



Higher Education for the Renewable Energy Sector in Africa

**Developing Higher Education activities in the framework of the
Africa-EU Renewable Energy Cooperation Programme (RECP)**

10-11 July 2014
Umubano Hotel, Kigali, Rwanda

Organised by the
EU Energy Initiative Partnership Dialogue Facility (EUEI PDF)

Higher Education Activities for Renewable Energy in Africa

The **Africa-EU Renewable Energy Cooperation Programme (RECP)** implemented by the **EU Energy Initiative Partnership Dialogue Facility (EUEI PDF)** aims at **developing Renewable Energy markets and education in Africa**. Additional to its focus on the Action Areas (1) Policy Advisory Services, (2) Private Sector Cooperation and (3) Project Development and Flagship Investment Projects, there will also be activities in the field of **Technology, Innovation, and Capacity Development**. This Action Area 4 comprises a) **technical and vocational training** as well as b) **the Higher Education Sector**.

Several programmes and initiatives already exist to foster **Renewable Energy Education** in the **African tertiary sector**. Nevertheless, there is a clear need for **further strengthening and coordinated development**. Within Action Area 4, the RECP intends to initiate support to Higher Education activities.

Activities supported may include:

- ▶ Strengthen or develop Masters Programmes on renewable energy, focussing on science, engineering, environmental science, economy and policy,
- ▶ Development of curricula, course material, blended learning approaches, etc.,
- ▶ Facilitate the establishment of partnerships between African and European universities – and inter-African cooperation – including exchanges of scholars and researchers.

The workshop has the following objectives:

- ▶ Exchange on higher education activities with a focus on renewable energy, especially master programmes in Africa and the need for support interventions
- ▶ Share successful examples and experience
- ▶ Identify interested partners and potential activities for the RECP
- ▶ Feedback on the approach to higher education activities to determine where RECP can provide most value added.

Any RECP-supported activities would build on existing partner structures, and labour market and capacity assessments, which will be undertaken prior to starting projects.

The workshop will bring together:

- ▶ Decision-makers in national ministries (Energy, Education, Labour, etc.),
- ▶ Decision-makers in Higher Education institutions,
- ▶ Private sector in the field of renewable energy,
- ▶ International experts in the field of Higher Education and renewable energy and development partners.

Programme Day 1 – 10 July 2014

08:30-09:00	Registration at Conference Venue
09:00-10:00	<p>Welcome and Opening Remarks</p> <ul style="list-style-type: none"> Welcome (H.E. Eng. Emma Francoise Isumbingabo, Minister of State in Charge of Energy and Water, Republic of Rwanda) Africa-EU Renewable Energy Cooperation Programme (Peter Cattelaens, EUEI PDF)
10:00-10:30	<p>Setting the Scene: Higher Education for the Renewable Energy Sector in Africa</p> <ul style="list-style-type: none"> Overview (Michael Golba, University of Oldenburg, Consultant to EUEI PDF)
10:30-11:00	Group Picture and Coffee Break
11:00-13:00	<p>Session 1: RE Higher Education - Political frameworks & Private Sector Cooperation</p> <p>Chair: Izael da Silva (Strathmore University, Nairobi, Kenya)</p> <ul style="list-style-type: none"> Political Framework for Higher Education (Christine Gasingirwa, Ministry of Education, Rwanda) Research and Development for Sustainable Energy (Marcel Gakuba, EWSA - Energy, Water and Sanitation Authority, Rwanda) Renewable Energy Markets in Africa (Martin Meyer-Renschhausen, Darmstadt University of Applied Science, Germany) Competences and Skills for the Private Sector (Matthew Matimbwi, Tanzania Renewable Energy Association, Dar es Salaam)
13:00-14:00	Lunch Break
14:00-16:00	<p>Session 2: RE Master Programmes - Key Features</p> <p>Chair: Andrew Leitch (Nelson Mandela Metropolitan University, Port Elizabeth, South Africa)</p> <ul style="list-style-type: none"> Interdependence of Teaching and Research (Lorenzo Mattarolo, Politecnico di Milano, Italy) Quality Assurance (Rispa Odongo, Commission for Higher Education, Nairobi, Kenya) Gender, Energy and Higher Education (Rosa Chilundo, Universidade Pedagógica, Maputo, Mozambique) Distance Education (Bakary Diallo, African Virtual University, Nairobi, Kenya)
16:00-16:30	Coffee Break
16:30-17:30	<p>Wrap-Up Day 1: RE Master Programmes in Africa – Features and Framework</p> <p>Chair: Richard Blanchard (Loughborough University, United Kingdom)</p> <p>Participants: Izael da Silva (Kenya), Andrew Leitch (South Africa), Michale Golba (Consultant to the EUEI PDF))</p>
18:00	Dinner Reception

