

Ngong Household Energy and Health Project

Location

Ngong slum area outside of Nairobi, Kenya

Problem

Due to fuelwood scarcity, women were forced to burn plastics as cooking fuel, exposing themselves and their families to toxic smoke.

People

Slum community with no electricity or running water, where families live in makeshift houses of scrap wood, metal, cardboard and mud.

Solution

Collaboration with local NGO and community women's groups to introduce fuel-saving stoves and haybaskets, initiation of local women's micro-enterprise to make and sell the technologies, home gardens, afforestation.

Timeframe

1998, activities continuing to present.

Results

- ✓ Over 800 stoves installed, reducing dependence on fuelwood and plastics for fuel
- ✓ Income generation
- ✓ Health improvements
- ✓ Reduced medical costs
- ✓ Time savings
- ✓ Financial savings
- ✓ Improved nutrition from multi-story gardens
- ✓ Demand creation for exposure-reducing technologies

In 1998, families in the Ngong slum area outside of Nairobi were forced to burn plastics as a cooking fuel because they couldn't afford or didn't have access to fuelwood, resulting in serious health hazards for women and children.

In response, with support from the U.S. Department of Agriculture, Winrock collaborated with a local NGO, the Kenyan Forestry Research Institute (KEFRI), to address both the immediate problem of toxic smoke, and the longer-term issue of fuelwood scarcity.

Together, Winrock and KEFRI provided awareness-raising, capital and capacity building for the introduction of fuel-saving stoves in Ngong, and the creation of women-run microenterprises.

At project initiation, there were 25 registered women's groups in Ngong, with 30 to 50 members each. To raise community awareness of health risks, Winrock and KEFRI held an open forum discussion with various government and health agencies. Pilot demonstrations allowed the

women to evaluate the various exposure-reducing technologies, and choose those they deemed most suitable. Based on cost and ease of use, they chose Maendeleo ceramic stove liners and heat-retentive "fireless cookers," or haybaskets, which together can reduce fuelwood needs by 75%.

Winrock and KEFRI trained the women to produce the devices; 75 went on to form the Ngong Women's Group to strengthen their ability to scale up and realize profits from the production and sales of the technologies.

There are well over 1000 stoves in use in Ngong, providing multiple benefits to users as well as income generation for the women entrepreneurs.

Women have reported reduced chest pains and respiratory problems, confirmed by the local clinic, which mean lower health bills. They report time savings due to the ability to safely leave haybaskets unattended to do other tasks, and a need to collect fuelwood less frequently.

The reduced need for fuelwood also leads to financial savings for women who buy fuelwood.



Ceramic stove liners reduce smoke and provide income generation.

Women trained in Ngong established their own spin-off project in Rongai, another slum area, making and selling haybaskets. The proceeds go toward educating, and feeding children at a day rehabilitation

center for HIV/AIDS orphans, and managing a small tree nursery.

The multi-faceted project also introduced a garden cultivation component for improved nutrition.

Those without patches of land use multistory gardening, in gunny sacks, to grow fresh vegetables.



Multi-story gardens improve nutrition

Expertise dedicated to this project was developed through Winrock's decade-long experience working in Kenya through the African Women Leaders in Agriculture and Environment (**AWLAE^(SM)**) program, focusing on gender training and technical assistance to men and women farmers.

Once the project was underway, demand for stoves in Ngong consistently outstripped supply; in 2003 the women reported a backlog of 3,000 stoves on order. In response, through funding from USAID and the Shell Foundation, the Winrock team provided assistance to strengthen the woman-run microenterprises in Ngong and Rongai, including through better materials sourcing, and the construction of a high-efficiency firing kiln.



Fireless haybaskets cook food without smoke

Winrock has also worked to increase commercialization of the stove liners and haybaskets, with support from USAID, including through 2005-6 social marketing activities,

including nation-wide radio programs and road shows attracting crowds of hundreds, leading to further increased interest and sales.