

UGANDA

Key issue addressed:

Energy Efficiency and Demand-Side Management

Descriptive Title of Case Study:

**SUSTAINABLE ENERGY USE IN HOUSEHOLD AND INDUSTRY (SEUHI)
PROJECT**

Lead Institution:

Ministry of Energy and Mineral Development (MEMD)

Other implementation arrangements and stakeholders involved:

Financial support from The Royal Netherlands Government

Other stakeholders involved: Local Governments, Small Scale Industries, Non Governmental Organisations and Community Based Organisations

Brief summary:

The project was designed to address issues of poor production and utilisation of biomass energy in Uganda's households, industries and institutions. The main goal was to increase the efficiency of biomass energy production and utilisation, raise people's living standards through promotion of less indoor polluting biomass technologies, and conservation of the environment.

Key objectives:

The main objectives of the project were to:

- Improve the efficiency of wood cook-stoves through the introduction of improved wood and charcoal stoves and popularise their usage
- Increase the efficiency of charcoal production by introducing improved kilns and training of charcoal producers in better process management and marketing skills
- Improve fuel efficiency of lime kilns by introduction of modern lime kilns
- Support tree planting for energy provision

Key challenges:

- In the cook stove programme, there was limited participation of men and youth;
- There was a high illiteracy level among women, which slowed the dissemination rate;
- Workshop durations were inadequate for the course contents;
- Some trainees did not carry out regular maintenance of their stoves, leading to rapid dilapidation;
- The charcoal production equipment was bulky and not easy to transport;
- The charcoal production equipment was expensive compared to the capital of most charcoal burners.

Key features of the programme:

Capacity Building

Under this activity were the following:

- Training of Trainers (TOTs) workshops for improved wood energy saving stoves conducted in four wood-deficit pilot districts; Kabale, Tororo, Soroti and Adjumani
- Construction of demonstration stove models in household kitchen environments in four pilot districts
- Training of artisans in production techniques for improved charcoal ceramic stoves in Kampala and Kabale
- Training of charcoal producers in improved techniques of charcoal production in Luweero, Masindi and Nakasongola
- Construction of efficient vertical shaft, lime burning kilns in Tororo, Kisoro and Kasese
- Training of limekiln operators in energy efficient techniques in Tororo, Kisoro and Kasese

Awareness Campaigns

Production of awareness materials including a documentary film, brochures, fact sheets, radio/TV programmes and a training manual on biomass energy technologies

Time frame: 3 years Year started: 1998

Status: Completed in year 2002

Results achieved and known impacts:

Key outputs of the SEUHI Project include the following:

- Three urban household wood stoves were constructed in Luweero and Entebbe
- Two model ceramic stove firing kilns were constructed in Kabale
- Two improved high efficiency vertical lime-burning kilns were constructed in the lime burning districts of Kisoro and Kasese; and one kiln refurbished at Tororo
- A total of 8 improved charcoal burning kilns were provided to charcoal producer associations in the major charcoal producing districts of Luweero, Nakasongola and Masindi
- Production of a simple and well-illustrated charcoal production manual for charcoal producers that was also translated from English into three local languages i.e. Luganda, Swahili and Runyoro.
- Production of a documentary film (video) on all SEUHI activities
- A complete report of the Project that was submitted to the Dutch Embassy in April 2002 and was approved
- Documentation of major experiences and lessons learnt from the SEUHI in December 2002

Sustainability, scalability and transferability:

- Those who quickly learned the cook stove technology are marketing their services for a fee
- The scarcity of fuel has enticed several people to adopt modern energy saving technologies
- Another project was started after considering SEUHI experiences and more people are benefiting

Key lessons learned:

- Several aspects including socio-cultural, gender and environmental factors play a critical role in the successful implementation of biomass energy projects and should be considered at the project formulation stage.
- Byelaws and other forms of regulations aimed at enforcing compliance to rational energy usage and to discourage energy wastage should be put in place at institutional, industrial, local and national levels.
- Technical and Managerial Capacities of Non Governmental Organisations (NGOs) and Community Based Organisations (CBOs) and other organisations dealing in production and dissemination of biomass energy technologies should be strengthened.
- Needs and aspirations of the beneficiary communities must be systematically assessed and the different stakeholder roles defined during the formulation and implementation of the project.

Further Information:

Ministry of Energy and Mineral Development

<http://www.energyandminerals.go.ug>