

# ENVIRONMENTAL PERCEPTION AND AGRICULTURAL DECISION-MAKING

Understanding the heterogeneity of farmers' agricultural practices in a changing and uncertain environment

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## What is at stake?

The seasonally flooded wetland of the Kilombero River (Tanzania) is dominated by **small-holder farming**. Like other sub-Saharan wetlands, this dynamic environment is reinforced due to **increasing variability in the onset & intensity of the wet season**.

*What influences farmers' room of action and decision-making to sustain their livelihood within this consistent inconsistency of changing environmental & hydro-climatic risks?*

## What did we do?



We identify **practices and farmers' decision-making strategies for dealing with hydro-climatic risk against the backdrop of farmers' agency and aspirations** using focus group discussions with different types of farmers (12 rain-fed and 14 irrigation farmers in 5 villages)

## What did we find out?

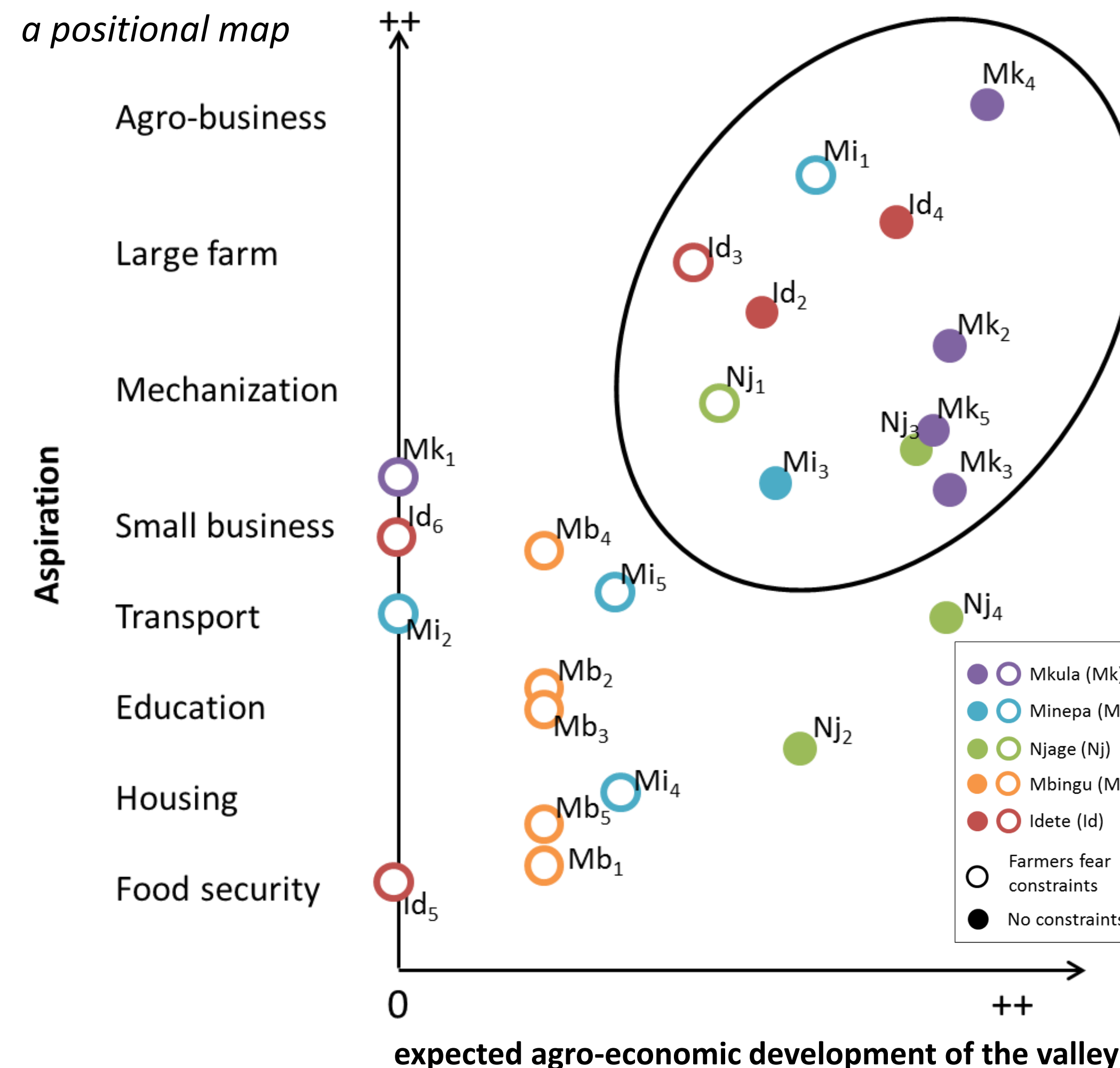
The more farmers expect positive agro-economic development of the valley, the more they aspire for themselves. There is a **strong link between agency and aspiration** as farmers with a high level of agency aspire the most. This is not only **driven by socio-economic status** but also **by the perception of the physical environment**. The response and feedback of farmers to their dynamic environment (see quotes) translates into different coping capacities and hence decision-making strategies.

### FARMERS' VIEW OF THE ENVIRONMENT:

>> *We get a lot of training on improved methods of farming, but since the weather is not good, there is no way of implementing these technologies <<* (Farmer Mbingu)

>> *We are also serious with forest protection and we feel that this has the advantage of having rain in periods where our colleagues are facing challenges <<* (Farmer Mkula)

### FARMERS' ASPIRATION AND AGRO-ECONOMIC DEVELOPMENT a positional map



Höllermann et al. (2021): Dynamics of Human–Water Interactions in the Kilombero Valley, Tanzania: Insights from Farmers' Aspirations and Decisions in an Uncertain Environment. *The European Journal of Development Research* <https://doi.org/10.1057/s41287-021-00390-4>

## Why is this important?

The **perception of hydro-climatic variabilities in combination with the self-assessment of coping capacity and agency creates farmers' personal room of action**.



This adds another important dimension to understand the unevenly distributed levels of agency and aspiration. For further studies we thus recommend to **acknowledge human–environment interactions more intensively to understand the heterogeneity of farmers' practices** and to enable development of tailor-made support.

