

Water for Agriculture Production (WafAP)

The Promotion of Renewable Energy and Energy Efficiency Programme (PREEEP) and the Financial System Development Programme (FSD) in Uganda are cooperating to promote solar-powered small-scale drip irrigation financed with small loans. Local partners are Agarú Savings and Credit Cooperative Ltd., Centenary Bank and AgroMax (U) Ltd., a supplier of agricultural equipment and inputs.

After an assessment of the financial viability of PV-powered small-scale drip irrigation for vegetable production in Northern Uganda, GTZ approached Agarú SACCO to develop and establish a loan product for solar-powered irrigation systems and improved agricultural inputs. Part of this process is to demonstrate the technology through the installation of a demonstration system in Kalongo, where the SACCO's head office is located. The demonstration system has been installed on the farm of a local farmer in August 2010 and used for the cultivation of tomatoes, cabbages and onions. Kalongo is located in the Pader district in Northern Uganda, where vegetable are mainly imported from other parts of the country and prices are thus very high (between 2-3 times higher than in other areas of Uganda). Therefore the pay-back period of a small system costing approx. 2,200 EUR (6 million Ugandan Shillings), which is sufficient for cultivating a field off $\frac{1}{4}$ ha, is only approx. 12-18 months, assuming a grace period of 3 months (i.e. time between planting and first harvest) and an interest rate of 18% per annum (on a declining basis).¹ The planned loan term will be 12 months, but payments will be done every 3 months considering the harvest periods of the planted crops. In addition, a small market study is being conducted among members of Agarú SACCO to assess the potential demand for the new loan product.

A similar cooperation is under preparation with Centenary Bank, one of Uganda's leading commercial banks with a country wide network of branches. GTZ has signed a PPP project for the development and establishment of a similar loan product with Centenary Bank. The first major activity in the framework of this PPP is a market study which is going to be conducted in the districts of Mukono (Central Uganda) and Lira (Northern Uganda). This study will also compare the economics of solar- and grid-powered irrigation.

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¹ This is the theoretical pay-back period excl. (opportunity) costs for labour. For the pilot system, only the seeds, the drip irrigation system and other agricultural inputs will be financed by the farmer. The PV pumping system will be sponsored by GTZ. The price indicated here includes the solar PV pumping system, the drip irrigation system incl. water tank (both incl. installation), seedlings as well as fertilizer and pesticides for the first four months.