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“Filling gaps and removing traps  
for sustainable resource management”

## Principles and Implementation Models for Out- and Upscaling of Innovations

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### Abstract

The objective of Scale-N project is to safeguard food and nutrition security for the local population in Tanzania by supporting the development of diversified and sustainable agriculture. This conference contribution describes relevant principles and an applied implementations model for effective out- and up-scaling, which were applied and tested within the frame of Scale-N and beyond. General principles for research models are:

1. Use of existing local knowledge & low-cost measures tailored to enhance resilience, increase adaptive capacity and integrate into regional agricultural systems.
2. Intrinsic motivation of all involved stakeholders through high level of participation to assure the link between local ownership and adoption.
3. Mobilizing adequate incentive structures to set up business models in a sustainable way (through micro-credit or non-monetary incentives such as market access or organisational memberships)
4. Efficiency of up- & out-scaling through site-specific methods tailored to the type of agricultural innovations, which ideally lead to self-outscaling through farmers only.
5. Ensuring a good collaboration within research consortia using Conflict Prevention and Management Systems (CPM-Systems, intercultural-sensitive collaboration, minimise the costs of inter-personal and inter-institutional conflicts).
6. Action research in a partnership approach, scientists accompany implementation processes using piloting. They advise and communicate risks for joint decisions.

Based on these principles we can propose a generalisable and adaptable implementation model for implementing organisation that allow sustainable adoptions of innovations:

Phase 1 - framing: To avoid efficiency losses we identify innovative farmers (or else public authorities) at the beginning to collaborate with. This cost-minimisation method “positive deviance” filters those farmers with higher performance. They can pose as out-scaling centres at community level (demonstration).

Phase II - conceptualising: Stakeholder mapping and analysis is a prerequisite to properly setting up stakeholder involvement. Therefore social-relation mapping and actor analyses of the situation are performed first. In parallel local inventories on potential innovations

are generated, which pose as base for participative stakeholder process to choose most adequate innovations at farm, policy and societal levels.

Phase III - operationalising: Researchers accompany stakeholders to test innovations using piloting programs (and up-scaling programs). Self-monitoring & external monitoring, tool-based impact assessment in ex-ante as well as ex-post identify impacts ideally in a joint settings (stakeholders, researchers).

**Keywords:** Food security, implementation model, outscaling, scale-N, Tanzania, upscaling