ACP S&T PROGRAMME

ACP SCIENCE & TECHNOLOGY PROGRAMME

ENRICH - Enhancing energy accessibility & efficiency through establishing sustainable STI support national networks with a regional dimension in East Africa

Regional co-operation in the energy and environment sectors in East African countries will be promoted by establishing three national networks to support science, technology and innovation (STI) and a regional portal with a database of experts. This infrastructure will foster regional dialogue among academia, researchers, industries and policy makers, improving the flow of communication between the levels of policy and operation. Managers and researchers will be trained in crucial aspects of innovation management and will replicate these trainings through national support networks. Collaboration and dialogue with policy makers will take place at national (round tables) and regional (supranational conferences) level.

Grant
FED/2013/330-235

Co-ordinator
Universidad de Alicante (UA), Spain

Partners
Glasgow Caledonian University, UK
African Virtual University, Kenya
Moi University, Kenya
Mzumbe University, Tanzania
Makerere University, Uganda
Inter University Council for East Africa (IUCEA), Uganda
Directorate of Research Management and Development (DRMD), Kenya
Tanzanian Commission for Science and Technology (COSTECH), Tanzania
Uganda National Council for Science and Technology (UNCST), Uganda

Project duration
36 months
1/2/2014 – 31/1/2017

EU grant
EUR 730,299.47

Technical Assistance Unit

www.acp-st.eu
acp-st@acp-st.eu

Challenge

Energy deficit and energy poverty have become a major obstacle to growth and development in Eastern Africa. One of the major energy issues in the context of the EU partnership with Africa is price volatility and energy security. Eastern Africa suffers from high prices in the energy market and shrinking natural energy resources. In Tanzania, for instance, 80% of domestic energy consumption is biomass, which is used for cooking (firewood and charcoal) and approximately 95% of deforestation is due to the collection of firewood and production of charcoal.

Restricted access to energy resources is hampering the East African region from sustainable development. Despite the energy emergency in the region, support from research institutes and academia is inadequate to address this situation. However, at the policy level, various countries have stressed the importance of energy access and quality research and innovations. Unfortunately, there is a mismatch between policies, political decisions and societal needs.

Focus

The project will promote quality science, technology and innovation (STI) support services in Kenya, Tanzania and Uganda, and strengthen co-operation links in the energy sector at national and regional level among academia, researchers, industries and policy makers.

Rationale

By strengthening STI cooperation in the energy sector in Kenya, Tanzania and Uganda, solutions and innovations will be stimulated that will eventually alleviate energy poverty through enhanced energy accessibility and efficiency. The current low energy access rate and urgent need for alternative energy resources is partially due to a shortage of well-trained personnel and weak national and regional co-operation.

The project will enhance expertise and knowledge of research and innovation management by promoting operational and effective management of research and innovation activities, in particular by improving the quality of research and innovation support services and their coordination with relevant stakeholders in the energy sector, such as policy makers, research centres, non-governmental organisations (NGOs) and enterprises.

Method

An in-depth analysis of the situation with the innovation ecosystem in Kenya, Tanzania and Uganda will be carried out (capacities in research and innovation, research and innovation policies, research and innovation support services, environment for knowledge transfer…). This will be followed by intensive training of managers and researchers (particularly in the energy field) at the participating higher

Electricity from the national grid is used for street lighting in most urban centres in Kenya. Replacing conventional lighting with solar – here at the Moi University in Eldoret, Kenya – can reduce the load on the national grid and free up electricity for more productive uses (September 2013).

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Open end spinning machine used in textile production at the Rivatex textile factory, a facility at the Moi University in Eldoret, Kenya (February 2011).

Sustainable energy: a home-made micro hydro power plant in Murang'a County, Kenya, built with local materials, demonstrates that reliable power generation is feasible for low-income earners in suitable geographical contexts (January 2014). © George Ombakho

ACP regions and countries involved

Eastern Africa – Kenya, Tanzania, Uganda

Programme theme(s)

Energy access and efficiency

Sector

Energy policy and administrative management

Keywords

energy access
energy efficiency and sustainability
capacity building
policy making
knowledge transfer
intellectual property management

Project contact

Mr. Roberto Escarré
Universidad de Alicante
International Project Management Office
Torre de Control, Planta Baja
03690 San Vicente del Raspeig (Alicante)
Spain

Tel: +34-965-90.97.18
Fax: +34-965-90.97.15
r.escarre@ua.es
www.ua.es

Project website

www.enrich-project.eu

education institutions (HEIs) on the fundamentals of research and innovation support topics (incl. fundraising). In addition, three national research and innovation support networks will be established, along with a regional web portal for information and resource exchange, which will also contain a database of experts. Most importantly, a dialogue will be initiated between HEIs, research institutes and policy makers to boost regional cooperation, with the ultimate goal of regional growth.

Phase I: Comparative analysis and recommendations – a profound understanding of the current situation with research and innovation activities, support service operations and management will lead to recommendations to the management of HEIs and of ministries of education, science and technology, energy and industry.

Phase II: Trainings for trainers – 60 trainers (managers and researchers at HEIs) will be trained in the fundamental aspects of technology and innovation management and activities (based on the outcomes of Phase I):

- Research support offices, policies and procedures.
- Fundraising, grant writing and project management.
- Knowledge transfer and intellectual property management.

Phase III: Creation and implementation of three national networks and policy dialogue – national STI support networks, responsible for holding trainings and networking for larger outreach, will be established at universities in each country. Knowledge-enhanced trainers (trained in Phase II) will adapt lessons learnt to local contexts. The web portal, a regional platform, will facilitate information exchange and regional cooperation. It will contain a database of experts in the energy and environment sectors. Collaboration and dialogue will be taken up to the policy-making level, both nationally (two roundtables) and regionally (two supranational conferences) with the involvement of the ministries of education, science and technology of Kenya, Tanzania and Uganda. Experts will be identified and invited to join the supranational conferences.

Results

- Improved technology transfer and innovation support at universities.
- Increased participation in international funding programmes for research and innovation activities.
- Increased number of households with energy access and enhanced energy efficiency.
- Enhanced knowledge in research support offices, improved fundraising and project management, and knowledge transfer and intellectual property management.
- Strengths and weaknesses of the STI support services in Kenya, Tanzania and Uganda identified.
- Publication of 'Good Practice on Science, Technology and Innovation Support & Knowledge Acquisition'.
- An East African Support Portal established - an interactive platform for information and resource exchange, containing national and regional policies on STI, along with an expert database and a forum and case studies on how good STI support encourages collaboration and innovation in the energy sector.
- Three national STI support networks created to promote networking events, workshops, roundtables, the interactive portal, newsletters and media coverage.
- A blueprint on 'How to encourage and facilitate regional cooperation' with a special focus on the energy sector.

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