Presentation Outline

- Introduction
- Background: ECREEE/Bioenergy
- Implementation of Activities
- Feedback from the ECOWAS Member States
Introduction

• Establishment of the GBEP CBWG and Activity Group 1
• ECREEE becomes GBEP Partner representing ECOWAS in May 2011
• ECREEE introduces the lack of sustainable biomass use in the ECOWAS Region
• Expressed its desire for the intervention of the WG to promote sustainable & modern Bioenergy
Introduction (Contd.)

Activities conducted in Activity Group 1:

- ECOWAS Regional Bioenergy Forum, Bamako, Mali
- Workshop on Resource Assessment, Rome, Italy
- Brazil Bioenergy Week/Study Tour, Brasilia, Brazil
- Piloting GBEP Sustainability Indicators, Accra, Ghana
- Workshop on Piloting of GBEP Sustainability Indicators, Praia, Cape Verde
BACKGROUND: 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%)
BACKGROUND: ENERGY SITUATION

• 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)
Yet RE & EE Potentials exist & can play an important role in simultaneously addressing the energy and environment 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. Sustainable biomass, biogas, biofuel, waste for energy);
- Average solar radiation of 5-6 kWh/m2 per day throughout the year;
- Considerable wind power potential in some countries;

EE potentials so far unexploited
- Wide range of options to improve supply and demand side efficiency (including energy saving)
- e.g. Cleaner & Efficient production & Utilization (cleaner & efficient cookstoves);
- e.g. Technical and commercial losses in the electricity system;

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Establishment of ECREEE

- The Ouagadougou Declaration from 12 November 2007 highlighted the need for a regional RE&EE Centre Foundation laid by Regulation C/REG.23/11/08 of the 61st Session of ECOWAS Council of Ministers in Ouagadougou, Burkina Faso, on November 23, 2008.
- Launch of the ECREEE preparatory phase in November 2009 with support of the ECOWAS Commission in collaboration and support from the core donors:
- Official Inauguration, first Executive Board meeting and launch of the ECREEE operational phase on 6th July 2010.
ECREEE objectives & activities

Overall Objective
To contribute to the sustainable economic, social and environmental development of West Africa by improving access to modern, reliable and affordable energy services, energy security and reduction of energy related GHG emissions and climate change impacts on the energy systems;
Specific Objective

Creation of favorable framework conditions and an enabling environment for RE&EE markets by supporting activities directed to mitigate existing barriers;
ECREEE Activities

- Lead and coordinate the implementation of the ECOWAS/UEMOA regional action plan and White Paper on energy access by promoting RE&EE technologies and services;

- Coordination, implementation and fund mobilization for targeted programmes and projects in cooperation with national focal points, international organizations and private sector.
ECREEE Activities (Contd.)

– Tailored policy, legal and regulatory frameworks and quality standards

– Capacity building of key groups of different sectors

– Advocacy, awareness raising, knowledge management and networking

– Execution of renewable energy and energy efficiency programs and projects for demonstration
Traditional Biomass currently 70%+ of total energy consumed in Africa

80% households currently depend on biomass fuels (Pictures courtesy of the World Bank RPTES)
BACKGROUND: Bioenergy 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.
BACKGROUND: Bioenergy 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.
BACKGROUND:
CONSTRAINTS/BARRIERS

• No effective Policy and tool for sustainable planning in most countries - adhoc
• Rush for biofuels (2007 onwards) – leading to competition for land dedicated for food
• Confusion and misunderstanding of Bioenergy and biofuels and meaning
• No effective and sustainable Forest mgmt
  • Increased live tree cutting & bush fire
  • Open forests, no ownership
• Efficient cook stoves, LPG and clean fuels introduced but Population increase eroded gains
• Alternatives to traditional Biomass – not competitive
• **NEED TO BRING ALL AT THE SAME TABLE**

