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"Management of land use systems for enhanced food security: conflicts, controversies and resolutions"

## Integrated Assessment of Food-Value-Chains: The Case of Rural Tanzania

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## Abstract

Integrated assessment of alternative food securing strategies can be used to conduct stakeholderinclusive assessments at local level and to explore possible trade-offs between the different food security targets. Based on the main food security pillars availability, access, utilisation and stability (World Food Summit 1996), the assessment framework integrates all components of the Food Value Chain (i.e. natural resources, food production, processing, marketing, consumption) while following the target of achieving Food Security. The proposed assessment framework supports (1) structuring the assessment process, (2) selecting suitable assessment indicators, (3) integrating local stakeholder and external expert knowledge, (4) conducting comprehensive impact assessments, and (5) drawing recommendations for sustainable agriculture. For this study different assessment tools such as the Framework for Participatory Impact Assessment (FoPIA) and the Scaling up Assessment Tool for Food security (ScalA-FS) are used in a complementary way. They have been adapted to (i) (ex-ante) explore possible impacts of alternative upgrading strategies (UPS) on selected food security criteria and indicators, and to (ii) assess possible trade-offs between the social, the economic and the environmental dimensions of Sustainable Development. Within ScalA-FS also the general suitability and local institutional requirements for UPS successful implementation are analyzed. Stakeholder participation is particularly required when identifying the local food security constraints (e.g. water shortage, harvest losses, market access etc.) and the local needs. Expert knowledge is needed when anticipating causal-linkages of food security strategies and selected indicators. In addition to this, monitoring of UPS implementation and follow up activities and household survey data of selected indicators will support verifying the mainly subjective results from qualitative type of assessments. Based on first findings, we discuss potentials and shortcomings of the integrated assessment framework.

**Keywords:** Food security, indicators, integrated impact assessment, stakeholder participation

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