CLEAN DEVELOPMENT MECHANISM
SMALL-SCALE PROGRAMME OF ACTIVITIES DESIGN DOCUMENT FORM
(CDM-SSC-PoA-DD) Version 01

CONTENTS

Annexes

NOTE:

(i) This form is for the submission of a CDM PoA whose CPAs apply a small scale approved methodology.

(ii) At the time of requesting registration this form must be accompanied by a CDM-SSC-CPA-DD form that has been specified for the proposed PoA, as well as by one completed CDM-SSC-CPA-DD (using a real case).

SECTION A. General description of small-scale programme of activities (PoA)

A.1 Title of the small-scale programme of activities (PoA):

Improved Cook Stoves for East Africa (ICSEA)

Version 01

A.2. Description of the small-scale programme of activities (PoA):

1. General operating and implementing framework of PoA

The purpose of this small-scale Programme of Activities (PoA) is stimulating the dissemination of improved cook stoves (ICS) in East Africa. The Programme will encompass different types of ICS, depending on the supplier and the user of the stoves. The types of stoves are different sizes of the following models:

- stoves for firewood
- stoves for charcoal

The stoves are both transportable as well as fixed built-in models, serving domestic or institutional users. These ICS are more efficient in transferring heat to the meals, thus saving fuel compared to traditional stoves used in East Africa. By reducing fuel consumption, the PoA reduces greenhouse gas emissions from the use of non-renewable biomass.

Improved Cook Stoves for East Africa (ICSEA) Limited is the coordinating/managing entity (CME) for this PoA. As such, it will coordinate the efforts from different Supplier Organizations (SO) to distribute ICS in East Africa and comply with the requirements of this PoA. SOs will act as CPA Activity Implementers and may or may not become Project Participants to this PoA.

During implementation, the CME for this PoA will:

- Issue/revoke authorization to SOs to act as CPA Activity Implementers
- Organize and assess SO audits
- Provide technical and administrative support to SOs to guarantee compliance of ICSs and record keeping with the PoA requirements
- Oversee all communications required under the PoA
- Issue fuel efficiency rating for qualified ICS designs, once these have been tested by an independent party to meet the PoA requirements
- Mediate CER agreements between partners and the market as needed
- Manage the execution of CER agreements and distribution of the benefits
- Be responsible for the monitoring activities and data management required during the lifetime of the Project
- Maintain a database of sales records used to compute CERs and ensure no double-counting of ICS sales occurs
- Be the focal point for CER registration and verification

Each SO will act individually, requesting authorization for its CPA(s) to the CME and running the project in accordance with the demands of the local market. SOs will supply ICSs (manufactured locally or imported) and sell them on a commercial or a non-commercial basis. SOs will have the necessary technical and administrative resources to ensure technical compliance to the PoA requirements of the ICS sold as well as accurate and complete record keeping.

During implementation, each SO for this PoA will:

- Provide their stove designs for efficiency testing according to the PoA requirements
- Comply with PoA requirements to become an authorised SO
- Manufacture and/or distribute ICS
- Ensure all the stakeholders in the distribution chain are aware that the sales are subscribed to the PoA and trained to comply with the requirements
- Keep records of sales and users as per the monitoring plan and provide hard and electronic records to the CME regularly
- Keep current with regards to the UNFCCC requirements, as enforced by the CME
- Receive audits and inspections to maintain authorization status issued by the CME

SOs will sell the ICS, and are encouraged by the CME to make ICS more affordable to users. This affordability will be further stimulated as an increasing number of SOs become a part of this PoA and compete in the market for customer choice. The end users of the ICS will benefit from having a wide choice of high-quality (tested & rated) ICS at very affordable prices, added investment in marketing (awareness) and R&D of products that reduce deforestation and improve health by reducing indoor air pollution.

When purchasing the ICS, the buyer will sign an agreement with the SO containing not only information about the ICS model and rating, price and payment, but also the name, location/address and phone number of the user (the Sales Agreement). The Sales Agreement also assigns the legal rights of the carbon credits generated by the ICS to the SO.

Accordingly, the SO will use the CER proceeds to reduce the costs of ICS to customers, provide free or subsidized maintenance of the ICS and to recoup the SO's incurred associated costs of disseminating the stoves, such as research & development, training, marketing and building manufacturing facilities.

2. Policy/measure or stated goal of the PoA

The mission of this PoA is to make improved cook stoves (ICS) affordable and available to low and medium income households across East Africa. The stated goal is to enable the transformation of the traditional kitchens of all East Africans to ICS. Achieving this goal will result in:

- Reduced deforestation
- Reduced GHG emissions
- Improved people's lives:
    - Reduction of disease caused by indoor-air-pollution
    - Reduction of injuries occurring in unsafe kitchen environments
    - Reduction of time/money spent obtaining fuel wood
    - Employment opportunities in the stoves industry

3. Confirmation that the proposed PoA is a voluntary action by the CME.

There are no laws, policies or mandatory requirements in East Africa stipulating the adoption of ICS by households, nor their dissemination. This proposed PoA is a voluntary action by the CME, ICSEA Ltd.

A.3. Coordinating/managing entity and participants of SSC-POA:

1. Coordinating or managing entity of the PoA as the entity which communicates with the Board.

Improved Cook Stoves for East Africa (ICSEA) Limited, Plot 47, Lubowa Estate P.O.Box 70480, Kampala, Uganda.

2. Project participants being registered in relation to the PoA.

Project Participant and CME of this PoA.

Improved Cook Stoves for East Africa (ICSEA), Limited, Plot 47, Lubowa Estate P.O.Box 70480, Kampala, Uganda

This is a Unilateral CDM Project involving a non-Annex I Party company.

A.4. Technical description of the small-scale programme of activities:

A.4.1. Location of the programme of activities:

East African Community: Uganda, Kenya, Tanzania, Rwanda and Burundi, plus Sudan

A.4.1.1. Host Party(ies):

Uganda, Kenya, Tanzania, Rwanda and Burundi, plus Sudan

A.4.1.2. Physical/ Geographical boundary:

The geographical area within which all CPAs included in this PoA will be implemented is defined as the member states of the East African Community: Uganda, Kenya, Tanzania, Rwanda and Burundi, plus Sudan

Fig 1. Map of East African Community states plus Sudan within this PoA

A.4.2. Description of a typical small-scale CDM programme activity (CPA):

A typical CPA will be implemented by a SO and will consist of the sale of ICS on a commercial or non-commercial basis, installation for applicable models (fixed stoves) and after-sales service (e.g. guarantee).

Location and energy limitation

Each CPA will be implemented by a SO respecting the geographical boundary of the PoA and a maximum energy saving of 180 GWh/year per CPA. In cases where the number of ICS per CPA exceeds the energy limit, the number of emission reductions (ERs) shall be capped at those generated by ICS saving a maximum of 180 GWh/year. Any additional ICS shall not be counted. During the life of the PoA the number of CPAs implemented by each SO may increase and will be monitored according to the monitoring plan as described below.

