

Multi-stakeholder analysis in the implementation of Upgrading Strategies (UPS) for enhancing food security in Tanzania: Regional differences between Morogoro and Dodoma

Estephania E. Delgadillo Jaime¹, Ernestine M. Halle², Frieder Graef³, Barbara Schröter⁴



Trans-SEC

Innovating pro-poor Strategies to safeguard Food Security using Technology and Knowledge Transfer

Background & Rationale

The Trans-SEC project aims to improve the food situation of the rural poor population in Tanzania. Altogether 10 different successful food securing upgrading strategies (UPS) are implemented with 600 stakeholders along local and regional food value chains through a participatory approach. The research is undertaken in four villages of two different regions in Tanzania, sub-humid Morogoro region and semi-arid Dodoma region. The success of the UPS to a major part relies on the stakeholder group interactions among the participants.

Research questions

This study examines the role of stakeholders and the inter-linkages among the UPS stakeholder groups in the four villages. Specifically, it asks for the types of stakeholders in the different UPS groups and their motivations in taking part in the UPS and the influence of these stakeholders within a UPS group.

Methods

We carried out: 1) Participatory Net-Map interviews (Schiffer, 2007) with 176 stakeholders in the 24 stakeholder groups implementing the UPS. The results were processed by UCINET and Gephi software; 2) Focus group discussions with stakeholders from different UPS to discuss the outcomes of the Net-Maps to get better insights of the groups' interrelations.

