

Social network analysis of stakeholder groups implementing upgrading strategies to enhance food security in rural regions of Tanzania

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Trans-SEC

Background

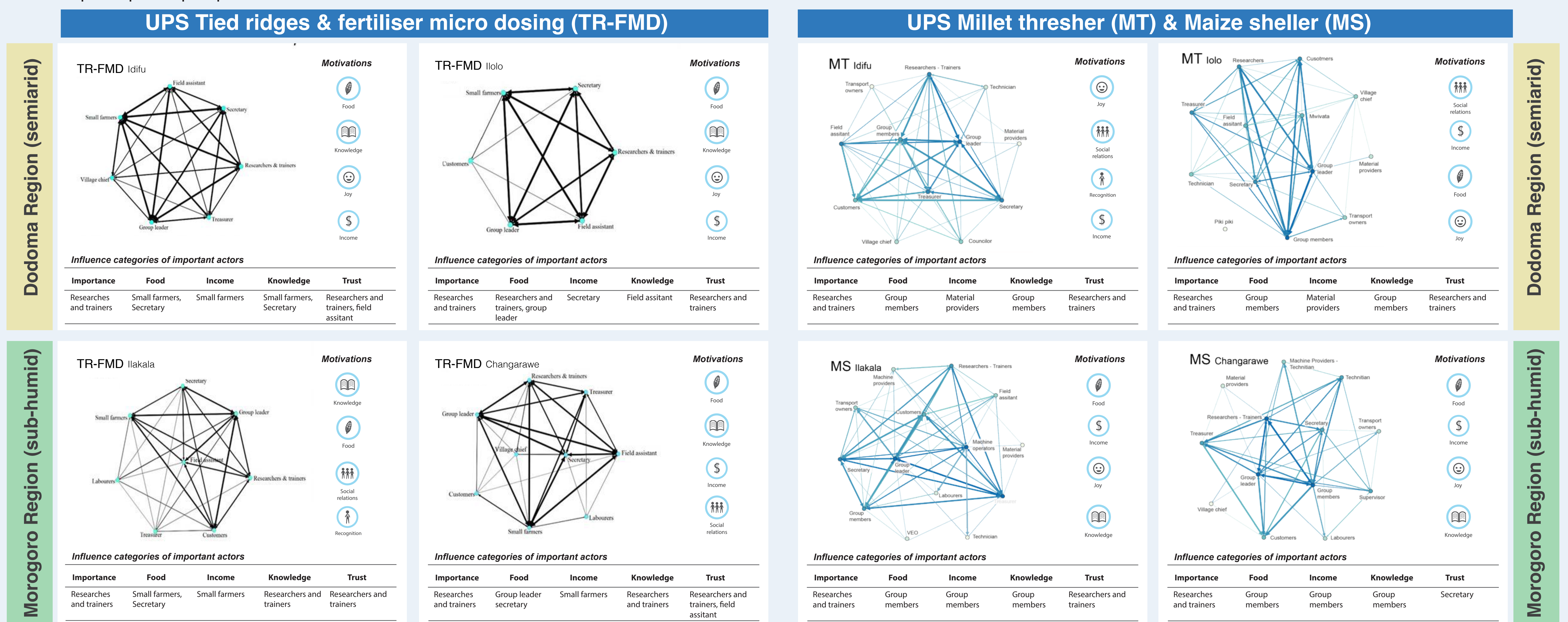
The multi-disciplinary Trans-SEC project is designed to enhance the food security of rural poor households by employing food securing upgrading strategies (UPS) along the food value chain. The UPS are tested and adjusted together with the local stakeholders to site-specific, sustainable settings and tailored for local outreach. The study is carried out in four villages (Iloilo, Idifu, Ilakala and Changarawe) located in two agro-climatically different regions (Morogoro and Dodoma) of rural Tanzania.

Problem Statement

Worldwide, about one in eight people suffer from hunger. This figure doubles that for victims suffering from hidden hunger. The rise in population in Sub-Saharan African countries has led to challenges of food accessibility and production. The region has been identified as one of the most vulnerable regions in the world facing the consequences of climate change. Smallholder farmers in Tanzania are more and more threatened with environmental instabilities resulting in increased food insecurity. Given the challenges of poverty, rising food demand and unpredictable climate, there is strong need to improve current smallholder agricultural production systems for enhancing food security in the region. Upgrading smallholder production systems can be done for instance, reducing post-harvest losses, improved farming and processing technologies, packaging and marketing systems.

Results

The charts below present the results of the knowledge network of eight groups in 3 different UPS namely: tied ridges and fertilizer micro dosing (four groups), maize shelling (two groups) and millet threshing (two groups). The main motivations for taking part in the UPS and influence categories of each group is also presented. NB: Arrow thickness depicts how often the actor was mentioned from the participant's perspective.



We found that :

1) High levels of degree centrality of group participants in the TR-FMD and improved processing UPS shows knowledge has been received evenly by the group members. Thus, participants have a high potential for promoting the development and diffusion of knowledge in their community; 2) Almost all knowledge links were reciprocal showing their engagement for the group's success; 3) The influential categories differed within the different villages with researchers & trainers being the most frequent important stakeholders; 4) Motivations for participating in a UPS group differed between the different UPS groups and actors with enhancing food availability, more income, more knowledge and better social relations most frequently mentioned; 5) Small farmers find the TR-FMD technology to be promising as they now spend less days in the field and obtain better yields.

Conclusions & Recommendations

The findings indicate UPS members are the most leading sources of information for other UPS members. The study serves to inform the Trans-SEC Consortium as well as potential partners about the functioning of the different UPS and future plans for expansion of the UPS. The study serves as a landmark for understanding stakeholders' roles and their influence in implementing upgrading strategies. The results further provide basis for future strategic planning to further enhance participation and up-scaling. The study suggests that improved performance along the food value chain is needed as well as investments in policies, capacity building for farmers and social learning in terms of collective action and collaboration. It is recommended to not only facilitate group-internal cooperation but also a platform for members to network and interact with those from other UPS. UPS members are encouraged to learn to work financially independent. Up-scaling and extension of the UPS is thus, suggested as an instrument to reduce hardships of poverty and food insecurity in Dodoma and Morogoro region as well as other rural regions of Tanzania.



UPS Tied ridges



UPS Millet thresher



UPS Maize sheller

Aknowledgements

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