



ONE-UN RWANDA

IN COLLABORATION WITH

MINISTRY OF INFRASTRUCTURE OF RWANDA

TECHNICAL TRAINING:

**ENERGY PLANNING: LEAP (LONG-RANGE ENERGY ALTERNATIVES
PLANNING SYSTEM) AND OTHER CONTEMPORARY PLANNING
APPROACHES**

CONCEPT NOTE



1. Background and Rationale

The Millennium Development Goals (MDGs) set the global policy tone for development in the 2000-2015 period. It is now recognized that the advancement of the MDGs required a collateral strategy on energy, and its broader accessibility. The post-MDG global agenda is currently being debated, and Africa's voice has taken shape. Africa's efforts to shape the post 2015 development agenda are centred, among others, in ensuring that the continent's resources are efficiently exploited to promote structural transformation. Energy plays a key role in this structural transformation, liberating the constraint on productive enterprises, including in resource development. The Secretary General's Sustainable Energy for All initiative has also offered momentum to energy sector interventions with the goal of promoting, as the name suggests, sustainable energy for all.

One central challenge in the energy sector of member States in Eastern Africa has been inadequate *planning* capacity in the sector for much of 1980-2000. Comparison of the total existing electricity capacity today with the capacity expansion since 2000 demonstrates that investments were largely marginal, and the last investment year for most countries dates back to the 1990s, and in few cases to the 1980s. For nearly two decades, *energy planning* was inadequate, and electricity generation capacity expansion was not at par with the demand pressure. Since 2000, the lagging generation capacity development is met with growing demand for more energy, putting pressure to energy sector planners in matching supply side expansion with demand pressures, both driven by a set of complex demand and supply side factors.

The energy sector is now facing new policy opportunities and challenges, including the agenda of accessibility of energy to all, the agenda of making available energy for productive uses, issues of climate change, goal to achieve better energy security in electricity and oil and gas sub-sectors, goal of rapid transition from biomass energy to alternatives, regional energy trading, and more. *Therefore, gaps in energy planning capacity and planning-informed investment decisions in the energy sector were among the critical institutional challenges in the energy sector ever more necessitated by emerging policy and investment priorities and requirements.*

At the 17th Intergovernmental Committee of Experts (ICE) meeting of the UN Economic Commission for Africa, Sub-Regional Office for Eastern Africa held in Kampala, Uganda in February 2013 on the theme "Enhancing Energy Access and Security in Eastern Africa" fourteen member States articulated the urgency of support in the energy sector for sustaining economic transformation. Member States particularly called for, among others, *support for capacity development in energy planning, which is recognized as a major gap in energy institutions.* The UN Development Assistance Program (UNDAP) for Rwanda has also recognized the need for building the planning capacity in the energy sector to strengthen the ability of translating the energy sector vision to tangible outcomes.

Member States in Eastern Africa have recognized the need to build the internal energy planning institutional capacity and called for a regional capacity development initiative that will supplement their efforts as they pursue ambitious energy sector development goals.



Capacity development in energy planning will bring together issues of energy access, energy supply expansion, energy demand management, energy security management, energy trade, energy resource development, and other dimensions through the use of standard current models and contemporary analysis tools.

The proposed training aims to connect energy sector experts from select countries of Eastern Africa with the LEAP planning tool to enhance their planning and analysis capabilities through the use of contemporary tools and will offer a platform for sharing experiences. The training, organized jointly by the OneUN Rwanda and the Ministry of Infrastructure, will be offered by the Stockholm Environment Institute on the LEAP planning tool, and will conduct the certified training based on the 2014 version of LEAP. The training will also include exploration of additional planning tools utilized by the International Renewable Energy Agency (IRENA).

2. Objectives

Overall objectives

The overall objective of the training program to experts from Energy Ministries of participating Eastern Africa member States is to enhance their technical capacity in *energy planning* to be able to: respond to current planning gaps; integrate standard sector planning tools; have technical exposure to contemporary energy sector planning methods; and learn how to incorporate contemporary issues, such as climate change, in energy sector planning.

Specific objectives

1. Experts from member States to acquire *energy planning* knowledge from a hands-on training on LEAP software and other useful tools;
2. Experts from member States to acquire knowledge in alternative energy sector planning methodologies and approaches;
3. Experts from member States to acquire knowledge in incorporating contemporary issues, such as climate change, into energy sector planning; and
4. Experts from member States to learn from “country experiences” based on exposition of utilizing energy sector planning tools in other countries.
5. Experts to gain knowledge on assessment of the impact of energy policies on the energy sector through application of LEAP.

3. Expected Outcomes

1. Acquisition of advanced knowledge in energy planning by experts from the 14 member States and helping bridge their energy planning capacity gap.
2. Acquisition of knowledge by participating experts in integration of emerging issues, such as climate change, into energy sector planning.
3. Improved ability of training participants in evaluating the impact of energy policies on energy sector outcomes.



7. Attendance

The training will convene experts from Rwanda and select member States in the Eastern African sub-region, which are Burundi, D.R. Congo, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Uganda and Tanzania.

8. Languages

The training will be conducted in English, with provision of French interpretation service.

9. Venue and Dates

The training will be held in Kigali, Rwanda from September 29 - October 3, 2014 at Hotel Villa Portofino (formerly Casablanca Hotel).

10. Partnering Institutions on Implementation

The training implementation will involve a number of collaborating institutions, including the OneUN Rwanda, MININFRA, the Stockholm Environment Institute-US and IRENA.