



GIZ Stove Projects in Kenya, Ethiopia, Uganda

Improved Cookstove Colloquium

7 June 2011, Nairobi

Anna Ingwe – Musungu

GIZ-EnDEV stove project in Kenya

Samson Atsbha

GIZ-EnDEV stove project in Ethiopia

Leonard Mugerwa

GIZ-EnDEV stove project in Kenya

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH



Project Background and Purpose

Energising Development (EnDev) East Africa

Location	Kenya, Ethiopia, Uganda
Starting Date	2005/2006
Purpose	Ensure access to modern energy by building sustainable markets for fuel efficient cooking stoves

Funders

German Federal Ministry for Economic Cooperation and Development (BMZ) and the Directorate-General for International Cooperation of the Dutch Ministry of Foreign Affairs (DGIS).

Partners

Ministry of Agriculture, Community Based Organizations, donor funded projects, private sector, church based organizations, Bureau of Standards, Research Institutes, etc.



Improved Cookstoves promoted in Kenya



Jiko Kisasa

- Made of fired clay soil
- Centralized production
- 30- 40% savings
- Costs 3.5 – 5 Euro, fixed
- Costs 8 – 12 Euro, mobile



Rocket stove

- Clay/fired clay bricks
- Constructed in the house
- 50 – 60% savings
- Costs 5 -70 Euro



Improved Cookstoves promoted in Ethiopia



'Mirt' Injera Baking Stove

- Made from Cement and Sand
- Fuel wood savings: 50%
- Decentralized production
- Mobile
- Selling price: 3-5 Euro



'Tikikil' HH rocket Stove

- Made from sheet metal and clay liner
- Fuel wood saving: 50%
- Decentralized production
- Mobile
- Selling price: 4 Euro



Institutional Rocket Stove

- Made from sheet metal and clay liner
- Decentralized production
- Mobile
- Fuel saving in the real kitchen: up to 73%
- Selling price: 125 Euro for 100Lit pot size IRS



Improved Cookstoves promoted in Uganda



Mud rocket stove

- Made of plastic/clay soil
- Artisanal production
- 50- 60% savings
- Costs 0.8–2.8 Euro (1 pot)
- Costs 2.8-4.3 Euro (2pot)



Metal rocket stove

- Made of ceramic liner in metal cladding
- Centralized production
- 50- 60% savings
- Costs 7 – 14 Euro
- Movable stove



Institutional Rocket stove

- Clay/fired clay bricks
- Fire bricks, pumice, vermiculite
- Mild steel reinforcement
- Constructed in the kitchen
- 50 – 70% savings
- Costs 854 - 1250 Euro (with stainless steel pot)



Strategies and Approaches

To enhance demand

- **Creation of awareness**
- **Capacity building for users**
- **Collaboration with other stakeholders**
- **Using existing government structures to increase reach**
- **Have different types of stoves for choice (limited number)**

To increase and improve supply

- **Capacity building on technical and entrepreneurship skills**
- **Ensure quality control**
- **Advocate commercializing stove for income**
- **Linking entrepreneurs to financial institutions**
- **Support Establishment of Stove Association**



Results and Impacts in Kenya

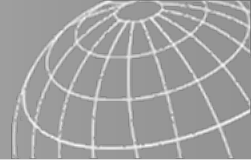
Results

- **1,102,600 stoves by Dec 2010**
- **1,700 jobs created**
- **Stove Association established**
- **Two banks give loans for stove work**



Impacts

- **38% of HH adoption in the focal areas**
- **13% HH countrywide have adopted ICS**
- **804,900 tonnes CO reduction annually**
- **1,207,400 tonnes firewood saved per yr**
- **66,400 ha of forest saved annually**



Results and Impacts in Ethiopia

Results

- **450,000 stoves by Dec 2010**
- **95,000 stoves disseminated only in 2010**
- **1,500 jobs created**
- **>500 Micro-enterprises/stove producers/ established and out of which 40% women**



Impacts

- **Annual fuel wood saving per HH: 575Kg**
- **1,500 jobs created**
- **65% of the stove producers were unemployed**
- **Improvement of Health in particular and livelihood of the hhs in general**



Results and Impacts in Uganda

Results

- 859,500 hh stoves by Dec 2010
- 380 institutions with stoves
- 1,000 jobs created
- Ugandan Stove producing companies form association (BEETA)



Impacts

Table: Testimony from 1 school with Rocket stoves

Unit	Average Monthly firewood consumption before intervention =A	Average Monthly firewood consumption after intervention with rocket stoves =B	Average monthly savings =C (= A-B)	Projected Annual savings (for 3 academic terms = 9 months) D=9C
Volume of firewood (m ³)	50	10	40	360
Firewood cost UGX	600,000	120,000	480,000	4,320,000
Firewood cost in Euro	170.94	34.18	136.75	1,230.77



Key Messages

Sustainable market introduction is possible if:

- Users understand benefits of using ICS
- Financial gains for dealers

Go for commercial approach strictly! No direct subsidy!!

- Have an efficient, affordable and easily available product
- Establish a marketing system driven by income generation



Thank you for your attention



On behalf of
Federal Ministry
for Economic Cooperation
and Development



Ministry of Foreign Affairs



Deutsche Gesellschaft für Internationale
Zusammenarbeit GmbH (GIZ) GmbH

anna.ingwe@giz.de

samson.atsbha@giz.de

leonard.mugerwa@giz.de