As further discussed in section A.4.4.1 below, CPAs under this PoA are considered as being not a de-bundled component of a large scale activity.

Operational and management plan

The SO and its supply chain will be responsible for the sale, installation and after-sales service of the ICS. The operation of the ICS will be carried out by the user, and training or instructions on how to operate and maintain the ICS will be given by the SO.

The SO will follow the monitoring plan and procedures for identifying stoves sold during the course of the project and those which are still in use, so the appropriate number of emission reductions can be

claimed. To facilitate this process, the SO will keep traceable information to be used by the CME and the DOE to track back to each individual stove built. The SO is also responsible for collecting the signature of the customer on the Sales Agreement.

Sales Agreement

Before the sale of the ICS, the customer shall be informed that CDM finance is being generated by the use of the ICS and this finance is in turn used to lower the sales price of the ICS. The user shall agree, as per the Sales Contract, to:
- Transfer all the CERs to the SO, as these are generated
- Cooperate with the SO and the CME for monitoring purposes
- To agree to discontinue the use of the traditional stove being replaced by this purchase
- To inform the SO and/or the CME if the ICS is no longer in use
- To inform the SO and/or the CME of any transfer of ownership of the ICS (e.g. re-sale or gift)

The Sales Contract will also contain the following information, of which the four first items will be mandatory for the validation of the Sales Agreement:
- Name of customer
- Address
- Date of purchase
- Signature of buyer
- Phone number
- Stove model
- Serial number (of the receipt)
- Serial number of the stove, if available
- GPS coordinates (if applicable)
- Purchase location (if applicable)
- Name of seller

Monitoring

Each CPA is separately monitored and generates a separate annual count of emission reductions (ERs). Each CPA keeps a record of all ICS sold and a record of the location of the stove and the kitchen. Duplicate records are kept by the CME and all SO records are screened through spot-visits, together with cross-checks on the SO reports and logistics records in order to confirm that the sales record is authentic and that no double-counting occurs.

A.4.2.1. Technology or measures to be employed by the SSC-CPA:

The PoA will encompass different types of ICS, depending on the SO and the type of user of the stoves. The types of stoves are different sizes of the following models:

- stoves for firewood
- stoves for charcoal

ICS are more efficient than traditional stoves as they reduce heat loss. Existing domestic and institutional models for the first CPA have been shown to use significantly less wood fuel to cook the same amount of food in comparison to traditional stoves. During the life of the project, research and development work may result in more efficient ICS. These shall be included in this PoA, subject to the appropriate baseline studies and tests proving real and measurable quantities of fuel saved (i.e. Kitchen Tests and Kitchen Surveys).

The stoves are both transportable as well as fixed built-in models. The specific models/designs provided by different SOs will be technically qualified and rated by independent organizations authorized by the CME. The tests will ensure that the model/design meets standardized safety, health (indoor air pollution) and efficiency requirements and that its emissions reductions are rated according to the approved monitoring methodologies.

A.4.2.2. Eligibility criteria for inclusion of a SSC-CPA in the PoA:

CPAs to be included under this PoA must meet the following requirements:

- The CPA will be involved in the manufacturing, distribution and/or sales of ICS within the geographical boundary of the PoA.
- The energy efficiency improvement of each CPA will be limited to 180 GWh_{th}/year based on sales. Any additional energy saving will not be counted towards ERs.
- The CPA implementer has signed contractual agreements with the CME to participate in the PoA. Those agreements include all rights and responsibilities of both parties, e.g. approval procedures by the CME, monitoring requirements, ER transfer.
- The CPA is validated by a DOE in order to be included in the PoA.

The criteria for demonstrating additionality of CPAs is described in section E.5.2.

A.4.3. Description of how the anthropogenic emissions of GHG by sources are reduced by a SSC-CPA below those that would have occurred in the absence of the registered PoA (assessment and demonstration of additionality):

More than 90% of East Africans rely on solid fuels for cooking, typically charcoal or firewood for urban dwellers, and firewood for rural households. The wood collected or harvested to fire the traditional stoves, or to respectively convert into charcoal for the same purpose, consists of a high percentage of non-renewable biomass in most East African countries. The prevailing cooking technologies for charcoal users is the traditional metal charcoal stove, while the “three-stone” fire is the most frequently used technology by fuel wood users. The substitution of traditional stoves with ICS saves fuel depending on the efficiency of the ICS. By reducing wood fuel consumption, the PoA is reducing anthropogenic GHG emissions.

According to the approved methodology, 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. Therefore the emission reductions are calculated based on the annual savings of non-renewable biomass multiplied by an emission factor to establish equivalence to such fossil fuel use. Furthermore:

East African Community member states and Sudan have no national laws, policies or mandatory requirements stipulating the adoption of ICS by households. This proposed PoA is a voluntary action coordinated by Improved Cook Stoves for East Africa (ICSEA) Limited, the CME. The target of this PoA to up-scale and standardize the use of ICS from a marginal level cannot be achieved without benefits from carbon credit revenues as explained below:

Based on previous experience from other small-scale and governmental initiatives, the CME identified the barriers and developed a strategy for the implementation of an ICS dissemination programme. The key challenges facing the SOs are:

- Training an optimum number of employees to reach further into rural areas
- Building manufacturing or importation capabilities
- Building up community awareness
- Making ICS more affordable and attractive
- Ensuring after-sales maintenance.

To solve this, SOs need to train local people to manufacture ICS, supply ICS materials to local manufacturing units or invest in stocking imported ICS. Additionally, resources are required to develop awareness through demonstration fairs, radio advertisements, songs, and other mass advertising campaigns. In some cases, it may involve providing credit for households to pay for the ICS in several instalments over time. Hence, a successful ICS project entails significant investment to cover the above-mentioned costs.

There is currently a very poor financial return associated with selling ICS in East Africa, as the acceptable mass market price of an ICS can barely recoup the investment in material and labour costs – and none of the maintenance, dissemination and training materials or other fixed costs can be adequately covered. The uncertainty about the universal acceptance of ICS among the East African population, together with the failure of previous ICS initiatives, increases the financial risks for investors. Moreover, the governments and private donors have shown limited interest in investing in similar programmes, due to the low return on investment of selling ICS, as well as country risks and other associated risks.

In conclusion, an ICS programme at scale will not be implemented within the East African Community and Sudan in the absence of this PoA.

