

Kenya: Improved Cookstoves



The Kenya Improved Cookstoves project aims to tackle key development issues by building sustainable supply chains for the provision of these efficient cooking products. As a Gold Standard project, the objective is to serve the most vulnerable communities across Kenya, tackling health issues of traditional cookstoves, reducing dependence on non-renewable biomass sources, while promoting financial security and female empowerment. By April 2016, 251,000 stoves had been sold, enabling the future introduction of other important products, such as solar lanterns and agricultural inputs.

Project type: Household devices

Region: Africa



Standards:

Gold Standard
Climate Security & Sustainable Development

Empowering women:
Carbon finance is used to subsidise improved cookstove sales, replacing traditional cooking methods which depend on non-renewable biomass sources and contribute to poor health.



The project

The project involves the distribution of a range of locally manufactured and imported household and institutional wood and charcoal stoves, to replace traditional cooking methods. So far, the project has sold 251,000 stoves - 150,000 directly to end consumers through "EzyLife" activities and 101,000 through third-party distributors.

By April 2016, the project had sold 251,000 cookstoves

Carbon finance is used to subsidise these sales and support the distribution of the stoves. Local sales channels are enhanced through franchising last-mile supply chains, enabling direct transportation of goods to end users. The project also coordinates with local partners and NGOs such as Safe Water and Aids Project, Food for the Hungry and World Vision, who are developing sustainable distribution networks of locally appropriate, efficient stoves.

The importance of Improved Cookstoves

Over 2.7 billion people, or one-third of the world's population, rely on burning biomass (such as wood fuels, charcoal and dung) in traditional stoves for their daily cooking needs. These traditional cooking methods are inefficient and polluting, contributing not only to climate change, but to poor health

With less time spent collecting fuel, women can spend more time with family or on other productive activities.

and poverty, particularly amongst women and children. As traditional cookstoves don't fully combust the biomass, up to 75% of the heat is lost, and the process releases substances hazardous to human health including carbon monoxide, nitrous oxides, particulate matter and black carbon. According to the World Health Organisation (WHO), the indoor smoke from biomass ranks in the top 10 risk factors for the global burden of disease; being linked to childhood pneumonia, chronic obstructive pulmonary disease and lung cancer. The number of premature deaths from household air pollution (almost 1.5 million per year), is greater than the number of premature deaths from malaria or tuberculosis.

Contribution to sustainable development

The project contributes to sustainable development in several key areas:

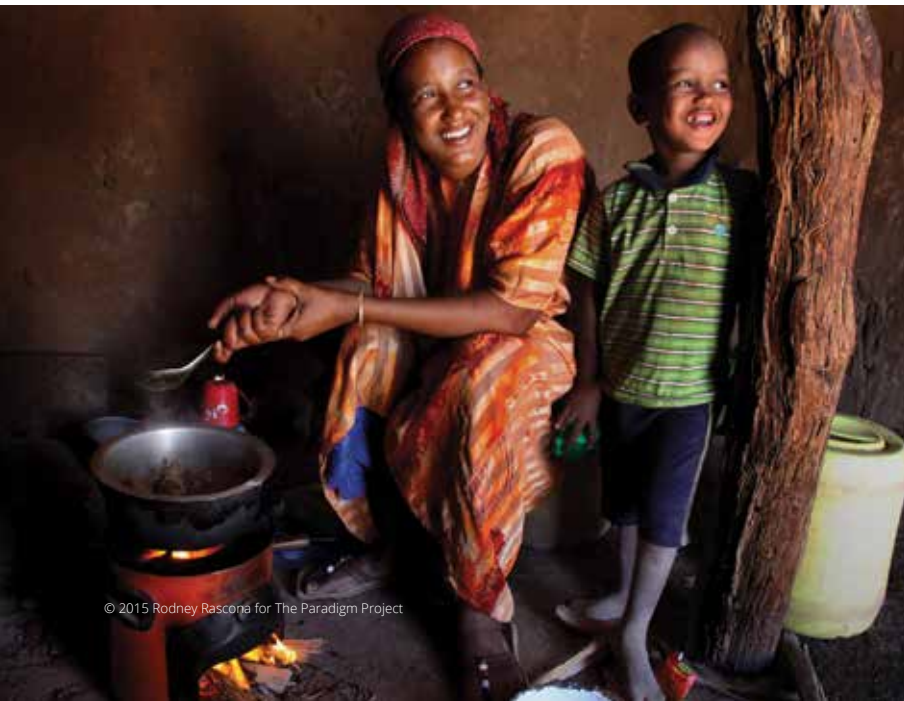
Health and well-being

The project is monitoring changes in reported smoke, and incidences of dizziness, headaches, irritated eyes and difficulty breathing amongst local populations since they started using their improved stoves, with the majority of users reporting enhanced well-being.

