Tropentag, October 7-9, 2008, Hohenheim

"Competition for Resources in a Changing World:
New Drive for Rural Development"

Enhancing Climate Change Adaptation through Agroforestry: Claims, Concerns and Issues of Local Stakeholders in Tanzania

Johannes Dietz[1], Karen Tscherning[2], Stefan Sieber[2], Aichi J. Kitalyi[3], Henning Baur[1]

[1] *World Agroforestry Centre (ICRAF), Eastern and Central Africa, Kenya*
[2] *Leibniz-Centre for Agricultural Landscape Research (ZALF e.V.), Socio-Economics, Germany*
[3] *World Agroforestry Centre (ICRAF), Tanzania*

Abstract

Climate change impacts will expose up to 250 million people to water stress over the next decade according to the 2007 IPCC (Intergovernmental Panel on Climate Change) report. Increasing demand for food and other agricultural goods will exacerbate the pressure on agricultural lands. Farmers in north-eastern and central Tanzania, principally relying on small-scale rain-fed mixed crop livestock systems, are likely to be most severely impacted.

There is consensus that fostering the adaptive capacity of rural communities through adopting appropriate techniques and adapting their livelihoods will increase the resilience of agro-landscapes and improve capabilities to cope with future climate stress. Substantial relief is expected from the introduction of agroforestry systems which have proven to tone down extreme climate by improving micro climate and reducing evapotranspiration.

For successfully, i.e. sustainably, mainstreaming adaptation strategies it is key to respond to the stakeholders' needs and their own sets of perceptions, values and skills. Thus, participatory approaches in developing comprehensive adaptation strategies are expected to considerably improve their acceptance among stakeholders. The project on "Climate change impact assessment and adaptation options in vulnerable agro-landscapes in East-Africa" aims at developing stakeholder based scenarios of potential future agro-landscapes by bringing together very diverse domains of knowledge and interest.

We present first insights from a survey of semi-structured interviews held with farmers in north-eastern Tanzania. The focus is on outlining the underlying claims, concerns and issues that shape local stakeholders' perception of land use and its values. Stakeholder-based scenarios will be made compatible in an iterative process of a range of rapid appraisal approaches with model-based scenarios.

Keywords: Agroforestry, climate change adaptation, farming system, participatory methods

Contact Address: Johannes Dietz, World Agroforestry Centre (ICRAF), Eastern and Central Africa, PO Box 30677, 00100 Nairobi, Kenya, e-mail: j.dietz@cgiar.org