



DISTRIBUTION OF IMPROVED COOK STOVES IN SUB-SAHARAN AFRICA– ZAMBIA-CPA-007

Document Prepared by

C-Quest Capital Malaysia Global Stoves Limited

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1 PROJECT DETAILS

1.1 Summary Description of the Project

A summary description of the technologies/ measures to be implemented by the project.

The project involves distribution of around 22,000 domestic fuel-efficient improved cookstoves (ICS) in Zambia. The ICS disseminated through this project will replace the prevailing inefficient three-stone fires, or traditional pot supports¹. The ICS combusts wood more efficiently and improve thermal transfer to pots, hence saving fuel and lowering greenhouse gas emissions.

This is the seventh CPA implemented under CDM Programme of Activities (PoA) entitled “Distribution of Improved Cook Stoves in Sub-Saharan Africa”. C-Quest Capital Malaysia Global Stoves Limited (CQC) is the Coordinating / Managing Entity (CME) for the POA in which this CPA is to be included. CQC will also be responsible for implementation of this project including management and coordination activities with local partners, promotion and installation of ICS and provide all necessary marketing and promotion assistance to partners. It will also be responsible for monitoring activities of this project. Ecoeye Co., Ltd. (henceforth referred as Ecoeye) and Korea Impact Carbon Corporation (henceforth referred as KICC) will provide all implementation cost for all ICS under this CPA. The ICS will be subsidized by Ecoeye so that affordable clean technology can be made available to the participating households. Ecoeye and KICC will also make available all operation and maintenance costs along with ICS production and distribution cost.

It is intended that under this project single pot, TLC-CQC Rocket Stove will be distributed. However, at the time of implementation multi pot or portable stoves (e.g. EcoZoom Dura, EZY) may also be distributed.

The end user will be informed that carbon finance is being generated by the use of the ICS, and this finance is in turn used to facilitate the access to ICS (eg. subsidize the price of the ICS) and helps to cover project implementation costs.

The location of the project.

The project will take place in Zambia. The details of the project location are provided in Section 1.12.

An explanation of how the project is expected to generate GHG emission reductions or removals.

The ICS will substitute the currently common cooking on open fire. The ICS burns wood more efficiently thereby improving thermal transfer to pots, hence saving fuel and lowering greenhouse gas emissions.

A brief description of the scenario existing prior to the implementation of the project.

¹ Traditional pot supports as used in the project is taken to include tripods for open fires and various inefficient traditional charcoal stoves (where applicable).

The scenario existing prior to the implementation of the project is the same as the baseline scenario. See Section 3.4.

An estimate of annual average and total GHG emission reductions and removals.

The average annual GHG emission reduction from the project is expected to be 83,802 t CO₂e. Total GHG emission reductions achieved during 10 years fixed crediting period is expected to be 838,020 t CO₂e .

1.2 Sectoral Scope and Project Type

The project is categorised under type/category as below:

- a) Sectoral scope:** 03 - Energy demand
- b) Type:** II – Energy efficiency improvement projects

The project is a grouped project.

1.3 Project Eligibility

The project involves energy efficient cookstove distribution which falls under the category of efficiency improvements in thermal applications, therefore it is eligible under the scope of VCS Program. Therefore, project activity does not fall under the excluded list of projects as prescribed under the table 1 of section 2.1.1. of the VCS Standard version 4.2.

Further, as per eligibility requirement stated in Appendix 2 of the VCS Standard v4.2, for a CDM Component Project Activity (CPA) that does not include afforestation and/or reforestation activities, three conditions have been stated as mentioned below-

- i) The CPA shall be part of a Program of Activities (PoA) with an original program crediting period start date on or after 1 January 2016; or*
- ii) Where the CPA is part of a Program of Activities (PoA) with an original program crediting period start date from 1 January 2013 to 31 December 2015 and where the CPA has an original crediting period start date from 1 January 2013 to 31 December 2015, the CPA shall have issued credits during the period 1 January 2016 to 5 March 2021, or shall have a status of “issuance requested” by 5 March 2021; or*
- iii) Where the CPA is part of a PoA with an original program crediting period start date from 1 January 2013 to 31 December 2015 and where the CPA has an original crediting period start date on or after 1 January 2016, no prior credit issuance is required.*

This project activity is CDM CPA 9007-P1-0007-CP1, which is part of CDM PoA 9007, for which the PoA period starts from 25-April-2013 (PoA CDM registration date) and CPA crediting period started from 05-June-2019. Therefore, condition (iii) is applicable on this grouped project activity.

