



Tropentag, September 10-12, 2025, hybrid conference

“Reconcile land system changes
with planetary health”

Beyond adoption: Understanding innovation disadoption among smallholder farmers in rural Tanzania

SEBASTIAN RICHTER, ANJA FASSE

TUM Campus Straubing for Biotechnology and Sustainability, Weihenstephan-Triesdorf University of Applied Sciences, Professorship of Environmental and Development Economics, Germany

Abstract

Innovations, whether in the form of new techniques or technologies, hold significant potential to improve rural livelihoods in developing countries. However, despite measurable significant benefits to household welfare associated with innovation adoption, it is observed that smallholder farmers frequently do not maintain these innovations over the long term but instead disadopt them after some time. The specific reasons for this phenomenon remain largely unknown and underexplored. In the absence of dedicated conceptual frameworks, innovation adoption theory is commonly applied to explain disadoption, based on the assumption that its underlying determinants mirror those of adoption. Yet this approach is insufficient, as it focuses on initial uptake and overlooks the altered decision-making conditions of the post-adoption phase. While some drivers may overlap, emerging empirical evidence suggests that the determinants of adoption and disadoption differ in both nature and relative significance. To advance understanding of post-adoption behaviour, this study examines why smallholder farmers disadopt various, primarily agricultural, innovations—such as rainwater harvesting, kitchen gardening, and improved cooking stoves—introduced through a previously completed research project in rural Tanzania. Therefore, qualitative research was conducted in 2024 within the framework of a long-term panel survey, initiated in 2012, covering 820 households across Tanzania. Data collection included interviews with 15 key informants and focus group discussions with 19 purposively selected farming households in three villages of Kilosa District. The data were analysed using thematic analysis to identify recurring patterns in farmers’ reported motivations for discontinuing innovation use. Preliminary findings indicate that disadoption is shaped by a combination of extrinsic factors, including time, labour, and financial constraints, limited follow-up support, misalignment with local conditions, exposure to environmental shocks, and intrinsic factors, such as social perceptions, cultural norms, and adherence to deep-rooted customs and traditions. These factors varied across different innovations. Notably, even when innovations were perceived as beneficial, opposing intrinsic influences could outweigh perceived utility and cause farmers to abandon their use, particularly after external project support had ended. The expected results will contribute to closing the theoretical gap in understanding disadoption and offer practical insights for development cooperation to foster long-term success of innovation-based interventions.

Keywords: Innovation disadoption, smallholder farmers, Tanzania

Contact Address: Sebastian Richter, TUM Campus Straubing for Biotechnology and Sustainability, Weihenstephan-Triesdorf University of Applied Sciences, Professorship of Environmental and Development Economics, Am Essigberg 3, 94315 Straubing, Germany, e-mail: sebastian96.richter@tum.de