

NON-TECHNICAL SUMMARY
CDM carbon project activities in the Republic of Kenya under the
PoA10053 ‘Empowering DRC communities through the use of Improved
Cook Stoves’

Introduction

In most of the countries on the African continent cooking is done on either 3-stone fires or very inefficient traditional cookstoves, consuming a lot of fuel, in particular non-renewable firewood and charcoal.¹ The high biomass consumption has negative impacts on the environment leading to deforestation and land degradation, Greenhouse Gas Emissions (GHG) emissions, loss of soil fertility and soils’ reduced ability of water retention. Further, indoor air pollution through health-damaging pollutants while combusting firewood and charcoal result in diseases like e.g. pneumonia, stroke, ischemic heart diseases, chronic obstructive pulmonary diseases and lung cancer.

Purpose and technology of the project activity (CPA)

The purpose of a typical small-scale Component Project Activity (CPA) included under the Programme of Activities (PoA), ‘Empowering DRC communities through the use of Improved Cook Stoves’, is the dissemination of improved cook stoves (ICS) to urban, peri-urban and rural users (households, communities, institutions, or SMEs) in the Republic of Kenya, replacing the inefficient traditional cook stoves and cooking devices, thus reducing fuel consumption.

Several greenhouse gases (GHG), including carbon dioxide, are produced as a result of the incomplete combustion of biomass as used in cook stoves. More GHG emissions result from the use of biomass which is non-renewable. ICS improve heat transfer efficiency as compared to the baseline traditional cook stoves, thereby reducing both the amount of woody biomass used by unit appliance implemented and the emission of GHGs.

Consumers who agree to the terms of the project activity will cede all rights to any CERs resulting from the project activity. By using the ICS, the consumers assign and transfer all right, title and interest to all benefits (including CERs) arising from its use to the CME or the CPA implementer, and permanently waive any claim or right to such benefits. In addition, consumers are requested to participate in the monitoring/usage surveys and/or water boiling tests if randomly sampled from the database.

Consumers who do not agree to the terms of the project activity will not be included under the CPA throughout the crediting period of the CPA.

CPAs will be implemented by BURN or any 3rd party. BURN/CPA implementer with work with local third-party(ies) to distribute the stoves to end users.

Target Group and Location

The target group of a CPA may be households, communities, institutions or Small and Medium Enterprises (SMEs) using non-renewable biomass with a three stone fire, or a conventional system with no improved combustion air supply or flue gas ventilation system, i.e. without a grate or a chimney, prior to receipt of an efficient cooking stove. A CPA may cover urban, peri-urban and/or rural areas in the Republic of Kenya.

Though the PoA does not cover the replacement of non-renewable by renewable biomass for the moment, this option may be included later on. Hence, this Local Stakeholder Consultation shall be also valid for any cooking technologies replacing non-renewable by renewable biomass.

¹ <https://www.who.int/bulletin/volumes/94/3/15-155812/en/>

Technology

A CPA may deploy different cookstove models designed and manufactured by BURN. Examples are illustrated below. The improved cookstoves are highly efficient and the design takes into account the local cooking culture in the project area to ensure that improvements in technology and improved standards of living do not come at the expense of cultural traditions.



Example of BURN Jikokoa stove using charcoal



Example of BURN Kuniokoa stove using firewood



Example of BURN Kuniokoa Turbo stove using renewable briquettes

Example of BURN institutional stove



Carbon credits

Greenhouse gas (GHG) emission reductions achieved through saving of non-renewable biomass (or at a later stage possibly through replacement of non-renewable by renewable biomass) will result in carbon credits following certification rules and procedures.

The revenues from the sale of carbon credits help amongst others to

- a) distribute improved cookstoves to a subsidized price affordable for end-users;
- b) scale up and expand the program, thus reaching a wider range of end-users and generating more jobs;
- c) further invest in R&D, hence to produce high quality stoves at lower cost;
- d) provide a reliable after-sales service;
- e) sensitize and raise awareness amongst end-users about the benefits and how to use the improved cookstoves.

Contribution to Sustainable Development

Besides reducing GHG emission in line with the United Nations Sustainable Development Goal (SDG) number 13 'Climate Action'², this project will also seek to increase other long-term sustainability benefits for the end-users as well as the local environment. Project activities under the PoA are expected to contribute to different Sustainable Development Goals (SDGs) in the following way:

- Reduction in end-user expenses related to the purchase of fuel for cooking (in line with SDG 1 'No Poverty').
- Time savings both for fuel procurement and cooking, thus more time is available³, for other tasks, like income generating activities or for growing food (in line with SDGs 1 'No Poverty', 2 'Zero Hunger' and 5 'Gender Equality').
- Less harmful carbon monoxide and particulate matter during combustion in households, communities, institutions, SMEs will reduce indoor air pollution and thereby decrease of respiratory diseases, headache and itchy eyes, particularly for women and children who spend lot of their time in cooking activities (in line with SDG 3 'Good health and well-being' and 5 'Gender Equality').

² <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

³ In particularly women benefit of more time for other tasks. Since it is most of the times women who are responsible for fuel procurement and cooking activities.

- Improved cookstoves cook faster than traditional stoves and use less fuel, enabling children, particularly girls to dedicate more time for education/school instead of for cooking (in line with SDG 4 'Quality Education')
- Increased penetration of clean and reliable cooking technologies (in line with SDG 7 'Affordable and Clean Energy') and raising awareness of the related safety, economic, and environmental benefits (in line with SDG 4 'Quality Education').
- BURN produces its cookstoves in a manufacturing facility located in Kenya, thus generating hundreds of jobs on the African continent. Other jobs are created for sales, marketing, distribution and monitoring staff. Continuous training results in permanent knowledge transfer to local people. BURN may open in future additional factories or assembly lines across the continent depending on the demand (in line with SDGs 1 'No Poverty' and 8 'Decent Work and Economic Growth').
- Reduced deforestation and forest degradation in the areas where non-renewable biomass is used as a source of fuel. This will contribute to the overall stability of forest ecosystems which support biodiversity, watersheds and soil conditions (in line with SDG 15 'Life on Land').

Economic, social and environmental impacts of the project as per Safeguarding Principles & Requirements

Safeguarding Principle	Assessment
Human Rights	The Project respects internationally proclaimed human rights and is not complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights. The project will not discriminate with regards to participation and inclusion.
Gender Equality and Women's Rights	The project activity does not endorse any form of discrimination based on gender. The project will take into account gender roles and the abilities of women and men to participate in the decision/design of the project activity. It will be ensured that both women/women association and men will be invited to the stakeholder consultation so that a representative number of stakeholders of both genders will be present at the local stakeholder consultation meeting.
Community Health, Safety and Working Conditions	The project will not expose the community to increased health risks and is not adversely affecting the health of the workers and the community.
Cultural Heritage, Indigenous Peoples, Displacement and Resettlement	The project activity will not have any negative impact on cultural heritage, indigenous people nor will it displace or resettle people.
Corruption	The Project doesn't involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects.
Economic Impacts	The project will respect all labor rights. No negative economic consequences are expected from the project activity. On the contrary, it is expected that the project contributes to sustainable economic growth.

Climate and Energy	The project will reduce GHG emissions as will be monitored and verified in line with the carbon standard requirements.
Water	The project will not affect natural water patterns/flows or cause any additional erosion and/or water body instability.
Environment, ecology and land use	The project will not have any negative impact on the environment and ecology and will not involve the use of land and soil for production of crops or other products. The release of particulate matters and carbon monoxide are significantly reduced by the introduction of improved (more efficient) cookstoves.