



DEA Case Study Fact Sheet: Tanzania

Development and Energy in Africa (DEA)

Programme area: COOPENER, Community cooperation with developing countries
Target countries: Botswana, Ghana, Mali, Senegal, **Tanzania**, Zambia
Status: ongoing

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DEA
Development and Energy in Africa

Case Study: Small Scale Irrigation Schemes Powered by Wind and Solar energy

Country: Tanzania

Keywords: Sustainable development, impact, assessment, irrigation schemes, Renewable Energy

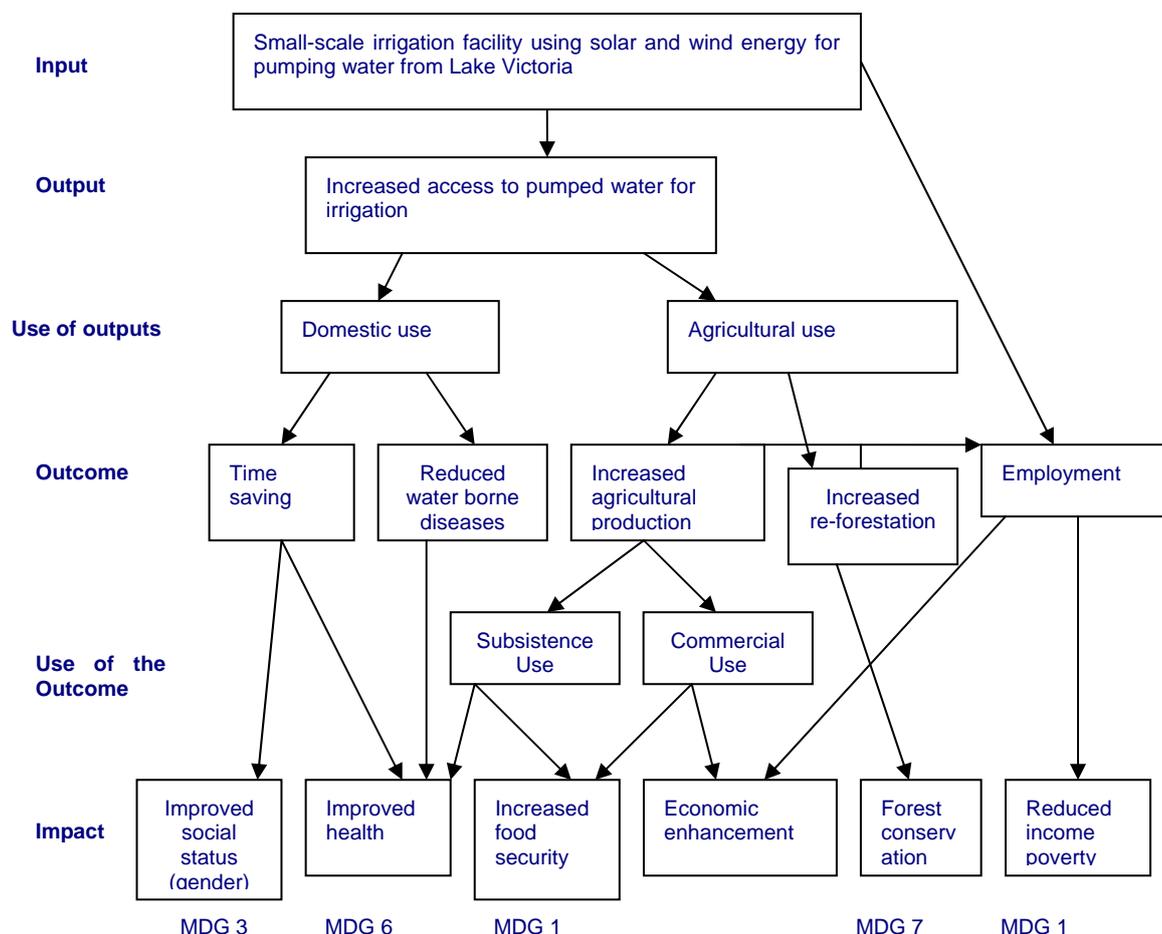
Short description of energy intervention

- The projects are located in Ukerewe District, Mwanza Region, Tanzania
- They were funded by UNDP under the GEF Small Grant Programme
- The project started in October 2001 and was scheduled to end in December 2003. However, the projects are not yet completed due to unexpected drop in level of the lake, and thus some funds were allocated to solve the problem instead of completing other parts of the project.
- The projects could not perform as expected due to the sudden drop of water on the Lake Victoria, thus the water was accessed for three months only.
- Although the projects accessed water for a short period of time (3 months), It is possible to argue that there are some interventions that could be linked with the project directly or indirectly, including: increase in farm size from 3 to 50 acres, increase in group members from 6 to 36 and 5 to 60 members for the two villages respectively, reduced time from 8 hours to 2 hours a day for irrigation activities. Reduced burden of carrying water by bucket by irrigating using the pumped water flowing to the farms by gravity

Case study methodology

- Review of project document
- Conduct physical visit to the project sites
- Administering structured questionnaires with the beneficiaries
- Meet group leaders and district government officials
- Discussions on study findings with focus group (beneficiaries and District officials)
- Data analysis using Ms Access

Causal link diagram



Results

- The projects were able to access water for three months only due to drought causing significant water drop in the Lake Victoria.
- The intervention came together with training of beneficiaries on better farming practice and group leadership
- The groups were still working together in spite of water inaccessibility
- The interview with beneficiaries revealed that when water was accessed there was a notable change on irrigation practice and farm products

Lessons learnt

- In relation to MDGs and National Strategy for Growth and Poverty Reduction, wind/solar powered irrigation schemes if well designed could give an impact on gender, poverty and environmental sustainability
- Assessment Framework proves to be an easy tool to use and helps in assessing the energy project interventions
- The National Energy Policy for creating conditions for provision of safe, reliable, efficient, cost-effective and environmentally appropriate energy services to all sectors is there but lacks:
 - Deliberate Implementation Strategy;
 - Appropriate enforcing Laws and Regulations;
 - Mechanisms for close monitoring and evaluation;
 - Programs for capacity building from National to local level
- Availability of baseline data is an important input to assessing the project impacts

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From 1 January 2007, Risø National Laboratory, the Danish Institute for Food and Veterinary Research, the Danish Institute for Fisheries Research, the Danish National Space Center and the Danish Transport Research Institute have been merged with the Technical University of Denmark (DTU) with DTU as the continuing unit.

Website:

<http://www.deafrica.net>