

Zanzibar
March 14th 2017

Technical Assistance for the implementation of renewable energies and energy efficiency projects, including regulatory reforms [Lot 2]

EuropeAid/133937/DH/SER/CY

**INTERNATIONAL CONFERENCE
FOSTERING COOPERATION IN
ENERGY EFFICIENCY AND
ACCESSIBILITY IN EAST AFRICA**



MWH®

BUILDING A BETTER WORLD

The EU Programme

- **Global Objective:** to support United Republic of Tanzania in developing interventions promoting socio-economic development based on renewable energy and efficient energy management.
- **Specific Objective:** to support the development of renewable energies (RE) in Zanzibar, promote implementation of energy efficiency (EE) and adequate regulatory and institutional framework through appropriate transfer of know-how and capacity development of Key Stakeholders.

EU Programme Organisation

- **Lot 0:** Erection of 5 masts measuring wind and solar radiation. 3 masts on Unguja and 2 Masts on Pemba. Masts were inaugurated January 2016.
Data are transmitted from masts to Department of Minerals and Energy and to the Lot 1 Consultant, Intec-Gopa.
- **Lot 1:** Wind map and solar energy report for the Archipelago.
Detailed design of wind parks, design of a solar farm, design of solar home systems.
Feasibility study for wind and solar farms.
- **Lot 2:** Enabling environment.

Brief introduction of Lot 2

- **Title:** Technical Assistance for the implementation of renewable energies and energy efficiency projects, including regulatory reforms [Lot 2].
- **Duration:** 24 months.
- **Contracting Authority:** The Alternate National Authorizing Officer (NAO) representing the Revolutionary Government of Zanzibar (RGoZ).
- **Budget:** 1.152.700 EUR or 2.750.000.000 TZS
- **Team of experts:**
Programme Manager: Maulid Shiraz Hassan, ZECO
MWH Team:



MWH Project Team

Name	Position
Niels Juhl Thomsen	Project Team Leader
Alejandro Saenz-Core	EE and RE Economist and financing expert
Sebastian Paschal & Mark Jeffery	Communication and Visibility
Matthew Matimbwi	Training
NN	Legal subjects and Power Engineering
MWH [Brussels]	
Anca Andreescu	Project Manager, home office support



The objectives

- To provide Key Stakeholders with capacity in technical, social, environmental, and economic and financial analysis.
- To support the RGoZ to establish a conducive legal and regulatory framework for RE & EE.
- Supporting measures for private sector involvement and viable financing mechanisms.
- Business environment conducive to private sector initiative
- To assist the RGoZ and other key stakeholders in the implementation of RE and EE projects.

Results

- A cost-benefit analysis of each of the RE & EE technologies is available.
- A conducive legislation & regulation for RE & EE.
- Regulatory and licensing requirements described.
- An action plan for RE projects & EE actions
- Supporting mechanisms introduced by the RGoZ and geared to the private project promoters are defined and effective
- At least 5 EE measures and 2 RE projects under implementation.
- Improved awareness of RE & EE among the population of Zanzibar.

Activities

- A 1: Opportunities assessment of RE & EE technologies
- A 2: RE & EE regulatory framework
- A 3: Supporting mechanisms for private investments
- A 4: Technical support to the RGoZ for private projects implementation
- A 5: Technical support to the RGoZ for state-run projects implementation
- A 6: Training and know-how transfer
- A 7: Communication and visibility

Focusing RE

Renewable Energy	Must be proven technology, suitable for Zanzibar
On-shore wind turbines	no need to go offshore as long as there is plenty of space on-shore
Solar PV	As farms and clusters on private premises
Others	Bagasse at the sugar factory and other entities with special possibilities
Why not?	
Biomass	Serious overcutting of biomass on Zanzibar
Landfill gas	Potential very small
Biogas	It is expensive and it takes two cows to supply one family with gas for cooking
Wave & Tide	Not yet proven technologies



Focusing EE

Energy Efficiency

- Improved cooking stoves
- Building Codes – improving the building envelope
- Replacing electric water heaters with solar thermal (by outlawing electric water heaters)
- Applying labelling system similar to the EU system on electrical appliances – households and commercial
- Regular inspection of emissions from vehicles (could be combined with inspection of general roadworthiness)
- Replacement of two stroke engines by outlawing their import for road and marine use



Onwards

- Registration of experiences generated on Unguja and Pemba
- Results from Lot 1 as input
- No strategy or strategic plan has been prepared
- Proposal for solar on private premises is discussed
- Preparation for solar and wind farms requires extension of electrical infrastructure [Pemba Unguja](#)
- Implementation of the Training Programme
- Communication and Visibility activities continue

Programme success, if

We can facilitate cooperation between stakeholders and that include:

- Ministries and departments
- Authorities
- Municipalities
- Private sector companies involved, or ready to involve, in RE & EE
- Civil society organisations as agents for change
- Medias for building up public awareness, acceptance, and knowledge of RE & EE

**Thank you for your
attention**

