

Renewable energy in Pacific islands: Developing Skills and Capacity (EPIC)

The overall objective of EPIC is to encourage the regional co-operation in renewable energy by establishing a Master programme in Renewable Energy Management (REM) as well as a Centre for Renewable Energy (CORE) in both Fiji and Papua New Guinea. Through a series of capacity building activities and a study visit, curriculum for REM with common compulsory subjects will be developed to train young professionals in both countries. On the other hand, the CORE will facilitate research and co-operation at national as well as regional levels in the field of Renewable Energy (RE). A Power plant will be installed as a pilot action for research on solar energy. In addition the CORE will become financially self-sustainable by developing as well as adopting a strategic business plan.

Contract
FED/2013/320-282

Co-ordinator
University of Alicante

Partners
University of Fiji
University of Papua
New Guinea

Project duration
36 months

EU grant
EUR 398,993.33

**ACP regions and
countries involved**
Fiji
Papua New Guinea

**Technical
Assistance Unit**

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Challenge

The Pacific region has been suffering inadequate and expensive energy supply. The imbalance in supply and demand genuinely holds back the economic and social development in the region. As many countries in the Pacific, Fiji and Papua New Guinea (PNG), the two targeted countries in the project, largely depend on imported fossil fuel for its energy consumption. However, their remote geographic locations combined with limited capacity for storage increases costs of energy consumption and rendering it unaffordable for many households, particularly lower income groups. The steady population growth in both countries intensifies the need for more affordable and accessible energy supply to the islands.

Focus

Focusing on the development of Renewable Energy (RE), EPIC echoes both regional and national policy in the development of RE, and it narrows the gap between higher education and policies. The joint degree will encourage EU-ACP as well as regional co-operation, in academic and cultural exchange, increases the mobility (both EU-ACP and ACP-ACP) and upgrade academic staff capacities. RE sectors benefit from the well-trained graduates and become less dependent on external human resources. The establishment of the CORE Centres would serve as a leading centre of excellence, knowledge hub in renewable energy and meeting point for experts. It aims at encouraging the co-operation and collaboration in the research, innovation and technologies development of RE between HEIs. In addition, it facilitates the university-industry link at both national and regional levels.

Rationale

Global Climate Change Alliance (GCCA), Pacific islands Ministers, regional Pacific Islands Energy Policy and Pacific Plan have all outlined Renewable Energy as one of the priorities for sustainable development. Fiji planned to widely use RE technologies and reduce the use of fossil fuel in the National Energy Policy, while PNG has recently prioritised energy in the Long Term Development Strategy. However, little has been done to enhance the supply of relevant training and education, nor to stimulate regional co-operation among key stakeholders.

The Pacific Islands Framework for Action on Climate Change 2006-2015 suggests that human capacity building, training and networking activities in RE need to be urgently promoted in order to foster the development. In fact, education, training and awareness has been categorised as specific activities under the Framework. The weak link between HEIs with national and regional policies can be seen from the very limited number of formal trainings in RE in the region. This leads to insufficient well-trained labour in the field of RE at both national and regional levels.



Study visit at the University of Alicante - inorganic chemistry laboratory.



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Programme theme(s)

Energy access and efficiency

Sector

Higher education,
Energy education/
training,
Energy research

Keywords

Renewable energy,
renewable energy
management,
curriculum development,
sustainable development

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Company visit in Alicante - Bornay



Study visit at the University of Alicante - pilot algae power plant



The lack of qualified teachers and personnel is also the problem for the shortage of quality education in RE. As a result, students will need to look for opportunities outside the country or region which will be an intangible loss.

Method

Starting with a mapping exercise to determine the relevant stakeholders for interviews and data collection, the findings and conclusion will become the baseline for EPIC's development. Prior to guest lectures, academics, researchers and curricula developers from both the Pacific and EU will sit in interactive workshops for discussion on the curriculum and teaching materials. In parallel, two COREs will be established in the universities to strengthen the collaboration ties and spur the research activities in the field at national and regional scale. The Centres will be equipped with a power plant as a pilot action for research on solar energy. Besides research, CORE will also interact with key stakeholders and general public in various occasions.

Results

The two very tangible results are

- i) implementation of two master programme in renewable energy management; and
- ii) establishment of two Centres of Renewable Energy (CORE), which will primarily benefit the two participated countries. Yet, EPIC will also bring trained young professionals, tightened multilateral co-operation ties and crosscutting sustainable development to the region. By enjoying sustainable, reliable and affordable energy access, the two targeted countries as well as the region will increase competitiveness and alleviate poverty.