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“Global food security and food safety:
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Enhancing Wood-based Bio-economy and Education in East Africa. south-south-north Academic Cooperation in Research and Training

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Abstract

East African countries suffer since decades under a large deficit in the sustainable provision of wood for fuel, construction and local processing. Due to the high pressure the trees and forests are overused, with serious impacts on soil erosion, land degradation, water regimes, carbon sequestration and biodiversity. Large-scale plantations are supplying woody biomass but target primarily export markets. The potential of small-holders to contribute to the national wood-supply in East Africa is high, but rudimentary utilised only.

The BMBF funded WoodCluster project works to narrow the tremendous gap between wood demand and supply in East Africa and is built by university and research partners from Ethiopia, Germany, Tanzania and Uganda. It works in research and in education as two complementary fields. Research is conducted at three levels: national wood clusters, wood value chains and farm wood production. Education is strengthened with the development of a comprehensive postgraduate course on wood-based bio-economy, including theoretical, practical and e-learning elements. Additionally, training units for capacity building and knowledge exchange among academics, decision makers and practitioners are provided.

Participatory tools for bio-economy development are designed and applied, under use of results and experience from previous collaboration projects: Socio-Economic Field Laboratories (SFL) and Participatory Innovation Platforms (PIP) integrate stakeholders on village and respective value chain levels in problem diagnosis and solution creation. The outcomes are feed-in national level scenario workshops, and discussed with decision makers, key actors and scientists. National and international Doctoral, MSc and BSc studies are integrated in the research at all levels.

Synergies between the complementing project fields are realised with the exchange of empirical results and lessons learned through research as well as theories, concepts and methods through education activities. Specific outcomes are: Strengthen of small holder wood production and marketing, facilitation of innovations in the sector, improved and theory based academic teaching and, social learning between farmers and students, capacity building of practitioners and academic staff, improved multi-stakeholder dialogue and knowledge exchange, as well as policy recommendations. Furthermore, the South-South-North project consortium will be strengthened for further interdisciplinary collaboration.

Keywords: Action Research, Capacity Building, Value Chains, wood Biomass, Wood Cluster, Wood Production