A.4.4. Operational, management and monitoring plan for the programme of activities (PoA):

A.4.4.1. Operational and management plan:

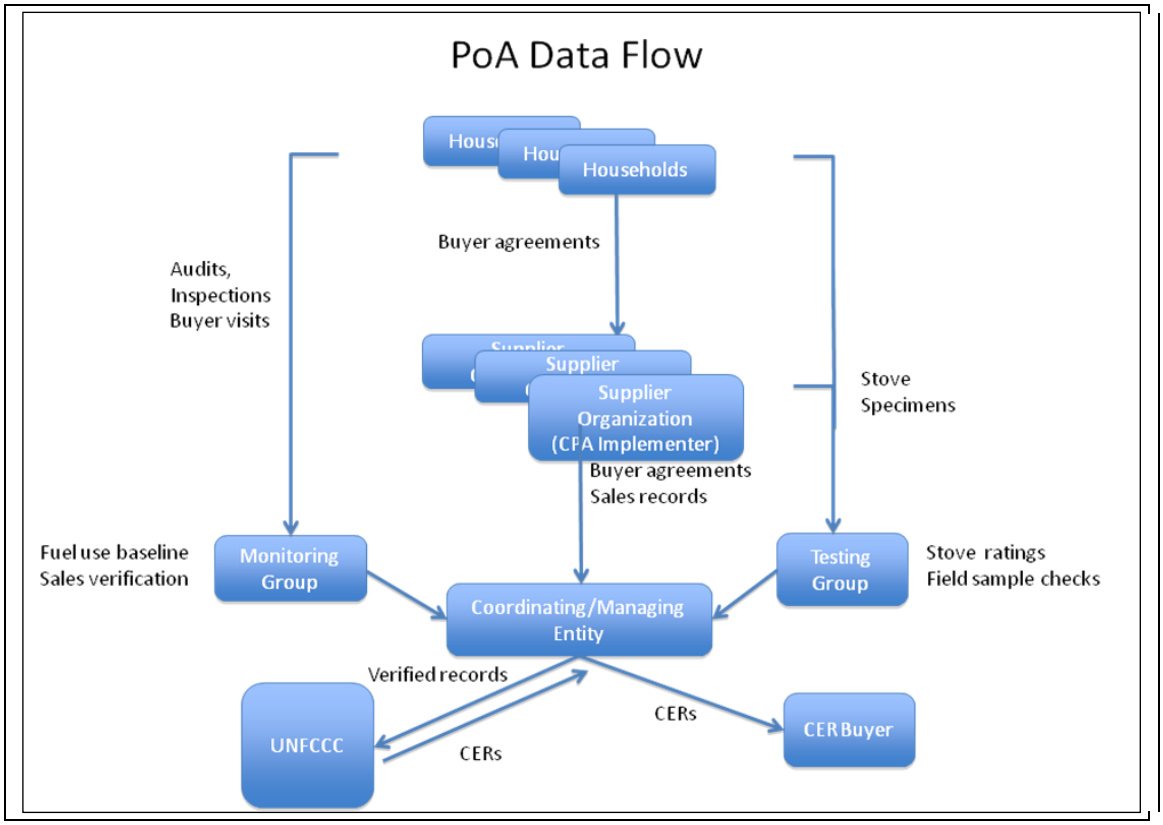
Each authorized SO under this programme will sign a standard contractual agreement with the CME to participate in the PoA. Such agreement will include provisions that ensure:

- Those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA.
- The CPA included in the PoA is not a de-bundled component of another CDM programme activity (CPA) or CDM project activity.
- The SO shall not assign a new CPA that has been already registered either as a CDM project activity or as a CPA of another PoA.

- As provided in A.4.2.1., the CPAs shall only sell specific ICS models/designs that have been qualified by independent organizations authorized by the CME.

During the sales of ICS, vendors shall collect a signed Sales Agreement from the customer with the following information, of which only the four first items will be mandatory for the validation of the Sales Agreement:
- Name of customer
- Address
- Date of purchase
- Signature of buyer
- Phone number
- Stove model
- Serial number (of the receipt)
- Serial number of the stove, if available
- GPS coordinates (if applicable)
- Purchase location (if applicable)
- Name of seller

Original Sales Agreements from vendors will be gathered by the SO and transferred to an electronic record kept by the SO (the "Sales Record"). The originals of the Sales Agreement as well as the electronic records will be periodically delivered to the CME, which carries out or organizes spot-visits, together with cross-checks on the SO materials and logistics records in order to confirm that the Sales Record is authentic. The Sales Record allows for the verification of the actual number of stoves sold, avoiding double counting of emission reductions in the PoA by systematically analyzing each ICS sold and customer data.



This operational management system assures that the following requirements are met:

(i) A record keeping system for each CPA under the PoA,
(ii) A system/procedure to avoid double accounting e.g. to avoid the case of including a new CPA that has been already registered either as a CDM project activity or as a CPA of another PoA,
(iii) The CPA included in the PoA is not a de-bundled component of another CPA or CDM project activity.
(iv) The provisions to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA.

A.4.4.2. Monitoring plan:

Monitoring option chosen
The CME opts for a verification method that does not use overall sampling but verifies each CPA.

Verification method
In order to ensure full transparency and to avoid double counting, the verification method will treat all CPAs under each SO as a single population. Hence, there will be the same number of verification populations as there are SOs.

The CME will keep an electronic database of the data contained in all Sales Agreements. Verification will be done using a statistically sound sample of each SO population. Verification of the Sales Records can be done by phone, post, email or physical visits to households as required. The status of the verification can be determined at any time for each CPA.

Monitoring of stoves usage, continued efficiency, leakage and fraction of non-renewable biomass will be carried out periodically by the CME and/or by independent organizations authorized by the CME.
The detailed monitoring plan and the parameters to be verified are included in E.7.

A.4.5. Public funding of the programme of activities (PoA):

Public funding is provided by DFID as support for the process towards registration of the PoA e.g. validation cost, stove testing cost, study support. The total amount funded by DFID is £75,000.

Official development assistance is not being diverted to the implementation of the PoA as the United Kingdom does not seek to purchase any credits from this PoA.

SECTION B. Duration of the programme of activities (PoA)

B.1. Starting date of the programme of activities (PoA):

1 January, 2011 or date of registration whichever is later

B.2. Length of the programme of activities (PoA):

28 years

SECTION C. Environmental Analysis

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C.1. Please indicate the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken. Justify the choice of level at which the environmental analysis is undertaken:

1. Environmental Analysis is done at PoA level ☐
2. Environmental Analysis is done at SSC-CPA level ✓

It has been decided to do the environmental analysis at the CPA level due to the differing circumstances of the SO in relation to the manufacturing and the supplying of ICS. Furthermore, due to the multiple host country locations of the PoA, each CPA will need to comply with the respective host country environmental documentation requirements depending on which of them the CPA is operating in.

C.2. Documentation on the analysis of the environmental impacts, including transboundary impacts:

N/A, as this will be provided at the CPA level.

