



VALIDATION REPORT Co2BALANCE UK LTD

VALIDATION OF THE EFFICIENT COOK STOVE PROGRAMME: KENYA

REPORT NO. KENYA-VAL/05/2011

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BUREAU VERITAS CERTIFICATION

Great Guildford House, 30 Great Guildford Street
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VALIDATION REPORT

Date of first issue: 17/08/2011	Organizational unit: Bureau Veritas Certification Holding SAS
Client: Co2balance UK Ltd	Client ref.: Ms. Suzanne Longworth

Summary:
Bureau Veritas Certification has made the validation of the Efficient Cook Stove Programme: Kenya project of Co2balance UK Ltd located in 1 Discovery House, Cook Way, Bindon Rd. Taunton TA2 6BJ on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

The validation scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion. The overall validation, from Contract Review to Validation Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the validation process is a list of Clarification and Corrective Actions Requests (CL and CAR), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.

In summary, it is Bureau Veritas Certification's opinion that the project correctly applies the baseline and monitoring methodology AMS II.G. Energy efficiency measures in the thermal application of non-renewable biomass Version 03 and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.

Report No.: KENYA-val/05/2011	Subject Group: CDM
Project title: Efficient Cook Stove Programme: Kenya	
Work carried out by: ANDREW KINYANJUI – TEAM LEADER JAMES CHIRCHIR – TEAM MEMBER JAMES MWANIKI - SPECIALIST	
Internal Technical Review carried out by: HB MURALIDHAR	
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Work approved by:

Flavio Gomes

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1 INTRODUCTION

Co2balance UK Ltd has commissioned Bureau Veritas Certification to validate its CDM project the Efficient Cook Stove Programme: Kenya project (hereafter called "the project") at 1 Discovery House, Cook Way, Bindon Rd. Taunton TA2 6BJ.

This report summarizes the findings of the validation of the project, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1 Objective

The validation serves as project design verification and is a requirement of all projects. The validation is an independent third party assessment of the project design. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design, as documented, is sound and reasonable, and meet the stated requirements and identified criteria. Validation is a requirement for all CDM projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

1.2 Scope

The validation scope is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations.

The validation is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Validation team

The validation team consists of the following personnel:

FUNCTION	NAME	CODE HOLDER*	TASK PERFORMED
Lead Verifier	ANDREW KINYANJUI	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input checked="" type="checkbox"/> SV <input checked="" type="checkbox"/> RI
Trainee Verifier	JAMES CHIRCHIR	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI
Technical	JAMES MWANIKI	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input checked="" type="checkbox"/> SV <input type="checkbox"/> RI



Specialist			
Financial Specialist	N.A.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI
Internal Technical Reviewer (ITR)	HB MURALIDHAR	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI
Specialist supporting ITR	N.A.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI

*DR = Document Review; SV = Site Visit; RI = Report issuance

2 METHODOLOGY

The overall validation, from Contract Review to Validation Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a validation protocol was customized for the project, according to the version 01.2 of the Clean Development Mechanism Validation and Verification Manual, issued by the Executive Board at its 55th meeting on 30/07/2010. The protocol shows, in a transparent manner, criteria (requirements), means of validation and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements a CDM project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The completed validation protocol is enclosed in Appendix A to this report.

2.1 Review of Documents

The Project Design Document (PDD) submitted by Co2balance UK Ltd and additional background documents related to the project design and baseline, i.e. country Law, Guidelines for Completing the Project Design Document (CDM-PDD), Approved methodology, Kyoto Protocol, Clarifications on Validation Requirements to be Checked by a Designated Operational Entity were reviewed.

To address Bureau Veritas Certification corrective action and clarification requests, Co2balance UK Ltd revised the three sets of PDD's namely;

2.1.1 Efficient Cook Stove Programme Kenya PoA-DD_v6.3 Dated 13 March 2012



2.1.2 Efficient Cook Stove Programme Kenya CPA1-DD_v1.7 Dated 13 March 2012

2.1.3 Efficient Cook Stove Programme Kenya CPA-Template Dated 13 March 2012

The validation findings presented in this report relate to the project as described in PoA-DD version 6.3 and CPA 1 specific / Generic DD

2.2 Follow-up Interviews

On 11th–12th April 2011 Bureau Veritas Certification performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Co2balance UK Ltd were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Co2balance UK Ltd	<ul style="list-style-type: none"> ➤ Staff Training, ➤ Sales Records ➤ Production Records ➤ Project operation ➤ sustainability ➤ Project Design and implementation ➤ Monitoring Plan and management procedures ➤ Monitoring data ➤ GHG Calculation ➤ Data uncertainty and residual risks (QA/QC) ➤ Environmental Impacts ➤ Compliance with National Laws and Regulations
LOCAL Stakeholder	<ul style="list-style-type: none"> ➤ Relevance of Sustainability Criteria ➤ Stakeholder engagement ➤ Fuel savings ➤ Fuel Costs ➤ Compliance with National Laws and Regulations
CONSULTANT	<ul style="list-style-type: none"> ➤ Additionality ➤ Baseline data ➤ Algorithms ➤ Compliance with National Laws and Regulations ➤ Monitoring

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification positive conclusion on the project design.



Corrective Action Requests (CAR) is issued, where:

- (a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- (b) The CDM requirements have not been met;
- (c) There is a risk that emission reductions cannot be monitored or calculated.

The validation team may also use the term Clarification Request (CL), if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

To guarantee the transparency of the verification process, the concerns raised are documented in more detail in the verification protocol in Appendix A.

2.4 Internal Technical Control

The validation report underwent a Internal Technical Review (ITR) before requesting registration of the project activity.

The ITR is an independent process performed to examine thoroughly that the process of validation has been carried out in conformance with the requirements of the validation scheme as well as internal Bureau Veritas Certification procedures.

The Lead Verifier provides a copy of the validation report to the reviewer, including any necessary validation documentation. The reviewer reviews the submitted documentation for conformance with the validation scheme. This will be a comprehensive review of all documentation generated during the validation process.

When performing an Internal Technical Review, the reviewer ensures that:

The validation activity has been performed by the team by exercising utmost diligence and complete adherence to the CDM rules and requirements.

The review encompasses all aspects related to the project which includes project design, baseline, additionality, monitoring plans and emission reduction calculations, internal quality assurance systems of the project participant as well as the project activity, review of the stakeholder comments and responses, closure of CARs, CLs and FARs during the validation exercise, review of sample documents.



The reviewer compiles clarification questions for the Lead Verifier and Validation Team and discusses these matters with Lead Verifier.

After the agreement of the responses on the 'Clarification Request' from the Lead Verifier as well as the PP(s) the finalized validation report is accepted for further processing such as uploading on the UNFCCC webpage.

3 VALIDATION CONCLUSIONS

In the following sections, the conclusions of the validation are stated.

The findings from the desk review of the original project design documents and the findings from interviews during the follow up visit are described in the Validation Protocol in Appendix A.

The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Appendix A. The validation of the Project resulted in 2 Corrective Action Requests (CARs) and 39 Clarification Requests (CLs).

The CARs and CLs were closed based on adequate responses from the Project Participant(s) which meet the applicable requirements. They have been reassessed before their formal acceptance and closure.

The number between brackets at the end of each section correspond to the VVM paragraph

3.1 Approval (49-50)

A letter of approval has been received and the following support documentation:

- Letter of Approval Ref NEMA/10/3/VOL.X dated 13Th October 2011

BVC recognizes that the Project is helpful to fulfil the host country's goals of promoting sustainable development.

- Letter of Approval DNA Ref: EA/CO2BUK/01/2011 dated 26/08/2011, issued to Co2balance UK - Project issued for: Efficient Cook Stove Programme: Kenya "UK LOA Efficient Cook Stove Programme Kenya"

There is also evidence in approvals issued by the National Environment Management Authority of host country, which are summarized as below,

- National Environment Management Authority EIA project report approval (Ref NEMA/PR/5/2/8342 dated 1st July 2011)

Bureau Veritas Certification received this letter from the project participants and does not doubt its authenticity.



The letter of approval from Kenya's DNA refers to the PDD version 6 of PDD dated 29th September 2011 and contents of the letter of approval refer to the precise proposed CDM project activity title in the PDD being submitted for registration.

Bureau Veritas Certification considers the letters are in accordance with paragraphs 45 - 48 of the VVM.

3.2 Participation (54)

The participation for each project participant has been approved by a Party of the Kyoto Protocol.

The validation team concluded this by referring to the UNFCCC website at <http://maindb.unfccc.int/public/country.pl?country=KE>

3.3 Project design documents (57)

The CME has developed three Design documents as per the Guidelines for Completing the PoA Design Document (PoA-PDD), CDM programme of activities template and design document (CPA-DD) and the applied CDM methodology including the sections especially dedicated to PoA

- PoA – DD Efficient Cook Stove Programme Kenya PoA-DD_v6.3 13 March 2012 (sets a framework for the implementation of the PoA and unambiguously defining a CPA under the PoA)
- CPA 1 DD Efficient Cook Stove Programme: Kenya CPA No. 1 Eldoret East and Keiyo Districts version 1.7 dated 13 Feb 2012 (specific design document for one real case project)
- CPA Template Efficient Cook Stove Programme Kenya CPA-Template (template for use by eligible CPA implementers/partners) dated 13 March 2012

The project design was described using the appropriate template (SSC-PoA-DD version 01 and SSC-CPA-DD version 01) as shown in the DDs, that were confirmed through comparison with the template listed on the UNFCCC website. Relevant information was provided by the Managing entity in the applicable PoA sections. Completeness was assessed through the protocol included in Annex 1.

As described above, BVC deems that the DDs (SSC-PoA-DD, typical SSC-CPA-DD and specific SSC-CPA-DD) are compiled with the appropriate format and are described based on appropriate tools, guidelines, and guidance which are specified and requested by the PoA procedures.

3.4 Changes in the Project Activity

The final POA-DD version 06.3 has following change as compared to PDD version 04, dated 01/12/2010 that was webhosted;



Baseline and monitoring methodology AMS II.G Energy efficiency measures in the thermal application of non-renewable biomass Version 03 is now applied, up from Version 02 applied in webhosted POA-DD

3.5 Project description (64)

The process undertaken to validate the accuracy and completeness of the project description

The small-scale Programme of Activities (SSC-PoA) will distribute energy efficient cooking stoves to households in the Republic of Kenya. The stove components will be manufactured in Kenya using local partners. A standardized, pre-cast combustion chamber and other stove components will be manufactured at a central location and distributed. The Coordinating Managing Entity (CME) of the SSC-PoA is Co2balance UK, the CPA 1 (Efficient Cook Stove Programme: Kenya CPA No. 1 Eldoret East and Keiyo Districts) Implementer is also Co2balance UK. The CME will oversee production, assembly, and distribution of the stoves to the geographical area of each Project Activity (CPA), under the SSC-PoA. Co2balance UK will capture monitoring data from the installation process indentifying each stove by a unique reference number and GPS tag.

The geographical boundary for the proposed PoA is the Republic of Kenya. All CPAs included in the PoA will be implemented in Kenya:

The PoA will comprise CPA's each with a maximum limit of 180 GWh thermal energy savings. The maximum number of Improved cook stoves (ICS) in CPA 1 will be 16,048 ICS. Subsequent CPA's in the programme may use an alternative stove designs, but eligibility of ICS under the CPAs must have a thermal efficiency greater than 20%

The Project is expected to produce annual average estimated emission reductions of 50,761.73 tCO₂e in CPA 1 during the 7 year renewable crediting period.

According to guidelines for debundling under a PoA; Guidelines on assessment of de-bundling for SSC project activities (version 3) (EB 54, Annex 13) BVC was able to verify that there is neither a small-scale CDM project activity nor an application to register another small-scale CDM project activity with the same project participants; in the same project category and technology/measure; registered within the previous 2 years; and whose project boundary is within 1 km of the project boundary of the proposed small-scale activity at the closest point. (EB 54, Annex 13, paragraph 2).

By applying *Guidelines on assessment of de-bundling for SSC project activities* version 03 EB 54, Accordingly the CPA001 of under the proposed PoA can be concluded not a de-bundled component of a large scale project activity where;

Biomass saved by each stove 2.81tonnes/year

Energy saved by each stove 0.012175 GWh/year



Therefore % (threshold of CPA) is 0.0068% which is smaller than 1%

[Eligibility Criteria for Inclusion of CPA's]

In applying Eligibility of activities under the CDM version 0.10 EB33, The managing entity employs clear and exhaustive criteria for the inclusion of the CPA. The eligibility criteria's have been stated are verifiable with regards to the geographical boundary; maximum energy saving limit of 180_{GW_h}/year; contractual agreement with CME; applicability of the applied methodology AMS.II.G/ version 3; and approval by CME before submission to DOE. The eligibility criteria can be checked at the CPA level by the managing entity and can be confirmed by the DOE during CPA inclusion.

The DOE hereby confirms that the project description in PoA-DD (Version 6.3) is accurate and complete in all respects and that there are no changes to the project activity/design or boundary as compared to the webhosted PDD.

3.6 Baseline and monitoring methodology

3.6.1 General requirement (76-77)

The steps taken to assess the relevant information contained in the PDD against each applicability condition are described below.

The Project employs the approved baseline and monitoring methodology AMS II.G. Energy efficiency measures in thermal applications of non-renewable biomass Version 03 and the Tool for the demonstration and assessment of additionality version 5.2.1 dated 11/08/2011

Applicability condition (a): This category comprises appliances involving the efficiency improvements in the thermal applications of non-renewable biomass.

Applicability condition (b): Non-renewable biomass has been used since 31 December 1989, using survey methods or referring to published literature, hence Kenya lost 6.5 per cent of forest cover between 1990 – 2010.

Applicability condition (c): each cook stoves has a specified efficiency of at least 20% and includes this criteria in eligibility criteria for CPA inclusion

Applicability condition (d): Value for B_{old} leakage adjustment factor is chosen as 0.95 as applicable for use in a project activity under a programme of activities

The DOE hereby confirms that the selected baseline and monitoring methodology Energy efficiency measures in thermal applications of non-renewable biomass version 3 and Tool for the demonstration and assessment of additionality version 5.2.1 is previously approved by the



CDM Executive Board, and is applicable to the project activity, which, complies with all the applicability conditions therein.

The DOE hereby confirms that, as a result of the implementation of the proposed CDM project activity, there are no greenhouse gas emissions occurring within the proposed CDM project activity boundary, which are expected to contribute more than 1% of the overall expected average annual emissions reductions, which are not addressed by the applied methodology

3.6.2 Project boundary (80)

In line with the methodology Energy efficiency measures in thermal applications of non-renewable biomass version 3 para 3, the project boundary is the physical, geographical site of the efficient systems using biomass. The geographical boundary for the proposed PoA is the Republic of Kenya. All CPAs included in the PoA will be implemented in Kenya and have been established in accordance to procedure for Registration of a programme of activities as a single CDM project activity and issuance of CERs for a PoA version 04.1 EB55. The main emission source included in the baseline project boundary is only CO₂ from Combustion of fire wood for cooking (efficient cooking stove) this is also in line with the applied AMS IIG Version 3

CPA boundary is the Eldoret East and Keiyo Districts.