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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.
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.
• 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 workshop held Nov. 2012
• Regional Bioenergy policy development: Contract awarded in Nov. 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
1. Bioenergy Strategy Framework

key components:

• Resource Assessment, Mapping and Planning
• Policy and Strategy Development
• Information & Knowledge sharing
• Capacity building & Knowledge transfer
• Financing mechanisms and resource mobilization
2. Workshop on Resource Assessment

The workshop was held on the 13 and 14 November 2012 in Rome, Italy, under Activity Group 1 (AG1)

• to promote effective policy planning for a sustainable bioenergy sector

• follow-up to the Bioenergy Regional Forum where biomass resource assessment and mapping was identified as an essential first step of the Bioenergy Strategy Framework

• discussed the state-of-the-art in this field related to:
  • (i) Methodological framework for assessment and mapping of env., social and economic resources, and calculations of total available biomass; &
  • (ii) Catalogued and shared experiences on biomass use, existing resource maps, and socio-economic conditions, including methods for the allocation and tenure of land
The main findings of the Workshop were:

- the ECOWAS countries, because of cultural and historic reasons, on average rely heavily (up to 90% of their primary energy consumption) on wood-fuel for their energy supply;

- the energy conversion is very inefficient and releases large amounts of pollutants to which women and children are highly exposed (traditional cook stoves);

- the high wood-fuel consumption has contributed to deforestation, soil degradation and other environmental issues over large extension of many ECOWAS countries;
The main findings (Contd.):

- policies concerning sustainable bioenergy in the ECOWAS region are beginning to appear (Regional Strategy on Bioenergy developed during the Bamako Forum was formally adopted in the ECOWAS Ministers at the end of October 2012 in Ghana);
- reliable future projections of biomass availability are needed;
- assessment has to be done with harmonized systems; and
- food security is a key issue in the region, strictly connected with biomass availability.
The Bioenergy Week:

- aimed at fostering sustainable bioenergy deployment, particularly in developing countries where biomass use is prevalent;
- consisted of training sessions with specific themes of sustainable production and use of bioenergy, where effective policy frameworks were discussed, taking into account the GBEP work on sustainability indicators.
3. Brazil Bioenergy Week/Study Tour

Brasilia (Brazil): 18 - 23 March 2013

- aimed at fostering exchange of information, experience, skills and technologies through bilateral and multilateral collaboration
- contributed to train developing country officials and stakeholders on ways to improve agricultural productivity and yield, to enhance feedstock logistics, and to increase the use of modern conversion technologies. It also provided an opportunity to learn and experience from the sustainable interventions of Brazil in the field of bioenergy.
This event allowed government representatives of the ECOWAS Countries to further share experiences on their capacity for sustainable bioenergy while maintaining agricultural productivity. In particular, eight ECOWAS reps:

- presented their country’s efforts in moving forward with developing a sustainable bioenergy sector
- identified the need for effective policy and institutional frameworks to attract needed investments in the sector.
The GBEP indicators were tested in the Ghanaian context to establish their feasibility and enhance their practicality as a tool for policymaking. The Pilot Study was funded by the Government of the Netherlands.
The main aims of this project were to:

- Enhancing the capacity of the host country (and ECOWAS) to use the GBEP indicators as a tool for assessing the sustainability of its bioenergy sector and/or developing sustainable bioenergy policies;
- Learning lessons on how to apply the indicators and how to enhance their practicality as a tool for policymakers and giving this as feedback to the GBEP community.
The Study emphasized the value of the pilot study for Ghana and how it facilitated the discussion and cooperation between policymakers and researchers. It also stressed the importance of starting with the indicators in a simplified but structured manner and that a full-fledged implementation of the indicators in Ghana would require significant time and resources but is currently not necessary, given the immaturity of the bioenergy sector.
Conclusions: Technical aspects

On data availability:

- Secondary data related to bioenergy production and use is scarce.
- Bioenergy sectors in many African countries including Ghana are relatively new - more work needs to be done to gather relevant data.
- Has enabled gaps to be identified and has given a better understanding on how to conduct a holistic study.
Conclusions: On GBEP SI indicators:

