

ECOWAS/GBEP Workshop on the Piloting of GBEP Sustainability Indicators: 7 & 8 Nov. 2013



Update on the
implementation of the
ECOWAS Regional
Bioenergy Strategy
Framework

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THE ECOWAS REGION

- 15 countries with a land area of 5 million m²
- Climate from semi-arid to humid tropical
- Population of with 300 million people
- 60% of population lives in rural areas
- 11 of the 15 countries are LDCS and HIPIC
- Almost 176 million people have no access to electricity (52%)



ENERGY SITUATION IN WEST AFRICA

- **Interrelated challenges of energy poverty, energy security and climate change mitigation and adaptation**
- **Low Access to modern energy service**
 - ✓ One of the lowest energy consumption rates in the world;
 - ✓ The poor spend more of their income on low quality energy services;
 - ✓ Rural areas rely mainly on traditional biomass to meet their energy requirements;
 - ✓ Household access to electricity services is only around 20% (40% in urban and 6-8% in rural areas);
- **Energy security concerns**
 - ✓ High vulnerability to fossil fuel price volatility (60 % of electricity generation from oil)
 - ✓ Gap between rising urban energy demand, available generation capacities and limited investment capital;
 - ✓ High losses in the energy systems (e.g. high energy intensity and low demand and supply side efficiency);
- **Climate changes concerns**
 - ✓ Increasing energy related GHG emissions (new investments determine GHGs for the next 20 - 30 years)
 - ✓ Climate change impacts vulnerable West African energy systems (e.g. water flows, extreme weather events)

Biomass Characteristic



- Traditional Biomass currently 70%+ of total energy consumed in Africa
- 80% households currently depend on biomass fuels (Pictures courtesy of the World Bank RPTES)

RE & EE POTENTIALS IN WEST AFRICA

RE & EE play an important role in simultaneously addressing the energy challenges in West Africa

RE potentials so far unexploited

- ✓ 23,000 MW of feasible **large and small hydropower potential** (16% exploited);
- ✓ Huge potential for **all forms of bioenergy** (e.g. biomass, biogas, biofuel);
- ✓ Average **solar radiation of 5-6 kWh/m²** per day throughout the year;
- ✓ Considerable **wind power potential** in some countries;
- ✓ RETs are particularly effective in combination with EE measures;

EE potentials so far unexploited

- ✓ Wide range of options to improve **supply and demand side efficiency** (including energy saving)
- ✓ e.g. **Equipment labeling and building standards**;
- ✓ e.g. **Cleaner production** in industry (e.g. process heat);
- ✓ e.g. **Technical and commercial losses** in the electricity system;

CONSTRAINTS/BARRIERS

- **No Policy** in most countries - adhoc
- **No effective tool** for sustainable planning
- **Confusion and misunderstanding of Bioenergy and meaning**
- **No effective and sustainable Forest mgt**
 - Increased live tree cutting & bush fire
 - Open forests, no ownership
- **NEED TO BRING ALL AT THE SAME TABLE**

Energy Challenges:

- widespread and unsustainable utilization of traditional biomass
- almost 80% of the total energy consumption comes from the traditional biomass.
- In addition, over 90% of the population uses wood and charcoal for domestic cooking.

Energy Challenges:

- The region's over-dependence on natural forest resources is a driver of deforestation, desertification and increased GHG emissions.
- Inefficient production and use
- unsustainable use of wood resources is
 - damaging to public health
 - reduces the time available for women and children to pursue other economically beneficial activities, such as education and entrepreneurship.

Factors: High dependence on Traditional Biomass Use:

- **No Policy** in most countries - adhoc
- **No effective tool** for sustainable planning
- **Rush for biofuels** (2007 onwards)–
leading to competition for land dedicated for food
- **No effective and sustainable Forest mgt**
 - Increased live tree cutting & bush fire
 - Open forests, no ownership
- **Efficient cook stoves, LPG and clean fuels:**
Population increase eroded gains
- **Alternatives to traditional Biomass – not competitive**

ECOWAS-GBEP Cooperation Regional Bioenergy Forum

The primary objectives were to:

- Promote the transition from the traditional use of biomass towards a modern, efficient production and use of modern Bioenergy;**
- broaden regional dialogue and peer-to-peer learning to support the development of Bioenergy strategies in the ECOWAS Member States and,**
- Promote regional policy planning for Bioenergy harmonized with national policies;**

Regional Bioenergy Forum

- Bamako

The primary objectives are to:

- sensitize and share experiences on modern sustainable Bioenergy production that also promotes food security;**
- create a vibrant and sustainable modern bioenergy sector that promotes economic growth, rural development, and poverty alleviation.**

ECOWAS BIOENERGY PROGRAM: The Bamako Forum

- Regional Forum held 19 to 21 March in Bamako, Mali with assistance of GBEP Partners: UNDO, USA UNIDO, UNEP and GACC
- Regional Bioenergy Strategy Framework was elaborated & validated
- Adopted by Ministers at the ECOWAS HLM Meeting in Accra, Ghana
- Capacity building started end of 2012
- policy development started in 2013

The overall objective of the Regional Bioenergy Strategy is to improve food and energy security through the deployment of sustainability criteria in the production and utilization of resources.

