

GBEP Working Group on Capacity Building for Sustainable Bioenergy (WGCB)

Activity Group 1 - Workshop ECOWAS - GBEP Regional Biomass Resource Assessment Rome, FAO Headquarter, 13-14 November 2012

Background

The ECOWAS-GBEP Regional Biomass Resource Assessment workshop took place in Rome on 13–14 November 2012. It was organized by the Global Bioenergy Partnership (GBEP) in cooperation with the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), and with the support of the Government of the United States of America.

It represented the follow-up to the Regional Forum held in Bamako, last March, that contributed to initiate a regional dialogue to support the development of regional and national bioenergy strategies. In that context participants identified biomass resource assessment and mapping as an essential first step, and the Rome workshop aimed at discussing these themes into details in order to further facilitate effective policy planning for a sustainable bioenergy sector in the region.

In order to promote biomass resource mapping in the ECOWAS region the workshop included discussions of the following technical topics:

- 1) Methodological framework for resource assessment and mapping of environmental, social and economic resources, and calculations of total available biomass; and
- 2) Cataloguing and sharing experiences to date related to biomass use, existing resource maps, and socio-economic conditions, including methods for the allocation and tenure of land.

The workshop brought together representatives of the Ministries of Energy and Agriculture of the ECOWAS Member States, together with GBEP Partners and Observers, as well as regional and international organizations, academia, business and civil society representatives active in the region, in the field of bioenergy.

Presentations and discussions

The opening messages of the workshop were delivered by the Executive Director of ECREEE, Mr. Mahama Kappiah, the Executive Secretary of GBEP, Dr. Michela Morese, and the representative of the government of the United States of America, Dr. Gerard J. Ostheimer, all of whom highlighted the commitment of their institutions to act as a catalysts for the development of biomass resource assessment in West Africa.

During the first session of the workshop, experts from the United States of America, the Netherlands, Brazil and Senegal presented and discussed the state-of-the-art in the field of biomass resource assessment. During the highly interactive Q&A session that followed this session on cutting edge technology for biomass resource assessment, the need for a simple, harmonized tool that serves as a useful model to be applied to all countries emerged, not only for ECOWAS but worldwide, for the assessment of the biomass resource availability in a given moment. On this item, the co-chairs mentioned the interest of GBEP in exploring the possibility to work together with IRENA (International Renewable Energy Agency) towards the development of a global harmonized atlas for bioenergy. Another important aspect that

emerged during this first phase of the workshop was the necessity to obtain high resolution data because, especially in West Africa, often this type of data is missing.

Representatives of the ECOWAS countries gave brief presentations of their countries' efforts to assess biomass availability domestically. The main findings of this interesting set of presentations 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 led to deforestation, soil degradation and other environmental issues over large extension of many ECOWAS countries;
- 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 Ministerial meeting during the first week of November);
- 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 second day of the workshop presented sessions geared at understanding the technical aspects of biomass assessment through an in-depth description of available tools such as WISDOM and other GIS based applications, as well as the importance of ground-truthing and data verification. Many powerful tools used by international experts are freely available online (Landsat; Google Earth, etc) but the level of expertise required for their application to biomass assessment studies is high. However, some international organization provide free tools for bioenergy assessment. FAO's Bioenergy and Food Security project presented the online operator tool for food security assessment and guided the participants through the use of this preliminary assessment tool.

Conclusions

The conclusions of the workshop were made by the chairpersons, Mr. Raffi Balian (Government of the United States of America, Department of State) and Mr. Bah Saho (ECOWAS – ECREEE), with the contribution of many participants and international experts present.

An important conclusion of this fruitful workshop discussion was the recognition of the need for a stepwise approach to the issue of resource assessment, given the complexity of the topic and the specific conditions of the ECOWAS region.

Proposed next steps:

1. creation of a regional network of institutions to increase capacity and facilitate the bioenergy promotion in the ECOWAS region. This network will also serve as focal point for any future GBEP activity in the region;
2. at the national level, creation of a network of private sector and civil society stakeholders that are already working in bioenergy related matters, in order to create a reference list;
3. ECREEE to compile a matrix of info provided during the presentations related to the ECOWAS region on availability of resources, mapping, and contribution of bioenergy into the energy mix. This compilation will then be discussed and analyzed in the GBEP context;
4. gaps eventually highlighted in the matrix above will be discussed to find solutions;

5. additional data collection could be decided if deemed necessary;
6. compilation of best practices in the region, to be shared within the ECOWAS region. A powerful capacity building activity should begin with regular information exchange among the group members;
7. initiate a discussion with GBEP to identify financial opportunities to increase the collection of data for more accurate resource assessments;
8. need to attract business driven investments in the bioenergy sector as the ultimate step to help address the energy gap in the region. GBEP and ECOWAS have contributed to enable environment and attract investments in the region as an important driver of development. In the ECOWAS region there are several pilot scale projects on bioenergy that have demonstrated a potential under many points of view, however, further steps are necessary to upscale those successful stories to a level where many more people could benefit from them; and
9. compilation of a matrix of tools and methodologies on resource assessment and mapping, and also for decision making for investments in bioenergy. The matrix would be prepared with the support of the GBEP Partners, cataloguing for each tool and methodology its potential use, applications, benefits and limitations for sharing with the ECOWAS member states.

The representatives of all ECOWAS countries were called to take leadership in their role of ambassadors of sustainable bioenergy as a means to foster energy access and food security, and improve health condition for their citizens. Their action as catalysts of the change in the energy sector of the ECOWAS region is fundamental for achieving the goals of the Sustainable Energy for All initiative.

ECREEE expressed the need to develop capacities of the member states in various disciplines of bioenergy at both professional and academic/research levels. In this vein, a special programme on training and capacity building was requested to be elaborated by GBEP for the ECOWAS member states.