

maize as a mirror of life

A case study from Malawi about the diversity of farming and smallholders' performance in growing maize

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Abstract:

This thesis deals with social differentiation of smallholders, their performance in growing maize and legume use as a measure to increase soil fertility. I analyzed farmer's maize technologies and adaptation processes, differentiated by social classes with the theoretical foundation of realistic evaluation. Data from field work were analyzed with and presented as Technography. Empirical data was gathered with a case study in Mbingwa, a farming community in Central Malawi. I conducted a participatory experiment on maize varieties and soil fertility and identified the smallholder perspective on those technologies with participant observation and in-depth interviews.

Conditions for growing maize in Malawi are characterized by changing climate and high pressure on land. Farming is still influenced by agrarian policies from colonial and post-colonial times, in which a small elite of farmers was favored with access to credit and markets. Current agrarian policies focus on the national subsidy program, where farming inputs are distributed. After early breeding efforts in maize from national research, various commercial seed producers took over and focus on the production of hybrid maize seed. Markets for fertilizer and farm produce are variable and highly fluctuating within and between years. Access to credit and formal markets for produce differs considerably between social classes in the community.

On a village level spatial distribution of the village and surrounding institutions play a role for farmers in daily activities. In the past years land tenure has shifted from matrilineal to patrilineal, which favored men in entitlements to land. Labor exchange is mostly organized with *ganyu*, a form of piecework, and employment as tobacco tenants.

Social differentiation was found on various levels. Gender, as an intra-household differentiation, revealed responsibility domains for farming activities. Those domains are dynamic and can change over time. On an inter-household level I identified three farmer classes. Stratification into those classes was influenced by colonial and past-colonial policies, which gave benefits to some farmers over a longer period. Trade and labor relationships between farmer classes reinforce this stratification. In the view of Mary Douglas' Cultural Theory, interactions and power relationships in the community were analyzed and structured. This was the basis for putting farmer classes in relation with different ways of cultural thinking in the community.

Although existing structures and interactions between farmer classes consolidate their position, great dynamics in all classes take place. Planning was identified as a crucial mechanism that allows some farmers to rise in their economic status. Also cultural thinking, which differs between farmer classes, determines people's actions for social development. Kinship relationships and specific life cycle stages are a safety net for some and a barrier for social development for others.

Social differentiation and technology adaptation were identified as main mechanisms for explaining farmers' performance in growing maize. Field work showed that all farmers aim at intensifying their production due to pressure on land. Resource poor farmers do often not succeed in adapting their maize technologies because they lack farming inputs and labor for field activities. Better-off farmers have access to several options to boost their maize production. Farmers of all classes developed strategies to adapt to changing climate with seed management, timely shifts in cultivation times and techniques for land preparation.

Results from this research suggest that human agency as well as structural aspects play a role for social differentiation and farmers' performance of growing maize. I argue that development-oriented interventions should broaden their view on farmers' agricultural performance and use this understanding to support farmers in their technology adaptation process of maize and legumes. Participatory approaches are an option to strengthen farmers' adaptive capacity, but researches have to consider social differentiation and dynamics on a village level in order to successfully implement those approaches.