

TOR FOR TERMINAL EVALUATION
TRANSFORMATION OF RURAL PHOTOVOLTAIC (PV) MARKET PROJECT
IN TANZANIA (00035062)

1. BACKGROUND

The project aimed at reducing Tanzania's energy-related CO₂ emissions by introducing photovoltaic (PV) as a substitute for fossil fuel (kerosene) utilized for lighting in rural areas from the electricity grid and at slowing down the rate of additional diesel-based captive generation schemes for providing basic electricity services to the unelectrified rural households, specifically in Mwanza, Shinyanga, Kagera and Mara. In addition, the project had to substantially decrease the growing number of rural poor, adults and children alike, who contract respiratory and eye problems due to prolonged exposure to kerosene smoke and soot (poor indoor air quality). The activities proposed in the project had been designed to remove a number of barriers to wide-scale utilization of PV to meet the basic electricity needs of individual households in terms of lighting, power for a radio-cassette/TV, productive use activities, and of community users like health clinics and schools, initially in the Lake Zone regions, but eventually in the whole country. The project aimed at developing local capacity to identify technical and financing options and to formulate the regulatory, institutional, financial and marketing instruments necessary to demonstrate the technical, economic, and financial viability of using the private sector as a vehicle to deliver basic electricity services to rural households and community users.

The project document was signed in November 2003 and the implementation started in March 2004 with the Project Implementation Unit put in place in April 2004. It is a five year project. It was implemented by UNDP and executed by the Government of Tanzania through the Ministry of Energy and Minerals (MEM). The project total budget is US\$ 2.25 million funded by the Global Environment Facility (GEF) with the Government of Tanzania providing an equivalent of US\$147,000 in kind.

For the first two and a half years the project activities focused on overcoming the most major barriers of policy, awareness, technical and financial nature for market penetration of PV technology in Mwanza Region, whereby mid-term evaluation was conducted and

the experience gained and lessons learned were then replicated in other regions of Shinyanga, Kagera and Mara. The project activities were structured to ensure that the technical and financial capabilities of PV business are strengthened, public awareness on the potential PV applications and limitations are raised and the appropriate policies required expanding these markets on a demand driven. Different financial models were piloted to establish suitable financing mechanisms to support the affordability and accessibility of PV end users, especially the rural households and the capacity of the private sectors in the PV supply-chain to avail the necessary equipment.

1.1 Project objectives

The development objective of the project was to remove barriers with the aim of promoting the commercial utilization of PV to provide basic electricity services to improve people's livelihoods improve their access and affordability to modern energy and reduce the dependency on imported fossil fuels (kerosene). At the global level, the project aimed at reducing Tanzania's energy related CO₂ emission by substituting PV for fossil fuel to provide basic electricity to rural homes and community users.

The Project's immediate objectives encompass:

- (i) To refine the policy frame work and the institutional arrangements necessary for the widespread adoption of PV's for providing off-grid electricity services;
- (ii) To increase awareness among the general public, especially decision makers, Consumers and other end users on the potential role of PV in meeting the basic energy needs of rural communities located away from the electricity grid;
- (iii) To strengthen and support the private sector working in the PV sector to provide better quality of services and to develop models for providing PV based electricity services to the rural areas
- (iv) To explore, develop, test and adopt viable financing options for disseminating PV systems; and
- (v) To disseminate experience and lessons learned to promote replication throughout the other regions of the country.

The assessment of the project impacts and achievements during the implementation period and the extraction of lessons learned both in terms of financial and technical approaches, require a proper evaluation of the project achievements and to measure the improvements or changes in the designed indicators, as a result of the project intervention, compared to the base line parameters. A set of indicators were identified during the project development phase and is documented in the logical framework. These were revised and updated in the baseline study conducted towards the end of 2004.

The project is seeking the services of two qualified experts (an international and a local one) to conduct the above evaluation. The consultants will assess the project achievements and impacts, in consultation with the main stakeholders. The consultants will work very close with the Project Implementation Unit (PIU) in Mwanza, MEM, UNDP Country Office and UNDP/GEF Technical Regional office in Pretoria. All required support and documents will be provided as necessary to the consultants.

2. OBJECTIVES OF THE EVALUATION

The main objective of this evaluation is to provide the project partners i.e. GEF, UNDP & GoT with an independent assessment of the impacts and key achievements of the project as compared to the project document for the five years implementation of the project. Assess the expected outcomes and their sustainability and suitability for policy related review inputs. The evaluation results are envisaged to identify and discuss the lessons learned, through measurements of the changes in the set indicators, summarize the experiences gained and technically, and recommend for future policy dialogues.

3. TASK AND SCOPE OF THE EVALUATION

3.1 Scope

The scope of the evaluation will cover the success in removing the barriers, raising the public awareness on potential applications of PV technology, strengthening the technical and financial capabilities, appropriateness of policies, potential replication of the achievements, the impacts and sustainability of outcomes.