In 2014, nearly half of sales (20,000 stoves) were as a result of a partnership with the World Food Programme to deliver wood stoves to Somali refugees and host communities in the north of Kenya (in the Kakuma and Dadaab refugee camps). These stoves will help reduce the risk of violence that women face when collecting wood outside their refugee camps, by reducing the frequency with which firewood must be collected.

Energy access

Improved cookstoves use simple design enhancements to burn biomass fuel more efficiently. A well-designed wood or charcoal-burning efficient stove will reduce the fuel used in cooking by about 50%, while reducing toxic emissions by up to 70%.



A well-designed, efficient cookstove will reduce fuel use by approximately 50%, while reducing toxic emissions by up to 70%

Financial security

The improved cookstoves and their increased efficiency enable households and institutions that purchase fuelwood or charcoal to save money on fuel costs. In addition, the reduction in fuel use of approximately 50% means that most users are able to pay back the stove cost within a few months.

To ensure effective financing for end consumers, the project works with a number of local partners, including a variety of formal microfinance institutions (MFIs) such as One Acre Fund and the Kenya-based NGO, SISDO. Additionally, the project offers direct consumer financing programmes, such as extending payment terms, which allows the project to penetrate even lower income groups that may not have access to the MFI partners.

Economic growth

Last-mile supply chains are accessed through a franchise model called “EzyLife” that provides operational systems, finance, marketing and strategic support to local sales partners. Those partners sell improved stoves and

Local sales associates, EzyAgents, visit communities across Kenya, facilitating the distribution of improved cookstove technology.

other products to bottom of the pyramid customers through traditional wholesale, retail outlets and highly trained local sales associates called EzyAgents. The EzyAgents’ supply chain is a network of over 225 distribution businesses, designed to help the project scale its product offerings in Kenya. The project is also investing in Nairobi-based manufacturing to enable the production of over 100,000 stoves per year.

Biodiversity protection

It is estimated that 96% of households depend on wood or other solid fuels for their cooking energy needs in Kenya, with 92% of this wood sourced from non-renewable sources. This improved cookstoves project therefore aims to help reduce such biodiversity pressures.

Empowering women

The project is improving its gender-sensitive approach in the EzyAgent programme, and has put a focus on facilitating the recruitment and success of women as cookstove entrepreneurs, with a third of distribution businesses now owned by women. The project will seek to identify the primary characteristics, traits and skills that successful female EzyAgents share, as well as understand the conditions of success for female entrepreneurs in the cookstove value chain.

Beyond participation in economic structures, women also benefit from using improved cookstoves – with reduced symptoms of bad health from indoor air pollution, less time spent cooking, and less time spent collecting fuel.

Job creation

The project has created more than 200 jobs so far in local manufacturing and sales. Project operations in Kenya include a team of 14 full-time and two part-time employees, and positions continue to grow as distribution scales.

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The products are to be distributed across all eight provinces in Kenya.

“Kenya is a catalytic force in the global clean cooking sector’s efforts to ensure that cooking does not kill. From supporting new cookstove standards, to participating in ground-breaking research, to hosting entrepreneurs who are meeting market needs and improving livelihoods, the public and private sectors in Kenya are critical to the achievement of the Global Alliance for Clean Cookstoves’ mission and goals.”

**Radha Muthiah, Executive Director,
Global Alliance for Clean Cookstoves,
February 2014¹**

The region

In Kenya, households can spend over 20% of their income on biomass fuels for cooking, which makes them particularly vulnerable to changes in price. Rurally, wood or charcoal is often collected from the local environment by women and children, which not only contributes to deforestation but involves walking long distances, carrying heavy loads.

Since its emergence in the 1980s and the introduction of the Kenyan Ceramic Jiko, the Kenyan stove market has been viewed as a forerunner in the East Africa region, however problems in distributing improved cookstoves persist. The project’s base-of-pyramid target markets are usually poorly served and dominated by the informal economy and as a result, they are relatively inefficient and uncompetitive. The cost of transportation of goods to these markets is typically high and competition is low between suppliers. Consequently there is limited supply and retailers can easily manipulate market prices, especially for necessities. With time, the project is trying to open up the markets to well-designed, affordable technologies of other kinds – such as solar lanterns and agricultural inputs. Currently, chlorine treated water dispensers, whilst contributing to emissions reductions, are credited separately from the cookstove programme. By 2016, over 13,000 community chlorine treated water dispensers had been sold.

Location

The products are to be distributed across all eight provinces in Kenya.

1 Global Alliance for Clean Cookstoves (2014) Summary Report: Kenyan and Global Updates Announcements (Available from <http://cleancookstoves.org/resources/238.html>)

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