

Beyond price stabilisation: Liquidity explains farmer behaviour under evolving soybean market regulation in Tanzania

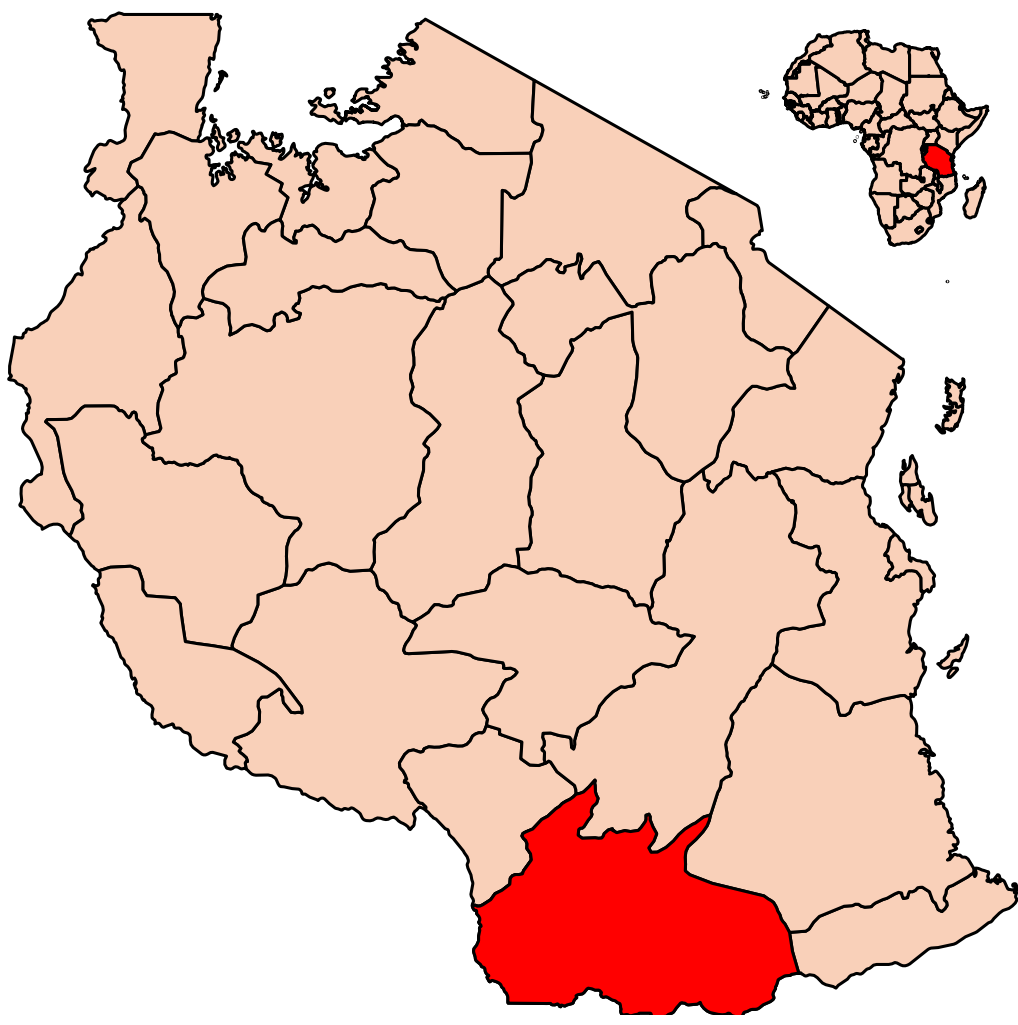
Rohit R. Pawar, Jens A. Andersson, Katrien Descheemaeker

Plant Production Systems Chair Group, Wageningen University & Research, The Netherlands



