

## Technical Skills for Export Crop Industries in Uganda and Ethiopia

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### SYNOPSIS

A shortage of skilled technical personnel and high demand from commercial producers led to the cooperation between a donor, training institution, and commodity group to provide technical skills for workers in high-value export crop industries (floriculture and horticulture) in Uganda and Ethiopia. The innovative element of the project was the introduction of competence-based training, which ensured that trained technicians were equipped with work-ready skills; in fact, trainees completing the program had a high level of employment. A lesson learned from operating the program over three years is that demand from employers can trigger technical/vocational training and that close cooperation between a qualified training supplier and clients can lead to a successful outcome.

### CONTEXT

Floriculture is a large market in East Africa. Local and foreign investors have developed flower farms that produce large quantities of roses and chrysanthemums. Dutch flower growers are also active in this market, which is understandable, since flower auctions in the Netherlands trade one-third of the global market for flowers and plants. The agronomic and economic conditions for raising high-value export crops are favorable in many parts of East Africa: Cheap land, labor, and energy combine with good soil, water, and climatic conditions. Despite this potential, the associated growers in Uganda and Ethiopia (the Ugandan Flower Exporters Association and Ethiopian Horticulture Producers and Exporters Association) lacked well-trained middle management workers. Various farmers were hiring managers from abroad, mostly from India or Kenya. Producers and growers felt the need to train local workers and students and proposed a project to the Netherlands Foundation for International Cooperation to develop education

and training programs at various levels, ranging from short courses for farm workers to certificate and diploma courses and bachelor's and master's degree programs.

### PROJECT OBJECTIVES AND COMPONENTS

The overall objective of the project was to expand the numbers of qualified technical workers for the export flower industry in Uganda and Ethiopia. The project had two components. The first identified the knowledge and skills required and designed corresponding training activities. The second developed a new pedagogical approach.

To develop training programs, two consortia, with experts largely drawn from the same institutions (the Department of Education and Competence Studies of Wageningen University, PTC+, the Agricultural Economics Institute, and a practical research center in horticulture), worked with local stakeholders. The consortia are working with the respective grower associations and academic institutions (in Uganda with the Mountains of the Moon University in Fort Portal and Bukalasa Agricultural College in Wobulenzi and in Ethiopia with Jimma University College of Agriculture and Veterinary Medicine). The short courses have been effective at the thematic level. Farm supervisors and assistant managers of various departments, such as the greenhouse, "fertigation" (fertilization and irrigation), postharvest and handling, and pest management, completed the training and were able to apply their new skills immediately. In Ethiopia, the development and implementation of the curriculum is still underway, but the first reactions are positive. An impact study will be undertaken to show the real effectiveness of the approach.

A competence development philosophy was employed in developing the curriculum. A group of staff members went to the Netherlands for a Training of Teachers (ToT) program. Apart from floriculture and horticulture training, they also learned principles of competence-based education

(Mulder 2007; Mulder et al. 2009). They were expected to disseminate the knowledge obtained in the ToT program to lecturers in their colleges. The core of the competence-based education philosophy is that the flower (or other) industry articulates the need for training. Through a labor-market analysis and needs assessment, all stakeholders obtain a picture of how the educational program should be structured. Occupational profiles and competency profiles are developed. The competency profiles contain knowledge, skills, and attitudes.

A major premise in competence-based education is that knowledge alone is not sufficient to bring about improved practice. In many cases, unbalanced concentration on knowledge develops graduates who may know a lot but cannot apply their knowledge in practice. Applying knowledge in practice, however, is exactly what is needed in many developing countries. A matrix comprising eight principles and four competence-based implementation levels was used to decide the extent to which the horticulture training would be competence-based. The matrix structure resembles that of models used by the European Foundation for Quality Management.

## **INNOVATIVE ELEMENT**

The innovative element of the project was the introduction of competence-based training, which ensured that trained technicians were equipped with work-ready skills.

## **BENEFITS, RESULTS, AND LESSONS LEARNED**

As noted, the farm supervisors and assistant managers of various floriculture departments were able to apply their new skills immediately after training. In Uganda, the first batch of sixteen diploma students graduated, and 14 are working on flower farms. Because of the training program's competence focus, employers appreciate the trained technicians. Placing students in internships was not difficult. Some farms asked for as many students as were available. Various farms retained the interns and offered them labor contracts (Mulder, pers. comm., 2010).

The lessons from this experience to date are that demand from employers can trigger technical/vocational training and that close cooperation between qualified training supplier and clients can lead to a successful outcome.