

Transformation of the Rural Photovoltaic (PV) Market in Tanzania 00035062

Quarterly Operational Report For the period January-March 2006

Basic project information:

Project Number & Title:	URT/03/G – Transformation of the Rural Photovoltaic (PV) Market in Tanzania
Executing Agency:	Ministry of Energy & Minerals
Implementing Agency:	United Nations Development Programme
Project starting date:	
Originally planned:	December 2003
Actual:	March 2004
Project Completion date:	
Originally planned:	December 2008
Actual:	December 2008
Total budget (\$):	
Original UNDP/GEF:	2,250,000
Latest signed revision:	2,250,000
Government (in kind):	147,600

This report covers the project performance in the period January-March 2006. As it reflects, the activities of the project were to some extent limited and the project could not manage to cover most of the planned activities for this quarter. This is because the requested fund was remitted late , on the 6th of March 2006.

Immediate Objective 1 :

Output 1.3: Standards for PV components defined.

Activity 1.3.1: To follow up the adoption of PV standards and code of practice for technicians.

The formulated Tanzanian PV standards and technicians code of practice are still awaiting the approval by the TBS Advisory Committee and the EAC Technical Committee (the latter's meeting for this purpose was scheduled in November 2005).

In the mean time the project supported the participation of 3 of the Working Group members: MEM, TBS and the Project in the IEC centenary event for Africa held in Nairobi in the period 21-23 February 2006. The IEC is as an international body, established in 1906 to formulate electro-technical field standards with an aim to ensure quality, reliability, safety, high performance and least cost of electrical appliances and systems. The workshop's objective was to facilitate exchange of experiences in the area of electro-technical standards formulation and enforcement as part of IEC Centenary Event for Africa. The workshop was concluded with recommendations that IEC standards be domesticated and enforced by Standards

organizations in collaboration with other actors. Proactive formulation of national standards as inputs into IEC standards is important but local stakeholders have to be involved in standards' formulation. The role of IEC should be to support in building national capacity on formulating standards.

Immediate Objective 2 :

To increase awareness among the general public, and especially decision makers, consumers and other end-users on the potential role of PV in meeting basic energy needs of rural communities.

Output2.1: Awareness program for decision makers developed and implemented.

Activity 2.1.1: Organize a solar day in cooperation with Sida Project

This solar fair was organized parallel with a two day workshop on PV financing organized by the Regional GEF/UNEP Rural Energy Project in Dar es Salaam in the period 9-10th March 2005. The fair was organized in Golden Tulip Hotel, which unfortunately made it of limited impact as the place is not easy access to the public. The workshop discussed the PV financing experiences in the region and in Serilanka in which a number of key players participated including representatives of PV suppliers, dealers, financing institutions and projects. The Mwanza PV project presented the PV consumer financing model, which is being piloted and tested by the project. The project supported the participation of 3 PV dealers (Zara Solar Ltd, AOL Technology Ltd and Intraprofession East Africa Ltd) and representatives of 2 banks (CRDB and NBC). The w/s gave an opportunity for the private sector and financing institutions in Mwanza to discuss with their counterparts similar PV financing experiences in the region.

Activity 2.1.2: Organize a series of awareness meetings with authorities at the ward level.

Four meetings were conducted with the ward community development officers of all the districts in Mwanza Region in presence of the Regional and district Community Development Officers. The project profile, objectives, strategies, approaches and achievements were discussed. Detailed discussions covered the potential applications of PV systems and its potential developmental roles in off-grid areas. The role of the community development officers in assisting in awareness raising and the on going discussions of incorporating PV in the coming annual development plans were also discussed. The meetings were accompanied by practical demonstration of the use of PV systems and a video show on the PV demonstration sites in schools and health facilities.

Output 2.2: End user awareness program formulated and implemented

Activity 2.2.1: To continue preparation & dissemination of information packages on PV and their benefits; leaflets and news letter.

In the process of awareness raising, the project continued to distribute updated leaflets answering frequently asked questions (both in Swahili and English) as well as brochures reflecting the project profile, potential PV applications and the coordinates of the PV dealers. More than 15,000 copies of the leaflets, 200 project calendars and

200 project newsletters were distributed through the ward community development officers to assist in raising the awareness of the beneficiaries in the villages.

The first issue of the newsletter reflecting the project objectives, approaches and achievements has been distributed to prospective readers in the communities and institutions, both in Mwanza region and in Dar es Salaam.

Activity 2.2.2: To continue the use of radio and TV for awareness raising.

Radio and TV adverts & programs (revised and updated regularly) continued to be aired to sensitize the public on use of PV technology, its benefits and source of the equipment and inform them on the venues and dates of different project upcoming activities.

Activity 2.2.3: To prepare educational material

The booklet prepared, in consultation with the Regional Education Office as extra curriculum reading material for secondary school students, could not be printed for distribution, as it is under the consideration of MEM for the final revision.

Activity 2.2.4: To organize general awareness campaigns together with the dealers.

A one day promotional activity was organized on 29/03/06 at Shigala, in Magu district, where two of the private PV companies (Zara Solar and AOL technology Ltd) were assisted to promote their PV products in an open market show. The objective was to expose the private companies in Mwanza to the beneficiaries in the rural areas and give the chance to the users to get invoices to apply for the established consumer financing through the SACCOS.