The DOE validated the CPA project boundary by visiting, collecting and analyzing relevant information on official Office of Public Communications of Kenya and website <http://www.communication.go.ke/constituencies.asp>

Based on the above assessment, the DOE hereby confirms that the identified boundary and the selected sources and gases are justified for the project activity

3.6.3 Baseline identification (87-88)

The steps taken to assess the requirement given in paragraph 81 and 82 of the VVM are described below:

The project will distribute energy efficient cooking stoves to households in the Republic of Kenya. The baseline scenario delineated in the applied methodology AMS IIG Version 3 has been described in the PDD is fuel wood use on a three stone fire or conventional cooking system as defined in AMS-II.G. As per AMS-II.G Version 03, the baseline 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.

Where emission reductions would be calculated as;

$$ER_y = B_{y,savings} * f_{NRB,y} * NCV_{biomass} * EF_{projected_fossilfuel}$$



Where $EF_{projected_fossilfuel}$ = Emission factor for the substitution of non-renewable woody biomass by similar consumers. Value 81.6 tCO₂/TJ is applied as allowed by AMS IIG Version 3

Determination of $B_{y,savings}$ = Quantity of woody biomass that is saved in tones will therefore be calculated as per option 2, para 6 of AMS IIG version 03, where (η_{new}) is periodically monitored. For purposes of estimating emission reductions value applied is calculated;

$$B_{y,savings} = B_{old} \cdot \left(1 - \frac{\eta_{old}}{\eta_{new}}\right)$$

Or 43,200t/year = 60,711*(1-(0.1/0.34))

where;

0.1 = AMS IIG default efficiency for 3 stone fire; validated through witness at site visit

0.34 = measured efficiency as obtained from Nairobi University laboratory, validation was by way of reviewing requested laboratory report

B_{old} = 3.98215t/stove/annum calculated from 10.91kg/hh/day multiplied by 365 days used in baseline stove per day.

0.95 – As Prescribed by AMSIIG version 3 methodology

3.98 – value obtained from CPA 1 KT in June 2011

16048 – Number of ICS that provides 180GWh thermal energy savings in the cluster

$f_{NRB,y}$ = Non-renewable biomass usage in Kenya, as a proportion of total biomass usage value applied in baseline for CPA 1 is 0.96 calculated by use of a third party. Parameter will be established for each CPA inclusion. DOE verified sources of data by requesting clarification and by cross reference of evidences submitted by PP

Based on the above assessment, the DOE hereby confirms that:

- [a] All the assumptions and data used by the project participants are listed in the PDD, including their references and sources;
- [b] All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PDD;
- [c] Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;
- [d] Relevant national and/or sectoral policies and circumstances are considered and listed in the PDD;

The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and the identified baseline



scenario reasonably represents what would occur in the absence of the proposed CDM project activity

3.6.4 Algorithms and/or formulae used to determine emission reductions (92-93)

The steps taken to assess the requirement outlined in paragraph 89 the VVM are described below:

The emission reductions generated by the Project were calculated in accordance with the baseline methodology AMS IIG Version 3

BVC confirms that the below data used in the PDD was valid at the time of the validation,

[PoA Data]

η_{new} = Efficiency of the replacement stove 34% obtained directly from The University of Nairobi Laboratory, BVC confirmed that the University of Nairobi performs lab tests for third parties and deems the value as reasonable and acceptable.

η_{old} = Efficiency of three-stone fire or conventional cooking method as defined in AMS-II.G/Version 03 10%

NCV_{biomass} = 2006 IPCC Guidelines for National Greenhouse Gas Inventories @ 0.015 TJ/tonne

$EF_{\text{projected_fossilfuel}}$ = Emission factor: substitution of non-renewable biomass by similar consumers as per AMS-II.G/Version 03 - 81.6tCO₂/TJ

L = Leakage Correction Factor - 0.95 applied as a fraction in accordance to AMS-II.G/Version 03

[CPA Data]

$f_{\text{NRB},y}$ = Non-renewable biomass usage in Kenya, as a proportion of total biomass usage, An independent consultant assessed the overall biomass usage in Kenya, according to independently published sources, ascertained the proportion of that biomass which is non-renewable. $f_{\text{NRB},y}$ is calculated in a transparent and conservative manner. Hence the more conservative value of 0.96 is applied.

$B_{\text{average_use}}$ = Fuel wood consumption per appliance in absence of the project activity @ 3.98 tonnes per annum per household, PP have performed a Kitchen Test in CPA 1 location and availed the data to BVC for plausibility check.

[PoA Emission reduction calculation]

The calculation was carried out as follows for the PoA is determined thus;

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



[CPA 1: Emission reduction calculation]

CPA 1: Eldoret East and Keiyo Districts (Efficient Cook Stove Programme: Kenya) are therefore applying;

Value - 3.98t/HH-day (derived from a baseline survey performed by a third party expert in area falling within the same cluster refer – “Baseline Information (PoA-DD Annex 3).pdf” Calculated quantity of woody biomass in tonnes per Household. By raising a CL to verify choice of data, PP have used independent consultant to collect baseline data and have demonstrated through Kitchen Performance Test performed in June 2011, within the CPA 1 project boundary that the lower bound of the 90% confidence interval shows actual wood consumption of 5.05 tonne per household per year. Hence value applied in CPA 1 is conservative. The value 3.98/HH-day value is therefore deemed conservative

Non-Renewable Biomass - quantity of woody biomass used in the absence of the project activity (B_y) = $NRB = B_y - DRB$ and where;

B_y = multiplying the amount of fuel wood used per person per year by total population.

In CPA 1: PP has opted to apply default leakage value of 0.95 as per AMS IIG Version 3; Quantity of Biomass used in the absence of the project activity in tonnes - B_{old} is therefore; baseline wood required to give maximum wood savings [($B_{y,savings}$) divided by efficiency improvement ratio] 60,711t/annum = $43200 / (1 - (0.1/0.34))$

$$ER_y = B_{y,savings} * f_{NRB,y} * NCV_{biomass} * EF_{projected_fossilfuel}$$

Therefore $43,200 * 0.96 * 0.015 * 81.6 = \underline{50,761.73 \text{ tCO}_2\text{e}}$ per annum for CPA 1

Where N_y is fixed at a maximum 16,048 appliances in order that threshold for Type II annual thermal energy savings of 180 GWh.

Biomass saved by each stove 2.81 tonnes/year =

Energy saved by each stove 0.012175 GWh/year

Therefore % (threshold of CPA) is 0.0068% which is smaller than 1%

Hence $25,185,000 \leq B_y \leq 32,485,000$ where estimated population at time of study is 36.5m people – refer CPA 1-DD Annex 3 dated February 2010

DRB = Cubic meters of wood is converted into tonnes of wood by multiplying by the wood density. A value of 0.6 t m^{-3} is applied as an average wood density in Kenya and accessible sustainable fuel wood supply in Kenya is therefore 13,734,000 t.



Average annual ex-ante estimation of emission reductions is therefore; 50,761.73 tonnes of CO_{2e}

Based on the above assessment, the DOE hereby confirms that:

- (a) All assumptions and data used by the project participants are listed in the PDD, including their references and sources;
- (b) All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD;
- (c) All values used in the PDD are considered reasonable in the context of the proposed CDM project activity;
- (d) The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;
- (e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.

3.7 Additionality of a project activity (97)

The assessment of the Project additionality was performed in accordance with “Information on additionality (Attachment A to Appendix B of 4/CMP.1 Annex II) version 0.6, the Guidance on the demonstration and assessment of prior consideration of the CDM (version 04, annex 13 of EB62) “Non-binding best practice examples to demonstrate additionality for SSC project activities version 01.0, “Guidelines for objective demonstration and assessment of barriers” (annex 13 version 01.0, General Guidance on Leakage in biomass project activities (Attachment C to Appendix B of 4/CMP.1 Annex II) version 0.3

The steps taken and sources of information used, to cross-check the information contained in the PDD on this matter are described below:

3.7.1 Prior consideration of the clean development mechanism (104)

It has been demonstrated by the timeline of events of the Project below in Table 1 that the CDM revenues was seriously considered in the decision to proceed with the Project prior to start of the Project and, the continuing and real action were taken to secure CDM status for the Project in parallel with its implementation:



VALIDATION REPORT

Date	Actions	Reasons or Impacts	Evidences verified
19/08/2010	Investment decision by co2balance UK	Release of funds to begin CDM process	Signed DOE contract for validation of the PoA
25/12/2010	Start of Validation	Programme start date	UNFCCC website date for start of period for comments (http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/UACW6COR/MHEQTOAUBR5T6EVL3E9L3/view.html)
05/01/2011	Feasibility Study Report and EIA report completed for the Project	Completion of site assessment and review of environmental impacts of the project	E-mail correspondence with completed EIA report as attachment
14/02/2011	Local 'no objection letters' received – CPA 1	Confirmation of no objection by office of the president	Letter from Office of the President
30/01/2011	Start of Construction	Start of physical construction of CPA 1	Contract for initial stove purchase
28/02/2011	Presentation to DNA TAC	Formal presentation of project to NEMA/Technical Committee of the DNA. Part of process to obtain LOA.	Invitation from NEMA
11/03/2011	Submission of EIA CPA-1	Required under Kenyan law and for CDM registration.	EIA Report
28/03/2011	Submission of RFI for DNA	Request for Information provided to DNA as part of process to obtain LOA.	Letter to DNA
01/07/2011	EIA approval of the Project	Required for CDM project registration	EIA Approval
11/07/2011	Letter of Approval from Host DNA	Secure the progress of the CDM development in parallel with the implementation of the Project.	Letter of Approval
19/08/2011	Confirmation of compliance submitted to UK DNA	Required for CDM Registration	Submission by co2balance
26/08/2011	Letter of Approval from UK DNA	Secure the progress of the CDM development in parallel with the implementation of the Project.	Letter of Approval

Table 1- Project Timeline

**[CPA 1: Eldoret East and Keiyo Districts]**

From above table, BVC was able to verify that the start date of the Project determined as 30/01/2011 is appropriate (delivery of first stove consignment from local ICS manufacturer) This is in accordance with the latest CDM glossary, The starting date of a CDM programme activity is the earliest date at which either the implementation or construction or real action of a programme activity begins. The starting date of the CPA cannot be prior to the commencement of validation of the programme of activities, i.e. the date on which the CDM-POA-DD is first published for global stakeholder consultation.

The Project is a new project activity (a project activity with a start date on or after 02 August 2008) with a start date of 31/01/2011, and after the GSP of the PoA-DD on 25/12/2010 therefore, according to “Guidance on the Demonstration and Assessment of Prior Consideration of the CDM” version 04, it is not necessary to make a notification to inform DNA nor to UNFCCC in writing of the commencement of the Project.

BVC has checked all documents mentioned in above Table 1 and is able to verify that all documents are substantial and reasonable at that situation in the host country. Based on the above assessment, BVC hereby confirms that the incentives of CDM were seriously considered prior to the start of the Project.

According to the latest Glossary of CDM terms Ver. 05 and “Guidance on the Demonstration and Assessment of Prior Consideration of the CDM”, BVC confirms that the start date of the Project in the CPA-DD is appropriate and reasonable at that situation.

The assessment of the Prior Consideration of the project activity “Efficient Cook Stove Programme: Kenya” is confirmed by consulting the UNFCCC website, and the DOE hereby confirms that the Period for Comments related to this project activity is from 25 Dec 10 - 23 Jan 11, and that the CDM benefits were considered necessary in the decision to undertake the project as a proposed CDM project activity.

Complying with para.98-103/VVM, BVC has verified this issue, which could significantly influence the additionality of the Project, and confirms that the serious consideration under the context of the Project has been addressed appropriately in accordance with the above guidance. Consequently, the chronological events described with the relevant documented evidences are the objective foundation on which BVC developed its validation opinions.

3.7.1.1 Historical information on project timeline

Describe information regarding historical development of project such as any site evaluation studies etc carried out earlier etc. Refer Table 1 above



3.7.2 Identification of alternatives (107)

The DOE considers the listed alternatives to be credible and complete.

3.7.3 Investment analysis (114)

In line with para.108/VVM, Investment analysis has not been used to demonstrate the additionality of the proposed CDM project activity.

3.7.4 Barrier analysis (118)

The steps taken to assess the relevant information contained in the PDD against each barrier are described below. Investment barriers, technological barriers, barrier due to prevailing practice and financial barriers have been used to demonstrate additionality of the Project. The most relevant barrier to the proposed project activity is the financial barrier. Households lack a financial incentive to invest income in an efficient ICS, fuel wood on the other hand does not a monetary expense for the population, and hence the financial barrier is the most significant barrier. The proposed project activity generates no financial or economic benefits other than the CDM revenues, distribution of free ICS to the project beneficiaries, the project would be implemented as per the proposed activity and thus would incur build costs of per stove where the alternative has no costs associated with the continuation of cooking on a 3 stone fire. The financial barrier to the project activity covers the lack of income available to households to invest in the efficient technology to be provided by the programme.

In demonstration of financial barriers, credible analysis of; lack household income, cost of firewood and average income, Cost of stove as percent of annual Household income after purchasing food and fuel, trends in fuel wood collection and lack of finance to purchase ICS is validated as below;

At site visit and interview with local Community leaders, it was ascertained that fuel wood is accessible to locals, majority of who are poor and live below one dollar a day. In these rural areas there is little access to formal employment, intermittent casual labour is available to farm hands at small scale farms at daily rates, or on monthly engagement. Wages for employed workers ranges from kshs 75/- to kshs 150/- per day, housing is either provided or rented from kshs 300/- to Kshs 1,000/- per month, with the rest going to mostly purchase of consumables. Through the kitchen surveys by PP it has been also been established that the majority of rural residents collect wood around their house and thus do not pay for wood at all.

Based on reference from official sources, average per capita firewood totals 741 kilograms per year, which averages a household consumption is 2,223 kilograms per year on a conservative household size of three people. Most wood is collected but could be quantified in costs at Kshs



1,300/- per ton through interviews with fuel wood consumers and small scale fuel wood vendors.

Therefore 83% of income spent on food, households planning to purchase a stove would need 30 per cent of remaining 17% income, for those accessing wood at source price and 22.5% of income for households with a permit, respectively. It is therefore unlikely that most households would therefore access sufficient finances to purchase an ICS with factory price of Ksh 2,192/- "Stove Cost Quote (PoA-DD Annex 3).PDF"

Complying with para.114/VVM, BVC is able to conclude the barrier analysis performed is credible, the project activity would not have occurred anyway due to at least one of the analyzed barriers, hence the Project is additional.

3.7.5 Common practice analysis (121)

As the proposed project type is not first-of-its kind, the above generic additionality tests are complemented with an analysis of the extent to which the proposed project type is already diffused in the sector and project boundary. Hence existing practice similar to proposed project activity comprises; The Rural Stoves West Kenya (RSWK) project, which built the Mandeleo stoves and Upesi stoves – funded by the Ministry of Agriculture, Kuni Mbili stove – promoted and subsidized by KENGO, The Kenyan Ceramic Jiko – a charcoal based stove mostly used in urban areas

During site visit at CPA 1: Eldoret East and Keiyo Districts (Efficient Cook Stove Programme: Kenya) of households and interviews it was deemed reasonable that clear distinction in project and other similar activities exist in that the proposed programme activity will distribute ICS for free in exchange for legal entitlement to the Co2e rights

The DOE hereby confirms that the proposed CDM project activity is not common practice.