Introduction

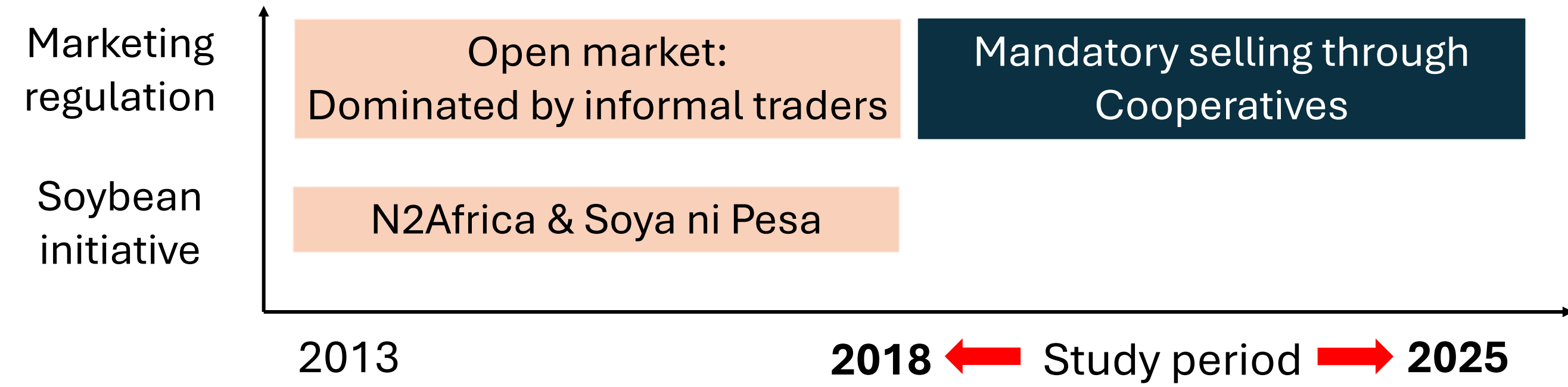
Soybean cultivation in Tanzania has been expanding, with the Ruvuma region emerging as a production hotspot. This growth has occurred amid shifting market conditions: the end of a major initiative that supported soybean production and marketing, followed by a government regulation that aimed to transform a previously open market dominated by informal traders into a mandatory warehouse receipt system through cooperatives. The regulation aims to stabilise prices for farmers¹, but it remains unclear whether farmers have access to cooperatives and whether price instability is their binding constraint.



Ruvuma region, Tanzania
Soybean production hotspot

Objective

To examine how soybean cultivation among smallholder farmers has developed within a changing market context



Mixed-methods approach

- Farm survey:** 337 farmers surveyed in villages with and without cooperatives to capture cultivation dynamics between 2018 and 2025.
- Econometric model:** A dynamic random-effects logit model that incorporates prior-season cultivation status.
- Interviews:** Semi-structured interviews with farmers, traders and cooperative leaders.
- Thematic analysis:** Combining open coding of farmer interviews in Atlas.ti with survey data analysis.

Results

- Soybean cultivation is persistent:** Farmers who grew soybean last season were most likely to continue, as soybean has become embedded in household economic strategies.
- Proximity to cooperatives matters, regardless of membership:** Both members and non-members in villages with cooperatives show higher, more consistent cultivation than farmers in villages without cooperatives (Figure 1).
- Traders, not cooperatives, remain primary aggregators:** Cooperative leaders suggest that most of the soybean come from informal traders rather than farmers themselves.
- Farmers prefer traders despite lower prices:** Membership is not required to sell through a cooperative. Yet, many farmers, including cooperative members, sell to traders for immediate cash despite cooperatives offering higher prices, as the warehouse receipt system delays payments (Figure 2).
- Villages without a cooperative have fewer market opportunities** because trading must go through cooperatives, so traders concentrate in villages with cooperatives, reducing market access for farmers elsewhere.

