“What makes Vietnamese Coffee farmers adapt to climate change – Incremental versus system adaptation strategies?”

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Rationale

More frequent adverse weather events attributed to climate change increasingly threaten Vietnam’s Robusta coffee sector (Kath et al. 2020; Byrareddy et al. 2021; Kath et al. 2022). Implementing adaptation measures may lessen their vulnerabilities, but evidence on whether and how farmers actual adapt remains unclear. Using the climate adaptation framework by Verburg ret al. (2019) this study investigates coffee farmers willingness to adopt different climate change adaptation options that differ in the scale of application and related implementation steps.

Methods

We use data from the baseline survey of the “Weather Forecasting for Coffee Sustainability (WEFOCOS) project. The survey consists of 400 coffee farming households representing 4 major Robusta growing districts in 2 Central Highland provinces. The survey instrument elicited several modules including (i) farmer climate and risk perceptions, stakeholder trust; (ii) farm typology and livelihood; (iii) farming information sources; (iv) coffee productivity, labor, and profitability.

Results

Preliminary results of ordinal logistic analyses suggest that information sources including friends and neighbours, ethnicity, and technology attitudes affect famers’ adaptation decision and practice choices. Listening to advice from friends and neighbours positively influences farmers’ incremental (e.g., changing input use) and system (e.g., income diversification) adaptation choices compared to doing nothing. Meanwhile, ethnic minority farmers are found less likely to employ any adaptation options. Positive farmer attitudes towards technology are a predictor of systemic climate adaptation strategy adoption.

Conclusions and Perspectives

While tangible climate adaptation measures are available for coffee farming systems, a poor understanding of farmer needs and barriers to adaptation are limiting on-farm implementation. Access to trusted information, barriers along ethnic divides, and learning about climate practices remain issues for many Vietnamese smallholder coffee farmers. Our findings are valuable for local authorities, extension practitioners, and donors active in the coffee sector, and those delivering information and training services towards more climate resilient coffee production.

References

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