1.4 Project Design

For the inclusion of new project activity instances i.e., ICS, the project proponent shall ensure that it meets the eligibility criteria below.

No.	Criterion	How the new project activity instances to comply
1	Meet the applicability conditions set out in the methodology applied to the project	New project activity instances (TLC-CQC Rocket Stoves) will meet the applicability conditions set out in Section 3.2 where the target of the end-user is household and the ICS deployed is at least 25% of thermal efficiency.
2	Use the technologies or measures specified in the project description.	Only TLC-CQC Rocket stoves to be adopted in the project,
3	Apply the technologies or measures in the same manner as specified in the project description.	Only TLC-CQC Rocket stoves to be adopted in the project and it will replace traditional cookstoves in household
4	Are subject to the baseline scenario determined in the project description for the specified project activity and geographic area.	The new project activity instances will be installed within Malawi only and subject to the same baseline scenario determined in Section 3.4.
5	Have characteristics with respect to additionality that are consistent with the initial instances for the specified project activity and geographic area.	All new project activity instances will use the activity method for demonstration of additionality. Step 1: Regulatory Surplus There is no mandated government programme or policy in host country of this project ensuring the distribution of new project activity instances. Step 2: Positive List The inclusion of new project activity instances will comply with positive list as it satisfies criterion 1 where it meets all the applicability conditions of the methodology.
6	Where a capacity limit applies to a project activity included in the project, no project activity instance shall exceed	No project activity instance shall exceed the applicable limit, which is 180 GWh _{th} /y.

	such limit. Further, no single cluster of project activity instances shall exceed the capacity limit, determined as follows: 1) Each project activity instance that exceeds one percent of the capacity limit shall be identified. 2) Such instances shall be divided into clusters, whereby each cluster is comprised of any system of instances such that each instance is within one kilometer of at least one other instance in the cluster. Instances that are not within one kilometer of any other instance shall not be assigned to clusters. 3) None of the clusters shall exceed the capacity limit and no further project activity instances shall be added to the project that would cause any of the clusters to exceed the capacity limit.	The expected annual energy saving for each project activity instance is approximately 0.02 GWh_{th}/y or 0.01% of the limit. As the annual energy saving is below 1% of the limit, therefore no project activity instance is identified and divided into clusters.
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Eligibility Criteria

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

<https://cdm.unfccc.int/UserManagement/FileStorage/PIKFG1MDEC7Z3Q4HL6UV90W82XAY5>

1.5 Project Proponent

Organization name	C-Quest Capital Malaysia Global Stoves Limited
Contact person	Ken Newcombe
Title	Director
Address	Brumby Centre, Lot 42, Jalan Muhibbah, 87000 Labuan, Malaysia.
Telephone	+6 087 423828
Email	cqc-operations@cquestcapital.com

Organization name	Ecoeye CO Ltd
Contact person	Mr. Sangsun HA
Title	Executive Director
Address	70 Dusan-ro, Geumcheon-gu, Seoul.South Korea #1503, Hyundai Knowledge Industrial Center B Seoul, Republic of Korea
Telephone	+82- 2-6480-7346
Email	sangsun_ha@ecoeye.com

Organization name	Korea Impact Carbon Cooperation
Contact person	Mr. Sangsun HA
Title	Executive Director
Address	703, Tower B, 70, Dusan-ro Geumcheon-gu Seoul , Republic of Korea
Telephone	Not available
Email	sangsun_ha@ecoeye.com

1.6 Other Entities Involved in the Project

At the present, no other entities involved in the project.

1.7 Ownership

The project ownership is with C-Quest Capital Malaysia Global Stoves Limited. The Host Country Approval of the project is the proof of title for the project.

Further, records of Consent letter/ record of consent signed by end user (ICS owner) to PP during the registration process includes the statutory clause that " household hereby transfers and waives all and any rights in connection with the improved cookstove or project and greenhouse gas emission reductions or other environmental or social attributes generated by the installation and use of the improved cookstove to C-Quest Capital Stoves Asia Ltd. and understand that C-Quest Capital Stoves Asia Ltd. may, at any time, transfer those rights to an affiliate without further notice or consent." This is in line with clause 5 of section 3.6.1 of VCS Standard v4.2.

