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"Reconcile land system changes with planetary health"

## Farm crime victimisation in rural Tanzania before, during and after covid

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## Abstract

The COVID-19 pandemic had serious implications for the sustainable development of societies and economies, yet its effects on rural safety, particularly in the form of farm crime and livelihood disruption, remain under-explored. This study addresses this gap by examining the extent, determinants, and welfare impacts of farm crime victimisation, including crop and livestock theft, before, during, and after the pandemic. Using panel data from 793 rural households surveyed in 2018, 2021, and 2024 across the eastern and central regions of Tanzania, we concretely ask about: (1) the extent to which rural households are affected by agricultural theft, (2) the factors influencing the likelihood of theft, and (3) the impacts of theft on the household welfare. Our results show a sharp increase in both crop and livestock theft during the COVID-19 pandemic, with victimisation rates rising from 13% in the pre-pandemic period to 27% for crop theft and 38% for livestock theft. However, by 2024, these rates declined significantly, returning to pre-pandemic levels. Notably, there was an increase in the reporting of theft incidents to local authorities, such as village authorities and the police. Empirical analysis using random-effects and pooled logit models reveals that households exposed to weather, health, and some agricultural shocks are more likely to experience theft. In addition, instrumental variable estimates using the 2SLS method show that farm crime victimisation has a significant negative effect on farm investment decisions and reduces food security in rural households. To address this growing issue, particularly during periods of environmental and agricultural stress, enhanced guardianship and improved security measures are recommended to mitigate the impacts of farm crime.

**Keywords:** Farm crime, pooled logit model, random-effects regression, routine activity approach, Sub Saharan Africa, victimisation