

Impacts of Climate Change on Turkish Agriculture: Autonomous Adaptation and Farmers' Risk Behavior

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Abstract

For the region that Turkey is in, recent literature on climate change projects both increasing average temperatures and reductions in precipitation and also increasing frequency and intensity of extreme climate events such as droughts and heat waves. In particular, these changes affect the agricultural sector negatively. Although there are exposure differences between regions, products and modes of production, climate-induced risks and vulnerabilities are increasing. Hence, adaptation to climate change is increasingly important for all stakeholders. In this context, the purpose of this research paper is to analyse the impacts of climate change on Turkish agriculture. In this paper, the effects of average climate change and of extreme climatic events on producer behavior at micro level will be investigated. To this end, first, climate related risk distributions and variability will be estimated at the regional level, second, results derived in the first stage will then be compared with farmers' risk and uncertainty (ambiguity) perceptions calculated at the micro level using a survey conducted on 600 farmers from three provinces in Turkey. Finally, autonomous adaptation tendencies will be identified and policy recommendations will be made on planned adaptation. As such, this project aims to fill a major gap in the climate literature on Turkey as well as providing important policy recommendations.

Keywords: Climate change, Risk attitude of farmers, Turkey

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