1.8 Project Start Date

15-August-2019 (Date of distribution of first ICS under this grouped project). This is in line with “CLARIFICATIONS TO VCS PROGRAM RULES AND REQUIREMENTS” published on 19-April-2022, which clarifies that each CPA will be assigned a VCS project start date reflecting the date on which the specific CPA began reducing or removing GHG emission.)

1.9 Project Crediting Period

15-August-2019 to 14-August-2029, ten years fixed crediting period.

1.10 Project Scale and Estimated GHG Emission Reductions or Removals

Project Scale	
Project	X
Large project	

Year	Estimated GHG emission reductions or removals (tCO ₂ e)
15-August-2019 to 14-August-2020	83,802
15-August-2020 to 14-August-2021	83,802
15-August-2021 to 14-August-2022	83,802
15-August-2022 to 14-August-2023	83,802
15-August-2023 to 14-August-2024	83,802
15-August-2024 to 14-August-2025	83,802
15-August-2025 to 14-August-2026	83,802
15-August-2026 to 14-August-2027	83,802
15-August-2027 to 14-August-2028	83,802
15-August-2028 to 14-August-2029	83,802
Total estimated ERs	838,020
Total number of crediting years	10
Average annual ERs	83,802

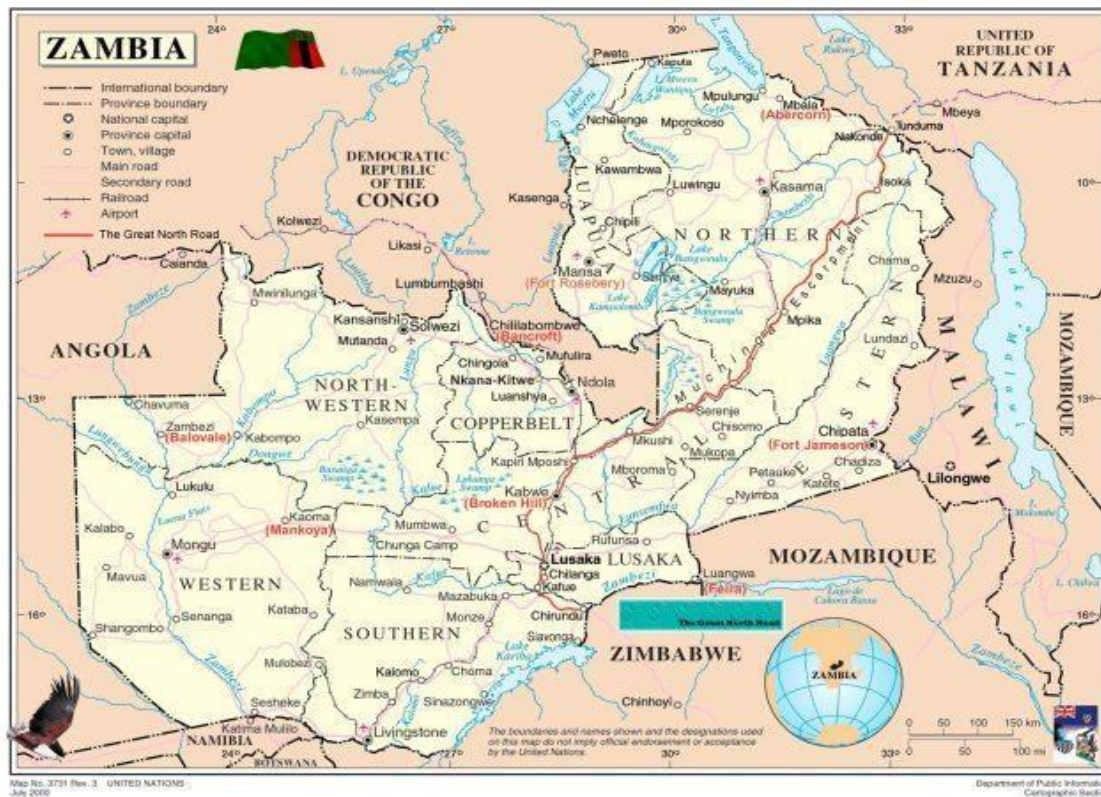
1.11 Description of the Project Activity

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

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1.12 Project Location

The project location will be the geographical boundary of Republic of Zambia with coordinates- 13°08'02.0"S latitude and 27°50'57.6"E longitude².