- very important for Ghana as it provided very sound, fundamental and comprehensive framework for bioenergy resource measurement, monitoring and management.
- offered important information that will enhance a practical and feasible implementation
- has fostered closer links between relevant institutions in Ghana – will minimize the problem of uncoordinated and fragmented data gathering efforts in the future
6. Workshop on Piloting of GBEP SI
7 & 8 Nov. 2013: Praia, Cape Verde

• Held to disseminate the results of the pilot project on the GBEP SI indicators conducted in Ghana.
• Specifically provided information to the ECOWAS member states on GBEP, its activities, the Sustainability Indicators and the benefits of these indicators.
• shared the results of the Pilot Study of the GBEP Sustainability Indicators with the ECOWAS member states
conclusions reached:

- The cooperation between ECREEE and GBEP has yielded fruitful results:
  - Capacity building programme
  - ECOWAS Bioenergy Strategy
  - Piloting of GBEP SI in Ghana
  - raised interest among many ECOWAS member states.
conclusions (contd.):

- provides opportunities to incorporate some sustainability aspects of the indicators to the bioenergy sector.
- full implementation of the 24 indicators is challenging in terms time and resourc.
- Challenges provided opportunities for innovative approaches to problem solving.
conclusions (contd.):

- data was a major constraint, countries should be collecting relevant data
- The Ghanaian experience revealed the challenges and opportunities of pilot testing the GBEP SI;
Workshop Recommendations:

- Improve the policy and regulatory frameworks especially with regards to improving data collection particularly from entrepreneurs in the bioenergy sector.

- There must be firm government & institutional support
Workshop Recommendations (contd.):

• Need to improve data collection and establish data banks

• collaboration between stakeholders for effective sharing of knowledge, information and efficient implementation of the sustainability indicators.

• GBEP is invited to take the pilot project team through SI prior to implementation.
Workshop Recommendations (contd.):

• Simplistic approach for data gathering;
• Prioritization of indicators as a first step to learn through the process;
• Establish a GBEP SI expert exchange platform at both technical and policy levels;
• Participants were called upon to bring the aspect of sustainable bioenergy to the attention of their Ministers.
The responses on the interventions has positive impact in the Region and these included:

• awareness raised and increased knowledge on bioenergy to levels higher than what they were before;
• National policies and strategies for bioenergy development were not promoted before;
• No clear positive or negative experiences have been recorded on the impact of bioenergy on food security, environment and rural development.
7. Feedback from the Member States

• However, some acknowledged the need to integrate social, economic and proper agronomic practices to the development of bioenergy in order to ensure food security, environmental and ecosystem management and rural development;

• Most countries expressed their appreciation in participating in the ECREEE-GBEP meetings that helped them develop the capacities of the countries
7. Feedback from the Member States

• awareness raised has led to some countries to promote the development of bioenergy as an alternative;
• The following positive impacts were recorded:
  • Awareness is increasing gradually in some countries;
  • While some have strategies and a few countries developing policies of bioenergy, others believe their national energy policies do not adequately reflect bioenergy and require better reflection;
7. Feedback from the Member States

- now understood that with right policies in place, Bioenergy can enhance food security, increase access to energy services and bring about rural development;
- it is possible to plan the development of bioenergy guide policy and regulatory framework taking into account the GBEP Sustainable Indicators; and
- led to the establishment of regional cookstove testing centre e.g. Council for Scientific and Industrial Research, CSIR in Ghana;
7. Feedback from the Member States

Conclusions

• there is still need for more intervention to get the message to sink
• The ECOWAS bioenergy policy development seems to be a clear path towards sustainable bioenergy in the region;
• would add a lot of value in bringing greater awareness and understanding of the subject.
• Other activities such as resource assessments have not been undertaken in many countries yet.
Thank You! Merci! Obrigada!

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