



ICTs in Sustainable Land Management Practices: A Replication Study in Malawi, 2009

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Abstract

ICTs have been identified as influential in promoting sustainable land management practices (SLMPs). In Malawi, SLMP adoption has shown mixed results. The study employed a quasi-experimental design with pre- and post-intervention data collection, utilising a logistic regression model for analysis. A notable increase in farmer participation rate was observed at the 95% confidence interval (CI). ICTs significantly enhanced SLMP uptake among farmers in Malawi, leading to higher soil quality improvements. Further research should explore long-term impacts and scalability of ICT interventions in diverse farming contexts. Model estimation used $\hat{\theta} = \operatorname{argmin}\{\theta\} \operatorname{sumiell}(y_i, f\theta(\xi)) + \lambda \operatorname{Vert}\theta \operatorname{Vert}^2$, with performance evaluated using out-of-sample error.

Keywords: *African Development, Geographic Information Systems, Participatory Mapping, Sustainable Land Management, Remote Sensing, Farmer Participation, Soil Quality Enhancement*

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