

# How important are weather risks in explaining low fertilizer use in Sub-Saharan Africa? Evidence from a Panel of Maize Farmers in Kenya

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## **Abstract**

*Despite the expected profitability of inorganic fertilizer application found in various field trials and empirical studies using household survey data, the fertilizer application rates of SSA farmers are puzzlingly low. The low application has been attributed to thin markets as well as weak infrastructure and institutions, low and variable soil fertility, frequent drought and high fertilizer prices. This study explores the extent to which weather shocks and its interaction with liquidity constraints contribute to low fertilizer application, using a combination of household survey data, and long term satellite weather data. Empirically, we estimate farmer's sequential fertilizer decisions based on realization of weather shocks and its interaction with indicators of liquidity constraints. The results can guide the design of appropriate interventions to target vulnerable groups.*

*Keywords:*