://cdm.unfccc.int/DNA/fNRB/index.html>.

In line with paragraph 30 of AMS-II.G Version 6, Leakage related to the non-renewable woody biomass saved by the project activity shall be assessed based on *ex post* surveys of users and the areas from which this woody biomass is sourced. Alternatively, $B_{old,i}$ is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required. In this case, the latter will be applied and a net to gross adjustment factor of 0.95 to account for leakages is utilized.

In line with paragraph 31 of AMS-II.G Version 6, since equipment under the project is new, leakage will not be considered from the transfer of equipment from outside to inside the project boundary.

B.6.2. Data and parameters fixed ex-ante

Ex-Ante Parameters for Type 4 CPAs

Data / Parameter	$B_{old,i}$
Data Unit	Tonnes/year/device
Description	Annual consumption of woody biomass per device i in the baseline scenario
Source of data	Historical data or estimated through surveys
Value(s) applied	[Value]
Choice of data or Measurement methods and procedures	[Source of data and survey methods used]
Purpose of data	Calculation of baseline emissions
Additional comment	

Data / Parameter	$EF_{projected_fossilfuel}$
Unit	tCO ₂ /TJ
Description	Emission factor for the substitution of non-renewable woody biomass by similar consumers
Source of data	AMS-II.G. v 6.0
Value(s) applied	81.6

Choice of data or Measurement methods and procedures	Methodology default value
Purpose of data	Calculation of baseline emissions
Additional comment	

Data / Parameter	η_{old}
Unit	-
Description	Efficiency of the system being replaced (conventional stove)
Source of data	AMS-II.G. v 6.0
Value(s) applied	0.1
Choice of data or Measurement methods and procedures	Methodology default value
Purpose of data	Calculation of baseline emissions
Additional comment	

Data / Parameter	LE_y
Unit	-
Description	Leakage related to the non-renewable woody biomass saved by the project activity
Source of data	AMS-II.G. v 6.0
Value(s) applied	0.95
Choice of data or Measurement methods and procedures	Methodology default value
Purpose of data	Calculation of leakage
Additional comment	

Data / Parameter	f_{NRB}
Unit	-
Description	Fraction of non-renewable biomass in year y
Source of data	CDM Executive Board
Value(s) applied	0.88
Choice of data or Measurement methods and procedures	Value endorsed by the DNA of Ethiopia and approved by the Board is available at http://cdm.unfccc.int/DNA/fNRB/index.html
Purpose of data	Calculation of leakage
Additional comment	

Data / Parameter	$NCV_{biomass}$
Unit	TJ/ton
Description	Net calorific value of the non-renewable woody biomass that is substituted
Source of data	AMS-II.G. v 6.0
Value(s) applied	0.015

Choice of data or Measurement methods and procedures	Methodology Default Value
Purpose of data	Calculation of baseline emissions
Additional comment	

B.6.3. Ex-ante calculations of emission reductions

The amount of woody biomass saved per annum is calculated either based on Kitchen Performance Tests (Option 1) or based on Water Boiling Tests (Option 2):

Option 1

$$B_{y,savings,i,a} = B_{old,i} - B_{a=1,i,KPT} \times \Delta B_{y,i,a}$$

Where

$B_{old,i}$ Annual quantity of woody biomass that would be used in the absence of the project activity to generate thermal energy equivalent to that provided by the project device type i , if the project device operated throughout the year y . Value in tonnes per year per device of type i , determined as per paragraph 19 of the methodology.

$B_{a=1,i,KPT}$ Annual quantity of woody biomass used in tonnes per device of type i , measured as per the KPT protocol, for the initial efficiency determined in the year of its installation ($a=1$). The KPT shall be carried out in accordance with national standards (if applicable) or international standards or guidelines (e.g. the KPT procedures specified by the partnership for clean indoor air (PCIA)).

$\Delta B_{y,i,a}$ Factor to consider the efficiency loss of the project device type i due to its aging at the year y .

With

$$\Delta B_{y,i,a} = \frac{B_{a,i,KPT}}{B_{a=1,i,KPT}}$$

Where $B_{a,i,KPT}$ is the biomass consumption of the device i with age a determined using the KPT (in tonnes per year per device) and $B_{a=1,i,KPT}$ is the biomass consumption for the device at its first year of operation. $\Delta B_{y,i,a}$ may be determined through sample surveys of project device type i for batches of stoves with the same age at each year of the crediting period. Alternatively, the monitoring may determine annually the biomass consumption of the devices installed at the first year of the crediting period, through the directing period and the efficiency loss of this population may be used to correct the initial efficiency of the population of stoves later on.

Option 2

$$B_{y,savings,i,a} = B_{old,i} \times \left(1 - \frac{\eta_{old}}{\eta_{new,i,a=1} \times \Delta \eta_{y,i,a}}\right)$$

Where

η_{old} Efficiency of the pre-project device (fraction)

$\eta_{new,i,a=1}$ Thermal efficiency of the device of type i being deployed as part of the project activity (fraction), using the WBT protocol carried out in accordance with national standards or international standards or guidelines for the initial efficiency determined in the year of its installation ($a=1$)

$\Delta n_{y,i,a}$	Factor to consider the efficiency loss of the project device type i due to its aging at the year y
$B_{old,i}$	Annual quantity of woody biomass that would be used in the absence of the project activity to generate thermal energy equivalent to that provided by the project device type i , if the project device operated throughout the year y . Value in tonnes per year per device of type i , determined as per paragraph 19 of the methodology.