C.3. Please state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA, included in the programme of activities (PoA),:

N/A, as this will be provided at the CPA level

SECTION D. Stakeholders' comments

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D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice:

1. Local stakeholder consultation is done at PoA level ☐
2. Local stakeholder consultation is done at SSC-CPA level ✓

Note: If local stakeholder comments are invited at the PoA level, include information on how comments by local stakeholders were invited, a summary of the comments received and how due account was taken of any comments received, as applicable.

It has been decided to do the stakeholder consultation at the CPA level due to the different nature of the SOs in relation with the manufacturing and the supplying of ICS. Furthermore, due to the multiple host country locations of the PoA stakeholders may greatly vary in their comments.

D.2. Brief description how comments by local stakeholders have been invited and compiled:

N/A, as this will be provided at the CPA level

D.3. Summary of the comments received:

N/A, as this will be provided at the CPA level

D.4. Report on how due account was taken of any comments received:

N/A, as this will be provided at the CPA level

SECTION E. Application of a baseline and monitoring methodology

This section shall demonstrate the application of the baseline and monitoring methodology to a typical SSC-CPA. The information defines the PoA specific elements that shall be included in preparing the PoA specific form used to define and include a SSC-CPA in this PoA (PoA specific CDM-SSC-CPA-DD).

E.1. Title and reference of the approved SSC baseline and monitoring methodology applied to a SSC-CPA included in the PoA:

The small-scale project activity to be applied by CPAs included in this PoA is a Type (ii) project: "Energy Efficiency Improvement Projects" and applies the small scale baseline and monitoring methodology AMS II.G, version 2, "Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass"

E.2. Justification of the choice of the methodology and why it is applicable to a SSC-CPA:

The project category AMS II.G, version 2, "Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass" is applicable because the "category comprises small appliances involving the efficiency improvements in the thermal applications of non-renewable biomass. Examples of these technologies and measures include the introduction of high efficiency biomass fired cook stoves or ovens

or dryers and/or improvement of energy efficiency of existing biomass fired cook stoves or ovens or dryers."

E.3. Description of the sources and gases included in the SSC-CPA boundary

The gas included is carbon dioxide in the baseline as well as in the project activity. This is stipulated in the methodology.

E.4. Description of how the baseline scenario is identified and description of the identified baseline scenario:

As per the methodology, 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.

E.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the SSC-CPA being included as registered PoA (assessment and demonstration of additionality of SSC-CPA):

E.5.1. Assessment and demonstration of additionality for a typical SSC-CPA:

Additionality is demonstrated at PoA level. The typical CPA has to fulfil the key criteria of additionality as stipulated in chapter E.5.2. of this PoA-DD. The "Tool for the demonstration and assessment of additionality" from the CDM EB (Version 05.2) will be used in this section.

Step 1: Identification of alternatives to the project activity consistent with current laws and regulations
Sub-step 1a: Define alternatives to the project activity:

(a) The proposed project activity undertaken without being registered as a CDM project activity.
(b) Continuation of the current situation (no project activity or other alternatives undertaken).
(c) Cooking energy obtained at household level through fossil fuels such as LPG and kerosene.

Some conceivable alternatives are not realistic and credible as discussed below:

(1) Cooking energy obtained at household level through electricity.
There is no evidence that people in this socio-economic bracket are moving towards cooking with electricity, as it is unaffordable. Additionally, the electrical grid in East Africa is insufficient to distribute energy effectively – especially in rural and poor peri-urban areas – while the supply tends to be highly unreliable due to load shedding by the utilities. Throughout the East African Community only 5% of rural households had access to electricity by 2009[1]. Additionally, the capital cost of an electric cooker is the highest amongst the realistic options.

(2) Cooking with renewable energy like solar or renewable biomass
Renewable biomass is available to only a small percentage of the population in comparison to non-renewable biomass. Therefore the use of renewable biomass for cooking is not a realistic alternative.

[1] Strategy on Scaling up Access to Modern Energy Services, East African Community, 2009

Solar cookers do not fit to the present cooking habits of families in the region. Solar cookers could be used to heat water but will not replace cooking with wood fuel. But just for the purpose of heating water, the costs for a solar cooker are too high.

Sub-step 1b: Consistency with mandatory laws and regulations:
The alternatives outlined in Sub Step 1a above are all in compliance with and do not contravene the legislation in any of the locations defined in section A.4.1.

Step 2: Investment Analysis
Not used, barrier analysis is chosen instead.

Step 3: Barrier analysis
Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project activity:
There are realistic and credible barriers that would prevent the implementation of the proposed project activity from being carried out if the project activity was not registered as a CDM activity:

(a) **Investment barriers**

A typical CPA will be implemented by a SO and will consist of the sale of ICS on a commercial or non-commercial basis, installation for applicable models (fixed stoves) and after-sales service (e.g. guarantee).
Thus, an SO needs to invest in the production or importation, marketing, distribution sales and after-sales service of the ICS. Once the true costs of the above are included in the retail price of an ICS, even the cost of locally produced (low-cost) ICS is unaffordable. The only initiatives that have achieved any success in sales have not originated from private investors: they have been subsidized by NGOs or donors for a limited period which limits the scope of dissemination and sustainability.
The funds to carry out these activities could not be borrowed from standard financial institutions, as the perceived risk would be too high for their lending criteria and the business model of the borrower would be operating at a loss.
The technology required to manufacture ICS is available to local producers in East Africa or the ICS technology can be directly imported by local distributors. Besides, market acceptance of ICS technology has been demonstrated through studies and experience. However, in all cases these technologies are available at a cost which is higher than the acceptable market price, which creates the need for external sources of finance.
In the case of alternative (c) "Cooking energy obtained at household level through fossil fuels such as LPG and kerosene", the investment barrier is even higher, as the cost to set up the business and create a market are significantly higher, and the cost of the fuels renders them unaffordable.

(b) **Barriers due to prevailing practice**

It is expected that switching to ICS would pose a smaller barrier than switching to technologies using other types of fuel, such as LPG and electricity. However, the use of traditional stoves still imposes a very strong adoption barrier, which could result in the continuation of the use of

traditional cooking methods. Overcoming this "inertia" requires a significant amount of sensitisation, marketing, demonstration and personal recommendation.
According to the latest report UNDP-WHO[2], concerning the energy access situation in developing countries, Uganda has only a 5% share of its population relying on solid fuels for cooking with access to ICS, Tanzania 1% and Burundi 0%.
Carbon finance can be used to fund these activities, which are required to shift the common practice from inefficient traditional stoves to ICS.

