

Abstract

This paper examines the adaptive responses of rural Ethiopian households to drought events through a two-fold analysis that (a) distinguishes between immediate effects and (b) explores how adaptation changes if the weather shock is a repeated shock. Using a three-wave panel dataset combined with high-resolution meteorological data to construct exogenous drought measures, I employ two-way fixed effects models to analyze adaptive responses. Current growing season droughts significantly reduce dietary diversity, agricultural labor intensity, and crop yields. However, technology adoption and asset liquidation remain unchanged, consistent with credit constraints and risk aversion. I then investigate how prior drought exposure modifies these responses. Prior drought exposure creates theoretically ambiguous effects on current adaptation strategies due to competing mechanisms: experiential learning that enhances adaptive capacity versus cumulative resource depletion that constrains adaptive capacity. Results provide suggestive evidence that both mechanisms operate simultaneously across different adaptation domains. The learning effect dominates for risk-mitigation strategies: households with previous drought exposure increase adoption of improved seeds and maintain greater crop diversity during subsequent droughts. Conversely, resource constraints dominate for input-intensive adaptations: households significantly reduce fertilizer applications during repeated droughts. This pattern suggests households learn which investments provide reliable returns under moisture stress while avoiding potentially counterproductive inputs when facing successive liquidity constraints. This study advances understanding of how repeated climate shocks reshape adaptive capacity, offering critical insights for policies in settings where climate shocks are becoming increasingly frequent and severe.