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Welfare Impact of Organic and Fair Trade Pepper in India

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Abstract

Black pepper is an important crop in India. The fall in pepper production due to low yields, depressed prices and increasing input costs coupled with poor farm management and outbreak of diseases and pests like quick wilt, pollu beetle and fungal pollu have made many smallholder pepper farmers to look at alternative agricultural technologies. Organic agriculture and fair trade marketing practices are the popular agricultural advances considered as solutions by the farmers of this region

Organically produced pepper, which at the same time marketed under fair trade regimes, can help to diversify agricultural export markets. This may lead to an increase and a more stable income from agriculture. However conversion to organic farming and entering fair trade marketing arrangements is not without costs to farmers. Change in farm management practices and entering certification schemes to meet required production and product quality standards can be demanding especially for resource poor less educated farmers.

Hence, this paper studies the drivers behind adoption of organic farming under fair trade marketing practices and evaluates the causal impact of such agricultural technology adoption on household welfare. It uses panel data, collected from 300 smallholder pepper farmers in India. A multinomial cross-section logit applied for each year as well as a panel multinomial random effects logit under generalised linear latent and mixed models (gllamm) is used to understand the determinants of adoption and provide robustness to our findings. To ascertain the welfare impact of adoption, a propensity score matching with multiple treatment effects is employed. Results from the multinomial models identify that farm size and market distance among others as the major factors that influence adoption. The causality from PSM shows that certified farmers do have a significant and higher income per capita.

Keywords: Adoption, impact, India, multinomial logit using gllamm, PSM with multiple treatments