Strengthening capacity of higher education institutions in Eastern and Western Africa to enhance efficiency in dairy value chain

This project is based on the need for new knowledge and methods of doing business in a young and emerging dairy sector in Ghana, Kenya and Nigeria. Agricultural higher education institutions (HEI) will need to continuously strengthen their capacity to meet the new demands of this knowledge-led and market oriented transformation to boost dairy and value added production. The project is designed to reinforce and intensify exchange and collaboration between HEI in Kenya, Nigeria, Ghana and Europe with an urgent need to upgrade the institutions, human resources and curricula to produce young professionals equipped with the relevant skills, including the introduction of inter-disciplinary teaching and problem-solving skills. Curricula for dairy production with a poverty-reduction focus will be developed jointly focusing on the relevance to the needs of the dairy sector and labour market, ensured through an integrated evaluation and quality management system. Special emphasis will be placed on developing HEI-labour market linkages as the nucleus of curriculum improvement regarding quality and relevance.

**Challenge**
Despite various initiatives to enhance competitiveness, many weaknesses and constraints still exist in the dairy value chain (DVC) in Kenya, Nigeria and Ghana. There is inadequacy of trained and skilled labour force to run the entire value chain. In addition there is little information on human resource requirements of the industry, which limits the evaluation of the relevance of the training provided by institutions of higher learning to the labour market needs. These constraints emanate from poor organizational capacity and inadequate institutional framework of the systems. As a result, there are no linkages between industry and research and where they are the linkages are weak. To enhance production and improve the efficiency of the DVC, efforts should be geared towards alleviating the challenges above in addition to bridging the gaps in access to dairy information and enhanced participation of women and disadvantaged groups.

**Rationale**
Main producers of dairy products are smallholders who depend on these products for incomes, food security and employment. Though demand for dairy products is growing as a result of increasing population and urban drift and increase in purchasing power of certain categories of people, there is fear that the smallholder actors will be excluded from the relatively profitable parts of DVC. It is imperative to improve on the efficiency of DVC to allow for inclusion of smallholders and adoption of more integrated and holistic approaches in designing agriculture training, research and development programmes. Staff that is proficient in DVC is needed indicating that training at HEIs in Africa have to be adapted to include aspects of DVC management to take into account the graduates subsequent professional requirements. There is therefore need to adapt the curricula to

**Focus**
The capacity of scientific staff and students at the participating institutions, as well as those of enterprises (smallholder farmers, processors, traders, co-operatives, extension services, etc.) and policy makers will be strengthened. This will be through the organisation of summer schools, development of dairy production curricula and the linking the HEI with the labour market. This will lead to enhancement of the efficiency in the DVC resulting in improved food and nutrition security in the regions.

Students taking their practical session in milking at Egerton University (February 2014)

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changing labour market requirement in the dairy sector and increase focus of academic study programmes on entrepreneurship, gender equality, poverty alleviation and environmental concerns.

Method
Multi-stakeholders’ fora will be held to familiarize all actors in the DVC, to discuss needs and measures to enhance efficiency in the DVC and to build consensus in the development of policies for the dairy sector and how they can be implemented at national level. A labour market needs assessment survey will be conducted to determine the competences needed in the dairy sector. To this effect, a questionnaire will be designed to determine the labour market needs. Curriculum will be designed based on competence profiles and skill development. Academic staff will be trained in the principles and practice of competence-based learning.

Summer schools will be organized for scientific staff and students to deepen their knowledge and skills, enhance their academic capacity and educational development as well as create and strengthen HEI-labour market linkages. The dairy curricula will be reviewed to make it more entrepreneurial, gender sensitive, and practical oriented. A joint curriculum for Master of Dairy Sciences and Technology (MDairy-SciTech) will be developed to enhance regional exchange of experiences and capacities. This will be complemented by organized academic staff exchange for capacity building to support and strengthen partnerships & networks.

A project website will enhance the visibility of the project activities and results and facilitate exchange of experiences. Further, national symposia will be organized to share experiences and facilitate transfer of project results on enhancing the efficiency of DVC. A DairyAcademy that will host the DairyNet will further strengthen education and research capacities in the HEI.

Results
- Reinforced and intensified exchange and collaboration between HEI in Africa and Europe
- Upgraded institutions, human resources and curricula
- Inter-disciplinary teaching and problem-solving skills introduced
- Curricula for dairy production focusing on the needs of the labour market developed
- HEI-labour market linkages as the nucleus of curriculum improvement developed