



Programme Round Tables organised by the COMPETE project:

**Round Table 1
'Biofuels for transport versus electricity production'**

**Round Table 4
'Competition between non-food and food uses: stakes and risks'**

28 November 2007, Ouagadougou, Burkina Faso

organised in the framework of the International Conference:

'Stakes and Perspectives of Biofuels for Africa'
27- 29 November 2007, Ouagadougou, Burkina Faso
organised by 2iE, CIRAD

Round Table organisation:

Dr. Veronika Dornburg, COMPETE project, Utrecht University, The Netherlands

Dr. Rainer Janssen, COMPETE project, WIP, Germany



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Background

At the beginning of the 21st Century, Africa contains some of the poorest and most technologically backward regions in the world, with civil conflicts, diseases and droughts further exacerbating the lives of the poor. Over the previous decades their quality of life has continued declining, and currently about 52% of the sub-Saharan Africans live on less than US\$ 1 per day and about 43% of the urban residents have incomes below US\$ 47 per month. The poor economic performance and the shortage of work does not allow for a level of income that is sufficient for obtaining modern, clean energy supplies. Hence, about 80% of the African population is still dependent on charcoal and firewood to fulfill their energy needs.

At the same time, as global fossil energy resources become constrained and prices of fossil energy increase, modern bioenergy is emerging as a major potential resource to supply the energy services currently provided by these fossil fuels. The arid and semi-arid regions of Africa have, in theory, very large areas of land (and associated water and human resources) 'available' for bioenergy production. However, the production of biomass for energy on the scales necessary to supply significant shares of national and global energy provision, will result in very substantial impacts (positive and negative) on the ecosystems and socio-economic circumstances in these target regions. The protection of biodiversity, rural livelihoods, food security and energy security are critical considerations in any analysis of the potential for sustainable bioenergy provision in arid and semi-arid regions of Africa.

The objective of the Competence Platform on Energy Crop and Agroforestry Systems for Arid and Semi-arid Ecosystems- Africa (COMPETE) is to stimulate bioenergy implementation in arid and semi-arid regions in Africa. COMPETE establishes a platform for discussion, knowledge exchange, policy and methodology development on the provision of modern bioenergy for the sustainable and optimal usage of these special ecosystems.

In the framework of the International Conference 'Stakes and Perspectives of Biofuels for Africa', the COMPETE network organised two round tables that deal with the question on how to use bioenergy in Africa in a sustainable way in order to provide rural development and energy security at the same time benefiting local ecosystems and food security. Round Table 1 discusses whether the provision of electricity and/or transportation fuel is best suited to these objectives, while Round Table 4 investigates the implications of bioenergy production and use on food security.

Round Table 1: Biofuels for transport versus electricity production

Chair: Senator Christian DEMUYNCK, Senator of Seine-Saint-Denis, France
Co-Chair : Patrice TRANCHANT, Director of 'Agence de l'AFD', Ouagadougou
Secretary : Rainer JANSSEN, coordinator of COMPETE, WIP, Germany

Speakers:

- *Benefits of electrification in rural Africa*
Ibrahim TOGOLA, Mali-Folkecenter, Mali
- *Electrification experiences from Guinea Bissau*
Mamadou DIANKA, PRBE, Burkina Faso
- *Sustainability of using biomass for transportation*
Jeremy WOODS, Imperial College London, UK

Participants:

- Secou SARR, ENDA-TM, Senegal
- Fioana ZUZARTE, SEI, Sweden
- Hamimu HONGO, FELISA Co Ltd, Tanzania

Introduction

Transportation fuels are a main target of biofuel use in Europe and a main cause of growing oil consumption in Africa. Using biofuels for local transportation needs might contribute to independence from global crude oil markets. At the same time, it remains that most rural areas are not electrified in Africa. Biofuels might help rural electrification and contribute to electricity supplies in urban areas.

The best strategy for using biomass, however, depends on local conditions as well as main objectives of biomass use. Important questions in this context are:

- What are the advantages and disadvantages of using biomass for transportation fuels, electricity production or other uses?
- Can biomass add to improving the living conditions of the rural population and to the sustainable economic development of the whole country and what are the trade-offs between the different uses?