The parameter $B_{old,i}$ is determined either as an estimate of the annual consumption of woody biomass per device (tonnes/year), as derived from historical data or a sample survey of local usage. Alternatively, a default value of 0.5 tonnes of woody biomass per capita per year may be used.

For both Option 1 and Option 2, the final emission reductions are calculated as follows:

$$ER_{y,i} = \sum_{a=1}^{a=y} B_{y,savings,i,a} \times N_{y,i,a} \times \frac{\mu_{y,i}}{365} \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossilfuel} - LE_y$$

$$ER_y = \sum_i ER_{y,i}$$

= [VALUES]

= [UNROUNDED VALUE] tCO₂

= [VALUE ROUNDED FOR CONSERVATIVENESS] tCO₂

B.7. Application of the monitoring methodology and description of the monitoring plan

B.7.1. Data and parameters to be monitored by each generic CPA

For the proposed PoA, the submission of the monitoring plan delayed and submitted either at any time prior to the submission of request for issuance for the first monitoring period, or together with the request for issuance for the first monitoring period.

Therefore this section is intentionally blank.

Data / Parameter	
Data Unit	
Description	
Source of data	
Value(s) applied	
Measurement methods and procedures	
Monitoring frequency	
QA/QC procedures	
Purpose of data	
Additional comments	

B.7.2. Description of the monitoring plan for a generic CPA

For the proposed PoA, the submission of the monitoring plan delayed and submitted either at any time prior to the submission of request for issuance for the first monitoring period, or together with the request for issuance for the first monitoring period.

There is no additional background information available at this time.

Appendix 1. Contact information of coordinating/managing entity and responsible person(s)/ entity(ies)

CME and/or responsible person/ entity	<input checked="" type="checkbox"/> CME <input type="checkbox"/> Responsible person/ entity for application of the selected methodology(ies) and, where applicable, the selected standardized baseline(s) to the PoA
Organization	Development Bank of Ethiopia
Street/P.O. Box	
Building	Development Bank of Ethiopia Head Office
City	Addis Ababa
State/Region	Addis Ababa
Postcode	1900
Country	Ethiopia
Telephone	+251-115 53 34 01
Fax	+251-115 50 23 24
E-mail	dbe@ethionet.net
Website	www.dbe.com.et
Contact person	Tadesse Hatiya
Title	
Salutation	Mr.
Last name	Hatiya
Middle name	

Project participant and/or responsible person/ entity	<input checked="" type="checkbox"/> Project participant <input type="checkbox"/> Responsible person/ entity for application of the selected methodology (ies) and, where applicable, the selected standardized baselines to the project activity
Organization name	International Bank for Reconstruction and Development (IBRD) as trustee of the Carbon Initiative for Development (Ci-Dev)
Street/P.O. Box	1818H Street NW
Building	
City	Washington
State/Region	District of Columbia
Postcode	20433
Country	Unites States of America
Telephone	+1-202-458-4416
Fax	+1-202-522-7432
E-mail	lbrd-carbonfinance@worldbank.org
Website	www.carbonfinance.org
Contact person	Simon Whitehouse
Title	Manager

Salutation	Mr.
Last name	Whitehouse
Middle name	
First name	Simon
Department	Climate and Carbon Finance
Mobile	
Direct fax	+1-202-522-7432
Direct tel.	+1-202-458-4416
Personal e-mail	

Appendix 2. Affirmation regarding public funding

The Letter of Approval from the Annex I country affirms that there is no diversion of official development assistance as a result of public funding to the PoA.

Appendix 3. Applicability of methodology(ies) and standardized baseline(s)

This section is intentionally left blank.

Appendix 4. Further background information on ex ante calculation of emission reductions

This section is intentionally blank.

Appendix 5. Further background information on the monitoring plan

This section is intentionally blank.

Appendix 6. Summary of post registration changes

This section is intentionally blank.

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
04.0	9 March 2015	Revisions to: <ul style="list-style-type: none"> • Include provisions related to choice of start date of PoA; • Include provisions related to delayed submission of a monitoring plan; • Provisions related to local stakeholder consultation; • Add exception for generic CPA where technology is under positive lists; • Editorial improvement.
03.0	25 June 2014	Revisions to: <ul style="list-style-type: none"> • Include the Attachment: Instructions for filling out the programme design document form for small-scale CDM programme of activities (these instructions supersede the "Guideline: Completing the programme design document form for small-scale CDM programme of activities" (Version 03.0)); • Include provisions related to standardized baselines; • Add contact information on a responsible person(s)/ entity(ies) for the application of the methodology (ies) to the PoA in B.4 and Appendix 1; • Add general instructions on post-registration changes in paragraphs 2 and 3 of general instructions and Error! Reference source not found.; • Change the reference number from <i>F-CDM-SSC-PoA-DD</i> to <i>CDM-SSC-PoA-DD-FORM</i>; • Editorial improvement.
02.0	13 March 2012	EB 66, Annex 13 Revision required to ensure consistency with the "Guidelines for completing the programme design document form for small-scale CDM programmes of activities".
01.0	27 July 2007	EB33, Annex43 Initial adoption.
Decision Class: Regulatory Document Type: Form Business Function: Registration Keywords: programme of activities, project design document, SSC project activities		