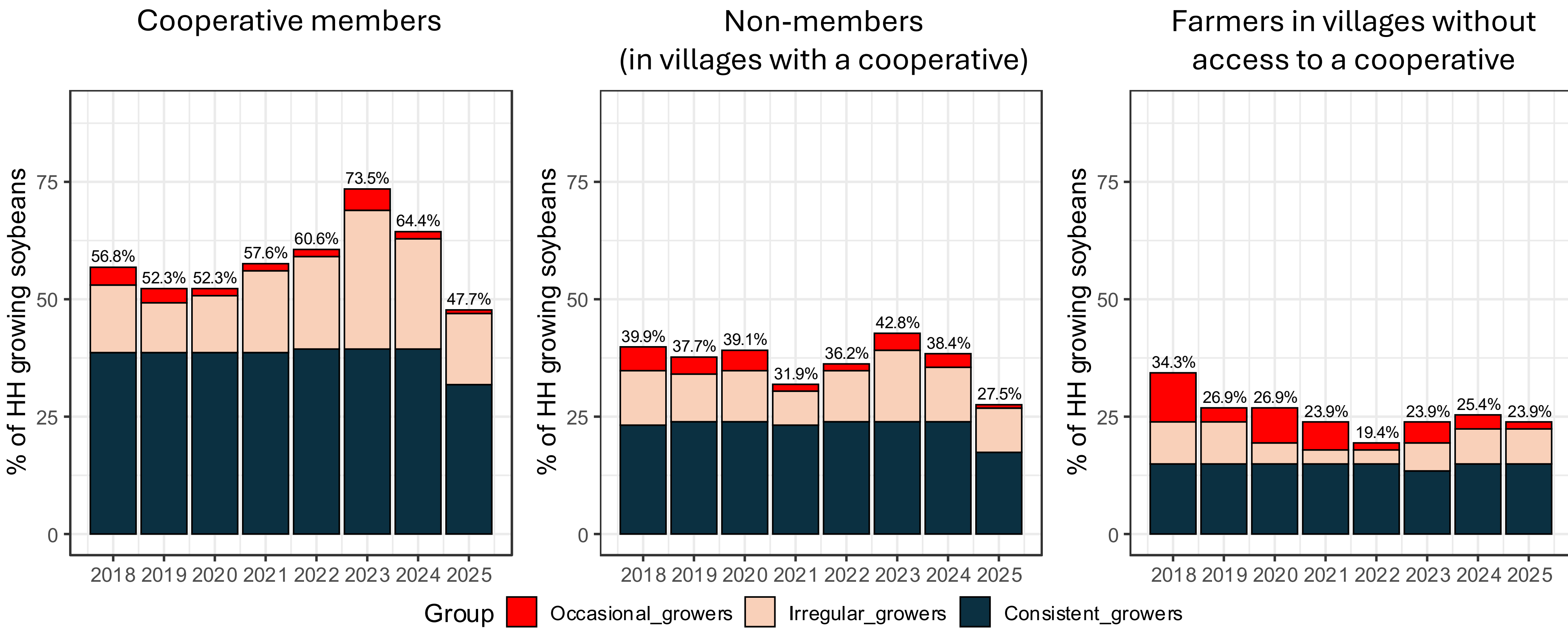


Figure 1: Soybean cultivation trends over the study period across groups based on access to cooperatives

