



Tropentag, September 14-16, 2010, Zurich

“World Food System —
A Contribution from Europe”

Strategies to Use Biofuel Value Chain Potential in Sub-saharan Africa to Respond to Global Change / Enhancing Low-productivity Farming in Tanzania and Linking to SMEs

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Abstract

Better-iS aims at identifying the potential for linking low-productivity farming to small and medium enterprises (SME) to enhance livelihoods through biofuel value chains. Local biomass production and processing targeted to small-scale farmers in Tanzania (Morogoro) through linkages to SMEs is expected to be improved. Within the scope of increased energy demand, strategies on locally produced feedstock or biofuels may be used decentralised for producing electricity, cooking and heating; or the option to be exported to the international market will be developed. The following analytical assessment streams are undertaken to achieve the objective:

1. Model assessments to downscale global climate change scenarios to local case study regions in Tanzania and to assess biomass potentials for national energy demand simulations.
2. Participative assessments of the viability on potential pathways of linking low-productivity farming to SME on local, decentralised biomass concepts.

Beyond academic benefices, farmers, regional organisations and local authorities in sub-Saharan Africa will be collaboratively develop feasible strategies to benefit from biomass production potential and mitigate food insecurity.

After three years the project will have accomplished the following outputs:

- Top-down global modelling approaches applied to downscale implications for energy demand, excess supply or gaps in supplies.
- The evaluation of energy biomass production as well as consumption patterns focuses on competing biomass uses (food, material, energy) and resulting options for cascading systems.
- Energy and climate balances which link both, outputs from the top-down approach on global scenarios and the bottom-up approach of biomass value chains.
- Bottom-up biomass value chains in the Tanzanian case study region to assess the viability on potential pathways of linking low-productivity farming to SME on local, decentralised biomass concepts.
- Sustainability Impact Assessments in the case study region reflect trade offs between socio-economic and environmental indicators on the basis of identified biomass value chains.

- A digital Information System of feasible value chain concepts is provided as advice packages and will be tailored for later activities for capacity building and dissemination strategies.

First project results will be presented. Lessons learnt for successful project implementation, benefits and risks can be evaluated and discussed.

Keywords: Biofuel value chains, impact modelling, indicator, sustainability impact assessments, Tanzania