



Mali Household Energy Project

October 1997 — June 2003

The major sources of energy for cooking in Mali are wood and wood charcoal. Mali's reliance on wood fuels, particularly charcoal, results in increased deforestation and emission of greenhouse gasses, serious environmental consequences for the fragile Sahelian environment. In addition, urban households expend a significant portion of their annual incomes for cooking fuel.



Modeled on earlier EnterpriseWorks projects in Kenya and Senegal, the household energy component of the Mali Technology Transfer Project seeks to generate economic and environmental benefits through commercial dissemination of the Sewa stove, a highly fuel-efficient ceramic-lined charcoal stove used for household cooking. Sewa is the name of the stove in the local language (Bambara). It is known in Senegal as the Diambar and in Kenya as the Jiko.

The Mali project initially imported a small number of stoves from Senegal and gave them away to households that agreed to participate in field testing. These field tests found that the Sewa stove yielded an average charcoal savings of 44 percent compared to the traditional all-metal stove used in this region. This translates into a savings of \$61 per year for a typical household in Mali. EW/Mali imported ceramic production equipment from England, helped a local entrepreneur construct a kiln and drying sheds for the ceramic stove liners, and is now focusing on expanded commercialization of the stoves.

Economic Participants

36,138 --- in 2001

Enterprises Assisted

151--- in 2001

Total Monetary Benefits

\$1,420,684 --- in 2001

Cumulative TMB

\$3,148,414

Project Budget

\$1,486,000

Primary Funders

USAID/Mali

OBJECTIVES

- Improve the quality and quantity of Sewa stove production.
- Train 60 local artisans to manufacture stoves.
- Achieve commercial sales of at least 65,900 stoves.

PROGRESS REPORT

Sales of stoves continue to rise. Sales have increased each year since project inception in 1997, and climbed past 14,000 units sold in 2001. Malian women have purchased over 45,000 stoves cumulatively. SEWA stove sales are expected to increase with the introduction of the newly developed wood-burning SEWA stove in markets in both Bamako and secondary cities like Segou and Gao.

Establishment of a commercial resellers network has also boosted sales. At the start of this project EW/Mali worked exclusively with women's associations, which typically sell stoves at a low but constant rate throughout the year. In an attempt to step up sales, EW/Mali began working through a network of commercial stove resellers and other businesses that sell cooking products. Almost all of the increase in sales following the television ad campaign passed through commercial resellers.

LESSONS LEARNED

Dependable quality and supply are essential. In the course of this project, major production and quality problems had to be eliminated before commercial production could begin. Otherwise the product's reputation would have been harmed, affecting its sale, and discouraging its manufacturers and sellers.

Local knowledge and effective training can be critical to quality control. In this case, the local potter's knowledge of the relative quality of local clays was essential in overcoming the stove's initial production and quality problems. The potter also suggested other production improvements, trained workers, and monitored the ceramics production process.

As product demand grew, resellers began to play a bigger retail role. In Senegal, promoting stove sales through women's associations worked well in the initial commercialization of the stove. Once the stove became popular, however, sales through women's groups leveled off. At the same time, commercial resellers began aggressively pursuing sales in urban areas. This project continues to work with Malian women's groups who maintain constant though low sales achievements, but it currently relies on commercial resellers for the bulk of stove sales.

It pays to advertise. In Mali's urban stoves market, the airing of television commercials for the Sewa stove has been very effective in increasing stove sales. The ads increased local knowledge and recognition of the product, and stimulated sales when they were aired during the months of highest sales potential.