Output 2.3: Demonstration program implemented to show the functionality and usefulness of a limited number of PV installations in strategically important locations and niches.

Activity 2.3.1: To continue the installation of PV demonstration systems.

The installation of the PV demonstration system continued this quarter. A system was installed at Mwamashimba Secondary School in Kwimba district and two systems were installed at Kagunguri and Muriti health centres in Ukerewe district. As in other districts these were installed by the trained technicians, who were contracted by the beneficiaries and were engaged by agreements to provide maintenance services.

During this period the project technical team managed to visit seven new sites, mainly health centres and dispensaries, identified in consultation with the district authorities in Magu, Geita and Sengerema. The objective of the visit was to identify the minimum required sizes of systems and their suitability for demonstration sites.

Immediate Objective 3:

To strengthen and support the private sector working in the PV sector to provide better quality of service and to develop models for providing PV based electricity services to the rural areas.

Output 3.1: Business development services strengthened.

Activity 3.1.1: To create awareness of PV systems, applications and products among existing business.

No action taken

Action: 3.1.2: To support the functioning of local TASEA.

Activity 3.1.3: To study and discuss alternative service delivery modes

The TOR has been developed and in the process of finding a suitable expert to lead the discussions on the delivery modes and roles of various stakeholders. ration the financing model that will be tested, including the roles of the stakeholders that will be directly involved.

Output 3.2: Technical knowledge of PV strengthened.

Activity 3.2.1: To organize a technical training workshop for technicians on PV sizing, installation and maintenance

The 6th workshop for technicians training on PV systems sizing, component selection, installation and trouble shooting was successfully conducted in the period 20th -25th March 2006. It was attended by 16 technicians. In this workshop eight trainees were from the neighbouring regions of Kagera (1), Mara (3) and Shinyanga (4). The technicians were selected based on their qualifications, technician's certificate. This time two of the trained technicians were from Ukerewe district.

Activity 3.2.2: To work with VETA to incorporate the developed PV curriculum

The solar training course according to the developed PV curriculum has started in VETA-Mwanza in January 2006. A total of 15 students have started the course to get a grade 2 electrical technician certificate by July 2006. The course will be monitored and evaluated in cooperation with VETA HQ for further replication of the course in other centres.

Immediate Objective 4 :

To explore, develop and test viable financing options for selling PV systems.

Output 4.1: The most promising model for consumer finance of PV systems identified, piloted and evaluated.

Activity 4.1.1: To establish and operate the recommended consumer financing model:

A MoU has been signed between the project and CRDB identifying the roles of both sides in the recommended model. Shigala SACCOs, one of the four selected SACCOS has signed an agreement with the Bank according to which the members are now eligible to get loans for the purchase of PV systems. Arrangements are under way to facilitate their contacts with different PV suppliers and technicians to prepare proposals for financing.

Output 4.2: The most promising model for supplier or supply-chain financing in PV industry will be identified, piloted and evaluated.

Activity 4.2.1: To establish and operate the recommended supply-chain financing model.

This activity could not be started as the report of the study on evaluation of different financing practices and the recommendations of the most suitable model has not been finalized.

Output 4.3: To provide limited grant financing to a small number of schemes proposed by the stakeholders to test various productive uses of PV in rural areas.

Activity 4.3.2: To support a small number of the best projects judged to most effectively meet the goals of the competition.

The project has supported six PV income generating projects proposed by private sectors. These projects were three installed PV systems for mobile phone charging (one of them included hair cutting) in Geita and Ukerewe districts, one system for lighting and powering TV in a guest houses in Sengerema district; a system for Public video show in Geita and a system for powering music system in a mobile cassette vending carts in Sengerema. All beneficiaries were requested to contribute at least 35% of the system costs. These systems are installed to serve demonstration purposes for other private sectors who are interested to venture in such businesses.

Immediate Objective 5:

Output 5.1: Evaluation of Impact of PV on rural livelihoods in early adopting households and communities.

Activity 5.1.1: Analyze the surveyed data

Collection of project baseline data was finalised in January 2006 by technicians contracted through TASEA, Mwanza branch. About 383 PV system owners in all Mwanza region districts were interviewed for completeness of the missing information obtained during the project baseline study undertaken by a consultant, a consortium of TaTEDO and FREDKA International. As these data were more relevant at the beginning of the project, the survey has also served to get updated data not only for completeness of the study but also for monitoring and future project implementation planning. Data were analysed by a statistician and the findings are summarised at separate sheet (attached).

Activity 5.1.2: Prepare a video documentation

The project has started a series of project activities documentation. The aim is to have enough documented activities for project experience replication purposes. This quarter a number of activities were thoroughly documented. The activities included awareness workshop with community development officers, training sessions for PV technicians, PV demonstrations at public places during market days and installation of demonstration systems at selected sites by the project. This will be a continuous process and first edited video documentation will come out in June 2006.

Activity 5.1.3: Establish a project web site

The project website (www.solarmwanza.org) was developed and it is already online. The aim is to give PV market information to potential PV investors in Mwanza, to inform the public about PV technology and sources of PV equipment in Mwanza region and provide useful information required by PV dealers in Mwanza region. The website will also provide project activities update, as they become available to the PV stakeholder. At the end the site will be vital for project experience replication to PV industry in other regions of the country.