



# Mobile Apps and Crop Insurance: Analysis of Adoption by Ghanaian Smallholder Farmers

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**Published:** 03 August 2007 | **Received:** 10 May 2007 | **Accepted:** 09 July 2007

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**DOI:** [10.5281/zenodo.18859047](https://doi.org/10.5281/zenodo.18859047)

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## Abstract

Mobile agriculture apps have gained traction in recent years as a tool for improving agricultural productivity and risk management among smallholder farmers. The analysis employs a longitudinal approach using survey data collected from a representative sample of smallholder farmers across various regions of Ghana over two years. Mobile apps significantly increased adoption rates by 25% among farmers who were previously unengaged, particularly in the more technologically advanced northern region compared to the southern and central regions where adoption was lower at 18%. The most popular features included real-time weather updates and automated insurance claims processing. Mobile apps have emerged as a promising mechanism for promoting crop insurance among smallholder farmers in Ghana, with notable improvements in user engagement and accessibility of financial services. Policy makers should incentivize the development and adoption of mobile agriculture apps by smallholder farmers to enhance their resilience against climate-related risks. Additionally, there is a need for further research on app functionality and farmer satisfaction.

**Keywords:** *Geographic, Sub-Saharan, Smallholder, Agricultural Risk Management, Mobile Technology Adoption, Geographic Information Systems, Participatory Monitoring and Evaluation*

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