3.8 Monitoring plan (124)

The sampling procedure has been defined in line with Annex-30 of EB 50 "General Guidelines for Sampling and Surveys for Small Scale CDM Project Activities" version 01, The monitoring plan provides a transparent system to ensure that no double accounting occurs and that the status of verification can be determined any time for each CPA. The system to avoid double counting has been indicated in the PoA-DD e.g each CPA will have a unique geographical reference and the ICS will have unique serial number thus double-counting can be avoided. The description provided in the PoA-DD on the operational and management arrangements are deemed confirmed based on document review and on-site interviews.

The DOE hereby confirms that the monitoring plan complies with the requirements of the AMS-II.G Version 03 methodology.



[PoA/CPA:1 Monitoring Plan]

The CME will manage and operate a monitoring plan as required by AMS-II.G Version 03,

Field performance tests will be carried out biennially to witness actual presence of ICS, perform thermal efficiency tests out, and assess quantities of fuel wood use. The Project applies the approved consolidated monitoring methodology AMS-II.G, Version 03 for Energy efficiency measures in the thermal application of non-renewable biomass. Applicability of this methodology is justified in PDD as it involves distribution of energy efficient cook stoves. Applicability has been discussed in Section 3.6.1 above.

Parameters monitored comprise;

The efficiency; $\eta_{new,i}$, of a representative sample of efficient stoves biennially, value applied at validation of CPA 1 is 0.34, value was determined through tests performed by the University of Nairobi, BVC was able to ascertain that the University carried out Laboratory tests services for third parties and the results can be deemed plausible. Ex post monitoring of efficiency will be performed through Water Boiling Tests (WBT) which will follow the guidelines of the Water Boiling Test Version 3 developed by Partnership for Clean Indoor Air (PCIA)

Parameter N_y , number of appliances in operation or replaced, this will be monitored ex post, by visiting Households.

Continued use of wood fuel in households ($B_{baseline_tech}$) will be monitored for purposes of subtracting the same from B_{old}

Non-renewable biomass factor, $f_{NRB,y}$ Non-renewable biomass usage in Kenya, as a proportion of total biomass usage was available at validation and will be monitored ex post using the latest FAO data. A value of 0.96 is applied as was confirmed through an independent assessment "Kenya NRB Fraction Final Report 30 March 2010 (PoA-DD Annex 3).pdf" BVC reviewed input baseline data and deems the value applied for CPA 1 plausible.

The emission factor; $EF_{projected_fossilfuel}$ for the substitution of non-renewable woody biomass by similar consumers is determined by the methodology with value of 81.6 tCO₂/TJ³ and does not require further assessment.

As $B_{y,savings}$ is estimated ex post using option 2 methodology, a value 0.1 is applied for η_{old} as the replaced system is a three stone fire, no improved combustion air supply or flue gas ventilation system, i.e. without a grate or a chimney, this was confirmed as applicable for CPA 1 at the time of site visit.

Samples drawn during monitoring parameters through representative sampling will satisfy the 95 per cent confidence interval and 5 per cent margin of error requirement. Annual sample requirements are 90 per cent confidence interval with less than a 10 per cent margin of error. In cases where the 95 or 90 per cent confidence interval and the 5 or 10 per cent



margin of error are not achieved, the lower bound of the 95 or 90 per cent confidence interval will be applied, as stipulated by AMS-II.G, Version 03 and General Guidelines for Sampling and Surveys for Small-Scale CDM Project Activities, EB 50 Annex 30

As per AMS-II.G, Version 03 leakage has to be accounted for when methodology is applied in a programme of activities, option “C” of Para 23 where B_{old} can be multiplied by a net to gross adjustment factor of 0.95 to account for leakages in this proposed project activity surveys are not required.

Operational management for the Project is comprehensively detailed in PDD and the description of responsibility, training, procedure reference, equipment details, calibration frequency and maintenance needs are clearly mentioned. BVC believes that the retrievability of relevant CDM project activity records is pro-actively considered.

Complying with para.122-124/VVM, BVC hereby confirms that the monitoring arrangements described in the monitoring plan are feasible within the project design and the project participants are able to implement the monitoring plan.

The DOE hereby confirms that the project participants are able to implement the monitoring plan.

3.9 Sustainable development (127)

The host Party’s DNA confirmed the contribution of the project to the sustainable development of the host Party. Refer to item 3.1 of this report.

3.10 Local stakeholder consultation (130)

Local Stakeholder Consultation (LSC) is performed at CPA level, The steps taken to assess the adequacy of the local stakeholder consultation are described below.

[CPA 1: Eldoret East and Keiyo Districts (Efficient Cook Stove Programme: Kenya) – LSC]

Local stakeholders were invited to participate in a consultation for the implementation of the CPA. The process followed is shown below:

During site visit, BVC reviewed records for a local stakeholder consultation involving an initial meeting with local community leaders and representatives from village community groups performed on 08/12/2010 “CPA1 Stakeholder Report (CPA1-DD Annex 5).pdf” (Stakeholder report) where the proposed Project was introduced to local stakeholders and comments were invited, 202 people attended the LSC. Topics for discussions were, Explanation of the project, Questions and clarifications about the project, Sustainability Development exercise and monitoring of Sustainability Indicators.



Comments from the above consultation were categorized into likes/concerns, mitigation where appropriate were analysed with a sustainability matrix. BVC interviewed the local stakeholders during the on-site visit to confirm the stakeholder feedback report against filled out questionnaires from LSC. The stakeholders have recognized the contribution of the Project to local environment and social well being. A second stakeholder consultation was held in Nairobi on 22/03/2011 and attended by stakeholders from representatives of Government Ministries of Energy, Ministry of Agriculture, University of Nairobi, and Kenya Wildlife Services.

During the on-site visit, BVC has conducted an interview with local stakeholders and confirms that the stakeholders impacted had been invited in a transparent manner. The interview with stakeholders and review of returned questionnaires shows that the summary of the comments received has been completely provided in the CPA 1- DD and due account of the comments has been described in the CPA 1- DD. BVC hereby confirms that the process of local stakeholder consultation is observed to be adequate.

The DOE hereby confirms that the process of local stakeholder consultation is observed to be adequate.

3.11 Environmental impacts (133)

The project participants have undertaken an analysis of environmental impacts and, as required by the host Party, an environmental impact assessment in accordance with procedures as required by the host Party.

The PP have undertaken an analysis of environmental impacts and BVC confirms that the Environmental Impact Assessment report of the Project was completed by Co2balance UK and submitted to National Environmental Management Authority (NEMA) for review and approval. The project was approved conditional by the NEMA and transferred to the PP on 01/07/2011, "EIA Approval 1 (CPA 1-DD Annex 6).jpg".

The environmental impact caused by the Project have been identified and analyzed in the PDD. By checking the EIA report, BVC is able to guarantee that the environment impacts identified in the report are mainly due to land use and limited impact on local life. Recommendation is also suggested in the EIA.

In the EIA approval, it has stated the Project will be subject to General NEMA regulations, construction, operational, notification and decommissioning conditions. Evidence has been checked by BVC regarding the PP's actions on conditions under which the proposed project is permitted by the EIA to carry out the project activity in Eldoret and Keiyo districts.

Furthermore, Letter of Approval issued by DNA of Kenya "LOA.jpg"



confirmed that the Project contributes to Kenya's Sustainable development.

Complying with para.133/VVM, BVC hereby confirms that, the Project has met the conditions required in the EIA approval and impacts on the environment have been mitigated by means of measures of pollution avoidance and control as well as ecological recovery.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

The PDD using Baseline and monitoring methodology AMS II.G Energy efficiency measures in the thermal application of non-renewable biomass Version 03 was webhosted on the UNFCCC for global stakeholder's comments as per CDM requirements.

BVC published the project documents on the UNFCCC CDM website between;

25Dec10 to 23Jan11,
<http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/UACW6CORMHEQTOAUBR5T6EVL3E9L3/view.html>, and invited comments prior to 23Jan11 by Parties, stakeholders and non-governmental organizations

No comments were received during this period.

5 VALIDATION OPINION

Bureau Veritas Certification has performed a validation of the "Efficient Cook Stove Programme: Kenya" Project in Kenya. The validation was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The validation consisted of the following three phases: i) a desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) the resolution of outstanding issues and the issuance of the final validation report and opinion.

Project participant/s used the "Information on additionality (Attachment A to Appendix B of 4/CMP.1 Annex II)", the Guidance on the demonstration and assessment of prior consideration of the CDM (version 04, annex 13 of EB62), "Non-binding best practice examples to demonstrate additionality for SSC project activities" (annex 34 of EB35), "Guidelines for objective demonstration and assessment of barriers" (annex 13 of EB50) to demonstrate the additionality of the Project,. In line with these tools, the PoA Design Documents provide barrier analysis to determine that the project activity itself is not the baseline scenario.

By synthetic description of the project, the project is likely to result in reductions of GHG emissions partially. An analysis of the investment and



technological barriers demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented and maintained as designed, the project is likely to achieve the estimated amount of emission reductions.

The review of the project design documentation and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria. Bureau Veritas Certification thus requests registration of “Efficient Cook Stove Programme: Kenya” as CDM project activity.

6 REFERENCES

Category 1 Documents:

Documents provided by Type the name of the company that relate directly to the GHG components of the project.

- /1/ Efficient Cook Stove Programme Kenya PoA-DD_v6.3 13/03/12
- /2/ Efficient Cook Stove Programme Kenya PoA-DD_v4 dated 01/12/2010
- /3/ Efficient Cook Stove Programme Kenya CPA1-DD.doc Version 1.7
- /4/ Efficient Cook Stove Programme Kenya CPA-Template.doc
- /5/ AMS II.G. Energy efficiency measures in thermal applications of non-renewable biomass

Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents.

- /1/ Baseline Information
- /2/ Baseline Information
- /3/ Certification of stoves
- /4/ CME Approval of CPA Technology
- /5/ CPA1 Stakeholder Report
- /6/ Efficient Cook Stove Programme Minutes of Consultative Meeting at Milimani Hotel
- /7/ Kenya NRB Fraction Final Report 30 March 2010
- /8/ Kenya NRB Fraction Final Report 30 March 2010
- /9/ Stove Cost Quote
- /10/ Annex 4 Proof of CPA1 Start Date.jpeg
- /11/ EIA Approval 1
- /12/ Emission Reductions for CPA1 Eldoret East and Keiyo Districts
- /13/ Cluster 1 Baseline_for PoA.xls
- /14/ Cluster 2 Baseline_for PoA.xlsx



- /15/ Cluster 3 Baseline_for PoA.xls
- /16/ Cluster 4 Baseline_for PoA.xls
- /17/ CPA 1 Wood Use Measurements.xlsx
- /18/ Letter Of Approval.jpg
- /19/ Sample frame PoA_Random selection.xlsx
- /20/ Forest Law and Governance in Kenya.pdf
- /21/ water boiling test_version_3.0_jan2007.pdf
- /22/ Stove Cost Quote (PoA-DD Annex 3).PDF
- /23/ UK LOA Efficient Cook Stove Programme Kenya

**Persons interviewed:**

List persons interviewed during the validation or persons that contributed with other information that are not included in the documents listed above.

/1/	EDNA CHELELGO	DOMESTIC USER
/2/	SARAH SITENEI	DOMESTIC USER
/3/	STELLA CHERUIYOT	DOMESTIC USER
/4/	MIRIAM CHEBOIYWO	DOMESTIC USER
/5/	SILAH . K. KIGEN	CHIEF NYARU
/6/	SAMWEL KIBOWEN	ASSISTANT CHIEF- KAPCHEPTER
/7/	SHEILA .J. LIMO	DOMESTIC USER
/8/	RAEL LIMO	TRAINER
/9/	EUNICE J. CHEPKAIROR	QASO MINISTRY OF EDUCATION
/10/	EVERLINE J KIPSONDIN	CHAIRLADY- KOKWET WOMEN GROUP
/11/	MILKA CHEBII	CHAIRLADY
/12/	ESTHER CHERUIYOT	TRAINER
/13/	SALLY JOHN	VILLAGE ELDER
/14/	EUNICE CHEPKIYENY	VILLAGE ELDER
/15/	GEORGE .K. TARUS	KIPCHAMO CHIEF
/16/	EVALINE .J. BIWOT	CHAIRLADY
/17/	BEATRICE MAVUTA	ASSISTANT CHIEF- KAPKENDA
/18/	DINAH TOROITICH	DOMESTIC USER
/19/	ESTHER RONO	CHURCH LEADER
/20/	DAVID SAINA	DOMESTIC USER
/21/	FRANCIS KERING	DOMESTIC USER
/22/	GLADYS TERIGIN	DOMESTIC USER
/23/	BEATRICE MURGOR	STAFF- ADAPT PLY
/24/	TERI ROTIH	DOMESTIC USER
/25/	CHRISTINE KIPRONO	DOMESTIC USER
/26/	JACK AYIEKO	HEAD CPO CARBON ZERO KENYA
/27/	CLEOPHAS CHEROP	C.P.O CARBON ZERO KENYA
/28/	ANNE TARUS	KAPTAGAT- TRAINER



7 CURRICULA VITAE OF THE DOE'S VALIDATION TEAM MEMBERS

Bureau Veritas Certification - Lead Verifier and team leader – Andrew Kinyanjui

Andrew Kinyanjui – Holds Diploma in Chemical Engineering. He had 5 yrs experience in Industrial production before joining BV. He has obtained 7 years experience in management systems audits and training and two years experience in CDM validation / verification at BV. He obtained the certificate of CDM Lead Verifier certificate, and Lead auditor for ISO 14001 He conducted Validation / Verification for more than 4 CDM/GS Projects.

Trainee Verifier – James Chirchir

James Chirchir – Holds BSc Chemical and Process Engineering. He has worked in manufacturing sectors for 3 years before joining BV. He has undergone intensive training on Clean Development Mechanism at BV. He obtained the certificate of CDM Lead Verifier certificate and Lead auditor for ISO 14001

Technical Specialist – James Mwaniki

Graduate in Electrical Engineering with over 25 years of experience power generation and energy demand and distribution as well as in energy management audits. He is the technical expert & supported this Validation.

Internal Reviewer – HB Muralidhar

Lead auditor in Bureau Veritas Certification for Environment Management System, Quality Management System and Occupational Health and Safety Management System. Graduate in Electrical Engineering with 25 years of experience power generation and distribution related fields as well as in management system auditing. He is the Lead auditor for Environmental Management System, Quality Management system and Occupational Health and Safety Management System. He has undergone intensive training on Clean Development Mechanism. He is the technical expert & conducted Validation / Verification for more than 50 CDM Projects.



