

Advanced scoping for technical capacity building on small hydropower in East Africa

Project Overview

Introduction

The Renewable Energy Cooperation Programme (RECP) is an initiative under the Africa-EU Energy Partnership (AEEP) aiming at developing viable and sustainable renewable energy (RE) markets in Africa. It responds to needs in relatively young RE markets by setting up new interventions as required, or by complementing successful, existing instruments. As a European contribution to two of the targets of the Sustainable Energy for All (SE4ALL) Initiative (namely energy access and renewable energy), the RECP provides tailored and integrated support interventions under four Action Areas (1. policy advisory, 2. private sector cooperation, 3. project development support and financing, and 4. technology, innovation and capacity development).

The East African region is endowed with a substantial small hydro potential which should have resulted in a large and rapidly growing small hydro industry (in the range up to 10MW). Until recently, the small hydro industry in the region was characterized by sporadic small and isolated pilot projects that were not able to scale and over time break down or work below rated capacities due to lack of maintenance, repair and/or rehabilitation. Among agro industries, notably the traditional tea sector, these break downs led to a growing understanding of the importance of proper O&M of existing and planned small hydro power installations.

Therefore, taking advantage of the situation, enhancing the region's small hydro O&M capacity is likely to be a low-cost and high-impact approach for turning around the fortunes of small hydro development in the region. The key barrier remaining is the acute shortage of skilled small hydro personnel and in particular the almost total absence of skilled personnel with hands-on expertise who are not only key in the O&M of small hydro plants but can also play a key role in rehabilitation of defunct small hydro installations as well as development of new small hydro sites.

RECP has received a request from the East African Community (EAC) for assistance in the area of small hydropower capacity development. The assistance is meant to trigger further support within EAC in building up a portfolio in renewable energy and energy efficiency within the region, championed by Austria and UNIDO. The project will entail an advanced scoping into the area of technical training gaps in the small hydropower sector. This is expected to be in line with EACs Regional Strategy on Scaling Up Access to Modern Energy Services, which has a specific reference to the development of small hydropower. The project is also expected to complement the ongoing efforts by Austria and UNIDO in setting up the East African Centre for Renewable Energy and Energy Efficiency (EACREEE).

Objective

The objective of the activity is to support EAC in carrying out a detailed gap analysis and assessment on technical capacity development measures for small hydropower in the region. The analysis and assessment will form the basis for development of an action plan and preliminary training content recommendations to be presented to a group of experts.

The project activities should lead to:

- ▶ Improved coordination of small HP development and effective knowledge sharing among member states as well as different institutions under the public and the private sector;
- ▶ Build on existing small hydropower capacity building programmes (with a focus on O&M) in institutions that have demonstrated long-term interest and commitment;
- ▶ Strengthen the future function of the EAC regional centre (EACREEE).

Project Approach

Project implementation will comprise the following activities:

- ▶ An **analysis of the current situation regarding capacity building in the hydropower sector in the EAC** member countries and establishment of the profile and trend towards the under performance of small hydropower, and the impact it has on electricity shortfalls;
- ▶ **Extensive scoping missions to each member country of the EAC** in order to identify and consult local stakeholders, select priority countries and topics, identify gaps in technical training, as well as to agree on overall principles for a small hydropower training programme;
- ▶ Based on the conclusions drawn from the study and stakeholder consultation, the project will conclude with a **needs assessment on technical training for small hydropower**, as well as with initial **draft recommendations** and an **action plan for implementing hydropower operations & maintenance training programme** in the EAC.

As the emphasis is on technical training, this **initiative will target the wide range of institutions involved in training technicians and practitioners**. Notable ones include technical training institutions, small hydropower developers, companies that operate small hydropower plants, as well as institutions that own non-functional small hydropower installations.

The **expected impact** will be that **investments in small-scale hydropower are more sustainable** through enhanced capacities to install, operate and maintain small hydropower systems. The reliable power supply for rural electrification is thereby increased through properly installed and functioning small hydropower systems.

The East African Community is the lead entity on the public side and the EU Energy Initiative Partnership Dialogue Facility (EUEI PDF), as the implementing agency of the RECP, will carry out the project.

Project Partners

The project is implemented in collaboration with the East African Community (EAC), with support through the EU Energy Initiative Partnership Dialogue Facility under the Africa-EU Renewable Energy Cooperation Programme (RECP), funded by the European Commission and EU member states. For more information, please see:



East African Community (EAC)

<http://www.eac.int>



Africa-EU Energy Partnership (AEEP)

<http://www.africa-eu-partnership.org/partnerships/energy>



Renewable Energy Cooperation Programme (RECP)

<http://africa-eu-renewables.org/>



European Union Energy Initiative – Partnership Dialogue Facility (EUEI PDF)

<http://www.euei-pdf.org/>



European Commission, Development and Cooperation – EUROPEAID

<http://ec.europa.eu/europeaid/>