3.2 Tasks

To achieve the above objectives the terminal evaluation is to address the following:

- (i) Assess the impacts and key achievements of the project vis á vis its objectives and outcomes as per project design indicators
- (ii) Assess the relevance achievements of the project objectives to the national development agenda and priorities, UNDP thematic areas and needs of beneficiaries
- (iii) Review the appropriateness and clarity of roles and responsibilities of stakeholders and their level of satisfaction with the project achievements
- (iv) Assess the achievements of the project in terms of timeliness, quality, quantity and cost effectiveness of the expected outcomes
- (v) Assess the prospects of the sustainability of the project outcomes and benefits in the longer future

4. METHODOLOGY

The terminal evaluation will be conducted in a participatory manner through a combination of processes including a review of the key project documentation, interview with project stakeholders and site visit as deemed necessary. It will include visits to UNDP Country Office, Project Executing Offices of Government, PIU, REA as well as selected national partners and stakeholders, including interviews with key individuals both within the project in Mwanza, the government staff, NGOs, private sector (PV suppliers) SACCOS and project beneficiaries mainly communities in various districts. The following documents are recommended to be reviewed by the team:

- Project Document
- Project implementation reports (APR/PIR's);
- Annual technical reports and work plans of the various implementation task teams;
- Mid Term Evaluation report, and
- Minutes of the project Steering Committee Meetings.

5. EXPECTED OUTPUTS

The consultants shall provide the project partners and the PIU with a comprehensive draft report with the following:

- (i) Impacts and key project achievements identified and documented according to the project indicators
- (ii) Project achievements and sustainability in relation to the project design
- (iii) Relevance of the project achievements and the national policy development agenda
- (iv) Efficiency and effectiveness of the project in terms of financial and planned activities
- (v) Project shortcomings and lesson learned and policy review for rural energy development in Tanzania.

6. EXECUTION ARRANGEMENTS

The two consultants should work together as a team towards producing the evaluation report. The national consultant will be responsible for providing any necessary background information, attending meetings when necessary and preparation of the relevant parts of the report. Nevertheless, the international consultant will be responsible for the timely required outputs and submission of the deliverables.

The consultants will be contracted by UNDP country office in consultation with MEM and GEF. The PIU shall arrange for the consultant all necessary site visits and meetings in the project site according to the TOR. UNDP country office in coordination with the PIU shall arrange logistics for the mission including hotel reservation and transportation during the

mission. The mission will maintain close liaison with UNDP CO, The Renewable Energy Section of MEM as well as the PIU.

7. TIME FRAME

The evaluation will be carried out through a period of 22 working days for the international consultant, which includes a 10-day mission to Tanzania and, 20 working days for the national consultant. The assignment will commence early May 2009.

7.1 Preparatory stage-inception: 5 days

- Preliminary desk study review of relevant documentation provided by the PIU and UNDP-Dar es Salaam.
- Circulation of information among main stakeholders to determine the key issues to be addressed during the mission
- Submission of inception report. The inception report will outline the work plan and the key issues to be addressed during the mission.

7.2 Field Mission: 9 days

- Briefing for the evaluators
- Interviews and meetings with the key stakeholders
- Validation of preliminary findings of the mission with UNDP and GOT. This will be in form of presentation and discussion forum.

7.3 Preparation of Final Evaluation Report: 7 days

- Submission of first draft report and circulation for comments and feedback from key stakeholders: two weeks after the field mission
- Preparation of final evaluation report: two weeks after the receipt of the feedbacks from the key stakeholders

8. DELIVERABLES

- Submit 5 hard copies of draft report after two weeks
- Submit 5 hard copies and 1 soft copy of the final report.

8.1 Presentation of the findings

The initial conclusions and recommendations will be presented to the Project management team, in DSM or Mwanza and UNDP/GEF for their comments. Once these are integrated, a final draft will be presented to MEM/UNDP.

8.2 Report sample outline

Evaluation Report – Sample outline

a. Also include list of acronyms

b. Table of Content of the Report.

c. Executive summary

- Brief description of project;
- Context and purpose of the assignment;
- Main conclusions, recommendations and lessons learned;

d. Introduction

- Purpose of the assignment;
- Key issues addressed;
- Methodology of undertaking the assignment;
- Structure of the evaluation process.

e. The project(s) and its development context

- Immediate and development objectives of the project;
- Main stakeholders;
- Results expected.

f. Findings and Conclusions

Project Implementation

- Impacts of the project
- Linkage of the project achievements to the national development agenda
- Stakeholder participation
- Linkage of the project and other interventions within the sector in Mwanza
- Sustainability of the intervention

g. Lesson learned

h. Conclusions and recommendations

9. REQUIREMENTS OF THE EVALUATION TEAM

Two consultants are proposed to conduct the evaluation exercise: an international and a national consultant. The International Consultant, who will also serve as the team leader, shall be an energy specialist having a post graduate qualifications preferably in energy related technical field with at least 15 years of relevant experience preferably with renewable energy technologies (RET) development, integration in the general energy balance and the technical, socio-economic and environmental issues of their applications, preferably in the developing countries. Extensive experience in the fields of project formulation, execution, Monitoring and Evaluation is required. Previous involvement and understanding of UNDP's procedures is an advantage. The consultant should have strong writing skills coupled with relevant experience in results-based monitoring and evaluation techniques.

The National Consultant shall have experience and conversant with national policy development. Experience in renewable energy technologies is an added advantage. Must have postgraduate qualifications preferably in Engineering, Environment Sciences, Economics, development studies or business related studies with experience in upstream-downstream policies. At least 7 years of relevant technical experience in Monitoring and Evaluation. The consultant should be well acquainted with the general energy situation of Tanzania, in particular electrical energy demand/supply issues, and well informed on the energy and overall economic development strategies and programmes, particularly for rural development. Previous involvement or knowledge of the institutional and organizational setup of the energy sector is an advantage & some international experience in project formulation, execution and evaluation is an asset. The consultant should be fluent in English and possess strong technical writing skills.

10. REPORT ANNEXES

- TORs
- Itinerary
- List of persons interviewed
- List of documents reviewed
- Questionnaire used and summary of results if any.