Programme Day 2 – 11 July 2014

09:00-09:15	<p>Introduction to the Day and Renewable Energy Masters Programmes in Rwanda</p> <ul style="list-style-type: none"> • Introduction to the Day (Peter Cattelaens, EUEI PDF)
09:15-10:45	<p>Session 3: RE Master Programmes – Examples (Presentations)</p> <p>Chair: Ahmad Addo (Kwame Nkrumah University of Science and Technology, Accra, Ghana)</p> <ul style="list-style-type: none"> • Introducing a Renewable Energy Programme in Rwanda (Bonfils Safari, University of Rwanda) • Southern African Energy Initiative - SASEI (Al-Mas Sendegeya, Polytechnic of Namibia, Windhoek) • West African Science Service Center on Climate Change and Adapted Land Use - WASCAL (Alassane Abdoulaye, Université Abdou Moumouni de Niamey, Niger) • Institut International d'Ingénierie de l'Eau et de l'Environnement – 2iE (Daniel Yamegueu, Ouagadougou, Burkina Faso) • M.Sc. Renewable Energy (Clement Shonhiwa, University of Zimbabwe, Harare) • Masters in Renewable Energy (Cuthbert Kimambo, University of Dar es Salaam, Tanzania)
10:45-11:15	<p>Coffee Break</p>
11:15-12:00	<p>Session 3: RE Master Programmes – Examples (Panel Discussion)</p> <p>Chair: Ahmad Addo (Kwame Nkrumah University of Science and Technology, Accra, Ghana)</p> <p>Participants: Bonfils Safari (Rwanda), Al-Mas Sendegeya (Namibia), Alassane Abdoulaye (Niger), Daniel Yamegueu (Burkina Faso), Clement Shonhiwa (Zimbabwe), Cuthbert Kimambo (Tanzania)</p>
12:30-13:30	<p>Lunch Break</p>
13:30-15:45	<p>Working Groups: Higher Education within the RECP - From Strategy to Implementation Focussing on the Establishment and Enhancement of RE Master Programmes</p> <p>Introduction: Michael Golba & Andreas Guenther (Univ. of Oldenburg, Consultants to EUEI PDF)</p> <p>Group 1: Necessary structures and processes for universities to run RE Masters programmes Group 2: Political frameworks for RE Masters programmes Group 3: Relation with the private sector and the job market Group 4: Role of international cooperation</p>
15:45-16:15	<p>Coffee Break</p>
16:15-17:15	<p>Panel Discussion: RE Postgraduate Programmes in Africa - Framework and Visions</p> <p>Chair: Peter Cattelaens, EUEI PDF</p> <p>Participants: Chairs of Groups 1, 2, 3, 4 & Michael Golba (Consultant to EUEI PDF)</p>
17:15- 17:30	<p>Closing Session</p>

Workshop Background

In order to accelerate the use of the vast potential for renewable energy in Africa and meet future energy needs, African and European leaders launched the **Africa-EU Renewable Energy Cooperation Programme (RECP)** at the First High-Level Meeting of the Africa-EU Energy Partnership (AEEP) in Vienna in September 2010. The AEEP is a long-term framework for structured political dialogue and cooperation between Africa and the EU on energy issues of strategic importance, reflecting African and European needs. Through the RECP, Africa and Europe take joint action to help make Africa a prime destination for renewable energy investments. The RECP mobilises the technology expertise and innovation capacity of Europe in order to build knowledge and capacity and support the growth of a new industrial sector in Africa. In addition, the programme makes a significant contribution to green growth by creating jobs, establishing markets and industries with local production and manufacturing capacities in the renewable energy sector.

The **RECP Strategy 2020** has the following **four Action Areas**: (1) Policy Advisory Services; (2) Flagship Investment Projects; (3) Private Sector Cooperation; (4) Technology Innovation and Capacity Development.

While the African renewable energy market holds good promise for the development of a knowledge-based industry, there is a great need to expand local capability to meet the growing demand. Therefore, **Action Area 4** addresses Africa's strong need to sustain on-going and future renewable energy activities by **training a new generation of energy professionals** and by strengthening African research institutions and firms, and their innovation capacity in the field of renewable energy.

While this workshop focusses on higher education, **activities under Action Area 4 of the RECP Strategy 2020** also include work on technical and vocational training with support activities having started in parallel:

- ▶ Train-the-trainer programmes,
- ▶ Facilitation exchanges of lecturers and students,
- ▶ Curriculum development.

Workshop Organization

Inviting Organisation:

EU Energy Initiative Partnership Dialoge Facility (EUEI PDF)
in the framework of the **Africa-EU Renewable Energy
Cooperation Programme (RECP)**

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