Tropentag, September 17-19, 2018, Ghent

"Global food security and food safety:
The role of universities"

Value Chains for Food and Nutrition Security — an Interdisciplinary Evaluation of the Potential of African Indigenous Vegetables (AIVs) to Combat Hidden Hunger

Wolfgang Bokelmann[1], Zoltán M. Ferenczi[2]

[1] *Humboldt-Universität zu Berlin, Albrecht Daniel Thaer-Institute of Agricultural and Horticultural Sciences (ADTI), Germany*

[2] *Humboldt-Universität zu Berlin, Faculty of Life Sciences, Dept. of Agricultural Economics and Social Sciences, Germany*

Abstract

Regardless of considerable efforts in the past, the reduction of poverty and hunger especially in sub-Saharan Africa has hardly made appreciable progress. The development of the horticultural production sector in East African countries shows an opportunity to make substantial contributions toward the alleviation of poverty, hunger and malnutrition. Workplaces and income opportunities originate from labour-intensive production systems and logistic and processing processes. Vegetables deliver vital minerals and vitamins in food. The variety, particularly of indigenous vegetables, contributes to a raised diversity of agricultural production systems.

Although there is growing demand, no suitable expansion of the vegetable supply is taking place. This is primarily due to a lack of infrastructure and supportive regulations. Unpredictable precipitation, insufficient plant nutrition, soil degradation and plant diseases show room for improvement. In addition, the post-harvest losses of crops reach upwards of 50 %. The weak organisation of local and regional marketing processes lead to considerable transaction costs with the result of lower incomes for small farmers and higher prices for consumers.

Within the scope of project HORTINLEA, funded by BMBF and BMZ, actionable knowledge relevant to decision-makers was integrated into nutritional value chain strategies. The diverse empirical knowledge ranging from increasing productivity in the AIV sector over improving market opportunities to generating livelihood will be reviewed and evaluated within a coherent strategy. Identified innovations increase productivity signficantly. It is concluded that underutilised and orphan crops such as the focus crops of AIVs have the potential to improve nutritional security while also being climate-smart and protecting biodiversity.

Keywords: Biodiversity, food security, hidden hunger, indigenous vegetables, underutilised crops

Contact Address: Zoltán M. Ferenczi, Humboldt-Universität zu Berlin, Faculty of Life Sciences, Dept. of Agricultural Economics and Social Sciences, Invalidenstraße 42, 10115 Berlin, Germany, e-mail: z.ferenczi@hu-berlin.de