West Africa Clean Cooking Alliance (WACCA) was launched in Oct. 2013



The Bamako Forum



Bioenergy Strategy Framework

key components:

- **Resource Assessment and Planning**
- **Policies and Strategies**
- **Knowledge sharing**
- **Capacity building**
- **Financing mechanisms and resource mobilization**

Resource Ass. & Planning

Components include:

Resources assessment and mapping, based on a methodological framework that covers:

- resource inventory;**
- climatic and weather scenarios; and**
- resource availability and utilization such as land, water and other -environment considerations;**

Catalogue experiences relating to:

- Resource potential uses and threats, e.g. Climate Change --Adaptation needs;**
- Socio-economic context evaluation; and**
- rapid assessment methodologies; and**

Complemented by assessment and sharing of experiences, and an inventory of existing maps.

Policies & Strategies

Components include:

- Establish a vision (political will- bottom up is critical to sustain a long term vision) on Bioenergy as part of a sustainable development strategy;
- policy coherence with other sectoral policies (consultation through inter-ministerial task teams and regulatory processes);
- capitalize on experiences in region and rest of the world;
- Define political principles, based on subsidiarity between countries in the region; and
- Coordination of Implementation strategy and strengthening of related institutions

Capacity Building

Components include:

- **Increasing awareness among high-level actors in agriculture and energy;**
- **Reinforcing existing institutional and human structures;**
- **Providing professional and on the job training;**
- **Transferring knowledge and promoting innovation and technology across all levels of production; and**
- **development of job training and professional profiles , including on existing sustainable bioenergy tools.**

Knowledge Sharing

Components include:

- identify knowledge holders;
- knowledge management, sharing and transferring (communication tools), creation of an ECREE database and an observatory;
- knowledge monitoring; and
- put in place knowledge management system.

Knowledge Sharing

Components (Contd):

- **Increasing awareness among high-level actors in agriculture and energy;**
- **Reinforcing existing institutional and human structures;**
- **Providing professional and on the job training;**
- **Transferring knowledge and promoting innovation and technology across all levels of production; and**
- **development of job training and professional profiles , including on existing sustainable bioenergy tools.**

Financing & Resource Mobilization

Components include:

- **mapping of financing schemes for every step of the Bioenergy value chain;**
- **identifying barriers to accessing financing schemes;**
- **capitalizing on innovative financing mechanisms and experiences such as climate related financing mechanisms;**
- **mobilizing local finance institutions, particularly private sources of capital; and**
- **Coordination of donor.**

NEXT STEPS

To Roll out Sustainable Bioenergy Services within the Region – actions envisaged:

- Massive information and sensitization campaign on the benefits of using sustainable bioenergy;**
- Development of detailed Strategy Framework with implementation plan, budget and time schedules**
- Development Relevant and adequate policy frameworks**

NEXT STEPS (contd.)

- **Capacity development across the board – the training on resource assessment is a positive sign;**
- **Networking and knowledge Management – results of the resource assessment would feed the ECOWAS Observatory on RE&EE**
- **Demonstration projects for regional scaling up – waste to energy, ethanol fuels & stoves, etc;**
- **Fund mobilization and Investment**

Progress To Date

- Capacity Building Activities
 - November 2012: Introduction to Resource Assessment for the ECOWAS member states, Italy
 - March 2013: Bioenergy Week for capacity building and included almost all the member states
- Development of Full Bioenergy Strategy Document
- Elaboration of a Regional Bioenergy Policy Study – Supported by UNDP Regional Office
- Piloting of Bioethanol stove in Senegal
- Plans to pilot sustainable biogas in the Region in 2014

West Africa Clean Cooking Alliance WACCA

OBJECTIVES: IMPROVE LIVING CONDITIONS OF THE POPULATION OF ECOWAS COUNTRIES THROUGH AN INCREASED ACCESS TO CLEANER AND MORE EFFICIENT COOKING DEVICES, SUSTAINABLE BIOMASS FUELS AND MODERN FUELS, WHILE REDUCING LOCAL AND GLOBAL ENVIRONMENTAL IMPACTS



1. Promote the adoption and dissemination of clean, efficient and sustainable cooking devices and modern biomass fuels for all ECOWAS households



2. Ensure quality, durability and affordability of the cooking fuels & devices disseminated in terms of environmental performance and public health in ECOWAS countries, quality and sustainability of the biomass fuels disseminated and quality and safety of the modern fuels disseminated



3. Introduce a suitable regional governance mechanism for consultation, coordination and financing to ensure a coordinated implementation of actions in the field of cooking energy

WACCA: EXPECTED RESULTS

- By 2020:
 - ✓ over **10 million** additional household users of **LPG** as primary fuel and **modern Biofuels (ethanol, biogas, etc)**
 - ✓ about **15 million** additional households using **ICS** as main cooking device and/or **sustainable biomass fuel** as primary fuel
- By 2030:
 - ✓ over **25 million** additional household users of **LPG** and **modern Biofuels (ethanol, biogas, etc)** as primary fuel
 - ✓ about **45 million** additional households using **ICS** as main cooking device
- Target Groups
 - ✓ PRIMARY: ECOWAS population, especially women, Private sector, Public authorities, Research institutions, universities and civil society organizations

Thank You! Merci! Obrigado!

HIGH LEVEL ENERGY FORUM

SUSTAINABLE ENERGY FOR ALL IN WEST AFRICA

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