Factsheet

Country: Lesotho, Malawi, Mozambique, Namibia, South Africa, Tanzania, Zambia and Zimbabwe

Project: Programme for Biomass Energy Conservation (ProBEC)

Term: 1999-2008

Total funding: € 11,100,000

Programme for Biomass Energy Conservation in SADC countries

Scenario

Biomass fuels, still account for nearly 80% of the total energy demand in the Southern African Development Community (SADC). Most of this energy is used for cooking, baking, heating. A substantial amount goes into small-scale businesses like brick firing and large scale catering.

The overuse of traditional biomass fuels in many SADC countries contributes to severe deforestation and land degradation. Serious health problems (acute respiratory infections) are caused by using unventilated bio fuel cooking stoves indoors.

Despite government investments to increase access to electricity, traditional bio fuels will remain the most available and affordable sources of energy for the majority of the SADC populations in the next decades. Even if households have access to electricity, they often cannot afford it for thermal processes such as cooking, which consume high amounts of energy. Good solutions for the sustainable management of biomass energy do exist: ProBEC assists in improving technologies and techniques for the conservation of biomass energy. However these approaches need to be intensified and expanded.

Project

In 1999, SADC started the regional Programme for Biomass Energy Conservation (ProBEC). The Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH has been commissioned to implement ProBEC. It is the vision of ProBEC that all populations can satisfy their energy requirements in a socially and environmentally sustainable manner. Hence, for those populations, who have no access to electricity or cannot afford it for the highly energy consumptive thermal processes, interim solutions are needed to improve their quality of life. One solution is: biomass energy conservation.

Biomass Energy Conservation (BEC) means:

- use of more energy efficient technologies (improved stoves)
- use of alternative renewable energy sources (e.g. solar, green fuels)
- introduction of more efficient firewood management (drying wood, splitting wood, etc.)
- improved kitchen management (e.g. reducing time for cooking processes, better ventilation at the cooking place).

Biomass energy conservation is seen as a business opportunity:

- for those who produce and sell technologies and thus generate income
- for those who adopt it, and thus reduce their fuel costs and improve their lifestyle.

commissioned by:

gtz

Federal Ministry for Economic Cooperation and Development

So far ProBEC is operating in the following 8 SADC countries: Lesotho, Malawi, Mozambique, Namibia, South Africa, Tanzania, Zambia and Zimbabwe. Key elements of ProBEC approach are:

- Private entrepreneurs (formal and informal sector) are trained to produce and market energy efficient technologies. Government and non-government extension and research services are capacitated to support the private sector with training, awareness campaigns, monitoring, etc. This is the core element of ProBEC.
- National advisory bodies from various sectors (Energy, Forestry, etc) are responsible for lobbying and fundraising for sustainable biomass energy management, further policy development and coordination of initiatives in the sector. This sets the political and institutional framework.
- The two regional project offices in South Africa and Zambia offer training, technical and organizational consultancy advice, and regional experience exchange. They co-operate with a number of national and regional initiatives. They lobby to put biomass energy on the renewable energy agenda (e.g. NEPAD action plan). They raise funds from international donors (EU, UNDP-GEF, DGIS) and from private sectors to complement the contribution by the SADC countries and the German government.

Impact

Since its inception in 1999 ProBEC has achieved substantial progress. Professional capacities have been built in all countries on the technical as well as organizational and management levels to strengthen the commercial dissemination of energy-efficient technologies and management systems.

Today there is a greater awareness of the importance of biomass energy conservation at the national and regional level. Experiences have been documented, impacts analyzed and the results published and made available internationally via the frequently visited ProBEC website. At the same time there is an on-going process of providing access to the newest technological advancements and to develop appropriate organizational support structures. Some of the more recent developments are:

The establishment of an **Information Centre for Food and Fuel Security** in Malawi as a regional training centre for all groups interested in participating in energy conservation activities.

The testing of new materials and further development of the highly efficient **rocket stoves for large-scale cooking**, saving between 50 and 80%. 700 of these have been sold within a year, many to the World Food Programme within their feeding scheme, but also to tea estates, prisons and restaurants. This gives additional job opportunities: one producer from Malawi has expanded his workshop from 2 to 15 employees within one year.

New and **affordable technologies for households** are being developed and tested. A rocket type stove will be available for sale in the near future within a price range of 10-15 Euro. In cooperation with WHO health improvements are being documented and people are being sensitized not only to the hazards of indoor air pollution but also to the possibilities efficient stoves offer to mitigate the impacts of HIV and AIDS.

Imprint

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