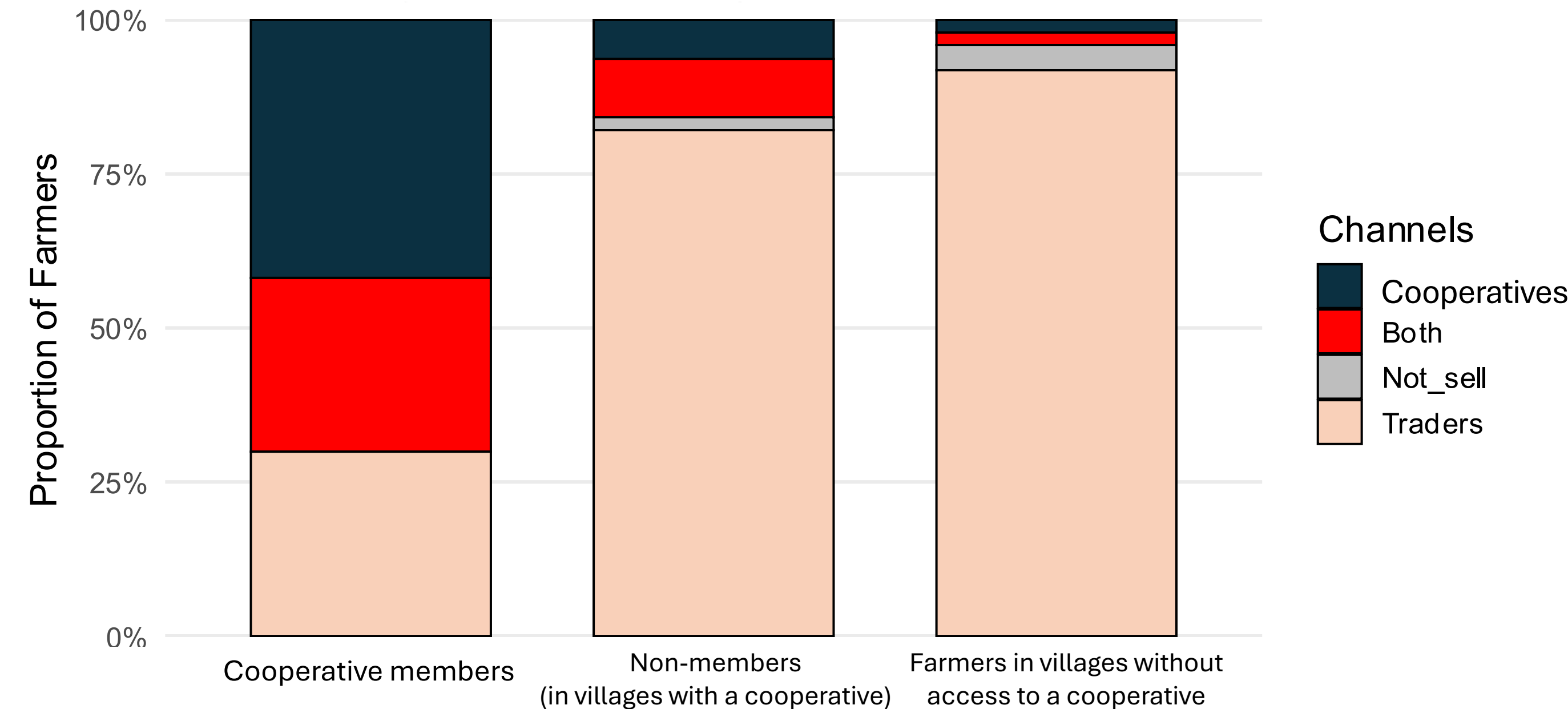


Figure 2: Soybean marketing channel choice across cooperatives access groups

Conclusion and Policy Recommendations

- Despite the regulation aiming to stabilise prices, farmers remain exposed to traders' lower, more volatile prices.** Farmers' preference for immediate cash over delayed warehouse receipt payments keeps traders as dominant aggregators in Ruvuma.
- Speeding up warehouse receipt payments could make the cooperatives more competitive with traders' cash offers,** encouraging farmers to shift toward cooperatives without sacrificing liquidity.
- Traders can fill the cooperatives' void:** Reduced restrictions on traders will increase soybean cultivation in villages without cooperatives.

References

- Coulter, J., and Onumah, G. (2002). The role of warehouse receipt systems in enhanced commodity marketing and rural livelihoods in Africa. *Food Policy* 27, 319-337.

Acknowledgements

The Dutch Research Council (NWO) and the EU-funded Legume for Development (LEG4DEV) project co-funded this research. We thank Gijs van Gaalen and Nicky Smit for helping with data collection.



Contact:
Rohit Rajendra Pawar
Email: rohit.pawar@wur.nl

