



Tropentag, September 20-22, 2017, Bonn

“Future Agriculture:
Socio-ecological transitions and bio-cultural shifts”

Systemic Barriers to the Adoption of Food Security Related Innovations — Three Examples from Tanzania-

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Abstract

Food insecurity remains a persistent problem, affecting one-third of Tanzania’s population. Additionally, strong population growth and impacts of climate change hindering agricultural activity make the situation more acute. Hence, the issue has likewise received attention from scholars, NGOs, practice, government and associated bodies. To approach such complex —multi-level and multi-entry point- problems as food security, innovation is discussed as one possible solution. Notwithstanding many cases of successful innovation uptake, data from the field still indicate limitations to the adaptive and innovative capacity of specific food-insecure groups, such as small-scale farmers in drought-prone regions. As a result, usage of improved seed and —fertiliser, mechanisation of agricultural production or necessary change of eating habits often remain at low level. While the reason for failed adoption is often presumed to be rooted in individual adoption behaviour, this contribution aims to reveal site-specific adoption barriers arising from “the making” of innovation processes. To analyse the innovation processes and reveal possible adoption barriers for three example innovations, we use an alternating sequence and consecutive analytical steps between the micro- (individual) and the macro- / meso- (system) level. The three selected food security innovations improved cooking stoves, fertiliser micro-dosing and kitchen gardening were introduced to nine small-scale subsistence farmer groups in three villages in rural Tanzania in the frame of a German-Tanzanian trans-disciplinary action research project. The selected case study sites represent two typical agro-ecological settings in sub-Saharan Africa: a semi-arid region (Dodoma) and semi-humid region (Morogoro). The changing conceptual perspective and case diversity allows for a better understanding of the individual adoption decisions and examines how feedback is given into the system. We use a mixed—methods approach including literature review, semi-structured expert interviews and farmer group discussions with nine farmer groups. Summing up, this approach assists understanding of the complex, multilevel-interactions that make up for food security innovation processes in the given context, and point to possible system adjustments for further improvement of such innovations; needed to arrive at a more sustainable adoption behaviour and thus, improved food security status.

Keywords: Adoption decision, food security, innovation processes, multi-level , smallholder-farmers