

Value Chain Development for Food Security in the Context of Climate Change - A contribution through strengthening capacity in higher education in Eastern Africa (ValueSeC)

The Consortium - Humboldt University Berlin and three universities in Kenya and Ethiopia – is collaborating to foster innovation and capacity building for climate change adaptation and to enhance food security. The partners will revise study curricula and develop training materials to integrate issues of climate change, food value chains and poverty reduction as well as introduce interdisciplinary teaching, problem-based learning and participatory research methodology.

A participatory stakeholder network between researchers, industry, governmental bodies and farmer groups shall contribute to strengthen the capacities of different actors in the food value chain to cope with upcoming problems of climate change adaptation and poverty reduction.

Contract
FED/2013/320-125

Co-ordinator
Humboldt-Universität
zu Berlin

Partners
University of Nairobi,
Haramaya University,
Karatina University

Project duration
36 months

EU grant
EUR 499,715.13

**ACP regions and
countries involved**
Oromia/Hararghe, Ethiopia
Nairobi, Kenya
Eldoret, Kenya

**Technical
Assistance Unit**

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Challenge

In East Africa, the sustainable use of natural resources and the preservation of productive agricultural land are priority objectives to secure the nutrition of rural as well as growing urban populations. Here, a large majority of the poor live in rural areas and depend directly on agriculture for their livelihoods. At the same time, small-scale farmers are most vulnerable to changes in cropping conditions facing an immediate risk of crop failure.

In Ethiopia and Kenya, the agricultural sector accounts for about 54% and 24% of the gross domestic product and 84% and 79% of the national employment, respectively. Despite these significant shares, nearly half of the countries' populations are poor and malnourished. Although both countries have made economic progress since the 1980s, the poverty rate has not declined significantly.

In the region, climate change is projected to experience higher mean temperatures and dramatic changes in rainfall patterns, higher risk of droughts, shorter growing seasons and new distributions of pests and diseases. As a consequence, climate change will affect food security, food availability as well as food system stability.

Focus

In Kenya and Ethiopia, the share of agricultural production marketed through co-ordinated value chains is still insignificant while post-harvest losses are usually very high. Most farmers own small plots and are unable to meet the quality standards requested by retailers. Moreover, they often lack access to market infor-



ValueSeC Team, Project Inception Workshop at University of Nairobi, December 2013

mation and modern technology facilitating sustainable agricultural practices. Furthermore, small-holders and subsistence farmers have only little capacities to adequately adapt to climate change by adopting resource-saving and innovative cultivation techniques. Therefore, measures are needed that strengthen the capacity for adaptation to climate change.

The ValueSeC Project seeks to improve higher education in the field of natural resource management and value chains in the context of climate change. The partner universities co-operate to foster locally relevant research and higher education in the East African region. Together, the partners intend to build a Competence Network including policy makers, policy advisors, professional associations as well as local actors in agriculture and rural development, such as small-holder farmer groups, extension services and non-governmental organisations.



Implemented by the ACP Secretariat



Financed by the European Union



Smallholder Farmers - Ethiopia, September 2013

Programme theme(s)

Agriculture

Sector

Agriculture and Food Security

Keywords

Inter-disciplinary teaching methods
Problem-based learning
Participatory research
Climate change adaptation
Value chain analysis

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Rationale

The Project contributes to train innovative experts in Kenya and Ethiopia that can cope with the present and future challenges of climate change. For this purpose, value chain analysis, problem-based learning and topics of climate change adaptation are included in the curricula of the African partner universities, the theoretical and didactical knowledge is deepened in workshops, and the practical orientation of students and lecturers is promoted through case studies and internships.

By increasing the knowledge on food value chains as well as on the effects of climate change, the livelihood situation of smallholders shall be improved. Numerous enterprises, associations and governmental institutions in the field of agri- and horticultural business in the African partner countries are involved in the various activities of the Project.

Method

At each African partner university, a co-ordination desk is set up for networking with actors from the food sector, creating and maintaining several databases. Staff and student exchanges are organized between the African universities as well as from and to the Humboldt University of Berlin. They provide the common training platform for both research contents on food value chains and climate change adaptation strategies as well as didactical and soft skills.

Tailor-made training manuals focusing on food value chains and climate change issues are developed and used to train MSc and PhD students in the African partner universities. The curricula and study programs at the partner universities are revised in order to integrate up-to-date expertise on food value chains, climate change, food security and poverty reduction. With regard to the complexity of the food systems, special emphasis is given to the integration of cross-cutting issues and interdisciplinary approaches. Particular emphasis is given to gender mainstreaming in higher education, as well as the genderization of the teaching and research contents.

Results

The joint activities of the four partner universities in Germany, Kenya and Ethiopia will raise the public awareness of the interrelations between food security and climate change adaptation/mitigation. Especially at the Kenyan and Ethiopian universities, the expertise of academic staff in food value chains and climate change will be improved. By introducing new interdisciplinary and problem-based learning activities and research methods, the students are trained to cope with issues of food security, poverty reduction and climate change adaptation in their region and beyond.

Research articles and conference papers will publish the findings to the academic community. A Competence Network will coordinate joint activities and mutual knowledge transfer with the professional community and the wider public.