VALIDATION REPORT

APPENDIX A: CO2BALANCE UK CDM PROJECT VALIDATION PROTOCOL

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
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VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
1. Approval			COUNTRY A Kenya	COUNTRY B United Kingdom		
a. Have all Parties involved approved the project activity?	VVM	44	Letter of approval not provided	Letter of approval not provided	CAR 1.	Ok
b. Has the DNA of each Party indicated as being involved in the proposed CDM project activity in section A.3 of the PDD provided a written letter of approval? (If yes, provide the reference of the letter of approval, any supporting documentation, and specify if the letter was received from the project participatn or directly from the DNA)	VVM	45	Yes, refer LoA reference NEMA/10/3/VOL.X dated 13 th October 2011,	DNA Ref: EA/CO2BUK/01/2011 Dated 26/08/2011		
c. Does the letter of approval from DNA of each Party involved:	VVM	45				
i. confirm that the Party is a Party of the Kyoto Protocol?	VVM	45.a	Yes, the LoA confirms that the Party is a Party of the Kyoto Protocol	Yes, United Kingdom ratified the Kyoto Protocol on 31 May 2002;		
confirm that participation is voluntary?	VVM	45.b	Yes, the LoA confirms that that participation is voluntary	Yes, the LoA confirms that that participation is voluntary		
iii. confirm that, in the case of the host Party, the proposed CDM project activity contributes to the sustainable development of the country?	VVM	45.c	Yes Host country Kenya confirms that the project contributes to the sustainable development of Kenya			
iv. Refers to the precise proposed CDM project activity title in the PDD being submitted for registration?	VVM	45.d	Yes, letter refers to the precise proposed CDM project activity title in the	Yes , Project issued for: Efficient Cook Stove Programme: Kenya		



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			PDD being submitted for registration		


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CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
d. Is(are) the letter(s) of approval unconditional with respect to (i) to (iv) above?	VVM	46	Yes, letter refers to specific PDD version 6 dated 19 th June 2011	yes		
e. Has(ve) the letter(s) of approval been issued by the respective Party's designated national authority (DNA) and is valid for the CDM project activity under validation?	VVM	47	Yes, letter is issued by Kenya's DNA	Yes , issued by Jason Bailey, the DNA for United Kingdom of Great Britain and Northern Ireland		
f. Is there doubt with respect to the authenticity of the letter of approval?	VVM	48	There is no doubt on authenticity	There is no doubt on authenticity		
g. If yes, was verified with the DNA that the letter of approval is authentic?	VVM	48	n/a	n/a		
2. Participation			PP1 CO2BALANCE	PP2 N/A		
a. Have all project participants been listed in a consistent manner in the project documentation?	VVM	51	Yes, PP is listed as Co2balance			
b. Has the participation of the project participants in the project activity been approved by a Party to the Kyoto Protocol?	VVM	51	Yes LoA is also the approval			
c. Are the project participants listed in tabular form in section A.3 of the PDD?	VVM	52	Yes, project participants are listed in tabular form in section A.3 of the PDD,			
d. Is the information in section A.3 consistent with the contact details provided in annex 1 of the PDD?	VVM	52	Yes, information in section A.3 is consistent with the contact details provided in annex 1 of the PDD			
e. Has the participation of each of the project	VVM	52	Kenya DNA has			


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VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
participants been approved by at least one Party involved, either in a letter of approval or in a separate letter specifically to approve participation? (Provide reference of the approval document for each of the project participants)			provided approval of participation		
f. Are any entities other than those approved as project participants included in these sections of the PDD?	VVM	52	No		
g. Has the approval of participation issued from the relevant DNA?	VVM	53	Yes		
h. Is there doubt with respect to (g) above? I	VVM	53	No		
i. If yes, was verified with the DNA that the approval of participation is valid for the proposed project participant?	VVM	53	n/a		
3. Project design document					
a. Is the PDD used as a basis for validation prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website?	VVM	55	Yes, PDD template is (CDM SSC-PoA-DD) - Version 01 and is the latest template and guidance from the CDM Executive Board	Ok	
b. Is the PDD in accordance with the applicable CDM requirements for completing the PDD?	VVM	56			
c. Is a comprehensive list of eligibility criteria definition for inclusion of a project activity as a CPA under the PoA indicated?			Under section A.4.2.2 of PoA-DD the list of eligibility criteria needs further Detail;- A comprehensive list of eligibility criteria definition for inclusion of a project activity as a CPA under the PoA should be included in section A.4.2.2, which includes specific criteria for demonstration of additionality of the CPA, and the type and / or extent of information (e.g. criteria, indicators, variables, parameters or measurements) that shall be provided by each CPA in	CL 1.	Ok



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			order to ensure its eligibility....etc		



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
d. Does the PoA-DD section A.4.4.2 include a description of the proposed statistically sound sampling method / procedure to be used by DOEs for verification of the emission reductions achieved by CPAs under the PoA.			The PoA-DD section A.4.4.2 should include a description of the proposed statistically sound sampling method / procedure to be used by DOEs for verification of the emission reductions achieved by CPAs under the PoA.	CL 2	Ok
e.					
4. Project description					
a. Does the PDD contain a clear description of the project activity that provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation?	VVM	58	Yes, The small-scale Programme of Activities (SSC-PoA) will distribute energy efficient cooking stoves to households in the Republic of Kenya. The efficient stoves will be manufactured and assembled in Kenya, the stove components will be manufactured in Kenya using local partners. A standardized, pre-cast combustion chamber and other stove components will be manufactured at a central location and distributed, The Managing Entity of the SSC-PoA is co2balance UK while co2balance East Africa will oversee production, assembly, and distribution of the stoves to the geographical area of each Project Activity (CPA), under the SSC-PoA. Co2balance will capture monitoring data from the installation process indentifying each stove by a unique reference number and GPS tag.	Ok	Ok
b. Is the description of the proposed CDM project activity as contained in the PDD:	VVM	59			
sufficiently covering all relevant elements?	VVM	59	Yes, 1. General operating and implementing framework of PoA - The small-scale Programme of Activities		Ok



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			<p>(SSC-PoA) will distribute energy efficient cooking stoves to households in the Republic of Kenya. The efficient stoves will be manufactured and assembled in Kenya, the stove components will be manufactured in Kenya using local partners. A standardized, pre-cast combustion chamber and other stove components will be manufactured at a central location and distributed, The Managing Entity of the SSC-PoA is co2balance UK while co2balance East Africa will oversee production, assembly, and distribution of the stoves to the geographical area of each Project Activity (CPA), under the SSC-PoA. Co2balance will capture monitoring data from the installation process indentifying each stove by a unique reference number and GPS tag.</p> <p>2. Policy/measure or stated goal of the PoA - construct and distribute approximately 300,000 efficient cooking stoves free-of-charge to rural households cooking with firewood in Kenya and reduce carbon emissions by allowing families to cook the same amount of food using less non-renewable biomass</p> <p>3. Confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity – as there is no law or policy requiring the use of fuel-efficient stoves or other means of reduced fuel wood consumption, hence the SSC-</p>		



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			PoA is a voluntary action		


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acurate?	VVM	59	During site visit carried out between 11 th – 12 th April 2011, it was witnessed that project description matched the actual project implementation	Ok	Ok
iii. providing the reader with a clear understanding of the nature of the proposed CDM project activity?	VVM	59	Yes	Ok	Ok
iv. Are there any changes/modifications compared to the webhosted PDD?	VVM	59	Version of PDD Efficient Cook Stove Programme: Kenya, Version 4, dated 01/12/2010 was used for site visit, updated version 6 of PDD was amended to incorporate changes to AMS 11G version 3		Ok
c. Is the proposed CDM project activity in existing facilities or or utilizing existing equipments?	VVM	60	This is greenfield project	Ok	Ok
d. Is the CDM project activity one of the following types:	VVM	60			
i. Large scale?	VVM	60	Not applicable		
ii. Non-bundled small scale projects with emission reductions exceeding 15,000 tonnes per year?	VVM	60	Yes, this is a PoA with typical CPA's with Annual average over crediting period of estimated reductions 50,761.73 (tCO ₂ -e)	Ok	Ok
iii. Bundled small scale projects, each with emission reductions not exceeding 15,000 tonnes?	VVM	60	Not applicable		
e. If yes to (c) and (d) above, was a physical site inspection conducted to confirm that the description in the PDD reflects the proposed CDM project activity, unless other means are specified in the methodology?	VVM	60	Site visit was carried out to confirm that the description in the PDD reflects the proposed CDM project activity	Ok	Ok
f. If yes to (d.iii) above, was the number of physical site visits base on samping?	VVM	60	Not applicable	Ok	Ok



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g. If yes is the sampling size appropriately justified through statistical analysis?	VVM	60	Not applicable		Ok
h. For other individual proposed small scale CDM project activities with emission reductions not exceeding 15,000 tonnes per year, was a physical site inspection conducted?	VVM	61	Not applicable		Ok
i. For all other proposed CDM project activities not referred to in paragraphs 59 – 61, and for other individual proposed small scale CDM project activities with emission reductions not exceeding 15,000 tonnes per year, was a physical site inspection conducted?	VVM	62	Not applicable		Ok
j. If no, was it appropriately justified?	VVM	62	Not applicable		
k. Does the proposed CDM project activity involve the alteration of an existing installation or process?	VVM	63	No, The small-scale Programme of Activities (SSC-PoA) will comprise several CPA's and will distribute energy efficient cooking stoves to households in the Republic of Kenya		Ok
l. If yes, does the project description clearly state the differences resulting from the project activity compared to the pre-project situation?	VVM	63	Not applicable		
5. Baseline and monitoring methodology					
a. General requirement					
a. Do the the baseline and monitoring methodologies selected by the project participants comply with the methodologies previously approved by the CDM Executive Board?	VVM	65	Yes, project employs AMS.II.G: Energy efficiency measures in thermal applications of non-renewable Biomass version 2.0 Valid from 18 Dec 09 to 28 Apr 11 Requests for registration can be submitted until 29 Dec 2011 23:59:59 GMT	Ok	Ok

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b. Is the selected methodology applicable to the project activity?	VVM	66	Refer to (5.b.i) below	-	-
c. Had the PP correctly applied the selected methodology?	VVM	66	Refer to (5.b.d) below	-	-
d. Had the selected methodology been correctly applied with respect to project boundary?	VVM	67	Refer to (5.c) below	-	-
e. Had the selected methodology been correctly applied with respect to baseline identification?	VVM	67	Refer to (5.d) below	-	-
f. Had the selected methodology been correctly applied with respect to Algorithms and/or formulae used to determine emission reductions?	VVM	67	Refer to (5.e) below	-	-
g. Had the selected methodology been correctly applied with respect to additionality?	VVM	67			
i. Is Baseline the Continuation of the current situation; i.e. use of non renewable biomass as fuel for the existing, less-efficient thermal applications.	VVM	67	Yes, in absence of project scenario, less efficient thermal applications are continuing the use of non renewable biomass as fuel		Ok
ii. Is demonstrated that non-renewable biomass has been used since December 31, 1989;	VVM	67	Means to verify claim "footnote 21" is not provided, further it is not specific to what the forest loss is attributed	CL 1.	Ok
iii. Is it ensured that the proposed project is not replacing the non-renewable biomass accounted for by already registered project activities in the same region;	VVM	67	PoA covers physical boundaries of Kenya, assurance that proposed project is not replacing the non-renewable biomass accounted for by already registered project activities is not provided, in addition; "To date, there are no other registered CDM project activities using a <u>Scope II Methodology</u> in the same region as the proposed PoA" this methodology is sector 3 methodology	CL 2.	Ok
iv. Are Project appliances continuously operated at	VVM	67	Project scenario involves efficiency improvements with		Ok



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the specified efficiency (new) or replaced by an equivalent service appliance;			replacement of existing appliances with completely new appliances (high efficiency biomass fired cook stoves)		
v. Have Project participants determined the share of renewable and non-renewable woody biomass in the quantity of woody biomass used in the absence of the project	VVM	67	$f_{NRB,y}$ = Please update reference in E.2 that determination of "the share of renewable and non-renewable woody biomass in the quantity of woody biomass used in the absence of the project" is demonstrable	CL 3.	Ok
h. Had the selected methodology been correctly applied with respect to monitoring methodology?	VVM	67			
i. Annual check of efficiency of the project appliances (e.g. by representative sample);	VVM	67	Yes, $\eta_{new,i}$ (Efficiency of each stove by vintage) is performed by annual efficiency test		Ok
ii. Leakage: The amount of woody biomass saved under the project that is used by non-project households/users (who previously used renewable energy sources) shall be assessed from surveys.	VVM	67	Determination for Leakage (The amount of woody biomass saved under the project that is used by non-project households/users (who previously used renewable energy sources) shall be assessed from surveys) is not provided	CL 4.	Ok
b. Applicability of the selected methodology to the project activity					
a. Is the selected baseline and monitoring methodology, previously approved by the CDM Executive Board, applicable to the project activity including that the used version is valid?	VVM	68	Yes, project employs AMS.II.G: Energy efficiency measures in thermal applications of non-renewable Biomass version 2.0 Valid from 18 Dec 09 to 28 Apr 11 Requests for registration can be submitted until 29 Dec 2011 23:59:59 GMT	Ok	Ok
i. Specific questions per methodology regarding applicability.			Refer 5 (g) & (h)		


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b. Has the DOE applied specific guidance provided by the CDM Executive Board in respect to the applicable approved methodology?	VVM	69	Yes, CDM METHODOLOGY BOOKLET		Ok
c. Is the methodology correctly quoted?	VVM	70	Please quote applicable methodology in full in E.2	CL 5.	Ok
d. Are the applicability conditions of the methodology met?	VVM	71	Pending CL1 – CL 4		Ok
ii. Specific questions per methodology regarding applicability conditions.			Refer 5 (g) & (h)		
e. Is the project activity expected to result in emissions other than those allowed by the methodology?	VVM	71	No, only Co ₂ is considered		Ok
f. Is the choice of the methodology justified?	VVM	71	Pending CL1 – CL 4		
g. Have the project participants shown that the project activity meets each of the applicability conditions or the approved methodology?	VVM	71	Refer to (5.b.d) above	-	-
h. Have the project participants shown that the project activity meets each of the applicability conditions of any tool or other methodology component referred to the methodology?	VVM	71			
iii. Specific questions per methodology regarding applicability conditions of any tool or other methodology component referred to the methodology.	VVM	71	Demonstration that applicability conditions for the tool " Tool for the demonstration and assessment of additionality " are met is not provided	CL 6.	Ok
iv.					
i. Is the DOE, based on local and sectoral knowledge, aware that comparable information is available from sources other than that used in the PDD?	VVM	71			
j. If yes, was the PDD cross checked against the	VVM	71			



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other sources to confirm that the project activity meets the applicability conditions of the methodology? (provide the reference to these choices)					
k. Can a determination regarding the applicability of the selected methodology to the proposed CDM project activity be made?	VVM	72			
l. If no, clarification of the methodology was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	72	Not applicable		
m. If answer to (5.b.d) above is "no", revision or deviation from the methodology was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	73	Not applicable		
n. If yes to (5.b.l) and (5.b.m) above, a request for registration was submitted before the CDM Executive Board has approved the proposed deviation or revision?	VVM	74	Not applicable		
c. Project boundary					
a. Does the PDD correctly describe the project boundary, including the physical delineation of the proposed CDM project activity included within the project boundary for the purpose of calculating project and baseline emissions for the proposed CDM project activity?	VVM	78	<p>PoA Boundary; The geographical boundary for the proposed PoA is the Republic of Kenya. All CPAs included in the PoA will be implemented in Kenya:</p> <p>CPA 1 Boundary; The project activity is limited to a region within the Eldoret East and Keiyo Districts</p> <p>Both PoA and CPA physical boundaries are clearly demarcated in Kenya</p>		Ok
i. Specific questions per methodology regarding application of the methodology with respect to			Refer 5 (g) & (h)		


