



Unpacking Farmer Diversity to Support Inclusive Climate-Resilient Agricultural Practices

Carla Cronauer, Naima Lipka, Julia Tomalka, Chiara Sophia Weituschat, Roopam Shukla, Yvonne Okumu, Lisa Murken

Background - Madagascar

- 74% of the population works in agriculture
- 33% of the population is chronically food insecure
- 99% family farms that employ ~8-10 workers
- Farmers typically cultivate small plots of land of <1 ha

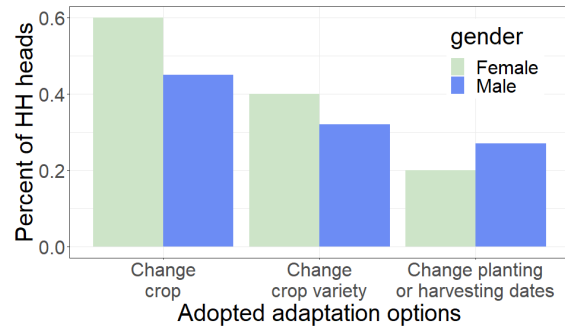
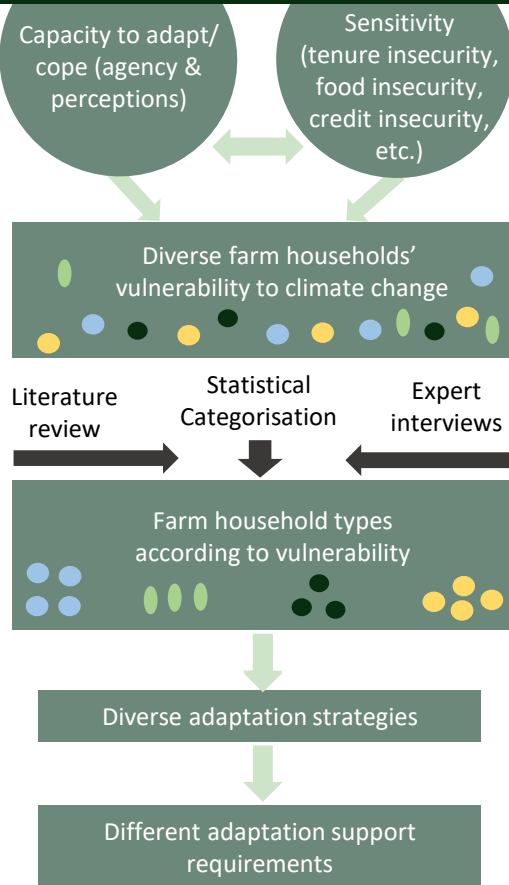
Do diverse smallholder farmers adopt different climate-resilient agricultural practices in Madagascar?

Research question

Descriptive Results

Farm HH characteristics	Value
Female HH heads (%)	22.0
Age (years)	48
Education (years)	4
Additional off-farm income sources (% of HH)	16.3
Access to weather information (% of HH heads)	34.7
Perceived tenure security (% of HH heads)	61.0
Access to credit (bank account, microfinance) (% of HH)	7.0
Savings (% of HH heads)	15.0
Crop insurance (% of HH heads)	0.3
Worried about food security in last 4 weeks (% of HH heads)	75.0

Conceptual Framework



Representative survey of 634 farming households conducted in April-May '23 in Anosy, Androy & Atsimo-Atsinanana

Data collection

Planned Methods

- Expert interviews and focus group discussions
- Factor analysis or principal components analysis: Calculation of F-score or 'weighted mean'
- K-means clustering of F-scores to identify farming household types based on their vulnerability

References:

Shukla et al. (2019). Farmer typology to understand differentiated climate change adaptation in Himalaya.
 Cronauer et al. (2023) [forthcoming]. Climate risk analysis for adaptation planning in Madagascar's agricultural sector.