



## Tanzania National Round Table Forum

# ***“Linking Energy Efficiency and Stakeholders’ Daily Activities”***





<b>Project</b>	<i>Enhancing Energy Accessibility &amp; Efficiency through establishing sustainable STI Support National Networks with a regional dimension in East Africa</i>
<b>Acronym</b>	<b>ENRICH</b>
<b>Grant Number</b>	FED/2013/330-235

<b>Project</b>	<i>East African Higher Education Network on Sustainable and Energy Efficient Campus Development</i>
<b>Acronym</b>	<b>SUCCEED Network</b>
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- University of Alicante, Spain (Coordinator)
- Glasgow Caledonian University, United Kingdom

#### East Africa:

- African Virtual University, Kenya
- Moi University, Kenya
- Mzumbe University, Tanzania
- Makerere University, Uganda
- Inter-University Council of East Africa, Uganda
- Directorate of Research management & Development, Ministry of Education, Science and Technology, Kenya
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### **SUCCEED Network consortium:**

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## CONTENTS

<b>FOREWORD .....</b>	<b>5</b>
ENRICH .....	5
SUCCEED Network.....	5
<b>OBJECTIVES OF THE NATIONAL ROUND TABLE 3 .....</b>	<b>6</b>
<b>PARTICIPANTS .....</b>	<b>7</b>
<b>DISCUSSION SESSION ‘Mzumbe University ENRICH/SUCCEED Roundtable with Secondary School students and Teachers as well as Energy Experts from Tanzania Electric Supply Company (TANESCO)’ .....</b>	<b>9</b>
<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>11</b>

## **FOREWORD**

Energy deficit and energy poverty have become a major obstacle to growth and development in Eastern Africa. One of the major energy issues is price volatility and energy security. Eastern Africa suffers from high prices in the energy market and shrinking natural energy resources. 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.

### ***ENRICH***

Launched in February 2014, the three-year project ENRICH is an ACP S&T project (contract number FED/2013/330-235) funded by the European Commission, which aims to 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. Regional co-operation in the energy and environment sectors in East African countries will be promoted by establishing three national networks to support STI and a regional portal with a database of experts. This infrastructure will foster regional dialogue 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.

### ***SUCCEED Network***

Launched in October 2013, the three-year project SUCCEED Network is an ACP/Edulink project (contract number FED/2013/320-274) funded by the European Commission, which aims to promote East African university campuses as “living laboratories” for sustainability and energy efficiency, in particular by establishing a sustainable campus development platform to foster collaborative learning and action for energy access and efficiency, with the idea of contributing to solve the problems described above. The project will do this via a set of activities with the objective of improving institutional, academic and cooperation building which should result in a stronger institutional background, an enriched academic offer in renewable energy and energy efficiency, and an increased attractiveness for relevant stakeholders in order to establish new cooperation schemes in the field of energy.

### OBJECTIVES OF THE NATIONAL ROUND TABLE 3

The National Round Table Forum “*Linking Energy Efficiency and Stakeholders’ Daily Activities*” was held on 29<sup>th</sup> - 30<sup>th</sup> March 2017 at the Adrian Mkoba Secondary School (Energy end user) and with the Tanzania Electrical Supply Company (TANESCO) (Energy expert in Tanzania and the only national company with authorisation to disseminate electrical energy for industrial, business and household use in Tanzania Mainland and Zanzibar). It was organised in the framework of the ENRICH & Succeed Network ACP S&T and ACP/Edulink projects.

The aim of the event was to bring together stakeholders in the field of energy in Tanzania (including higher management and researchers from Higher Education Institutions, research & project managers, policy makers, managers from energy industries, experts and end-users) to exchange ideas and discuss energy issues at a national level in Tanzania.

The **specific objectives** of the National Round Table were to:

- Discuss and understand energy users (stakeholders) awareness about various energy sources used for social-economic activities and mainly their benefit-costs of one source used over the other.
- Discuss challenges and opportunities in energy access and efficiency in Tanzania.
- Discuss the Science, Technology and Innovation (STI) support on energy access and efficiency mainly role played by Universities in Tanzania.
- Understand the link between TANESCO and suppliers of other energy sources e.g., solar PV, LPG, wind etc.

## PARTICIPANTS



Photo 1: ENRICH & SUCCEED Network partners with Adrian Mkoba, Secondary School students and their teachers after discussion and sharing on energy access and efficiency in Tanzania.



Photo 2: ENRICH & SUCCEED Network partners discussing and sharing experiences on energy access and efficiency with some of the TANESCO energy experts at Morogoro, Head Office.