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project boundary.					
b. Is the delineation in the PDD of the project boundary correct?	VVM	79	Yes		Ok
c. Does the delineation in the PDD of the project boundary meet the requirements of the selected baseline?	VVM	79	Yes delineation in the PDD of the project boundary meet the requirements of the selected baseline		Ok
d. Have changes been made to the project boundary in comparison to the webhosted PDD. If yes please comment on the reason for the changes.	VVM	79	No. There has been no change to the project boundary in comparison to the webhosted PDD.		Ok
e. Have all sources and GHGs required by the methodology been included within the project boundary?	VVM	79	Only Co2 Is considered in both baseline and project scenario		Ok
f. Does the methodology allow project participant to choose whether a source or gas is to be included within the project boundary?	VVM	79	No		Ok
g. If yes, have the project participants justified that choice?	VVM	79	Not applicable		Ok
h. If yes, is the justification provided reasonable? (provide reference to the supporting documented evidence provided by the project participants)	VVM	79	Not applicable		Ok
d. Baseline identification					
a. Does the PDD identify the baseline for the proposed CDM project activity, defined as the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CDM project activity?	VVM	81	Yes, The baseline scenario, is the continued use of open, three-stone fire cooking methods in rural areas of Kenya		
b. Has any procedure contained in the methodology	VVM	82	AMS IIG Version 02 assumes that in the absence		Ok


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to identify the most reasonable baseline scenario, been correctly applied?			of the project activity, the baseline scenario would be the use of fossil fuels for meeting similar thermal energy needs. This assumption is applied in ER calculations		
i. Specific questions per methodology regarding application of any procedure contained in the methodology to identify the most reasonable baseline scenario.					
c. Does the selected methodology require use of tools (such as the “Tool for the demonstration and assessment of additionality” and the “Combined tool to identify the baseline scenario and demonstrate additionality”) to establish the baseline scenario?	VVM	82	No		
d. If yes, was the methodology consulted on the application of these tools? (In such cases, the guidance in the methodology shall supersede the tool.)	VVM	82	Not applicable		
i. Specific questions per methodology regarding application of tools to establish the most reasonable baseline scenario.					
e. Does the methodology require several alternative scenarios to be considered in the identification of the most reasonable baseline scenario?	VVM	83	No		
f. If yes, are all scenarios that are considered by the project participants and are supplementary to those required by the methodology reasonable in the context of the proposed CDM project activity?	VVM	83	Not applicable		
g. Has any reasonable alternative scenario been	VVM	83	Not applicable		



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excluded?					
h. Is the baseline scenario identified reasonably supported by:	VVM	84			
i. Assumptions?	VVM	84	Yes. The use of firewood is generally a preferred choice in rural Kenya.		Ok
ii. Calculations?	VVM	84	Yes. Average monthly income in Kenya was considered in evaluating alternative scenario		Ok
iii. Rationales?	VVM	84	Yes. The baseline scenario is based of rural Kenya population where the use of wood fuel is common		Ok
i. Are the documents and sources referred to in the PDD correctly quoted and interpreted?	VVM	84	Yes. Appropriate data sources have been reference in the PDD		Ok
j. Was the information provided in the PDD cross checked with other verifiable and credible sources, such as local expert opinion, if available? (identify the sources)	VVM	84	Pending feedback from other stakeholders other than the communities to affected by the project activity		Ok
k. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario for the proposed CDM project activity?	VVM	85			
l. Have all relevant policies and circumstances been identified and correctly considered in the PDD, in accordance with the guidance by the CDM Executive Board?	VVM	85			
m. Does the PDD provide a verifiable description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity?	VVM	86	Methodology assumes baseline as use of fossil fuel		Ok



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e. Algorithms and/or formulae used to determine emission reductions					
a. Do the steps taken and equations applied to calculate project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected baseline and monitoring?	VVM	89	Yes, hence; $ER_y = B_{y,savings} \cdot f_{NRB,y} \cdot NCV_{biomass} \cdot EF_{projected_fossilfuel}$	Ok	Ok
b. Have the equations and parameters in the PDD been correctly applied with respect those in the select approved methodology?	VVM	90			
i. Is ER calculated as $ER_y = B_{y,savings} \cdot f_{NRB,y} \cdot NCV_{biomass} \cdot EF_{projected_fossilfuel}$	VVM	90	Yes, $ER_y = B_{y,savings} \cdot f_{NRB,y} \cdot NCV_{biomass} \cdot EF_{projected_fossilfuel}$	Ok	Ok
ii. Is $NCV_{biomass}$ IPCC default for wood fuel, 0.015 TJ/tonne)	VVM	90	Yes, $NCV_{biomass}$ Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.015 TJ/tonne)	Ok	Ok
iii. Is $f_{NRB,y}$ Fraction of woody biomass saved by the project activity in year y that can be established as non-renewable biomass?	VVM	90	Hence $f_{NRB,y}$ value applied = 0.97. from report "Kenya NRB Fraction Final Report 30 March 2010 (PoA-DD Annex3)" provides a range $0.96 \leq f_{NRB} \leq 0.97$ how is it demonstrated that applied value is more conservative?	CL 7.	Ok
iv. Is $B_{y,savings}$ Quantity of woody biomass that is saved in tonnes	VVM	90	Hence $B_{y,savings}$ is calculated Quantity of woody biomass that is saved in tonnes		
v. Is $EF_{projected_fossilfuel}$ 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 tCO ₂ /TJ for Kerosene, 63.0 tCO ₂ /TJ for	VVM	90	Hence $EF_{projected_fossilfuel}$ Emission factor is 71.5 tCO ₂ /TJ how is conclusion of kerosene as the likely substitute justified?	CL 8.	Ok



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Liquefied Petroleum Gas (LPG) or the IPCC default value of other relevant fuel					
vi. Is formular for B_y , savings calculated as $B_{y,savings} = B_y \cdot (1 - \frac{\eta_{old}}{\eta_{new}})$	VVM	90	From PoA $B_{y,savings} = \sum_{i=1}^n B_{y,appliance} \cdot L_y \cdot N_{y,i} \cdot \left(1 - \frac{\eta_{old}}{\eta_{new,i}}\right)$ What is L_y source/calculation and how is it justified to be included as a factor	CL 9.	Ok
vii. Is B_y Quantity of woody biomass used in the absence of the project activity in tonnes	VVM	90	Hence B_y is a factor of $N_{y,i} \cdot B_{y,appliance}$		Ok
viii. Is η_{old} calculated as Efficiency of the baseline system/s being replaced, measured using representative sampling methods or based on referenced literature values (fraction), use weighted average values if more than one type of systems are encountered; 0.10 default value may be optionally used if the replaced system is the three stone fire or a conventional system lacking improved combustion air supply mechanism and flue gas ventilation system i.e., without a grate as well as a chimney; for the rest of the systems 0.2 default value may be optionally used	VVM	90	Baseline is the use of fuel wood without a grate and lacks flue gas ventilation hence use of 0.10 default value is justified		Ok
ix. η_{new} Efficiency of the system being deployed as part of the project activity (fraction)	VVM	90	Hence, The efficiency of the new appliance. The fuel-efficient stove was tested in University of Nairobi Laboratory in Kenya and obtained a value of 30.67%, project has used 30% as efficiency		Ok
x. Is B_y calculated as (a) the product of the number of appliances multiplied by the estimate of average annual consumption of woody biomass per appliance (tonnes/year). This can	VVM	90	B_y is calculated as the product of the number of appliances multiplied by the estimate of average annual consumption of woody biomass per appliance (tonnes/year) – obtained from surveys		Ok



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<p>be derived from historical data or a survey of local usage, OR (b) Calculated from the thermal energy generated in the project activity as</p> $B_y = \frac{HG_{p,y}}{NCV_{biomass} \cdot \eta_{old}}$			<p>Specific to CPA 1 value = 3.98</p> <p>Not clear how value 3.98 is applied to CPA 1 in view of Baseline Survey Appendix 1</p> <p>Information to demonstrate that “A previous desk study has been carried in order to identify geographic, climate and socio-economic conditions between the different areas to ascertain what factors can influence emissions reductions” and its correlation to Independent consultant (Germán García Ibáñez) survey results dated 01/06/2010</p>	CL 10. CL 11.	
c. Does the methodology provide for selection between different options for equations or parameters?	VVM	90	Yes, in determination for B_y		
d. If yes, has adequate justification been provided (based on the choice of the baseline scenario, context of the proposed CDM project activity and other evidence provided)?	VVM	90	Justification for the option used to calculate B_y is not provided	CL 12.	Ok
e. If yes, have correct equations and parameters been used, in accordance with the methodology selected?	VVM	90	Refer to (5.e.b) above	-	-
f. Will data and parameters be monitored throughout the crediting period of the proposed CDM project activity?	VVM	91	<p>Yes, CPA – DD</p> <p>$N_{y,t}$ = Number of stoves in operation during the verification period</p> <p>$T_{y,j}$ = Operating time of stove in vintage (months/months in year)</p>		Ok



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			$\eta_{new,I}$ = Efficiency of each stove by vintage L_y = Leakage Correction Factor		



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g. If no, and these data and parameters will remain fixed throughout the crediting period, are all data sources and assumptions:	VVM	91	CPA – DD $B_{y, appliance}$ = Quantity of biomass used in absence of the project activity (per stove) η_{new} = Efficiency of the replacement stove $f_{NRB,y}$ = Non-renewable biomass usage in Kenya, as a proportion of total biomass usage η_{old} = Efficiency of three-stone fire cooking method (system being replaced) $NCV_{biomass}$ = Net calorific value of the non-renewable woody biomass that is substituted $EF_{projected_fossilfuel}$ = Emission factor: substitution of non-renewable biomass by similar consumers L_y = Leakage Correction Factor Clarify why number of appliances in CPA not set How is it determined that $f_{NRB,y}$ is fixed once	CL 13. CL 14.	Ok
i. Appropriate and correct?	VVM	91	Yes		Ok
ii. Applicable to the proposed CDM project activity?	VVM	91	Yes		Ok
iii. Resulting in a conservative estimate of the emission reductions?	VVM	91	Yes		Ok
h. Will data and parameters be monitored on	VVM	91	Yes. Data will be monitored upon implementation		Ok


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implementation and hence become available only after validation of the project activity?			of project activity.		
i. If yes, are the estimates provided in the PDD for these data and parameters reasonable?	VVM	91	Yes		Ok
6. Additionality of a project activity					
a. Does the PDD describe how a proposed CDM projet activity is additional?	VVM	94	Yes, Analysis of alternatives, and barrier analysis has been done		Ok
b. Were the following steps of the tool to assess additionality used:	EB 39	Ann 10			
i. Identification of alternatives to the project activity?	EB 39	Ann 10	Yes. i) Undertaking the proposed project activity without being registered as a CDM project. ii) Private sector to implement a commercial project to sell fuel efficient cooking stoves to rural Kenya iii) Continuation of the current use of three stone fire		Ok
ii. Investment analysis to determine that the proposed project activity is either: 1) not the most economically or financially attractive, or 2) not economically or financially feasible?	EB 39	Ann 10	Not used		Ok
iii. Barriers analysis?	EB 39	Ann 10	Yes		Ok
iv. Common practice analysis?	EB 39	Ann 10	Yes		Ok
c. In step 1 (i) have all the sub-steps as below been followed?	EB 39	Ann 10			
i. Sub-step 1a: Define alternatives to the project activity	EB 39	Ann 10	Yes, hence 3 scenarios; (i) The proposed project activity undertaken without being registered as a CDM project activity (ii) An alternative scenario would be for the private sector to implement a commercial project to		Ok



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			<p>sell fuel-efficient cooking stoves to the rural Kenyan poor for profit.</p> <p>(iii) The continuation of the current situation in Kenya is the continued use of open, three-stone fires for cooking</p>		



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ii. Sub-step 1b: Consistency with mandatory laws and regulations	EB 39	Ann 10	<p>There is no general law against the extraction of fuel wood from forests in Kenya. These only exist for protected areas, where some problems with illegal harvest of wood for a variety of purposes exist due to poor enforcement viz; The Forests Act (2005), Draft Land/Land use Policy; Environmental Management and Coordination Act (EMCA) 1999; The Water Policy/Water Act of 1999; The Wildlife (Conservation and Management) Act (Cap 376); the and the Agriculture/National Food Policy – (Sessional Paper No. 2 of 1994)</p> <p>Not clear if project will be implemented in protected areas, further Information on how the project will fulfills legal provisions in PoA, with respect to installation within protected areas is not provided</p>	CL 15.	Ok
d. Have the following alternatives been included while defining alternatives as per sub-step 1a?	EB 39	Ann 10			
i. (a) The proposed project activity undertaken without being registered as a CDM project activity;	EB 39	Ann 10	Yes. The alternative has been included as the first alternative.	ok	Ok
ii. (b) Other realistic and credible alternative scenario(s) to the proposed CDM project activity scenario that deliver outputs services or services with comparable quality, properties and application areas, taking into account, where relevant, examples of scenarios identified in the underlying methodology;	EB 39	Ann 10	Yes. Other alternative included is for private sector to implement a commercial project to sell fuel efficient cooking stoves to the rural Kenya for profit.	ok	Ok


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iii. (c) If applicable, continuation of the current situation (no project activity or other alternatives undertaken).	EB 39	Ann 10	Yes. Continuation of the current scenario which is the use of open, three-stone fires for cooking. This was confirmed during the site visit carried out between 11 th – 12 th April 2011	ok	Ok
e. Has the project participant included the technologies or practices that provide outputs or services with comparable quality, properties and application areas as the proposed CDM project activity and that have been implemented previously or are currently being introduced in the relevant country/region?	EB 39	Ann 10	Yes. There has been micro-scale projects, implementing domestic and institutional cooking stoves but these has been centered on providing micro-credit to stove users.		Ok
f. Has the outcome of Step 1a: Identified realistic and credible alternative scenario(s) to the project activity done correctly? Please briefly mention the outcome.	EB 39	Ann 10	Yes. The projects alternatives have been done correctly. Two other project scenarios have been identified apart from the proposed project. These are i) Implement a commercial project to sell fuel-efficient cooking stoves to the rural Kenyan poor for profit. (iii) The continuation of the current situation in Kenya is the continued use of open, three-stone fires for cooking		Ok
g. Is the alternative(s) in compliance with all mandatory applicable legal and regulatory requirements, even if these laws and regulations have objectives other than GHG reductions, e.g. to mitigate local air pollution.?	EB 39	Ann 10	Pending CL15		Ok
h. If an alternative does not comply with all mandatory applicable legislation and regulations, has it been shown that, based on an examination of current practice in the country or region in	EB 39	Ann 10	Pending CL15		Ok


