

Efficiency (ECOWREX) and the provided tools and contents are utilised.

j. An information base on relevant SSHP resources and sites is created and helps to facilitate the development and implementation of SHP programmes and projects.

k. A communication strategy disseminating achieved progress and raising awareness about SSHP opportunities is developed and implemented.

l. ECREEE is established as centre of excellence in the SSHP sector.

IMPLEMENTATION STRATEGY

The SSHP Program is managed by the ECREEE Secretariat, based in Cape Verde, Praia, in close partnership with the United Nations Industrial Development Organization (UNIDO). Other partners are invited to join. The partners will be responsible for the administration of the program (e.g. project cycle management, appraisal and quality assurance of supported projects, financial accountability). The program management team will implement the activities according to the project document and annual work plans. To stimulate the market most of the activities will be executed by private implementers contracted through competitive tenders or call for proposals.

The SSHP Program is governed by the ECREEE Executive Board (EB) and a special Technical Committee (TC) formed by local and international SSHP experts. The bodies will review and approve the annual work plans, budgets progress and financial reports of the program. Moreover, strategic steering and technical assistance for supported projects will be provided. The SSHP program will benefit fully from the established ECREEE network of National Focal Institutions (NFIs) among all ECOWAS countries and the UNIDO Regional Centre for Small Hydropower in Africa (URC-SHP), based in Abuja, Nigeria. The budget requirement to implement the envisaged first phase of the ECOWAS SSHP Program amounts to around 15,5 million Euro for the period 2013 to 2018.

PARTNERS



Austrian
Development Cooperation



CONTACT US:

ADDRESS: ACHADA SANTO ANTONIO,
ELECTRA BUILDING, 2ND FLOOR C.P. 288, PRAIA, CAPE VERDE

TEL.: (+238) 260 4630

FAX: (+238) 262 4614

E-MAIL: INFO@ECREEE.ORG

SKYPE: INFO-ECREEE

WWW.ECREEE.ORG

ECOWAS CENTRE FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY

SMALL HYDRO POWER



TOWARDS SUSTAINABLE ENERGY

THE ECOWAS SMALL-SCALE HYDRO POWER PROGRAM: FIRST PHASE 2013 TO 2018



BACKGROUND

The ECOWAS SSHP program was adopted by the ECOWAS Ministers of Energy in October 2012 and is implemented between 2013 and 2018. The Program contributes to increased access to modern, affordable and reliable energy services, energy security and mitigation of negative externalities of the energy system (e.g. GHG emissions, local pollution) by establishing an enabling environment for small-scale hydro power investments and markets in the ECOWAS region. The program is a priority action under the regional SE4ALL Framework for West Africa and will seek

synergies to the Strategic Program for West Africa of the Global Environment Facility (GEF).

The SSHP Program contributes to the objectives of the ECOWAS Renewable Energy Policy (EREP) to increase the share of renewable energy (excl. large hydro) in the overall electricity mix to around 10% in 2020 and 19% in 2030. These targets translate to the installation of additional 2.425 MW renewable electricity capacity by 2020 and 7.606 MW by 2030. It is estimated that SSHP could contribute with 787 MW (33%) by 2020 and 2449 MW (32%) by 2030 to this additional capacity. The SSHP program also contributes to the objectives of the ECOWAS White Paper on Energy Access in Peri-Urban and Rural areas. It is expected that in 2030 around 25% of the rural population will be served either fully or partly through renewable energy powered mini-grids. The SSHP program complements the WAPP Master Plan which is mainly focused on the expansion of transmission lines and generation from large hydro power and natural gas.

ENVISAGED RESULTS BY 2018

The program will generate the following key results by 2018:

a. By 2018, at least 35 projects (new projects or rehabilitations) in different ranges of capacity up to 30 MW are developed to feasibility stage and at least 5 are brought to financial closure. The projects will be identified through annual calls of the ECOWAS Renewable Energy Facility.

b. At least 5 SSHP projects (< 100 kW) are operating and - during their planning and implementation - have served as demonstration projects for capacity building.

c. At least 2 refurbishment/rehabilitation projects (< 200 kW) are identified and realised.

d. At least 10 companies started to provide various SSHP related services (planning, operation, repair etc.).

e. Bottlenecks of SSHP project implementation and operation, of current policies and legal frameworks and roles and shortcomings of relevant stakeholders are understood and recommendations for improvement are elaborated and discussed.

f. ECOWAS countries obviously improved their legal framework (poverty reduction impact of SSHP in evidence in the legal framework, feed-in tariff defined, transparent licensing procedure etc.) and SSHP has become integral part of ECOWAS/WAPP planning documents.

g. A capacity development strategy is elaborated and SSHP initiatives and projects increasingly rely on local expertise from public and private sector (with limited international support).

h. Quality guidelines are introduced during trainings and are generally applied for development and implementation of SSHP projects.

i. Facilitate open knowledge sharing on SSHP aspects through the ECOWAS Observatory for Renewable Energy and Energy

HYDROPOWER POTENTIALS IN THE ECOWAS REGION

The overall hydroelectric potential (small, medium and large scale) located in the fifteen ECOWAS countries is estimated at around 25,000 MW. It is estimated that only around 16% has been exploited. Around half of the existing large potential (around 11,5 GW) has been assessed technically and economically in the course of the elaboration of the 2011 Master Plan of the West African Power Pool (WAPP). The implementation of the WAPP project pipeline and attached transmission decades ago have never been updated and gauging

stations do not exist anymore. Lines will allow regional power trade and will lower the generation costs and consumer tariffs particularly in countries highly dependent on expensive diesel generation today. The estimations for the SSHP potential (up to 30 MW) in the ECOWAS region differ widely and lack of reliability. They range from 1.900 MW to 5.700 MW of feasible potential. Due to the lack of available hydrological data in the countries it remains difficult to give a comprehensive updated overview.