

MENTAL MODELS OF FOOD SECURITY IN RURAL MALI

Addressing food insecurity in Mali, is a complex issue extending beyond improvements in agricultural production. Understanding food security requires considerations of the dynamics of households as well as external pressures which affect livelihoods.

WHAT WAS DONE, AND WHAT WAS NOVEL?

Our study uses mental models methodology to develop two influence diagrams, and a set of sub-models that represent rural households' mental models of food security (1) under traditional conditions and (2) under conditions of external pressures. The sub-models were developed for differentiated social groups within the household including elder men, elder women, young men and young women. The external pressures include food-related, technological, environmental, and sociocultural challenges.

Food systems and food (in)security are typically considered from the production dimension alone. We considered food systems and food (in)security in a holistic way, and sought to develop a nuanced understanding of food security, and of adaptive household-level responses to current food-security challenges. We focused distinctly on inter- and intra-family behavioural dynamics in rural, southern Mali.

KEY IMPLICATIONS FOR POLICY, PRACTICE AND RESEARCH

Efforts to broaden adaptation policies can benefit immensely from the integration of nuanced data that indicates how farmers – differentiated across multiple axes of social, demographic, political, and ecological factors – make decisions on how to adapt to social-ecological change and uncertainty. Factors which are interlinked to each other in determining the adaptive capacity of households (such as resource entitlements, institutions, gender, socioeconomic, behaviours and culture) require an approach which embraces the complexity of embedded systems.

It requires looking at biophysical risks and exposure, sensitivity, and adaptive capacities (sociological, ecological, behavioural and institutional) not in silos but as an integrated complex system where there is a scope for a range of adaptation and resilient outcomes to emerge.

KEY FINDINGS

These models suggest that food security in rural Mali is at considerable risk due to the influence of external challenges, such as climate change, on traditional behaviours, and a lack of easily accessible corresponding behavioural adaptations.

In terms of food security young women's labour and time are disproportionately affected by the decisions of other household members which reduce their ability to navigate available adaptation options in the face of challenges. These family-level dynamics can create risk by significantly reducing the resilience of food security systems.



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