(c) **Financial barriers at user level**

Multiple analyses have determined that an acceptable market price for ICS is not sufficient to sustain the business of producing/importing, marketing, distributing and selling ICS to households currently using traditional biomass. For instance, a study from Columbia University in 2008 determined that an imported model of portable ICS for wood with high market acceptance in Uganda would only become attractive to customers in the $5~10 price range, while the unit cost in Ruhiira in western Uganda is closer to $25. Even the cost of locally produced ICS is in excess of the market range. For instance, the cost-to-date of each locally made ICS for the International Lifeline Fund's stove programme in northern Uganda has been higher than $20 for the different models. For these reasons, the majority of programmes that have achieved any success in sales have been subsidized by NGOs or donors, which is unfeasible for sustained dissemination at large scales. The only case in East Africa of a stoves programme that is not being subsidized is the Ugastove Gold Standard project, which in fact uses carbon finance to achieve the largest scale in sales of any current stoves programme in Uganda and has been sustained for five years at the date of writing.

These case studies show that each SO requires external finance in order to achieve realistic scale-up of ICS adoption for the (typically poor) households. As shown under (a) investment barrier, such finance is only available if the project activities benefit from CDM that will alleviate the financial barriers for the user.

There is no evidence that households using biomass fuels are making a shift towards fossil fuels for cooking (alternative (c)). Fossil fuels are not affordable fuels for households who currently cook with wood fuels: e.g., the cost of delivering the same amount of energy from LPG could be up to five times the cost of delivering it from an ICS for charcoal and even higher for firewood, which can be collected free of charge. Additionally, the cost of LPG cookers is significantly above an affordable price range.

Sub-step 3 b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity):

Whereas alternative (c) "Cooking energy obtained at household level through fossil fuels such as LPG and kerosene" faces the investment and financial barriers at user level as the proposed project activity

[2] The energy access situation in developing countries, a review focusing on the least developed countries and sub-saharan Africa, UNDP, November 2009

the continuation of the status quo does not face any of the above barriers. People have been cooking on such unimproved stoves for many generations and they are the common practice.

Due to the barriers discussed in Step 3, the continuation of the current situation is the most likely alternative for each CPA.

Step 4: Common practice analysis

Sub-step 4a: Analyze other activities similar to the proposed project activity:

Many programmes were launched by donors to promote the manufacturing and distribution of ICS in East African countries. There are as well some small manufacturers of ICS whose contributions to the market are negligible as long as they are not supported by one of these programmes. Another issue to be taken into account when analyzing similar activities is the fact that not all manufactured stoves are ICS. As test results of efficiency are scarce and are not standardized this aspect will not be considered further within this analysis. The following activities are considered as similar activities in the EAC as they target the dissemination of ICS.

In Uganda, more than 250,000 stoves of the rocket lorena have been installed since November 2004, and 15,000 stoves in Kenya since May 2006[3] with donor support from GTZ. The same programme installed 290,000 one hole mud-stoves in Uganda and 35,000 in Kenya[4]. However a report from Kafta Consultancy states that "it is very difficult to achieve sustainability of building and uptake of in-built stoves after the project has finished. No matter how hard the project works to ensure partners and other institutions have ownership, the personnel will change and new ones don't have the same motivation. Also unless the project has worked with the organisations to raise funding specifically for stoves work then they have no way of funding time inputs to stove promotion"[5]
The only credible fully commercial (sustainable) stoves programme that is run to date in the region is Ugastove in Kampala, Uganda.

Another type of ICS in Kenya, the Jiko model is broadly disseminated with more than 600,000 stoves since 1983, with market penetration rates in urban areas of more than 50%[6]. However these numbers are still far from the goal of this PoA of transforming all traditional kitchens across East Africa, specially low and middle-income households.

In Tanzania, the World Bank estimates the market penetration of charcoal ICS as less than 20% for domestic users, and almost none for institutional users.[7]

[3] GTZ. Rocket lorena stove. 2008

[4] GTZ. One-pot rocket mud stove.2008

[5] Potts, K. Experience Exchange on marketing of GTZ household energy interventions. 2007

[6] GTZ, Kenya ceramic Jiko. 2008

[7] World Bank. Environmental crisis or sustainable development opportunity? 2009

In Burundi, a small project on dissemination of ICS was taken by the IDA (International Development Association), funded organization of the World Bank. Only over 1700 ICS were sold as producing traditional stoves was more profitable for local artisans.[8]

Sub-step 4b: Discuss any similar Options that are occurring:

There have not been any ICS programmes in East Africa that have sought to transform households in the way that the PoA does. Previous and existing ICS programmes have been small scale and run and funded by donors such as GTZ or IDA. These projects have been non-commercial in nature and limited in scope (e.g. targeted humanitarian stoves programmes for refugee camps or heavily subsidized market-based programmes in specific rural areas). They have had little impact on the overall cooking habits in the region, which the PoA intends to transform over the coming years. These projects overcame the investment barrier as they have the capacity to reach high risk funding for their programmes, what make these similar activities essentially distinct from the proposed PoA activity. At the same time, some of these programmes could not even overcome the financial barrier at user level, especially the low income user. These led to a market penetration really low for some countries. According to the latest report from WHO and UNDP on the energy access situation in developing countries, the share of population relying on solid fuels for cooking with access to ICS was only 1% in Tanzania in 2007. The same report estimates 5% for Uganda and 0% for Burundi.[9] In this last one, the investment barrier for the local manufacturers has been shown as a decisive barrier as ICS give less margin of benefit than traditional stoves. For countries such as Kenya and Rwanda where market penetration is significantly higher, there is still an important financial barrier as strategies do not succeed on reaching the poorest and the rural population.

The Ugastove project in Kampala, Uganda, does not face the identified barriers, as it too benefits from carbon finance (via Gold Standard Voluntary Emissions Reductions). Due to these barriers, ICS adoption in the host locations has been limited and their impact predominantly short term.

Therefore similar project activities exist in the region, although they are essential different in their funding. The project activities of the PoA do not use the same benefits, so they cannot overcome the barriers in step 3.

Conclusion

The distinctions set out here between similar activities and the CPA are significant enough to establish that the CPA is additional.

E.5.2. Key criteria and data for assessing additionality of a SSC-CPA:

Referring to the assessment and demonstration of additionality in section E.5.1, any one of the following criteria will be applied in order to assess the additionality of a CPA that is proposed to be included in the registered PoA:

- Lack of access to capital due to the kind of business and risks associated in the region/country as demonstrated by bank letter or other third party information, or,

[8] EAC. Strategy to Scale-up Access to Modern Energy Services, Burundi. 2008

[9] WHO-UNDP. The energy access situation in developing countries. 2009

- The full cost of a domestic ICS at the retail point without carbon finance is higher than $10. This cost is to include at least the cost of the manufactured appliance, the amortization of capital investments of the SO, the amortization of personnel training, expenditure in overcoming technological barriers (sensitization, marketing, etc.), distribution and retailing margins, etc. or,
- In those cases where the criteria above are not met because the total cost of the appliance is lower than the deemed market value, the CPA can still demonstrate additionality if it is addressing a target market with a lower-cost appliance. For such cases, the criteria for assessment would be to demonstrate that the full cost of the appliance (including SO margins) is higher than the target retail price regarded as benchmark, or,
- The SO provides evidence that loans linked to expected carbon credits or ERPAs with advanced payment were granted as seed funding to overcome investment barriers until sufficient benefits from CERs will be generated.[10]

The ICS are expected to be sold at a price below the benchmarks mentioned above to overcome the barriers for upscaling the dissemination of ICS.