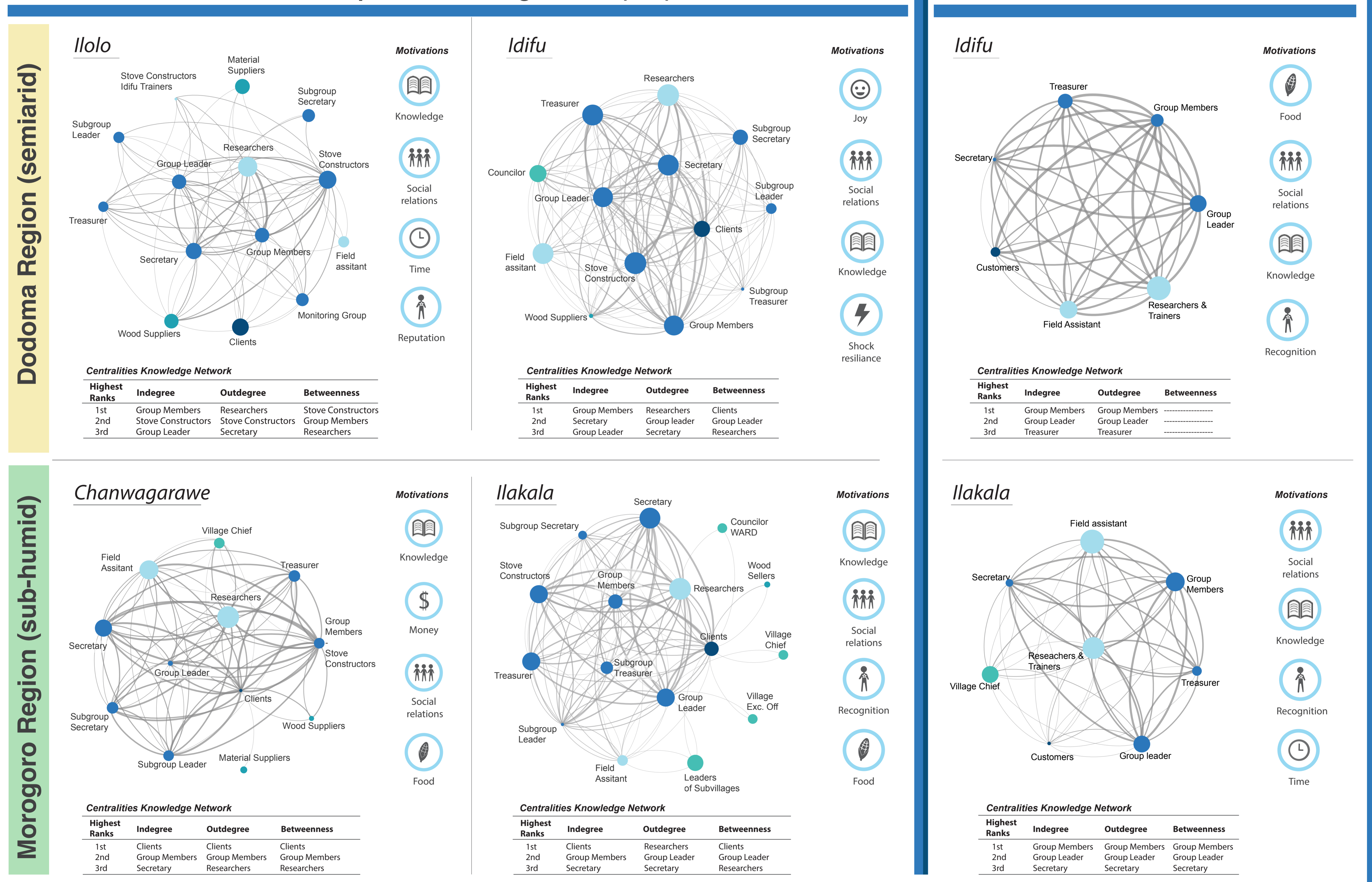
Results

The following charts represent the results of the knowledge networks of six groups in two different UPS: Improved cooking stoves (four groups) and Kitchen gardens (two groups). Each group is explained by a Network map, a table of the centralities and the main motivations of the group constituents for taking part into the UPS groups.

The sizes of the nodes reflect the importance of the actors from the stakeholders perspective and the colors cluster them into different actor groups. The indegree centrality measures the ties where the actor receives knowledge; the outdegree centrality measures the ties where the actor provides knowledge and the betweenness indicates the actor's potential to control the knowledge flow.

UPS Improved Cooking Stoves (ICS)

UPS Kitchen Gardens



We found that :

1. The motivations for participating in a UPS group differ to some extent between all the groups, knowledge and social relations being the most frequent.
2. The high outdegree and betweenness centrality of researchers reflect the importance they still have for the knowledge flow in the ICS groups.
3. Group leaders and group members have a higher outdegree centrality in all groups showing their engagement for the groups' success.
4. The Kitchen gardens group from Idifu has a betweenness centrality of 0 meaning

that in this network all actors are connected with each other.

5. The flow of UPS knowledge is related to the availability of natural resources in the different regions. This can be shown with two examples: a) Material and wood suppliers in ICS groups have more ties in the semi-arid region; b) clients have lower importance in the sub-humid region in both UPS, as the population tends to be more reserved towards the UPS adoption.
6. In both UPS of Morogoro Region more actors from the governmental levels are present. They are considered as key actors for the promotion of the UPS.

Conclusions & Recommendations

The combination of Net-Map interviews and focus group discussions enable getting a quite holistic picture of the stakeholder groups. Revealing the ties that are being built outside of the group members that could enhance the development and propagation of knowledge. The results also indicate possible bottlenecks among the UPS groups members that could potentially hinder the knowledge flow. For a more effective support of stakeholder performance, we recommend focusing into detail where to strengthen the capacities within the various UPS.



Acknowledgements:
We would like to thank the stakeholders and the people that supported us for making these interviews in the 4 villages.

Fig 1. ICS and Kitchen gardens UPS

¹Technische Universität München, Faculty of Forest Science and Resource Management, Germany
²University of Hohenheim, Institute of Agricultural Economics and Social Sciences in the Tropics and Subtropics, Germany
³Leibniz-Centre for Agricultural Landscape Research (ZALF e.V.), Institute for Land Use Systems, Germany
⁴Leibniz-Centre for Agricultural Landscape Research (ZALF e.V.), Institute for Socioeconomics, Germany

References:
Schiffer, E. (2007) 'Manual: NetMap Toolbox'. Washington, DC: IFPRI.