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“Solidarity in a competing world —
fair use of resources”

Improving the Impact of Horticultural Research through Transdisciplinary Knowledge Exchange

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Abstract

The uptake and utilisation of horticultural research results by farmers is often problematic since academic top-down research approaches generating only knowledge from selected disciplines have reportedly failed to provide smallholder farmers with affordable, practical and readily available solutions to their problems. Transdisciplinary research approaches often provide platforms to address real-world problems by involving academic and non-academic actors into the research process, thus integrating local knowledge and creating better ownership for the expected research outputs.

This paper presents a research framework that holistically analyses horticultural knowledge generation, exchange and adaptation process in Kenya and bordering regions of Tanzania and Ethiopia using an inclusive transdisciplinary knowledge exchange framework. As case study, novel empirical results will be presented using the transdisciplinary knowledge exchange approach that the multi-stakeholder German-Kenyan research project HORTINLEA (Horticultural Learning for Improved Livelihood and Nutrition in East Africa) aims to support and participate in. It particularly focuses on underutilised African Indigenous Vegetables which represent a great potential in terms of workplaces and income opportunities, the delivery of vital micronutrients for combating malnutrition and, not least, a raised diversity of agricultural production systems. To promote the transdisciplinary knowledge exchange and sustainable uptake of research results, the expected HORTINLEA-innovations have been analysed and broadly classified in five categories (i) technological, (ii) institutional, (iii) health and environmental, (iv) social, (v) culture and educational. This categorisation has been done based on the results of a systemic assessment of all relevant actors their interactions and relationships, as well as factors from the general political, cultural and socio-economic context, such as institutions, laws, perceptions, business practices and cultural values that affect the sector and its actors' innovative potential. The paper concludes with recommendations in order to further enhance the practice of transdisciplinary research on food and nutrition security through inclusive and sustainable knowledge exchange.

Keywords: African indigenous vegetables, East Africa, food and nutrition security, horticultural research, innovation, Kenya, transdisciplinary knowledge exchange