Additionality of a CPA can be demonstrated alternatively as follows: [11]
CPAs that aim to achieve energy savings at a scale of no more than 60 GWh of thermal energy per year are additional if one of the below two conditions is satisfied:
(a) The geographic location of the CPA is in one of the LDCs Uganda, Tanzania, Rwanda, Burundi or Sudan
(b) Each of the ICS in the CPA achieves an estimated annual energy savings of equal to or smaller than 1800 MWh and the end users of the ICS are households/communities/SMEs.

E.6. Estimation of Emission reductions of a CPA:

E.6.1. Explanation of methodological choices, provided in the approved baseline and monitoring methodology applied, selected for a typical SSC-CPA:

A typical CPA includes the introduction of ICS. The stoves are small appliances for efficiency improvements in the thermal application of non-renewable biomass. 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.

E.6.2. Equations, including fixed parametric values, to be used for calculation of emission reductions of a SSC-CPA:

According to the applied methodology, emission reductions would be calculated as:

$ER_y = B_{y,savings} \cdot f_{NRB,y} \cdot NCV_{biomass} \cdot EF_{projected\text{-}fossilfuel}$

Where:
ER_y Emission reductions during the year y in tCO2e

[10] EB 50 Annex 13

[11] EB 54 Annex 15

$B_{y,savings}$	Quantity of woody biomass that is saved in tonnes
$f_{NRB,y}$	Fraction of woody biomass saved by the project activity in year y that can be established as non-renewable biomass
$NCV_{biomass}$	Net calorific value of the non-renewable woody biomass that is substituted. The IPCC default for wood fuel, 0.015 TJ/tonne is applied
$EF_{projected\text{-}fossilfuel}$	Emission factor for the substitution of non-renewable woody biomass by similar consumers. The substitution fuel likely to be used by similar consumers is taken: 71.5 tCO2/TJ for kerosene, 63.0 tCO2/TJ for Liquefied Petroleum Gas (LPG) or the IPCC default value of other relevant fuel

$B_{y,savings}$ is calculated as follows:

$$B_{y,savings} = \sum_i B_{y,\,savings,\,i}$$

Where:

i	Model of ICS (design, size, use of fuel) or a group of stove types with similar specifications

$B_{y,savings,i}$ is calculated as follows:

$$B_{y,savings,i} = B_{y,i} \cdot (1- \eta_{old}/ \eta_{new})$$

Where the efficiency term is substituted by the result of the Controlled Cooking Test:[12]

$$B_{y,savings,i} = B_{y,i} \cdot (1- \frac{SC_{new}}{SC_{old}})$$

Where:

$B_{y,i}$	Quantity of woody biomass used in the absence of the project activity in tonnes per type of ICS
SC_{new}	Specific Fuel Consumption, reported in grams of fuel per kilogram of food cooked of the stoves being deployed as part of the project activity
SC_{old}	Specific Fuel Consumption, reported in grams of fuel per kilogram of food cooked of the stoves being replaced

$B_{y,i}$ is determined by calculating the product of the number of appliances multiplied by the estimate of average annual consumption of woody biomass per appliance (tonnes/year).

$$B_{y,i} = \sum_i \left(C_{y,\,fueltype,\,region} \cdot U \cdot L \cdot \sum_n t_{fraction} \right)$$

Where:

[12] Bailis, R., Controlled Cooking Test (CCT) Version 2.0, August 2004

$C_{y,fueltype,region}$	Estimate of average annual consumption of woody biomass per appliance (tonnes/year) derived from a survey of local usage
U	Usage, the fraction to adjust for drop off of ICS
L	Leakage, the fraction by which emission reductions are multiplied to obtain an assessment adjusted for leakage risks
n	Total amount of ICS deployed and in use in year y
$t_{fraction}$	Fraction of the days in use in year y of a single ICS deployed

When a CPA shall be included in this PoA the variables have to be determined or measured for the region included in the PoA and/or each model of ICS used as applicable.

E.6.3. Data and parameters that are to be reported in CDM-SSC-CPA-DD form:

Data / Parameter:	**$NCV_{biomass}$**
Data unit:	TJ/tonne
Description:	Net calorific value of the non-renewable woody biomass that is substituted
Source of data used:	IPCC default for wood fuel
Value applied:	0.015
Justification of the choice of data or description of measurement methods and procedures actually applied :	Default value that is provided in AMS II.G.
Any comment:	

Data / Parameter:	$EF_{projected\text{-}fossilfuel}$
Data unit:	tCO2/TJ
Description:	Emission factor for the substitution of non-renewable woody biomass by similar consumers.
Source of data used:	IPCC
Value applied:	Variable, to be determined for each region
Justification of the choice of data or description of measurement methods and procedures actually applied :	Stipulated in AMS II.G: The substitution fuel likely to be used by similar consumers is taken: 71.5 tCO2/TJ for kerosene, 63.0 tCO2/TJ for Liquiefied Petroleum Gas (LPG) or the IPCC default value of other relevant fuel.
Any comment:	Evidence for the choice of fossil fuel has to be provided at CPA level.

Data / Parameter:	**SC_{old}**
Data unit:	g/kg
Description:	Parameter to calculate efficiency of ICS. Specific Fuel Consumption, reported in grams of fuel per kilogram of food cooked of the stoves being replaced
Source of data used:	Controlled Cooking Test CCT [13]
Value applied:	Variable
Justification of the choice of data or description of measurement methods and procedures actually applied :	Traditional Stoves are tested by a laboratory according to the CCT protocol.
Any comment:	

[13] Bailis, R., Controlled Cooking Test (CCT) Version 2.0, August 2004

Data / Parameter:	$C_{y,fueltype,region}$
Data unit:	tonnes/year
Description:	Quantity of woody biomass used in the absence of the project activity in tonnes per type of ICS within a region.
Source of data used:	Historical data or a survey of local usage on regional level which could comprise a country
Value applied:	Variable, to be determined for each region and fueltype
Justification of the choice of data or description of measurement methods and procedures actually applied :	Estimate of average annual consumption of woody biomass per appliance (tonnes/year) derived from a survey of local usage. If data were obtained by survey the survey follows the representative sampling methods as described in chapter 14. of the AMS II.G
Any comment:	The same value may be applied by several CPAs provided the survey represents the same region and use of fueltype (e.g. domestic charcoal stoves for the same region).

