

Introduction

MIRREIA is a project that has been funded under the European Intelligent Energy Programme. It is aimed at mitigating the major barriers to investment in renewable energy and the rational use of energy in the rural electricity sector, through a 'learning by doing' approach. The project focuses on Kenya, Tanzania and Uganda. It began in January 2005 and is due to end in June 2007.

Background

Sub-Saharan Africa presently suffers from the lowest level of Rural Electrification (RE) in the world, with on average only 53% of urban and 8% of rural populations having electricity access. The low population density and remoteness of rural areas result in very high costs of electricity production, transmission and distribution.

Increasing access to modern energy services especially electricity, is vital for the overall socio-economic development of the region; as it will contribute towards improved health services and health care, clean drinking water, use of modern educational facilities thus improving student performance, enhancing development of small-scale enterprises, and also providing wider access to telecommunications.

Private sector investment in rural electricity has been very low and is crucial in addressing this energy challenge Sub-Saharan Africa faces. The MIRREIA

project seeks to identify and mitigate the barriers involved. The major barriers and constraints that have been identified in the target countries are; financial, political, regulatory and licensing risks.

MIRREIA will focus on the development of independent power producers (IPPs), public private partnerships (PPPs) and rural electricity suppliers. It will also liaise with commercial and development banks on local, regional and international scales; government and the private sector. The project will build upon and work with existing programmes and projects in each of the three countries, contributing towards broader initiatives to stimulate private investment in renewable energy and in the alleviation of poverty.

A desired end result will be an increase in good potential renewable rural electrification projects which will be financed by the commercial and development finance institutions.

The MIRREIA project will assist communities in gaining access to modern energy especially electricity and thus create a means to sustainable development by;

- Promoting and encouraging the use of renewable energy thus assisting in poverty alleviation including protecting the local and global environment;
- Identifying and defining means to mitigate the major financial, policy and regulatory risks to private sector investment in rural electrification
- Assisting key stakeholders to improve market conditions and set the framework to assist project developers invest in viable, successful renewable rural electrification projects and activities that lead to significantly improved energy efficiency, both on the supply and the demand side.

Progress till date

- Completion of state of play reviews in the 3 countries and internationally; a report highlighting the present state of play in the 3 countries with regards to the use of renewable energy, the present state of access to energy in rural areas, and the benefit renewables can contribute to poverty alleviation has been completed and uploaded onto the project website. Similarly, a report reviewing experience in South Africa, Cambodia, Sri Lanka, China, Denmark and the UK has identified key lessons that can be learned in these countries for utilising and promoting and

encouraging renewable energy, in particular in rural areas, where applicable.

- Assessment of risks and barriers to investment and finance in renewable energy; an edited version of the initial assessment of the specific risks and barriers in each country to investment and finance in the rural energy sector has been completed and uploaded onto the project website.
- Compilation of a database of key government and institutional stakeholders; relevant stakeholders who could have a significant role in making this project a success have been identified.
- Development of project website; the project website has been developed in order to facilitate dissemination of project outcomes to relevant stakeholders which in itself is an integral part of the project.
- Project developer support; ongoing support for the private sector is being provided in all the three countries and this has focused on the financial aspects of project development and implementation.

Next steps...

- A handbook/manual for investors and developers will be produced: this will focus on guiding them through the financial aspects of project development and implementation, highlighting the key national requirements for developing projects

and opportunities for access to appropriate finance.

- Further project developer support resulting in 'real' projects that will be

assisted in negotiating barriers right through to implementation

Case study – Mpeketoni Electricity Project (MEP)

Mpeketoni Electricity Project (MEP) is a decentralised community electricity generation and distribution project at Mpeketoni in Kenya. Presently the consumers on this independent mini grid are paying over four times the national tariff for their electricity. In addition to this challenge faced by increased fuel prices, the equipment is also in dire need of rehabilitation and in some cases replacement.

MIRREIA partners have been collaborating closely with the e7 fund, through Scottish Power in providing direct support to the Mpeketoni scheme. They are investigating the development of a mini-grid wind project with the aim of reducing dependency on diesel through wind power generation into the grid. They have assisted MEP in negotiating the regulatory framework and obtaining support under the Government's Rural Electrification Programme. The project team in Kenya organised a meeting for MEP to meet with the Electricity Regulatory Board, the utility (KPLC) and the Ministry of Energy's Rural Electrification Programme. The team also met with the Permanent Secretary at the Ministry of Energy.

The project is now being supported by the Government and will be receiving additional generation capacity, a new sub-station and basic training on the new generators and 11kV system. The MIRREIA project is also assisting the community identify the specific environmental regulatory requirements for the project.

This support has been a good example of synergy between projects with complementary aims and objectives.

Preliminary Conclusions

Although the project is not yet completed it gives rise to the following conclusions:

- There is a strong interest and capacity from the private sector to develop projects within the region
- The institutional frameworks in each country are at varying stages of development/ transition and there is still uncertainty as to the support available for the private sector to draw down the costs to achieve affordable electricity
- There is a need to disseminate knowledge and experience across and the region and within a wider geographical area.

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