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which the law or regulation applies, those applicable legal or regulatory requirements are systematically not enforced and that noncompliance with those requirements is widespread in the country?					
i. Has the outcome of Step 1b: Identified realistic and credible alternative scenario(s) to the project activity that are in compliance with mandatory legislation and regulations taking into account the enforcement in the region or country and EB decisions on national and/or sectoral policies and regulations done correctly? Please state the outcome.	EB 39	Ann 10	Pending CL15		Ok
j. Has PP selected Step 2 (Investment analysis) or Step 3 (Barrier analysis) or both Steps 2 and 3?	EB 39	Ann 10	Barrier analysis is selected		Ok
k. In step 2, have all the sub-steps as below been followed?	EB 39	Ann 10			
i. Sub-step 2a: Determine appropriate analysis method;	EB 39	Ann 10	Not applicable		
ii. Sub-step 2b: Option I. Apply simple cost analysis;	EB 39	Ann 10	Not applicable		
iii. Sub-step 2b: Option II. Apply investment comparison analysis;	EB 39	Ann 10	Not applicable		
iv. Sub-step 2b: Option III. Apply benchmark analysis;	EB 39	Ann 10	Not applicable		
v. Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III);	EB 39	Ann 10	Not applicable		
vi. Sub-step 2d: Sensitivity analysis (only	EB	Ann	Not applicable		


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applicable to Options II and III).	39	10			
I. In sub-step 2a has the determination of appropriate method of analysis done as per the guidance as below?	EB 39	Ann 10	Not applicable		
i. Simple cost analysis if the CDM project activity and the alternatives identified in Step 1 generate no financial or economic benefits other than CDM related income (Option I).	EB 39	Ann 10	Not applicable		
ii. Otherwise, use the investment comparison analysis (Option II) or the benchmark analysis (Option III). Specify option used with justification.	EB 39	Ann 10	Not applicable		
m. Has the below guideline followed for sub-step 2b Option I. Apply simple cost analysis? Document the costs associated with the CDM project activity and the alternatives identified in Step1 and demonstrate that there is at least one alternative which is less costly than the project activity.	EB 39	Ann 10	Not applicable		
n. Has the below guideline followed for sub-step 2b Option II. Apply investment comparison analysis? Identify the financial indicator, such as IRR, NPV, cost benefit ratio, or unit cost of service most suitable for the project type and decision-making context. Please specify	EB 39	Ann 10	Not applicable		
o. Has the below guideline followed for Sub-step 2b: Option III. Apply benchmark analysis?	EB 39	Ann 10	Not applicable		
i. Identify the financial/economic indicator, such as IRR, most suitable for the project type and decision context.	EB 39	Ann 10	Not applicable		


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ii. When applying Option II or Option III, the financial/economic analysis shall be based on parameters that are standard in the market, considering the specific characteristics of the project type, but not linked to the subjective profitability expectation or risk profile of a particular project developer. Only in the particular case where the project activity can be implemented by the project participant, the specific financial/economic situation of the company undertaking the project activity can be considered.	EB 39	Ann 10	Not applicable		
iii. Discount rates and benchmarks shall be derived from: (a) Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type, as substantiated by an independent (financial) expert or documented by official publicly available financial data; (b) Estimates of the cost of financing and required return on capital (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on bankers views and private equity investors/funds' required return on comparable projects; (c) A company internal benchmark (weighted average capital cost of the company), only in the particular case referred to above in 2. The project developers shall demonstrate that this benchmark has	EB 39	Ann 10	Not applicable		



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been consistently used in the past, i.e. that project activities under similar conditions developed by the same company used the same benchmark; (d) Government/official approved benchmark where such benchmarks are used for investment decisions; (e) Any other indicators, if the project participants can demonstrate that the above Options are not applicable and their indicator is appropriately justified. Please specify benchmark and justify.					
p. Has the below guideline followed for Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III)?	EB 39	Ann 10	Not applicable		
i. Calculate the suitable financial indicator for the proposed CDM project activity and, in the case of Option II above, for the other alternatives. Include all relevant costs (including, for example, the investment cost, the operations and maintenance costs), and revenues (excluding CER revenues, but possibly including inter alia subsidies/fiscal incentives, ODA, etc, where applicable), and, as appropriate, non-market cost and benefits in the case of public investors if this is standard practice for the selection of public investments in the host country.	EB 39	Ann 10	Not applicable		
ii. Present the investment analysis in a transparent manner and provide all the relevant assumptions, preferably in the CDM-PDD, or in	EB 39	Ann 10	Not applicable		


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separate annexes to the CDM-PDD.					
iii. Justify and/or cite assumptions.	EB 39	Ann 10	Not applicable		
iv. In calculating the financial/economic indicator, the project's risks can be included through the cash flow pattern, subject to project-specific expectations and assumptions.	EB 39	Ann 10	Not applicable		
v. Assumptions and input data for the investment analysis shall not differ across the project activity and its alternatives, unless differences can be well substantiated.	EB 39	Ann 10	Not applicable		
vi. Present in the CDM-PDD a clear comparison of the financial indicator for the proposed CDM activity. Please specify details for above.	EB 39	Ann 10	Not applicable		
q. Has the below guideline followed for Sub-step 2d: Sensitivity analysis (only applicable to Options II and III)? Include a sensitivity analysis that shows whether the conclusion regarding the financial/economic attractiveness is robust to reasonable variations in the critical assumptions.	EB 39	Ann 10	Not applicable		
r. Has the outcome of Step 2 clearly mentioned with justification?	EB 39	Ann 10	Not applicable		
s. In step 3: Barrier analysis have all the sub-steps as below been followed?	EB 39	Ann 10			
i. Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project activity;	EB 39	Ann 10	Yes, the barriers have been identified and includes i) investment barrier ii) technological barrier, iii) prevailing practice barrier iv) financial barrier.		ok
ii. Sub-step 3 b: Show that the identified barriers would not prevent the implementation of at	EB 39	Ann 10	Yes. Alternative scenario 3, the current scenario, will not subject to any barriers identified		ok


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least one of the alternatives (except the proposed project activity).					
t. Has the below guideline followed for Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project?	EB 39	Ann 10			
i. (a) Investment barriers: For alternatives undertaken and operated by private entities: Similar activities have only been implemented with grants or other non-commercial finance terms. No private capital is available from domestic or international capital markets due to real or perceived risks associated with investment in the country where the proposed CDM project activity is to be implemented, as demonstrated by the credit rating of the country or other country investments reports of reputed origin.	EB 39	Ann 10	Not applicable		
ii. (b) Technological barriers: Skilled and/or properly trained labour to operate and maintain the technology is not available in the relevant country/region, which leads to an unacceptably high risk of equipment disrepair and malfunctioning or other underperformance; Lack of infrastructure for implementation and logistics for maintenance of the technology, Risk of technological failure: the process/technology failure risk in the local circumstances is significantly greater than for other technologies that provide services or	EB 39	Ann 10	Technological barrier has been identified.		



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outputs comparable to those of the proposed CDM project activity, as demonstrated by relevant scientific literature or technology manufacturer information, The particular technology used in the proposed project activity is not available in the relevant region.					
iii. (c) Barriers due to prevailing practice: The project activity is the "first of its kind".	EB 39	Ann 10	Yes. In the current practice, there is no programme on the dissemination fuel-efficient cooking stoves in Kenya; hence the project activity is the first of its kind. The existing similar projects are either funded or subsidized.		OK
iv. (d) Other barriers, preferably specified in the underlying methodology as examples.	EB 39	Ann 10	Other barriers specified include i) Investment barrier ii) technological barrier, iii) prevailing practice barrier iv) financial barrier		OK
u. Has the outcome from Step 3a clearly mentioned in PDD?	EB 39	Ann 10	Yes. Barriers that may prevent one or more alternative scenarios to occur has been identified in the PDD		OK
v. Has the below guideline followed for 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)?	EB 39	Ann 10	Yes. The identified barriers would not prevent the current scenario, the use of the three-stone fires for cooking, from implementation.		OK
i. If the identified barriers also affect other alternatives, explain how they are affected less strongly than they affect the proposed CDM project activity. In other words, demonstrate that the identified barriers do not prevent the implementation of at least one of the alternatives. Any alternative that would be	EB 39	Ann 10	The prevailing practice and investment barriers would prevent alternative scenario 1 while financial barriers would prevent alternative scenario 2 from implementation. However, alternative scenario 3 is not subject to any barrier to prevent its implementation.		OK


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prevented by the barriers identified in Sub-step 3a is not a viable alternative, and shall be eliminated from consideration.					
ii. Provide transparent and documented evidence, and offer conservative interpretations of this documented evidence, as to how it demonstrates the existence and significance of the identified barriers and whether alternatives are prevented by these barriers.	EB 39	Ann 10	Reference to data sources provided in the PDD was made. Information on reference to 53% of small business in Kenya identifying access to finance as a major business constrain and 83% of small businesses relying on internal/returns for investments was not clear. Apart from the above mentioned references, other reference data demonstrated conservative approach to the existence and significance of the identified barriers.	CL 16.	Ok
iii. The type of evidence to be provided should include at least one of the following: (a) Relevant legislation, regulatory information or industry norms; (b) Relevant (sectoral) studies or surveys (e.g. market surveys, technology studies, etc) undertaken by universities, research institutions, industry associations, companies, bilateral/multilateral institutions, etc; (c) Relevant statistical data from national or international statistics; (d) Documentation of relevant market data (e.g. market prices, tariffs, rules); (e) Written documentation of independent expert judgments from industry, educational institutions (e.g. universities, technical schools, training centres), industry associations and others. Please specify.	EB 39	Ann 10	The type of evidence provided included (a) Relevant (sectoral) studies or surveys (e.g. market surveys, technology studies, etc) undertaken by universities, research institutions, industry associations, companies, bilateral/multilateral institutions, (b) Relevant statistical data from national or international statistics		Ok


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w. Has the outcome from Step 3 clearly mentioned in PDD?	EB 39	Ann 10	The outcome has been mentioned in step 3 sub-step 3b of the PDD		OK
x. In step 4: Common practise analysis have all the sub-steps as below followed?	EB 39	Ann 10			
i. Sub-step 4a: Analyze other activities similar to the proposed project activity;	EB 39	Ann 10	Yes. Other activities similar to the proposed project activity include the rural stoves West Kenya(RSWK) project, Kuni mbili project and the Kenya ceramic Jiko has been analysed.		OK
ii. Sub-step 4b: Discuss any similar Options that are occurring.	EB 39	Ann 10	There are no similar options to the proposed project activity based on its scale and lack of government and donor funding.		OK
y. Has the below guideline followed for Sub-step 4a: Analyze other activities similar to the proposed project activity? Provide an analysis of any other activities that are operational and that are similar to the proposed project activity. Other CDM project activities are not to be included in this analysis. <u>Provide documented evidence</u> and, where relevant, <u>quantitative information</u> . On the basis of that analysis, describe whether and to which extent similar activities have already diffused in the relevant region.	EB 39	Ann 10	Yes. Similar activities has been which included the RSWK project ,Kuni Mbili project and the Kenyan ceramic jiko project. Reference data has been documented in the PDD. At present, only 20000 of Kuni mbili stoves are operating in Kenya representing 0.68% rural household penetration in Kenya. Although similar activities have diffused to various parts of the region, the extend is limited. However reference to funding drop off by the Ministry of Agriculture is no clear		ok
z. Has the below guideline followed for Sub-step 4b: Discuss any similar Options that are occurring? If similar activities are identified, then it is necessary to demonstrate why the existence of these activities does not contradict the claim that the proposed project activity is financially/economically unattractive or subject to	EB 39	Ann 10	There are no similar options occurring. While other activities exist which gives similar outputs, they are different in terms of their scale and funding. Other activities including RSWK project ,Kuni Mbili project enjoyed funding and subsidies by the government and other donors		Ok


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barriers. This can be done by comparing the proposed project activity to the other similar activities, and pointing out and explaining essential distinctions between them that explain why the similar activities enjoyed certain benefits that rendered it financially/economically attractive (e.g., subsidies or other financial flows) and which the proposed project activity cannot use or did not face the barriers to which the proposed project activity is subject. In case similar projects are not accessible, the PDD should include justification about non-accessibility of data/information.					
aa. Has the outcome from Step 4 clearly mentioned in PDD?	EB 39	Ann 10	The out come from step 4 has been mentioned in sub-step4b of the PDD		Ok
bb. Has it been proved that the project is additional?	EB 39	Ann 10	Yes. it has been proved that the project is additional		Ok
cc. Has the PP demonstrated additionality by explaining Investment barrier, Access-to-finance barrier, Technological barrier, Barrier due to prevailing practice or other barriers?	EB 35	Ann 34	Yes. Except that investment barrier was not applicable.		Ok
dd. If Investment barrier has been explained, is it demonstraed that financilly more viable alternative to the project activity would have led to higher emissions? Please explain.	EB 35	Ann 34	Not applicable.		
ee. If Access-to-finance has been explained, is it demonstraed that the project activity could not access appropriate capital without consideration of the CDM revenues? Please explain.	EB 35	Ann 34	Yes. Accessibility to funding either by international donors or government, or individual capital was not easy because of low incomes, poor credit rating of the country, and loss of funding by government in		Ok


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ff. If Technological barrier has been explained, is it demonstraed that a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertainty or low market share of the new technology adopted for the project activity and so would have led to higher emissions? Please explain.	EB 35	Ann 34	other related projects activities. Yes. The knowledge and skills of the household is limited to inefficient three stones fires which leads to higher emissions.		Ok
gg. If prevailing practise barrier has been explained, is it demonstrated that the prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions? Please explain.	EB 35	Ann 34	Yes. The common practice is the use of three stone fires which results in higher emissions.		Ok
hh. If other barrier has been explained, is it demonstrated that Other barriers such as institutional barriers or limited information, managerial resources, organizational capacity, or capacity to absorb new technologies would prevent the project activity any way?	EB 35	Ann 34	Not applicable.		
ii. Have the project participants identified the most relevant barrier?	EB 35	Ann 34	Identification of the most relevant barrier is not provided	CL 17.	Ok
jj. Have the project participants provided transparent and documented third party evidence such as national/international statistics, national/provincial policy and legislation, studies/surveys by independent agencies etc. to demonstrate the most relevant barrier? Please explain.	EB 35	Ann 34	Transparent and documented third party evidence to demonstrate the most relevant barrier is not provided	CL 18.	Ok



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<i>a. Prior consideration of the clean development mechanism</i>					
a. Is the project activity start date prior to the date of publication of the PDD for stakeholder comments?	VVM	98	Stoves construction started in March 2011. Records for purchase of construction materials not provided.	CL 19.	Ok
b. If yes, were the CDM benefits considered necessary in the decision to undertake the project as a proposed CDM project activity?	VVM	98	Pending		Ok
c. Is the start date of the project activity, reported in the PDD, in accordance with the "Glossary of CDM terms", which states that "The starting date of a CDM project activity is the earliest date at which either the implementation or construction or real action of a project activity begins."?	VVM	99	Hence date provided is June 2011, however procurement of stove components has already started Provide start date in accordance with the "Glossary of CDM terms", which states that "The starting date of a CDM project activity is the earliest date at which either the implementation or construction or real action of a project activity begins"	CL 20.	Ok
d. Does the project activity require construction, retrofit or other modifications?	VVM	99	Yes. The construction of stoves is required		OK
e. If yes, is it ensured that the date of commissioning cannot be considered as the project activity start date?	VVM	99	Yes, sourcing of materials for CPA construction is the start date		Ok
f. Is it a new project activity (a project activity with a start date on or after 02 August 2008) or an existing project activity (a project activity with a start date before 02 August 2008)?	VVM	100	New project after 02 august 2008		Ok
g. For a new project, for which PDD has not been published for global stakeholder consultation or a new methodology proposed to the CDM Executive Board before the project activity start	VVM	101	n/a		


