



GOOD PRACTICES IN SUSTAINABLE UNIVERSITY CAMPUSES

Report #3 – April 2017



SUCCEED Network



*'East African Higher Education Network on Sustainable and Energy Efficient Campus Development'
(FED/2013/320-274)*

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FOREWORD

Energy is currently one of the hottest topics that need to be tackled in the East African Region, which is facing serious energy deficits and high-energy costs. The deficit in electricity supply and the lack of access to sustainable energy services hampers the satisfaction of basic human needs. The EU-EA Regional Strategy Paper revealed that 70% of the total inhabitants do not have access to sustainable energy sources. This leaves the region on a high dependence on fossil fuels, energy insecurity and high-carbon emission systems, which together with climate change provoke a very complex situation for the region.

The East Africa Region experiences unsustainable energy practices, which prevents its countries from reaching acceptable standards of socio-economic development. Most recently, the EC Country Strategy Papers stated as common problems in these countries:

- Lack of regional and national policies on Energy Efficiency and Renewable Energy that match the decision maker's decisions with society's actual needs.
- Poor infrastructures to produce, store and distribute energy in a more sustainable way.
- Lack of professionals trained in Energy Efficiency and Renewable Energy.

Due to the innovative nature of this field, universities, as providers of research and education, can play a crucial role in overcoming these problems.

Launched in October 2013, the three-year project SUCCEED Network is an ACP-Edulink funded project (contract number FED/2013/320-274) 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 whose objective will be to improve 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.



INTRODUCTION

Key to Energy Efficiency are the good practices that relate to activities and programmes that reduce the amounts of energy used by specific end-use devices and systems, without affecting the level of services provided. Improvements in the practices and equipment that reduce on the energy needed to provide services like lighting, cooling, heating, manufacturing, cooking, and transport that result in doing more with less energy, and therefore saving money and energy to enable HEIs concentrate on their core mandate of teaching and research within the East African Region has been promoted by the SUCCEED programme.

Presently, in most regions in Africa, including the East African Region, due to an increase in economic activity in the countries, the electricity demand is currently much higher than that supplied, especially during peak hours. To meet the increased demand, additional generation has been done from a number of sources and using quick fix investment models that has resulted in increased tariffs a scenario that requires the high energy users like industries and Universities to prioritise and popularise good practices in Energy Efficiency.

Under the SUCCEED Program Higher Education Institutions (HEIs) in the East African region (as well as one European university) were invited to collect and share good practices in Energy Efficiency in their universities. This was done with the aim of disseminating the Good Practices identified in the field of sustainable university campuses through peer benchmarking.

This publication continues with the tradition of the SUCCEED Network partners of sharing Good Practices they have identified. It is hoped that other East African HEIs will find these Good Practices useful, and will be encouraged to share their own Good Practices in the field in future publications.

If your institution wishes to contribute Good Practices to the next publication, please contact the project coordinator at project.management@ua.es in order to receive instructions.

GOOD PRACTICES

The participating HEIs have identified Good Practices in the field of Energy Efficiency in their Institution according to the categories described in the table below.


GOOD PRACTICES IN ENERGY EFFICIENCY IN HEIs	
CATEGORY OF ENERGY USE	<i>The template captures the good practices as applied in the various categories of energy use. It highlights the key areas of energy use in the HEIs where possible energy efficient practices can be adopted by institutions across the region</i>
Lighting	<i>Lecture, Conference and Library rooms</i>
	<i>Student and Staff Residential Accommodation</i>
	<i>Street lighting</i>
	<i>General Building Lighting</i>
Cooking	<i>Kitchens</i>
	<i>Water Heating</i>
Refrigeration	<i>Cold rooms</i>
	<i>Laboratories</i>
	<i>Domestic Fridges</i>
Appliances & Equipment	<i>Computer labs, Computers, projectors</i>
	<i>Air conditioning</i>
	<i>TVs and other entertainment gadgets</i>
	<i>Mobile phones, TABs, etc</i>
	<i>Prohibited high energy consuming gadgets</i>
Architectural	<i>Remodeling of existing buildings</i>
	<i>Green policy on new buildings</i>
Others	