E.7. Application of the monitoring methodology and description of the monitoring plan:

E.7.1. Data and parameters to be monitored by each SSC-CPA:

Data / Parameter:	$f_{NRB,y}$
Data unit:	fraction of 1
Description:	Fraction of woody biomass saved by the project activity in the year y that can be established as non-renewable biomass
Source of data to be used:	FAO, national forestry agencies and environmental authorities
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Variable for each region or country.
Description of measurement methods and procedures to be applied:	The $f_{NRB,y}$ will be determined for each CPA based on the most recent national approved studies or African studies. Where available, a regional approach will be used to determine $f_{NRB,y}$
QA/QC procedures to be applied:	This factor will be monitored according to the monitoring plan, and updated when necessary
Any comment:	

Data / Parameter:	SC_{new}
Data unit:	g/kg
Description:	Parameter to calculate efficiency of ICS. Specific Fuel Consumption, reported in grams of fuel per kilogram of food cooked of the stoves being deployed as part of the project activity.

Source of data to be used:	Controlled Cooking Test CCT
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Variable, to be determined for each model or cluster of models ex ante.
Description of measurement methods and procedures to be applied:	ICS are tested by a laboratory according to the CCT ex ante and ex post as part of the monitoring. The ICS to be tested according to the monitoring plan will be randomly selected from the annual usage sample survey.
QA/QC procedures to be applied:	Test during monitoring will be performed by an independent organization.
Any comment:	

Data / Parameter:	n
Data unit:	number
Description:	Total amount of ICS deployed and in use in year y
Source of data to be used:	Sales records
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Variable for each CPA, based on estimated sales
Description of measurement methods and procedures to be applied:	The SO keeps a paper and electronic record of the sales date, and the stove is considered to be in use from the day of purchase. Any Sales Agreement with a Date, Name, Address and Signature is considered valid (other information is to be used for additional verification.
QA/QC procedures to be applied:	Sales records will be scrutinized by the SO to avoid double-counting and the CME will also conduct spot-checks to verify the legitimacy of such records.
Any comment:	

Data / Parameter:	$t_{fraction}$
Data unit:	Fraction of 365
Description:	Fraction of the days in use in year y of a single ICS deployed
Source of data to be used:	Derived from sales records
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Variable for each CPA, based on estimated sales
Description of measurement methods and procedures to be applied:	The SO keeps a paper and electronic record of the sales date, and the stove is considered to be in use from the day of purchase.
QA/QC procedures to	Sales records will be scrutinized by the SO to avoid double-counting and the CME

be applied:	will also conduct spot-checks to verify the legitimacy of such records.
Any comment:	

Data / Parameter:	**U**
Data unit:	Fraction of 1
Description:	The fraction by which emission reductions are multiplied to obtain an assessment adjust for drop off of ICS in use per cohort year. A cohort is defined as the ICS model or cluster of models sold in the same year y.
Source of data to be used:	Survey of ICS users per cohort using sampling methods.
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Variable for CPAs. The value will be zero as long as no data for drop off adjustment are available.
Description of measurement methods and procedures to be applied:	The SO keeps a paper and electronic record and a survey is done annually in order to assess the drop off use among users
QA/QC procedures to be applied:	Monitoring survey follows sampling guidelines.
Any comment:	

Data / Parameter:	**L**
Data unit:	Fraction
Description:	The fraction by which emission reductions are multiplied to obtain an assessment adjusted for leakage risks
Source of data to be used:	Official data per host country, and monitoring surveys if necessary
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Variable for CPAs. The value will be zero as long as no data for leakage adjustment are available.
Description of measurement methods and procedures to be applied:	A survey with 90/30 precision unless the CPA has evidence that non-project users have not been using renewable energy sources, in which case the biomass saved under the project activity can be neglected.
QA/QC procedures to be applied:	Survey follows sampling guidelines
Any comment:	

E.7.2. Description of the monitoring plan for a SSC-CPA:

The monitoring plan describes how to collect, assess and archive all relevant data to be monitored according to the methodology. Data from the monitoring procedures will be recorded in the electronic

project database and summarized in the monitoring report. The data collection will follow the "General guidelines for sampling and surveys for small-scale CDM project activities (version 01)"[14], will comply with the requirements for the verification stated in A.4.4.2 of transparency and double-counting avoidance, and will check the required parameters in the methodology AMS II.G in an unbiased and reliable way.

The monitoring plan consists of

- Monitoring concept
- Monitoring requirements and procedures for replacement of traditional stoves
- Monitoring requirements and procedures for efficiency of ICS
- Monitoring requirements and procedures for leakages
- Data collection
- Data archiving
- Monitoring report

Monitoring concept

The CME will be responsible for the collection of all Sales Agreement data, internally verify the information in the Sales Agreements, and create the monitoring report at the end of each monitoring period. The SO will be responsible for data entry into an electronic database and to ensure that the information in the Sales Agreements is complete and correct. The total amount of Sales Agreements will reveal the quantity of stove installations at the end of a monitoring period. The electronic database will record the start and end dates of each selling year y for each ICS (t fraction), and calculate the emission reductions attributable to each monitoring period. Appropriate record keeping procedures will be implemented to ensure that each monitoring period dataset can be transparently attributed to its corresponding CPA, preventing any occurrences of double counting. Hence, the project database will keep records to determine the current status of each CPA—the duration of previous monitoring periods, the household surveys, and verification activities. The monitoring sampling will be tracked through the electronic database that consolidates the Sales Records from all CPAs.

In order to account for drop-off in use (U), the ICS deployed by the SO will be monitored in "cohorts" for each selling year in the usage survey. That is, all ICS installed in a selling year will be monitored and treated as a cohort. A stratified random sampling will be applied to count for drop-off or disposal of ICS for every cohort. For instance, assuming a SO installed 2000, 4000 and 8000 ICS during cohorts 1, 2 & 3 respectively; in year # 3 the monitoring group takes a representative sample from each cohort and determines that the ICS in use are 60% for cohort 1, 85% for cohort 2 and 95% for cohort 3; then the above usage factors are applied to each cohort independently and the total number of ICS for the calculation of $B_{y,\ savings,i}$ is done using 1200 ICS for cohort 1, 3400 for cohort 2 and 7600 for cohort 3. If usage level of a certain cohort is found to achieve a stable level, this usage rate may be applied to younger cohorts unless it would be preferable to conduct further surveys. This is a conservative approach as older cohorts have higher drop-off rates as ICS have been deployed longer.

ICSs that are older than the specified lifetime may or may not be included in the monitoring, hence regarded in the calculation of emission reductions. The decision to cut-off older cohorts will depend on the guarantee policy adopted by the SO and will be decided by the CME.