Zambia map

² <https://www.geodatos.net/en/coordinates/zambia>



Map of project area (See KML file attached)

1.13 Conditions Prior to Project Initiation

The conditions prior to project initiation are the same as the baseline scenario. See Section 3.4.

1.14 Compliance with Laws, Statutes and Other Regulatory Frameworks

There are no laws and regulations governing the use of improved cookstoves in Zambia households.

1.15 Participation under Other GHG Programs

1.15.1 Projects Registered (or seeking registration) under Other GHG Program(s)

The project has been included under CDM PoA with project reference 9007-P1-0007-CP1.

https://cdm.unfccc.int/ProgrammeOfActivities/cpa_db/SI6LZ5AGKR037UPH84WJYTVCDQN1F9/view

1.15.2 Projects Rejected by Other GHG Programs

The project has not been rejected by any other GHG program.

1.16 Other Forms of Credit

1.16.1 Emissions Trading Programs and Other Binding Limits

Not applicable. The project was registered under UNFCCC.

1.16.2 Other Forms of Environmental Credit

The project has not sought or received another form of GHG-related environmental credit.

1.17 Additional Information Relevant to the Project

Leakage Management

Not applicable as the project adopts a net gross adjustment factor of 95% to account for leakage.

Commercially Sensitive Information

No commercially sensitive information has been excluded from the public version of the project description.

Sustainable Development

The project contributes to sustainable development in a number of ways:

a) Environmental Sustainability

- The project will help significantly reduce greenhouse gas emissions over its lifetime.
- The project will help reduce the use of non-renewable biomass from forests, thus assist in conserving existing forest stock and the protection of natural forest eco-systems and wildlife habitats.

b) Social Sustainability

- Considerably less time need to be spent collecting wood fuel for the family home thereby reducing the work burden on rural families and presenting alternative opportunities for economic development.
- The amount of indoor pollutants from the burning of biomass in the family home will be reduced. Less carbon dioxide, carbon monoxide and particulates will be emitted due to the decrease in total biomass burned and an increase in the temperature of combustion.
- The stove provides a safer method for combusting biomass for cooking, helping to reduce burn injuries, especially for children, in the family home.

c) Economic Sustainability

- The project will help develop a section of the local economy, in the distribution, local assembly, maintenance and monitoring activities.
- Household expenditures on cooking fuel will be reduced through the use of the ICS.
- Saved household labour can be diverted to more productive economic activities.
- The project will create local employment opportunities in operational and management roles, as well as future assembly and/or manufacturing initiatives.

Further Information

Not applicable.

2 SAFEGUARDS

2.1 No Net Harm

No potential negative environmental or socio-economic impacts have been identified for the project.

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

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2.2 Local Stakeholder Consultation

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

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2.3 Environmental Impact

No negative environmental impacts have been identified from the project and environmental impact assessment (EIA) is not required for the project.

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2.4 Public Comments

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

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2.5 AFOLU-Specific Safeguards

This section is not applicable as the project is a non-AFOLU project.

3 APPLICATION OF METHODOLOGY

3.1 Title and Reference of Methodology

CDM Methodology: AMS-II.G. version 4.0 - Energy efficiency measures in thermal applications of non-renewable biomass

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

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3.2 Applicability of Methodology

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

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3.3 Project Boundary

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

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3.4 Baseline Scenario

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

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3.5 Additionality

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

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3.6 Methodology Deviations

The project did not apply any methodology deviations.

4 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

4.1 Baseline Emissions

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

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4.2 Project Emissions

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

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4.3 Leakage

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

<https://cdm.unfccc.int/UserManagement/FileStorage/PIKFGR1MDEC7Z3Q4HL6UV90W82XAY5>

4.4 Net GHG Emission Reductions and Removals

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

<https://cdm.unfccc.int/UserManagement/FileStorage/PIKFGR1MDEC7Z3Q4HL6UV90W82XAY5>

5 MONITORING

5.1 Data and Parameters Available at Validation

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

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5.2 Data and Parameters Monitored

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

<https://cdm.unfccc.int/UserManagement/FileStorage/PIKFGR1MDEC7Z3Q4HL6UV90W82XAY5>

5.3 Monitoring Plan

The project was included as a CPA under CDM PoA on 05-06-2019 with CDM reference 9007-P1-0007-CP1, and according to paragraph 3.19.5 of the VCS Standard (Version 4.1), this section does not need to be completed. Please refer to the CPA-DD at the website below:

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