Question for discussion

- Does the use of bioenergy for rural electrification lead to rural development, while the use of biomass for transportation leads to urban development?
- Can the use of biomass for transportation add more significantly to national energy security than the use of biomass for electricity?
- Should the use of biomass for large-scale electricity production be considered in terms of energy security?
- Should the need for cooking fuels be included into a future strategy to use bioenergy?
- Can the export of transportation fuels or solid biomass add to the economic development in Africa?

Round Table 4: Competition between non-food and food uses: stakes and risks

Chair: Florent D THIES, Director GTZ Ouagadougou

Co-Chair : Jacqueline LORELLE, Conseiller de coopération et d'action culturelle
French Embassy Ouagadougou

Secretary : Veronika Dornburg, Utrecht University, The Netherlands

Speakers:

- *Will the growing demand for biofuels lead to food crisis?*
Charles JUMBE, FANRPAN, Malawi
- *Global land use changes - use of agricultural and other land for biofuel production*
Abigail FALLOT, CIRAD, France
- *Are bioenergy crops different from other cash crops?*
Rainer KRELL, FAO, Italy

Participants:

- Sudipto CHATTERJEE, Winrock, India

Introduction

'Agrofuels' are criticized for increasing food prices and leading to food insecurity of the poor. Linkages between biofuels and food, however, are complex. On the one hand, bioenergy crops compete with food crops for land and food production in the South might decline for fuel crops that are used globally. On the other hand, bioenergy crop production might contribute to economic development and rural income. Improved bioenergy production systems might have synergies with food production e.g. by using degraded land or intercropping. However, the following questions remain:

- What are the influences of biofuel developments on global and local food markets?
- Which opportunities exist for improved biomass systems?
- Does the combination of biofuels and food production lead to synergies or competition?

Questions for discussion

- Should food crops be used for bioenergy production?
- Which population groups are likely to benefit economically from biomass production?
- Are agroforestry and multiple cropping systems a useful addition to current agricultural production systems?
- Can degraded or marginal lands be used for biomass production (e.g. trees, grasses, jatropha)?
- Can agricultural production in Africa be improved by means of bioenergy introduction?
- What is the influence of local bioenergy production on (global) food markets?

The COMPETE Project



COMPETE Objectives

The Competence Platform on Energy Crop and Agroforestry Systems for Arid and Semi-arid Ecosystems – Africa (COMPETE) will establish a **platform for policy dialogue and capacity building** and identify **pathways for the sustainable provision of bioenergy**

- to improve the quality of life and create alternative means of income for the rural population in Africa
- to aid the preservation of intact ecosystems in arid and semi-arid regions in Africa
- to enhance the equitable exchange of knowledge between EU and developing countries

COMPETE Activities

COMPETE will deliver a matrix of multi-disciplinary and cross-sectoral work-packages

- to evaluate current and future potential for the **sustainable provision of bioenergy** in Africa in comparison to existing land use patterns and technologies
- to facilitate **South-South technology and information exchange** capitalising the world-leading RD&D in bioenergy in the key countries Brazil, Mexico, India, China and Thailand
- to develop **innovative tools for the provision of financing** for national bioenergy programmes and local bioenergy projects, including: carbon credits, bilateral and multi-lateral funding instruments, and the role of international trade
- to develop **practical, targeted and efficient policy mechanisms** for the development of bioenergy systems that enhance local value-added, assist local communities and address gender inequalities
- to establish the **Competence Platform** to ensure effective dissemination and knowledge exchange inside and outside the network

COMPETE Partnership

The COMPETE partnership comprises 20 European and 23 non-European partners - 11 partners from 7 African countries, 3 regional African policy and financing bodies (African Development Bank; Food, Agriculture and Natural Resources Policy Analysis Network of Southern Africa; UEMOA - Biomass Energy Regional Program), 9 partners from Latin America and Asia - and the Food and Agriculture Organisation of the United Nations (FAO).

COMPETE Website: www.compete-bioafrica.net

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