



## ABSTRACT BOOK OF THE CONFERENCE

## SUSTAINABLE ENERGY FOR AFRICA

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## Lecture 16

### Jean-Noël Marien

#### 09:20 **Wood: an ever-present domestic energy priority for people in emerging Africa**

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#### **ABSTRACT**

Wood-energy in Africa (including charcoal) mainly meets domestic energy needs as there are no specific wood cultivation projects dedicated to supplying industrial energy plants. We shall describe how this informal but highly organized sector operates, covering the entire process moving from the standing tree to the kitchen oven. We also shall present some basic data showing the significance of increasing needs and consumption, especially in urban areas, with regard to rapidly depleting natural resources.

Some examples of contrasting situations in Africa will highlight the diverse issues raised by wood energy. An analysis of the situation in 16 African towns will show different solutions to the pressures generated by domestic energy needs. Other examples will present two pathways of natural resource degradation (in Guinea and DRC) induced by the supply of wood energy to large cities.

In most African countries, the use of wood for domestic energy involves multiple, interacting issues. The wood mainly comes from degraded natural forests (e.g. shifting cultivation) and is generally produced within traditional agricultural systems. The demand grows continuously, due to ever increasing populations domestic needs. We will address the relations between wood energy and environmental and social issues, and examine the economic weight of the sector. Finally, we shall indicate some institutional and governance means to address (or not) the populations' domestic energy needs.

The sustainable management of wood-energy resources is possible and is one of the keys for the future. We shall present some results of the Makala project, an EU funded programme in DRC and Congo Brazzaville, from 2008 to 2014 (1). The project has developed on a large scale various operational tools for a sustainable wood resource management. These range from simplified, but efficient, management planning for rural communities, to various methods to create or regenerate a large area producing wood resources through the natural regeneration of degraded forests, agroforestry systems, or the plantation of fast-growing species. Achieving a more efficient carbonization process is another important issue. The feasibility of improved stoves also will be discussed.

Given that urban population growth will in many cases lead to an increase in household energy requirements which will surpass what can be provided by tree formations, the authors argue that planners should consider the development of energy mixes that combine the sustainable production

of wood-energy with a partial transition to other energy sources (fossil, hydro-electricity, solar or biomass). The importance of the carbon economy will also be discussed by examining some international processes as REDD initiative or Green Fund for the Climate (UN).

Finally, some conclusions from a recent prospective analysis of Central African forest ecosystems will focus on the evolution dynamics, expected impacts and strategic actions able to address positively the wood-energy challenges that will face Africa in the future.

(1) Makala project: [www.makala.cirad.fr](http://www.makala.cirad.fr) (EU EuropeAid DCI-ENV/2008/151-384)

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