



**National Round Table Forum**

# **“Energy accessibility and efficiency in Uganda”**

**– Report –**

**Makerere University, Senate Building, Conference Hall, Level IV  
Kampala, Uganda**

**Thursday 30<sup>th</sup> June 2016**





EDULINK



<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>
<b>Grant Number</b>	FED/2013/320-274

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### **ENRICH consortium:**

#### European Union:

- 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
- Tanzanian Commission for Science and Technology, Tanzania
- Uganda national council for science and technology, Uganda

### **SUCCEED Network consortium:**

#### European Union:

- University of Alicante, Spain (Coordinator)

#### East Africa:

- Université du Burundi, Burundi
- Moi University, Kenya
- University of Rwanda, Rwanda
- Mzumbe University, Tanzania
- Makerere University, Uganda
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SUCCEED Network Project website: [www.project-succeed.eu](http://www.project-succeed.eu)

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The present document was developed and edited by the partner institutions of the ACP S&T and ACP/EduLink Projects ENRICH '*Enhancing Energy Accessibility & Efficiency through establishing sustainable STI Support National Networks with a regional dimension in East Africa*' and SUCCEED Network '*East African Higher Education Network on Sustainable and Energy Efficient Campus Development*', under the coordination of the University of Alicante (Spain).

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- Title (National Round Table Forum "*Energy accessibility and efficiency in Uganda*" Report)
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## **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

The National Round Table Forum “*Energy accessibility and efficiency in Uganda*” was held on Thursday 30<sup>th</sup> June 2016 at the Makerere University, Senate Building, Conference Hall, Level IV in Kampala, Uganda. 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 the main stakeholders in the field of energy in Uganda (including higher management and researchers from Higher Education Institutions, research & project managers, policy makers, managers from energy industries, experts) to exchange ideas and discuss energy issues at a national level in Uganda.

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

- Discuss problems and issues in the field of Energy affecting National Stakeholders, with the idea of identifying where the Higher Education System could contribute with specific services/input.
- Enhance awareness of the real needs of Science, Technology and Innovation (STI) related to energy access and efficiency in Uganda.
- Encourage dialogue and strengthen co-operation links in the energy sector at national level among academia, researchers, industries and policy makers.
- Present the ENRICH & Succeed Network projects and their developments.

## PARTICIPANTS



GROUP PHOTO: Participants in the National Roundtable

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

Institution	Name	Role
Ministry of Energy and Mineral Development	Kimuli Godfrey	Key note speaker
Racell Uganda – Private Sector	George Sizoomu	Panelist
Uganda Electricity Transmission Company Limited	Paul Okiror	Panelist
Advocates for Natural Resources and Development	Maurice Enenu	Participant
College of Natural Sciences – Makerere University	Denis Okello	Panelist
College of Agricultural and Environmental Sciences	Lawrence Orikiriza	Panelist
College of Agricultural and Environmental Sciences	Daniel Waiswa	Panelist
College of Agricultural and Environmental Sciences	Paul Mugabi	Panelist
Office of the Deputy Vice Chancellor – Academic Affairs (Makerere University)	Grace Nakasi	Rappoteur
Planning and Development Department-Makerere University	Nancy Karunganwa	Rapporteur
College of Agricultural and Environmental Sciences	Gerald Eilu	Enrich
College of Veterinary Medicine	Lilian Tukahirwa	Participant
Planning and Development Department-Makerere University	Florence Nakayiwa	SUCCEED/Participant
	Kabuye Matia Kagimu	SUCCEED/Participant
Uganda National Council for Science and Technology	Ms Deborah Kasule	Enrich
	Mr. Dickson Avutia	Enrich



**KEY NOTE ADDRESS: ENERGY ACCESSIBILITY & EFFICIENCY IN UGANDA**  
**MR. GODFREY KIMULI**

**TOPIC: THE RENEWABLE ENERGY SUB-SECTOR IN UGANDA**



*Mr. Godfrey Kimuli giving the keynote address*

**Governments Priority areas for Renewable Energy development**

The Renewable Energy Policy (REP, 2007) spells out Government's commitment to development and use of Renewable Energy (RE) resources in a sustainable manner. However there are barriers to Renewable Energy development, these include:

- High upfront investment costs for renewable energy technologies
- Limited technical and institutional capacity to roll out the technologies
- Irrational utilization of biomass resources among others
- Low generation of HEP, limited distribution, and low level of coverage.
- Absence of district electricity branches and limited awareness.
- Resistance from people on new technologies.
- High inefficiencies in biomass utilization as a threat to the environment.
- Inadequate funding for Research and Development geared to local manufacturing
- Inadequate standards and limited testing facilities for a number of technologies
- Inadequate legal and institutional framework to support investment in efficient improved biomass technologies
- Inefficient legal frameworks to encourage and promote the use of Renewable Energy
- Insufficient technical data and awareness on investment options in renewable and biomass energy technologies
- Need to balance food security and fuel production - i.e. need to reduce competition between food and alternative fuel production.



## ROUND TABLE ONE

***DISCUSSION POINTS: 'Addressing the disconnect between Government, Industry and Higher Education Institutions in energy access and efficiency in Uganda'***



PHOTO RT1: Paul Okiror making a presentation

Moderator: Gerald Eilu

Panellists:

1. Paul Okiror (Presenter)
2. Dr. Daniel Waiswa
3. Dr. Denis Okello

**Disconnects** or areas where more support is needed in developing partnerships between Government, Industry and Higher Education Institutions in energy access and efficiency:

- Uncoordinated research efforts in tertiary level institutions
- Inadequate dissemination of research findings
- Low funding for research and innovation
- Overlapping mandates of government relevant agencies e.g. NEMA, National Forestry Authority (NFA), and Uganda Wildlife Authority (UWA) among others
- Lack of coordination between disciplines in Electricity Grid Development
- Limited standards for Environmental and Social Impact Assessment Consultants
- Duplication of efforts in electrification, and Renewable Energy Technologies
- Inadequate sharing of lessons/vital information by actors in the renewable energy industry
- Policy gaps between Government and Donor agencies
- Inadequate coordination between international NGOs as well as development partners
- Limited community involvement in renewable energy projects resulting in sabotage
- Lack of policy to promote joint planning between government bodies e.g. National Water and Sewerage Corporation, Uganda National Roads Authority, National Environment Management Authority, Uganda Electricity Transmission Company Limited, among others.

- Unclear standards for developments within the renewable energy sector
- Unfavourable policies

The key frameworks for basic partnerships include: the National Legal Framework, the World Bank Safeguard Policies, the Millennium Development Goal 8 (Building Partnerships for International Development) and Sustainable Development Goal (SDGs) five Ps (People, Planet, Prosperity, Peace and **Partnerships**).

## Recommendations

For successful partnerships to be realised, the following should be done:

- Review policies and ensure political support to enable planned project designs.
- Schedule and finances should cover entire projects including the design requirements.
- Generate clean accessible data to build innovations and provide backup
- Train technical in tertiary institutions to meet the energy sector demands
- Develop institutional frameworks to streamline the partnerships e.g. develop national database to safeguard information and support future projects for cost efficiency.
- Develop sustainability plan to ensure continuity
- Engage the community to ensure that the projects are fully embraced
- Develop Stakeholder Engagement and Communication Strategy
- Install Monitoring and Evaluation systems for accountability.
- Establish funding opportunities for research including private sector contribution
- Strengthen standards for joint projects in Government, Industry and Higher Education Institutions
- Develop social media platforms for feed back to tackle corruption

***DISCUSSION POINTS: 'Strengthening Public – Private Partnerships and Networking in Energy Access and Efficiency in Uganda'***



PHOTO RT2

Moderator: Gerald Eilu

Panellists:

1. Eng. George Sizoomu
2. Dr. Paul Mugabi
3. Dr. Lawrence Orikiriza

**Key Observations:**

- There is a need to know what leads the research policies on ground, resources should meet demand if development is to be achieved.
- Then researchers need to work together to avoid duplication of efforts in research
- The Energy sector should be analysed to identify gaps and create linkages.
- Review bureaucratic policies and taxation regimes related to renewable energy
- Strengthen private sector involvement in capacity building within the renewable energy sector.
- Disseminate information on new innovations widely and reach stakeholders including.
- Streamline research procedures and ensure quality control.
- Develop MoUs defining responsibilities to ensure coordination.
- There is total disconnect between UNCST, ministry of Finance and Ministry of Energy: there is a need to bridge this gap.
- Environment protection should be prioritised in renewable energy projects.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

The proliferation of counterfeit products on the market makes development in the renewable energy sector difficult. The communities who are the victims of these counterfeit products need to be sensitised and protected.

A big proportion of the population depends on biomass which is regulated by the Ministry of Water and Environment yet renewable energy development lies with the mandate of the Ministry of Energy and Mineral Development. This means that policies are handled at different paces and with varying motivations and points of view.

The alternative energy options for Uganda are generally more expensive than biomass energy making it difficult for the communities to embrace them.

### Recommendations

This roundtable forum addressed a number of issues that hinder partnerships. These include lack of coordination, insufficient information sharing, in-competence, structural issues, bureaucracies, duplication, inadequate information, and infrastructure, as well as little appreciation for local actors who try to promote best practises. The key recommendations to address these issues are:

1. **Coordination/collaboration between stakeholders:** should be improved, strengthened and formalised by defining clear roles, expectations and guidelines for efficient outputs. This would promote partnerships ultimately reducing duplication. Coordination between Universities, Uganda National Council for Science and Technology, Ministry of Energy and Mineral Development, as well as the public is encouraged.
2. **Networking:** should be promoted between stakeholders in the energy sector and strengthened. The initiative through the ENRICH project must be supported. Create a framework through UNCST for interaction of stakeholders at national level and University. This will allow research dissemination in an orderly and timely manner
3. **Renewable Energy Research:** HEIs should embrace the cause renewable energy and promote it through best practises in energy efficiency and access. The energy demands of Uganda should be ascertained and strategies made to meet them for sustainability before energy export is considered.
4. **Community engagement and national awareness:** sensitization should be promoted through workshops, seminars, reports and books and to yield positive results.
5. Disseminate renewable energy research information to the Ministry of Energy and Mineral Development and communities to promote uptake of new technologies.
6. Reduce red tape policies and practices to ensure that investors are not discouraged.
7. Promote collaboration in the energy sector, right from production, to generation and distribution, to marketing and down to the consumer. Involve academicians/University Departments in consultancies to provide technical backstopping
8. Strengthen Science Technology and innovation by building capacity, learning together and involvement of local artisans in technology adaptation

## WAY FORWARD

1. This report of the Round Table forum should be disseminated to the relevant ministries as well as other stakeholders to ensure that they implement the recommendations.
2. The Second National Roundtable should be used to evaluate these outputs of the first roundtable.

## ANNEXES

The following annexes can be downloaded at:

<https://www.dropbox.com/sh/xrv2hdppd0nmm58/AABqAYggRdFdUFkO8PGCXUzqa?dl=0>

- Agenda
- Power Point Presentations
  - a. Key note address: Energy accessibility & efficiency in Uganda (*Mr. Kimuli Godfrey*)
  - b. Objectives of the Round Table (*Deborah Kasule, Uganda National Council for Science and Technology*)
  - c. Enhancing Energy Accessibility & Efficiency through establishing sustainable STI Support National Networks with a regional dimension in East Africa: the ENRICH Project (*Gerald Eilu, - ENRICH project, Makerere University*)
  - d. East African Higher Education Network on Sustainable and Energy Efficient Campus Development: the SUCCEED Network (*Florence Nakayiwa, Project Coordinator - SUCCEED Network, Makerere University*)
  - e. Round Table 1: Addressing the disconnect between Government, Industry and Higher Education Institutions in energy access and efficiency in Uganda (*Paul Okiror – UETCL*)
  - f. Round Table 2: Strengthening Public – Private Partnerships and Networking in Energy Access and Efficiency in Uganda (*oral presentation, no powerpoint*)