The National Round Table brought together several relevant stakeholders in the field of Energy in Tanzania, including:

Institution	Name	Role
<b>Adrian Mkoba Secondary School</b>	Professors Students	To be able to ask questions about Energy Efficiency from the user point of view, and discuss what a student can do about it
<b>TANESCO</b>	Eng. Mr. J. Elisa Electrical Engineer and Electricity supply and Distribution manager, at TANESCO	Energy expert, presentation on problems and opportunities in energy field
	Ms. Marcia Simfukwe Energy supply and Marketing expert at TANESCO	Presentation on community sensitization about various energy sources available mainly efficient use of hyro-electric power for different social-economic activities.
	Eng. Ms. Josephin Samson Customer education energy expert at TANESCO	Presentation on STi support on energy access and efficiency as well as link between TANESCO and other energy suppliers.
<b>Mzumbe University</b>	Dr. Joseph Sungau Lecture and Ag. Dean, Mzumbe University	Project member/organizer
	Dr. Felichesmi S. Lyakurwa Lecturer and Head of Department, Mzumbe University	Project member/organizer
	Mr. Simeo Kisanjala Lecturer and PhD student at Mzumbe University	Project member/organizer
	Mr. Michael Mangula Lecturer and PhD students at Mzumbe University	Project member/organizer
	Prof. Aurelia Kamuzora Associate Professor Department of Economics, Mzumbe University	Project member/organizer
	Ms. Mara Mwinyigogo Project Manager, Mzumbe University	Note/picture taking during the discussion.
	Dr. Atanas Ngalawa Lecturer and Head of Department, Mzumbe University	Project member/organizer



**DISCUSSION SESSION ‘Mzumbe University ENRICH/SUCCEED Roundtable with Secondary School students and Teachers as well as Energy Experts from Tanzania Electric Supply Company (TANESCO)’**



Photo 3: Discussion session in a classroom at Adrian Mkoba Secondary School

Moderator: Dr. Joseph Sungau

Panellists:

1. Eng. Mr. J. Elisa
2. Mr. Michael Mangula
3. Ms. Marcia Simfukwe
4. Eng. Ms. Josephin Samson

The roundtable involved energy experts from TANESCO and Adrian Mkoba Secondary School students, teachers as well as ENRICH/SUCCEED project members.

The main topics were:

- 1) Stakeholders awareness on energy sources used for social-economic activities
- 2) Challenges and opportunities in energy access and efficiency

- 3) Science, Technology and Innovation (STI) support on energy access and efficiency mainly role played by Universities in Tanzania.
- 4) Understanding the link between TANESCO and suppliers of other energy sources e.g., solar PV, LPG, wind etc.

Significant contributions were obtained from the main speakers as follows:-

- a) Eng. Mr. J. Elisa: in his explanation several challenges of energy access and efficiency were established including households are not ready to connect electricity and if connected they are not able to pay monthly bills. Most of the power supply infrastructures are old and therefore are now subject to frequent failures. This lead to frequent power disruptions. Added that TANESCO deals with hydro-electric power generation in the country and no link with other energy providers especially renewable energies. Thus, there is need to integrate the two institutions so as to ensure reliable and affordable power supply to the community in the country.
- b) Mr. Michael Mangula: explained among the challenges of energy access and efficiency in Tanzania to be mainly majority population in rural areas are poor and can not afford initial costs of renewable energy technologies. This made them to rely on wood and animal dung as source of energy for cooking and lighting. So energy investment needs which is accompanied with energy subsidy via government taxes is critical.
- c) Ms. Marcia Simfukwe: joined hand with previous speakers and added that high investment required on electricity supply is the biggest problem. So propose collaboration between private and public institutions for easy access and availability of energy efficient appliances.
- d) Eng. Ms. Josephin Samson: explained energy education provided by TANESCO is not adequate such that academic institutions should play their role of training the local community on the benefit-costs of energy sources and appliances available. Besides, use of indigenous knowledge come into discussion as one way to ensure energy access and efficiency in the country.

The moderator provided a summary that the discussion has provided key points in the areas of improving access and use of energy efficient appliances that are generally up to the end user to decide on.

It is important to note that even the Adrian Mkoba Secondary School students indicated a moderate awareness about different energy sources (pilot study to establish students understanding of energy field), although they wondered what it had to do with them. One student queried on why should they be discussing energy efficiency in the school since the energy bill is paid for by the school and not students' parents or guardians. This provoked more discussion among the participants and the answer was provided looking at the energy value chain. Students were made to understand that if they do not use lights in school with an understanding on energy efficiency then the school's energy utilization bill will go up, and this in turn might lead to the school administration increasing the school fees and then if parents fail to pay for their increased school fee consequently the students wouldn't be able to continue with schooling. As a result, students as energy users called for a broader discussion if possible through different forums that will involve villagers and village leaders so as to have a better understanding of the challenges and opportunities of energy access and efficiency in Tanzania.

## CONCLUSIONS AND RECOMMENDATIONS

A comprehensive discussion about stakeholder's awareness on energy access and efficiency has been discussed in this second Tanzanian National Round Table on Energy, due to its significant effects on improving livelihoods and social-economic developments. The panellists observed and recommended the need for integrating TANESCO operations with other energy dealers in Tanzania, including renewable energy suppliers, in order to ensure households have access to clean, reliable and affordable energy sources and appliances. It was further noted that issues of energy access and efficiency should be considered as the message to all energy users since is the only means to improve and effect the social-economic activities in the country. For the case the Adrian Mkoba Secondary School Students and teachers, the panellists observed that students have a good understanding of various energy sources but many issues of energy efficient appliances are not known. This indicates a need for education about different energy saving appliances, their application and availability. Again the same was noted as many households lacks energy education.