[14] EB 50 Annex 30

Concerning the sampling of ICS, each cohort will group types of cookstoves depending on exclusive and exhaustive characteristics that significantly affect the cookstove's lifetime, such as final user size (domestic/institutional) and type (fix in-built/transportable). The sample of the stratum will follow the required 90/10 precision or the lower bound of the 90% confidence interval and the necessary sampling requirements[15]. In cases where different SOs are distributing the same model of ICS manufactured by the same organization, and it can be safely assumed a similar lifetime according to the guarantee policies, the CME may or may not decide to cluster the ICS of the different SOs into the same cohort, safeguarding the transparency to be able to attribute each ICS according to its CPA.

Requirements for replacement of traditional stoves

Monitoring shall ensure that either the replaced low efficiency appliances are disposed of and not used within the boundary or within the region, or if baseline stoves are in usage, that wood fuel consumption of those stoves is excluded from calculations.

Monitoring procedures

Confirmation of the continued use of the appliance will be checked, along with checks to ensure that the replaced low efficient appliance has been dismantled and is no longer in use by the household or any other household within the project boundary, or if baseline appliances are still in use, then monitoring will ensure that fuel wood consumed by these stoves is excluded from the B_y calculation.

During usage surveys, if evidence of use of traditional cooking appliances is found in households that have purchased an ICS or when ICS are missing, the following criteria will be taken into consideration for adjustment:

1. If the use of traditional appliances is only during peak cooking needs (e.g. for celebrations) then it can be assumed that there is no adjustment needed because the baseline studies will be performed in households during normal cooking conditions and data from peak cooking will be removed from B_y calculations.
2. If the household size is larger than can be reasonably assumed to be satisfied by the ICS in question (e.g. a small ICS for a household of 4 is used in a household of 8 together with a traditional stove) then it can be assumed that the ICS is being fully utilized and no adjustment should be applied.
3. If the ICS ownership has been transferred (e.g. sales or gifts) and the original owner can provide sufficient evidence that the ICS is still in use, no adjustment is needed.
4. If none of the above cases is true, then adjustment for that household will be estimated on the basis of an interview to conservatively estimate the fraction of time in which the ICS is in use. The total adjustment for that CPA will hence be based on the sampling and statistics described in the monitoring concept.

Requirements for efficiency of ICS

An annual check of efficiency of all appliances or a representative sample thereof to ensure that they are still operating at the specified efficiency or replaced by an equivalent in service appliance. Where replacements are made, monitoring shall also ensure that the efficiency of the new appliances is similar to the appliances being replaced.

Monitoring procedures

[15] EB 50 Report, Annex 30

As the parameter for efficiency, the specific fuel consumption of deployed ICS (SC_{new}) will be tested during every monitoring period by the CME and/or by an independent organization designated by the CME. Tests on SC_{new} for the monitoring report will be carried out on stoves selected from the usage survey following a simple random sampling. It will be permissible to reduce the number of tests by first testing the oldest cohort, and then deciding whether or not a test of younger stoves is necessary. If stoves of a certain cohort are found to achieve a certain performance level, a conservative estimation may be applied to younger stoves if this is preferred to conducting further tests.

Requirements for leakages

According to AMS II.G., version 2, the following sources of leakage have to be assessed:

a) Use/diversion of non-renewable biomass saved under the project activity by non-project households/users who previously used renewable energy sources. If this leakage assessment quantifies an increase in the use of non-renewable biomass used by the non-project households/users attributable to the project activity then By is adjusted to account for the quantified leakage.
b) Use of non-renewable biomass saved under the project activity to justify the baseline of other CDM project activities can also be a potential source of leakage. If this leakage assessment quantifies a portion of non-renewable biomass saved under the project activity that is used as the baseline of another CDM project activity then By is adjusted to account for the quantified leakage.
c) Increase in the use of non-renewable biomass outside the project boundary to create non-renewable biomass baselines can also be a potential source of leakage. If this leakage assessment quantifies an increase in the use of non-renewable biomass outside the project boundary then By is adjusted to account for the quantifiable leakage.

Monitoring procedures

For assessing leakage a), the monitoring will include surveys of the amount of non-renewable woody biomass saved under the project activities that is used by non-project users who previously used renewable energy sources. Surveys with 90/30 precision will be conducted for this purpose. If the CPA provides evidence that non-project users have not been using renewable energy sources during the monitoring period, as it may be the case in most host countries, then the leakage is zero. Otherwise B_y will be adjusted for leakage according to the result of the surveys.

Regarding leakage b) if the CPA reduces NRB regionally, the next CPA and indeed the same activity, should operate under a reduced NRB fraction. This risk is addressed by re-appraisal of the NRB fraction every two years. The fNRB will be adjusted when statistical data is available. If this data is not available, then the adjustment will be calculated through the reduction of B_y to the fNRB formula calculations.

Leakage c) will be addressed if there is official evidence of imports of non-renewable biomass into the project boundary. Otherwise this leakage is neglected.

Data collection

The CME will collect the data necessary for the monitoring and for the emission reduction calculation. Data will be managed through an electronic database that can directly attribute the data to the CPA, thereby allowing unambiguous determination of the emission reductions attributable to each CPA.

Data archiving
Original purchase contracts will be stored in the main office of the CME. A back-up of the project database will also be stored on an electric medium by the CME. All data monitored and required for verification and issuance will be kept at least for two years after the end of the crediting period or the last issuance of CERs for the project activity, whichever is later.

Monitoring Report
The CME will assess all monitoring data and produce a monitoring report for the DOE to verify corresponding to the preceding monitoring period of the sample of CPAs. This report will present the data relating to the emission reductions generated by those CPAs during the monitoring period. The monitoring report will also include, as required by the sampling plan:

1. Unbiased and reliable estimates of the mean value of parameters used in the calculation of greenhouse gas emission reductions.
2. 90/10 precision of estimated parameters if required, or the lower bound of the 90% confidence interval and the necessary sampling requirements.
3. Provide formulas used in calculating and reporting parameters.

Generally, the monitoring report will use the current CDM Monitoring Report Form and follow the current "Guidelines for completing the Monitoring Report Form (CDM-MR)"[16].

E.8 Date of completion of the application of the baseline study and monitoring methodology and the name of the responsible person(s)/entity(ies)

Date of completion:
28/10/2010

Name of the responsible persons and entity:
Igor Markov
Carlos Guerrero Lucendo
Georg Zenk
Uganda Carbon Bureau
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[16] EB 54 Annex 34

Annex 1

CONTACT INFORMATION ON COORDINATING/MANAGING ENTITY and PARTICIPANTS IN THE PROGRAMME of ACTIVITIES

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Annex 2

INFORMATION REGARDING PUBLIC FUNDING

Annex 3

BASELINE INFORMATION

Annex 4

MONITORING INFORMATION