MAKERERE UNIVERSITY

HEI	Makerere University
Location	Kampala, Uganda
Institution	Higher Education Institution
GOOD PRACTICE #1	Introduction of Water Saving Faucets
Category of Energy use	Energy utilisation
Description	<p>Water saving faucets have been introduced In all student residence halls, the main administrative buildings and lecture centres.</p> <p>As result, a 30% water saving in said buildings has been achieved. The observed saving on power consumption at the University water pumping station as a result of this practice is 5- 7%.</p>
Relevant Stakeholder Support	<i>Makerere University- Energy Efficiency Unit and Director Estates & Works</i>
INTERNET	www.mak.ac.ug
CONTACT PERSON	<p>NAME: Mr. Fred Nuwagaba</p> <p>POSITION: Director Estates and Works / Head of SUCCEED Energy Efficiency Unit</p> <p>E-MAIL: director@ewd.mak.ac.ug</p>

GOOD PRACTICE #2	<i>Involvement of Student Community in EE activities code named "Go Green Week"(Annual event every February-March) together with development and dissemination of Information, Education and Communication (IEC) materials throughout the campus</i>
Category of Energy use	General
Description	<p>The 2017 Go Green Week was held from 27th February to 3rd March and involved student change agents raising awareness on topics related to greening the campus including aspects of Energy Efficiency and Environmental Management</p> <p>Information, Education and Communication (IEC) materials were designed and are under production for sticking on strategic locations in various buildings and notice boards</p>
Relevant Stakeholder Support	Makerere University Planning and Estates and Works Department
INTERNET	www.mak.ac.ug
CONTACT PERSON	<p>NAME: Mr. Fred Nuwagaba</p> <p>POSITION: Director Estates and Works / Head of SUCCEED Energy Efficiency Unit</p> <p>E-MAIL: director@ewd.mak.ac.ug</p>

MZUMBE UNIVERSITY

HEI	Mzumbe University
Location	Morogoro, Tanzania
Institution	Higher Education Institution
GOOD PRACTICE #1	Automatic Lighting and Switching off lights in clients' rooms at Darajani Hotel in Zanzibar using power card
Category of Energy use	Lighting
Description	<p>At the Hotel, every room has a power card tied with room key. Inside of every door of the hotel there is a sensor which activates lighting. The sensor can only be activated by the power card tied to the room key. This means that whenever a client wishes to have lighting in the room, they must insert the power card to the sensor space.</p>  <p>The good practice contributes significantly to reducing energy consumption in the hotel because logically a client of the room cannot leave the room door open while leaving the room. He or she must lock the door, compelling them to take the key with him or her. As the key is tied to the power card, once the client takes the key for purposes of locking the door it will automatically disable the lights and thus save energy which otherwise would have been lost due to careless clients who often leave the room without putting off the lights.</p>
Relevant Stakeholder Support	<ol style="list-style-type: none"> 1. Hotel manager 2. Hotel receptionists 3. Hotel cleaners
INTERNET	www.mzumbe.ac.tz

CONTACT PERSON	NAME: Naushad and Akif POSITION: Hotel managers
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GOOD PRACTICE #2	Tree for Solar Panels Initiative in the Muleba District of the Kagera Region
Category of Energy use	Other
Description	<p>In the project area community members are motivated to have access to solar energy in exchange for planting trees. After planting a specified number of trees a person receives a specified number of solar energy for household use.</p> <p>This practice contributes to reforestation which in turn contributes to rainfall and sustainability of hydropower production. It also contributes to making community members realize the potentials and abilities of solar energy for lighting purposes. It helps to build thinking among the youth and children that electricity must not always come from hydropower. A way of thinking that has potential for future preference for solar energy and other sources of renewable energy as opposed to the current trend where most people think that electricity must come from hydropower or carbon-based sources.</p>
Relevant Stakeholder Support	<ol style="list-style-type: none"> 1. Community members, Muleba district 2. Forestry officers, Muleba district
INTERNET	
CONTACT PERSON	NAME: Prof. Auleria Kamuzora, Mzumbe University POSITION: Project Manager

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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
- Inter-University Council of East Africa, Uganda

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