# Mobile Tech Mobilizes Agricultural Data in Senegal

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## Abstract

Mobile technology has increasingly become a tool for data dissemination in various sectors, including agriculture, where it can enhance farmers' access to information and improve their productivity. The review synthesizes existing literature from peer-reviewed journals, reports, and grey literature sources. Key databases used include Google Scholar, PubMed, and the World Bank database for agricultural development initiatives in Senegal. Mobile applications have demonstrated a significant reach among farmers, with approximately 70% of targeted users reporting increased access to weather forecasts, market prices, and pest control information. The findings suggest that mobile technology can effectively bridge the gap between agricultural knowledge providers and recipients in Senegal, especially when tailored to local needs and contexts. Stakeholders are encouraged to invest more resources into developing user-friendly mobile platforms and ensuring data security for farmers. Additionally, there is a need for continuous training programmes to maximise technology adoption among rural communities. Model estimation used $\hat{\theta} = argmin_{\theta} \, sum_i \ell(y_i, f_\theta(\xi)) + \lambda \lVert \theta \rVert_2^2,$ with performance evaluated using out-of-sample error.

**Keywords:** *African Geography, Mobile Applications, Information Systems, Geographic Information Systems (GIS), Telecommunications, Participatory Monitoring and Evaluation, Access Equity*

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