



Tropentag, September 20-22, 2017, Bonn

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

Assessing Implementation Processes of Food Securing Innovations among Rural Farmers in Tanzania

ANTONIA ZAMPA¹, DIANA NAIKOBA², BARBARA SCHRÖTER³, FRIEDER GRAEF³

¹*Humboldt-Universität zu Berlin, Resource Economics, Germany*

²*University of Hohenheim, Inst. of Agricultural Sciences in the Tropics (Hans-Ruthenberg-Institute), Germany*

³*Leibniz Centre for Agricultural Landscape Research (ZALF), Germany*

Abstract

Food security is a major challenge in developing countries, especially in sub-Saharan Africa, where smallholder farmers, are particularly affected by climate change. A transformation of their livelihood along sustainable pathways is vital for building resilience.

The participatory research project Trans-SEC addresses this issue by implementing upgrading strategies (UPS) for improving food security among the most vulnerable rural population in Tanzania. The UPS were selected by involving all stakeholders and implemented in villages of the sub-humid Morogoro and semi-arid Dodoma region.

For ensuring successful and sustainable implementation it was found essential, understanding stakeholders' motivations during implementation, identifying challenges faced in the implementation and analysing the UPS adoption rates.

This study focused on six UPS: Rainwater harvesting, improved processing (maize sheller and millet threshing machines), improved firewood cooking stoves, kitchen gardens with green leafy vegetables, poultry-crop integration, and optimised market oriented storage. Social Network data was collected using the SNA tool Process Net-Map, to analyse and understand the hurdles of implementation processes. The tool visualises on a social Net-Map the implementation processes, actors, and activities showing entry points for challenges. Perceptions of the actors involved were obtained on five pre-selected criteria of influence, food security, income, knowledge transfer and trust. Also, narratives were obtained by interviewing both local stakeholders and scientists involved in the UPS implementation.

Results show success stories, good practices and challenges in the implementation and potential sustainability of the UPS. We found out, for instance, that the kitchen gardens and nutrition education increased knowledge and awareness about the importance of vegetable consumption and the need to diversify diets to reduce nutrient deficiencies. Tied-ridges were associated with knowledge on increased water retention on farm plots especially in semi- arid Dodoma. Poultry crop integration and improved storage bags was associated with increased household incomes and overall food security. Challenges due to lacking transparency occurred during the use of improved processing machines. The improved cooking stoves groups in every village reveal high degrees of motivation and ownership of that process.

Keywords: Food security upgrading strategies, process Net-Map, storylines of implementation processes, Tanzania