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Smallholders' decisions to adapt climate-change: Evidence from field level experimental games in the upper blue-Nile basin, Ethiopia

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Abstract

Traditional smallholder farming system is the main economic stay of developing countries. Due to lack of the basic institutional and technological backups the sector remained vulnerable to climate change. The objective of this research is to improve our understanding of the behavioral factors that determine adaptation to climate change through climate innovations in a smallholder economy in Ethiopia. We use participatory gaming based on experiential learning to understand climate information misuse and miscommunication. According to experiential theory, participatory games are capable of inducing learning through experiencing. Further-more, a follow-up gambling game is used to understand the risk behavior and farmers investment decision on climate innovations. These experimental games in climate change studies can help to understand the intrinsic behavior of subjects. We want to see the effect of the resulting emergent behavior on small-holders decisions to adapt climate change innovations. Econometric models are also used to understand the factors that determine farmers' decision to adapt climate innovations. We hypothesized that participatory learning will ease flow of climate change information and avoid misuse and miscommunication. This in turn fosters adaptation to climate change and helps in realizing a climate resilient small-holder economy.

Biography

Yalemzewd is a mid-level Environmental and Natural Resources Economist, and is entirely working on climate change related researches. Among his notable researches, the most recent ones include: climate change and smallholders vulnerability, climate change and gender inequality, climate change and pastoral conflicts. Above and more, he is currently working on his Ph.D. at Wageningen UR, The Netherlands on "Realizing climate resilience smallholder economy through climate innovations."