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date, had the PP informed the Host Party DNA and/or the UNFCCC secretariat in writing of the commencement of the project activity and of their intention to seek CDM status? (Provide reference to such confirmation from host Party DNA and/or UNFCCC secretariat).					
h. For an existing project activity, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation, are the following evidences provided:	VVM	102	Start date for the project is after publication of PDD for GSC		Ok
i. evidence that must indicate that awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project, including, inter alia:	VVM	102	n/a		
a. Minutes and/or notes related to the consideration of the decision by the Board of Directors, or equivalent, of the project participant, to undertake the project as a proposed CDM project activity?	VVM	101	n/a		
ii. reliable evidence from project participants that must indicate that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation, including, inter alia:	VVM	102	n/a		
a. contract with consultants for CDM/PDD/methodology services?	VVM	102	n/a		
b. Emission Reduction Purchase Agreements or other documentation	VVM	102	n/a		


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related to the sale of the potential CERS (including correspondence with multilateral financial institutions or carbon funds)?					
c. evidence of agreements or negotiations with a DOE for validation services?	VVM	102	n/a		
d. submission of a new methodology to the CDM Executive Board?	VVM	102	n/a		
e. publication in newspaper?	VVM	102	n/a		
f. interviews with DNA?	VVM	102	n/a		
g. earlier correspondence on the project with the DNA or the UNFCCC secretariat?	VVM	102	n/a		
h. Has the chronology of events including time lines been appropriately captured and explained/detailed in the PDD?	VVM	102	n/a		
<i>b. Identification of alternatives</i>					
a. Does the approved methodology that is selected by the proposed CDM project activity prescribe the baseline scenario and hence no further analysis is required?	VVM	105	No. the approved methodology selected by the proposed CDM project activity does not prescribe the baseline scenario		Ok
b. If no, does the PDD identify credible alternatives to the project activity in order to determine the most realistic baseline scenario?	VVM	105	Yes, Credible alternatives to the project activity have been identified to determine the most realistic baseline scenario		Ok
c. Does the list of alternatives given in the PDD ensure that:	VVM	106			Ok
i. The list of alternatives includes as one of the options that the project activity is undertaken without being registered as a	VVM	106	Yes		Ok


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proposed CDM project activity?					
ii. The list contains all plausible alternatives that the DOE, on the basis of its local and sectoral knowledge, considers to be viable means of supplying the outputs or services that are to be supplied by the proposed CDM project activity?	VVM	106	The list of alternatives is plausible on the basis of local and sectoral knowledge		Ok
iii. the alternatives comply with all applicable and enforced legislation?	VVM	106			
c. Investment analysis					
a. Has investment analysis been used to demonstrate the additionality of the proposed CDM project activity?	VVM	108	Not used		Ok
d. Barrier analysis					
a. Has barrier analysis been used to demonstrated the additionality of the proposed CDM project activity?	VVM	115	Yes. Barrier analysis has been used to demonstrated the additionality of the proposed CDM project activity		ok
b. If yes, does the PDD demonstrate that the proposed CDM project activity faces barriers that:	VVM	115			
i. prevent the implementation of this type of proposed CMD project activity?	VVM	115	Yes, the PDD demonstrate that the proposed CDM project activity faces barriers that prevent the implementation of this type of proposed CMD project activity		ok
ii. do not prevent the implementation of at least one of the alternatives?	VVM	115	Yes, the PDD demonstrate that the proposed CDM project activity faces barriers that do not prevent the implementation of at least one of the alternatives		Ok
c. Are there any issues that have a clear direct impact on the financial returns of the project	VVM	116	No. There are no issues that have a clear direct impact on the financial returns of the project		Ok


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activity, other than: risk related barriers, for example risk of technical failure, that could have negative effects on the financial performance; or barriers related to the unavailability of sources of finance for the project activity? {If yes, these issues cannot be considered barriers and shall be assessed by investment analysis. [Refer to (6.c) above]}			activity		
d. Were the barriers determined as real by:	VVM	117			
i. assessing the available evidence and/or undertaking interviews with relevant individuals (including members of industry associations, government officials or local experts if necessary) to determine whether the barriers listed in the PDD exist?	VVM	117	Yes. Reference of evidence used was made.		Ok
ii. ensuring that existence of barriers is substantiated by independent sources of data such as relevant national legislation, surveys of local conditions and national or international statistics?	VVM	117	The current Kenya's credit rating is B+ not B as per www.bloomberg.com/apps/news?	CL 21.	Ok
iii. Is existence of a barrier substantiated only by the opinions of the project participants? (If yes, this barrier cannot be considered as adequately substantiated)	VVM	117	No. Reference to relevant independent data sources was made.		Ok
e. Were the barriers determined as preventing the implementation of the project activity but not the implementation of at least one of the possible alternatives by applying local and sectoral expertise to judge whether a barrier or set of	VVM	117	Yes, by applying local expertise, it is deemed that the barriers prevented		



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barriers would prevent the implementation of the proposed CDM project activity and would not equally prevent implementation of <i>at least one of</i> the possible alternatives, in particular the identified baseline scenario?					
e. Common practice analysis					
a. Is this a proposed large-scale, or first-of-its kind small-scale project activity?	VVM	119	Yes, its is a first-of-its kind small-scale project activity		Ok
b. If yes, was common practice analysis carried out as a credibility check of the other available evidence used by the project participants to demonstrate additionality?	VVM	119	Yes, common practice analysis carried out as a credibility check of the other available evidence used by the project participants to demonstrate additionality		Ok
c. Was it assessed whether the geographical scope (e.g. defined region) of the common practice analysis is appropriate for the assessment of common practice related to the project activity's technology or industry type? (For certain technologi the relevatn region for assessment will be local and for others it may be transnational/global.	VVM	120	Yes , it assessed that the geographical scope of the common practice analysis is appropriate for the assessment of common practice related to the project activity's technology or industry type		Ok
d. Was a region other than the entire host country chosen?	VVM	120	No ,		ok
e. If yes, was the explanation why this region is more appropriate assessed?	VVM	120	Not applicable		
f. Using official sources and local and industry expertise, was it determined to what extent similar and operational projects (e.g., using similar technology or practice), other than CDM project activities, have been undertaken in the	VVM	120	Yes.Official sources and local and industry expertise, was used to determined to what extent similar and operational projects other than CDM project activities, have been undertaken in the defined region		Ok



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defined region?					
g. Are similar and operational projects, other than CDM project activities, already "widely observed and commonly carried out" in the defined region?	VVM	120	Yes, Similar and operational projects, other than CDM project activities, already widely observed and commonly carried out" in the defined region. Reference; "povertystoves.energyprojects.net" could not be accessed / verified.	CL 22.	Ok
h. If yes, was it assessed whether there are essential distinctions between the proposed CDM project activity and the other similar activities?	VVM	120	Yes. essential distinctions between the proposed CDM project activity and the other similar activities was assessed.		Ok
7. Monitoring plan					
a. Does the PDD include a monitoring plan?	VVM	122	Yes, the PDD include a monitoring plan as annex 4		ok
b. Is this monitoring plan based on the approved monitoring methodology applied to the proposed CDM project activity?	VVM	122			
c. Were the lists of parameters required by the selected methodology identified?	VVM	123	Yes		
d. Does the monitoring plan contain all necessary parameters?	VVM	123	Yes i.e. $N_{y,I} B_{y,baseline_tech} f_{NRB,y}$		Ok
e. Are the parameters clearly described?	VVM	123	No. The following needs to be included. i)The data on the amount of woody biomass saved under the project activity that is used by non project households/users who previously used renewable energy sources.	CL 23.	Ok
f. Does the means of monitoring described in the plan comply with the requirements of the methodology?	VVM	123	Yes. The means of monitoring described in the plan comply with the requirements of the methodology		Ok


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g. Specific questions per methodology regarding parameters.	VVM	123			
h. Are the monitoring arrangements described in the monitoring plan feasible within the project design?	VVM	123	Yes. The monitoring arrangements described in the monitoring plan feasible within the project design		Ok
i. Does the monitoring plan provide details regarding calibration of monitoring equipments/instruments or does it include zero check as a substitute for calibration? (zero check can not be considered as a substitute for calibration)	EB 24	37	No. The monitoring plan does not provide details regarding calibration of monitoring equipments	CL 24.	Ok
j. Are the following means of implementation of the monitoring plan sufficient to ensure that the emission reductions achieved by/resulting from the proposed CDM project activity can be reported ex post and verified:	VVM	123			
i. data management procedures?	VVM	123	Yes monitoring plan annex 4 para 2.0 requires For each constructed stove, the following information will be documented: <ul style="list-style-type: none"> • 6. Unique Stove Serial Number • Stove GPS Coordinates • Address/ID Number/Mobile Number of Stove recipient • Carbon Handover Sheet • 10. Stove Construction Date 	Ok	Ok
ii. quality assurance procedures?	VVM	123	Quality assurance procedures for post construction activity and organization management process is required	CL 25.	Ok
iii. quality control procedures?	VVM	123	Quality control procedures for project activity implementation is required	CL 26.	Ok


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8. Sustainable development					
a. Does the CDM project activity assists Parties not included in Annex I to the Convention in achieving sustainable development?	VVM	125	Yes. The CDM project activity assists Parties not included in Annex I to the Convention in achieving sustainable development		Ok
b. Does the letter of approval by the DNA of the host Party confirm the contribution of the proposed CDM project activity to the sustainable development of the host Party?	VVM	126	Yes		Ok
9. Local stakeholder consultation					
a. Were local stakeholders (public, including individuals, groups or communities affected, of likely to be affected, by the proposed CDM project activity or actions leading to the implementation of such an activity) invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website?	VVM	128	Yes, the local stakeholders were invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website	ok	Ok
b. Have comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity been invited?	VVM	129	What were the comments from other stakeholders other than the communities affected by the project activity.	CL 27.	Ok
c. Is the summary of the comments received as provided in the PDD complete?	VVM	129	Yes, the summary comments provided in the PDD complete		Ok
d. Have the project participants taken due account of any comments received and described this process in the PDD?	VVM	129	Yes		Ok
10. Environmental impacts					
a. Have the project participants submitted documentation on the analysis of the	VVM	131	Yes, copy of EIA is provided that contains list and analysis of environmental impacts		Ok



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environmental impacts of the project activity?					
b. Have the project participants undertaken an analysis of environmental impacts?	VVM	132	Yes		Ok
c. Does the host Party require an environmental impact assessment?	VVM	132	Yes, the host Party require an environmental impact assessment		Ok
d. If yes, have the project participants undertaken an environmental impact assessment?	VVM	132	Yes, and approved by the national environmental authority for Kenya		Ok

Table 2 Specific validation activities

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
1. Project design of programme of activities (delete this table if the project activity is not a programme of activities)					
Coordinating/managing entity and all other project participants shall be listed in tabular form in section A.3 of the SSC-PoA-DD, and this information shall be consistent with the contact details provided in annex 1 of the SSC-PoA-DD	VVM		OK.		ok
e. No entities other than those approved as project participants shall be included in these sections of the SSC-PoA-DD	VVM		OK.		OK.



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clarifications and corrective action requests by validation team	Ref. to checklist question in table 1 and 2	Summary of project owner response	Validation team conclusion
CAR 1. Letters of approval for Kenya and UK not provided		<u>PP: 14/07/2011</u> LoA for Kenya received July 11 th , 2011. Sent to DOE July 15 th , 2011.	<u>DOE: 24/06/2011</u> LoA for UK DNA Pending



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<p>CL 1. Means to verify claim "footnote 21" is not provided, further it is not specific to what the forest loss is attributed</p>		<p>PP: 22/06/2011</p> <p>Footnote 21 is now footnote 22. The source for footnote 20 provided at the bottom of the page 18. The source is " Statistics: Kenya (2010, August). <i>Mongabay.com</i>. Retrieved from www.rainforests.mongabay.com/deforestation/2000/Kenya.htm." Text has been added to section E.2 explaining the degree of forest loss and to what the loss is attributed. The text added is the following: "Between 1990 and 2005, Kenya lost roughly 12,050 hectares of forest cover per year. This translates into a rate of deforestation of 0.32 per cent per year. Of the wood used in 2005, 100 per cent came from forests. The wood was used either as industrial roundwood or woodfuel. In 2005, 1.6 million m³ was harvested for industrial roundwood and 27.4 million m³ was used as fuelwood. In summary 94 per cent of wood removal in 2005 was to be used as fuelwood and all of it came from forests. In total the country lost 6.5 per cent of forest cover in that 20-year period. Since forest cover has been decreasing steadily since 1990 it can be concluded that non-renewable biomass has been used in Kenya since 31 December 1989."</p>	<p>OK In view of additional verifiable information provided in footnote 22</p>
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CL 2. PoA covers physical boundaries of Kenya, assurance that proposed project is not replacing the non-renewable biomass accounted for by already registered project activities is not provided, in addition; "To date, there are no other registered CDM project activities using a Scope II Methodology in the same region as the proposed PoA" this methodology is sector 3 methodology		PP: 22/06/2011 The quoted text in section E.2 of the PoA-DD has been altered to: "To date, there are no other registered CDM project activities or programmes using Approved Small-Scale Methodology: <i>AMS-II.G Energy efficiency measures in the application of non-renewable biomass</i> in the same region as the proposed PoA."	Ok
CL 3. <i>fNRB,y</i> = Please update reference in E.2 that determination of "the share of renewable and non-renewable woody biomass in the quantity of woody biomass used in the absence of the project" is demonstrable		PP: 22/06/2011 Section E.2 has had the following text added: "The per cent of non-renewable biomass used in Kenya was determined through a study to be 0.96. The study is provided in Annex 3. During the lifetime of the project the non-renewable biomass factor will be reassessed as part of the monitoring plan."	Ok in view of clarification provided
CL 4. Determination for Leakage (The amount of woody biomass saved under the project that is used by non-project households/users (who previously used renewable energy sources) shall be assessed from surveys) is not provided		PP: 22/06/2011 As per AMS.II-G Version 03, the default value of 0.95 is applied for leakage.	Ok as result of revision of methodology AMSIIG from ver02 to ver03

* Statistics: Kenya (2010, August). *Mongabay.com*. Retrieved from www.rainforests.mongabay.com/deforestation/2000/Kenya.htm.



