

Background

Biomass provides for more than 80% per cent of the overall household energy needs in Kenya. There are approximately 0.7 million households using biomass for cooking in urban areas¹. (The main sources of biomass include charcoal, wood-fuel and agricultural waste). The cooking devices used by the majority of households have very poor thermal efficiency and serious health affects due to unclean combustion. The use of biomass with basic cooking devices combined with unsuitable cooking spaces is the main cause of Indoor Air Pollution (IAP) in Kenya estimated to be causing the death of 14,300 people annually².

Project Objectives

In two years, the project will develop the gasifier, pellet fuel markets through setting up a BoP distribution model via Last Mile Entrepreneurs selling the gasifier stoves and the fuel pellets, and facilitate Financial Institutions to develop innovative microcredit for households to purchase.

Desired Outcome

The key outcome of this project is to increase access to and use of clean and efficient (gasifier) stoves and fuel pellets in the urban and peri urban market and eventually improve the livelihoods of estimated 15,000 people in poor urban and peri-urban areas of Kenya through access to and use of affordable clean and efficient cooking stoves and fuels within the two year project period.

Project Scope and exclusions

The project targets to support the market development of two gasifier stoves and fuel pellets in 4 urban and peri – urban areas in Kenya

Beneficiaries

The main beneficiaries are 2500 households who currently use kerosene and charcoal for cooking as well as stove and fuel entrepreneurs in the selected urban areas. Other beneficiaries are the stove producers and distributors as well as pellet manufacturers.

Project summary

- Technology: Gasifier stoves being disseminated are both the forced draft and natural draft gasifiers targeting early adopters for the technology initially starting with the Philips Jiko and gradually introducing others.

No smoke — due to forced air into a combustion chamber at the bottom and top, intense heat is created that vaporizes the fuel and eliminates smoke (reduces smoke and CO2 emissions by 90%)
No heat — the heat is contained in the high-tech ceramic materials or moulds located in the body of the stove
Less Fuel — users need only a few handfuls of fuel (reducing fuel costs 50-70%)
Boils 5L of water in 20 minutes
Pellet stove — stove that burns compressed wood or biomass pellets to create a source of heat

- Scope: 2500 poor urban and peri urban households reaching more than 15000 people

¹ GACC 2012: Kenya Market Assessment@GVEP International

² GACC, March 2012 Kenya Market Assessment

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