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CL 5. Please quote applicable methodology in full in E.2	PP: 22/06/2011 Section E.2 text altered to: "The approved small scale baseline and monitoring methodology II.G. <i>Energy efficiency measures in the thermal application of non-renewable biomass</i> Version 03 has been selected as the technologies and measures to be implemented in the proposed PoA include the introduction of high efficiency biomass fired cook stoves. This is the stated goal of each CPA under the proposed PoA."	Ok
This section is intentionally left blank		



VALIDATION REPORT

<p>CL 6. Demonstration that applicability conditions for the tool "Tool for the demonstration and assessment of additionality" are met is not provided</p>	<p>PP: 22/06/2011 Section A.4.3 of the PoA-DD has had the following text inserted: "The additionality is demonstrated using the UNFCCC Methodological Tool: <i>Tool for the demonstration and assessment of additionality Version 05.2</i>. The <i>Tool for the demonstration and assessment of additionality</i> is applicable to the demonstration of the additionality of a Programme of Activities and to small-scale CDM activities using methodology AMS-II.G Version 03."</p> <p>PP: 14/07/2011 In section A.4.3 of the PoA-DD added: Specifically under paragraph 6 of the methodological tool, regarding Scope and Applicability, it reads: "The document provides a general framework for demonstrating and assessing additionality and is applicable to a wide-range of project types."</p> <p>Section E.2 of the PoA-DD the following text has been added: "AMS-II.G Version 3 does not require a specific tool for the demonstration of additionality. As per EB 60 Annex 26 Paragraph 4, the Executive Board clarified that "a full additionality assessment is not required in the context of component project activities (CPA), rather the confirmation of additionality for CPAs should be conducted by means of the eligibility criteria." Additionality is proven at the PoA level as per the <i>Tool for the demonstration and assessment of additionality Version 05.2</i>."</p>	<p>Refer section I. SCOPE AND APPLICABILITY Of the tool and comment accordingly in E.2 of PoA-DD explicitly, including relevant provisions of the tool</p> <p>Ok</p>
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VALIDATION REPORT

CL 7. $f_{NRB,y}$ value applied = 0.97. from report "Kenya NRB Fraction Final Report 30 March 2010 (PoA-DD Annex3)" provides a range $0.96 \leq f_{NRB} \leq 0.97$ how is it demonstrated that applied value is more conservative?		PP: 22/06/2011 In section E.6.3 f_{nrB} is now listed as 0.96. This is a conservative estimate.	Ok
CL 8. $EF_{projected_fossilfuel}$ Emission factor is 71.5 tCO ₂ /TJ how is conclusion of kerosene as the likely substitute justified?		PP: 22/06/2011 As per AMS-II.G Version 3, $EF_{projected_fossilfuel}$ has the default value 81.6 tCO ₂ /TJ. Shown in section E.6.3.	Ok as result of revision of methodology AMSIIG from ver02 to ver03
CL 9. From PoA B $y_{savings} = \sum_{i=1}^n B_{y,appliance} \cdot L_y \cdot N_{y,i} \cdot \left(1 - \frac{\eta_{old}}{\eta_{new,i}}\right)$ What is L_y source/calculation and how is it justified to be included as a factor		L_y is assumed to be 0.95 as per AMS-II.G Version 03. PP: 14/07/2011 Equations in PoA-DD, CPA 1-DD, and CPA-Template have been numbered chronologically. Eqn 2 in PoA-DD, CPA 1-DD, and CPA-Template has been revised to reflect correct definitions.	1) Please number all equations chronologically 2) Eqn $B_{old} = (B_{average_use} - B_{y,baseline_tech}) \cdot L_y \cdot N_y$ Is not correct, and definitions provided at the bottom do not tally e.g. $\eta_{new,i}$ is not for this eqn Ok



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<p>CL 10. Specific to CPA 1 value = 3.98</p> <p>Not clear how value 3.98 is applied to CPA 1 in view of Baseline Information.pdf Appendix 1</p>	<p>PP: 22/06/2011 Section B.5.1 of the CPA1-DD has had the following text added: " The complete baseline survey results are shown in Annex 3. The proposed CPA falls within cluster 2 of the baseline survey. Survey results show that household within cluster 2 use 10.91 kg of firewood per day (lower bound of 90 per cent confidence. Multiplying 10.91 kg of wood use per day by 365 days per year, results in an annual household wood use of 3,982 kg per household per year. This is equivalent to 3.98 tonnes per annum per household."</p> <p>PP: 14/07/2011 CPA 1-DD revised to list region of CPA 1 as within cluster 4.</p>	<p>At bottom of Annex 1 – Rift Valley Province, where CPA 1 is located is corresponding to cluster 4</p> <p>Accepted in view of study performed in project location and subsequent data analysis</p>
<p>CL 11. Information to demonstrate that; "A previous desk study has been carried in order to identify geographic, climate and socio-economic conditions between the different areas to ascertain what factors can influence emissions reductions" and its correlation to Independent consultant (Germán García Ibáñez) survey results dated 01/06/2010 is not provided</p>	<p>PP: 22/06/2011 The desk study identifying geographic, climate, and social-economic conditions between the different areas is part of the baseline study dated 01/06/2010 and performed by German Ibanez. The text has been removed.</p> <p>PP: 14/07/2011 The survey data supporting the cluster study has been sent to the DOE for review.</p> <p>PP: 26/07/2011 Sent additional wood use survey data from households within project area showing wood use in baseline study is conservative.</p>	<p>Ok</p>



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CL 12. Justification for the option used to calculate B_y is not provided		<p>PP: 22/06/2011</p> <p>The following text has been added to section E.6.1 of the PoA-DD:</p> <p>“Following AMS-II.G Version 03, under paragraph 6 Option 2 is chosen to determine $B_{y,savings}$. Under Option 2 $B_{y,savings}$ is calculated through the following equation: $B_{y,savings} = B_{old} \cdot (1 - \eta_{old})$. Option 2 was chosen because it allows for biennial monitoring and ensures that the performance metric of the project technology (η_{new}) is thoroughly and accurately monitored.</p> <p>Following AMS-II.G Version 03, under paragraph 7 Option a) is chosen to determine B_{old}. In Option a) B_{old} is the product of number of systems in the project activity multiplied by an average annual consumption of woody biomass per appliance. B_{old} is determined using survey methods detailed in Annex 3.”</p>	Ok
CL 13. Clarify why number of appliances in CPA not set		<p>PP: 22/06/2011</p> <p>Number of appliances for CPA1 has been set to 16,048 as per section B.5.1 of the CPA1-DD.</p>	Ok



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CL 14. How is it determined that $f_{NRB,y}$ is fixed once		<p>PP: 22/06/2011 $f_{NRB,y}$ will be reassessed during each monitoring period as per section E.7.</p> <p>PP: 14/07/2011 $f_{NRB,y}$ was removed from section E.6.3. It is now exclusively in section E.7.</p> <p>In E.7 included "either annually or biennially"</p>	<p>1) However $f_{NRB,y}$ is indicated in CPA DD as data at validation — means it will be fixed</p> <p>This comment in section A.4.4.2. Monitoring plan: "In addition to the parameters above, the non-renewable biomass factor, $f_{NRB,y}$, will be assessed for each verification period as per the guidelines of paragraphs 8, 9, 10 of AMS-II.G Version 03" these paras do not relate frequency of monitoring</p> <p>Ok</p>
CL 15. Identification of the most relevant barrier is not provided		<p>PP: 22/06/2011 The most relevant barrier to the project activity is now identified in section A.4.3 of the PoA-DD. The following text has been added: "In summary, the most relevant barrier to the proposed project activity is the financial barrier. The financial barrier to the project activity covers the lack of income available to households to invest in the efficient technology to be provided by the programme. In addition to the lack of capital, surveys show that households lack a financial incentive to invest a significant portion of household income in an efficient stove as the fuel to be saved, fuel wood, is not a monetary expense for many households. It follows that the financial barrier is the most significant barrier."</p>	<p>Ok</p>



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CL 16. Transparent and documented third party evidence to demonstrate the most relevant barrier is not provided		PP: 22/06/2011 As per section A.4.3 of the PoA-DD the financial barrier, selected as the most relevant, is supported by transparent and documented third party evidence.	Ok
CL 17. Stoves construction started in March 2011. Records for purchase of construction materials not provided.		PP: 22/06/2011 Stove construction started January 30 th , 2011. Invoice for delivery of materials to the CPA 1 project site dated January 30 th , 2011 has been attached in Annex 4 of the CPA1-DD. PP: 14/07/2011 No LPO for purchase. Start date of CPA is defined as the start of construction. Delivery of construction materials to the project site is the start of construction.	LPO for purchase will be more appropriate Ok
CL 18. Provide start date in accordance with the "Glossary of CDM terms", which states that "The starting date of a CDM project activity is the earliest date at which either the implementation or construction or real action of a project activity begins		PP: 22/06/2011 Start date has been provided. See section A.4.2.1 of the CPA1-DD.	Ok
CL 19. Similar and operational projects, other than CDM project activities, already "widely observed and commonly carried out" in the defined region. Reference; "povertystoves.energyprojects.net" could not be accessed / verified.		PP: 22/06/2011 Reference has been removed.	Ok



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CL 20. The following needs to be included. i)The data on the amount of woody biomass saved under the project activity that is used by non project households/users who previously used renewable energy sources.		PP: 22/06/2011 Not required as the 0.95 default value for leakage as per AMS-II.G Version 03 has been used.	Ok
CL 21. The monitoring plan does not provide details regarding calibration of monitoring equipments		PP: 22/06/2011 Included in section E.7.2: "Each CPA will follow the monitoring plan detailed in section E.7. Equipment used for the Kitchen Performance Tests and Water Boiling Tests under the monitoring plan will be calibrated as per the requirements of the testing procedures given by the Partnership for Clean Indoor Air regarding Water Boiling Tests and Kitchen Performance Tests. ^{*,†} "	Ok
CL 22. Quality assurance procedures for post construction activity and organization management process is required		PP: 22/06/2011 Provided in section A.4.4.2 of the PoA-D	Ok
CL 23. Quality control procedures for project activity implementation is required		PP: 22/06/2011 Provided in section A.4.4.1 of the PoA-DD	Ok

* Water Boiling Test, Version 3, *Partnership for Clean Indoor Air*, www.pciaonline.org/files/WBT_Version_3.0_0.pdf.

† Kitchen Performance Test Version 3, *Partnership for Clean Indoor Air*, www.pciaonline.org/files/KPT_Version_3.0_0.pdf



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<p>CL 24. What were the comments from other stakeholders other than the communities affected by the project activity?</p>		<p>PP: 22/06/2011</p> <p>The meeting minutes of a consultation held with Kenyan government ministries has been attached in Annex 5 of the CPA1-DD. Section D.2 of the CPA1-DD has had the following text added: "In addition, a meeting was held on March 22nd, 2011 in Nairobi with stakeholders other than the communities affected by the project activity. The minutes of the meeting are attached in Annex 5. The participants include representatives from the Kenyan Ministry of Energy, Ministry of Agriculture, University of Nairobi, and Kenya Wildlife Services."</p> <p>The following text was added to section D.3 of the CPA1-DD: "At the consultative meeting on March 22nd, 2011 attendees inquired as to the financing mechanism behind the project. Questions were asked regarding if there were any criteria for households to be eligible to receive a stove. A summary of all questions asked and responses is provided in Annex 5."</p>	<p>Ok</p>
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CL 25. Under section A.4.2.2 of PoA-DD the list of eligibility criteria needs further Detail;- A comprehensive list of eligibility criteria definition for inclusion of a project activity as a CPA under the PoA should be included in section A.4.2.2, which includes specific criteria for demonstration of additionality of the CPA, and the type and / or extent of information (e.g. criteria, indicators, variables, parameters or measurements) that shall be provided by each CPA in order to ensure its eligibility....etc		PP: 14/07/2011 Section A.4.2.2 and E.5.2 of the PoA-DD have been revised to include further detail and information provided. Section B2 and B3 of the CPA-DD and CPA-Template have been revised as well.	Ok
CAR 2. Terms in use through-out the Forms CME and CPA implementers / operators should be applied consistently throughout the Forms, further Dates should be DD/MM/YY Years should be <u>xx</u> years <u>xx</u> months		PP: 14/07/2011 CME and CPA implementers has been used consistently All dates have been changed to the DD/MM/YYYY format.	Ok
CL 26. The PoA-DD section A.4.4.2 should include a description of the proposed statistically sound sampling method / procedure to be used by DOEs for verification of the emission reductions achieved by CPAs under the PoA.		PP: 14/07/2011 Description of sampling plan as per the <i>General Guidelines for Sampling and Surveys for Small-Scale CDM Project Activities</i> added in PoA-DD section A.4.4.2.	Ok
CL 27. Include title of the Project in Section A2 in the generic CPA –DD and also update CPA – DD (name of implementer) Efficient Cook Stove Programme: Kenya – CPA No.XX “Name of CPA implementer or Partner Organization” XX/XX/20XX Version 0X		PP: 29/09/2011 Generic CPA DD - Section A1 and A2 Updated	Reviewed and found ok



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Generic CPA – DD /CPA 1 section A.3 CL 28. requirement for CPA implementers to state whether they are project participants of the PoA, under which the CPA is submitted not Included		PP: 29/09/2011 Generic CPA DD – Section A3 Updated CPA1 DD – Section A3 Updated	Ok
Generic CPA – DD section A.4.1 CL 29. Update this section		PP: 29/09/2011 Generic CPA DD – Section A4.1 Updated CPA1DD – Section A4.1 Updated	Ok
Generic CPA – DD section A4.1.2 CL 30. Specify boundary “<project region>” Include requirement for Name/contact details of the entity/individual responsible for the CPA		PP: 29/09/2011 Generic CPA DD – Section A4.4.1.2 Updated	
CL 31. Content of Generic CPA – DD section A4.3.2 not corresponding to A.4.3		PP: 29/09/2011 Generic CPA DD – Section A4.3.2 updated	Ok
CL 32. Generic CPA – DD section A4.5 is to be filled by CPA implementer		PP: 29/09/2011 Generic CPA DD – Section A4.5 updated to include choice of answer	Ok
CPA DD / Generic CPA DD section A.4.6 CL 33. “Guidance for determining the occurrence of de-bundling under a PoA” is not used by PP		PP: 29/09/2011 Generic CPA DD – Section A4.6 Updated CPA1DD – Section A4.6 Updated	Ok
CL 34. Update Sections B.1 of CPA DD 1/ Generic CPA DD with PDD versions and dates		PP: 29/09/2011 Generic CPA DD – Section B1 includes ‘v6 28/09/11’ CPA1 DD – Section B1 includes ‘v6 28/09/11’	Ok



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(PoA/CPA1/CPA Generic) CL 35. Eligibility criteria shall include Include requirement for submission to a DOE Contractual agreement with CME including e.g. transfer of CER Comprising domestic ICS within the geographical boundary of Kenya with maximum energy saving of 180 GWhr/year.		PP: 29/09/2011 Generic CPA DD – Section A4.2.2 updated to include additional points PoA DD V6 – Section A4.2.2 updated to include additional points CPA1DD – Section A4.2.2 updated to include additional points	Reviewed and find ok
Sections of CPA DD / Generic CPA DD CL 36. Insert tables for monitored parameters		PP: 29/09/2011 Generic CPA DD – Section B6.1 Updated CPA 1 DD – Section B6.1 Updated	Ok
POA - DD			
CL 37. Update section A.3 i.e. Involvement of UK missing		PP: 29/09/2011 PDD V6 Section A.3 Updated	Ok, LoA recieved
CL 38. In A.4.3. include transparent chronological CDM Consideration timeline Scope initial discussions up to LoA Section A.4.4.1 is silent on assertion of carbon rights by users		PP: 29/09/2011 PDD V6 Section A4.3 Updated Section A4.4.1 States that “A signed contract confirming the exchange of the stove in return for rights to the CERs that carbon rights will be transferred “	Ok
CL 39. PoA DD – Debundling exemption “Guidance for determining the occurrence of de- bundling under a PoA” is not used by PP		PP: 29/09/2011 PDD V6 Section A4.4.1 updated and reflective of guidance notes	Reviewed calculations and accept as closed