

Factors Influencing Adoption, Innovation of New Technology And Decision-Making By Small-Scale Resourceconstrained Farmers: The Perspective Of Farmers In Lower Gweru, Zimbabwe

Masere TP and SH Worth

Abstract

A study was conducted in Lower Gweru Communal area of Zimbabwe to determine factors affecting small-scale resource-constrained farmers' technology adoption and innovation processes. Specific objectives included determining circumstances when farmers consider learning about and adopting new technologies; documenting challenges faced by farmers in technology adoption; and determining the kind of support farmers require in adopting technologies or innovating. Multistage stratified random sampling was used to select a study sample of 256 farmers who participated in focus group discussions (FGDs). Additionally, semi-structured interviews (SSIs) with 200 farmers, selected from within the 256 FGD participants, were conducted to corroborate data collected in FGDs and participant observation. The study found that farmers were ready to learn and adopt new technologies when proposed technologies were (i) cheaper to acquire and use than their current technologies, (ii) easier and simpler to use, (iii) reduced labor requirements, and (iv) increased crop yields and/or animal productivity. Specifically, the study found high adoption rates of new technologies with traits similar to the farmers' traditional practices such as conservation agriculture (with a 90% adoption rate) and thermal composts (with a 78% adoption rate). In terms of challenges, farmers were hampered mainly by lack of capital to acquire new technologies and lack of access to information, credit facilities and markets. In terms of support, in addition to capital and issues of access, farmers preferred to be actively involved in defining problems and developing solutions, technologies and innovations. Rather than being mere beneficiaries of new technologies

developed by others, they want to be included in processes such as field-based participatory learning extension and innovation projects. In keeping with their self perception as businessmen and women, perhaps most significantly, this study has reaffirmed that small-scale farmers, despite their educational limitations, their age, their constrained circumstances, and their risk profiles – are conscious and deliberate decision-makers. They are rational in their approach to adoption of technology, but are dominated by factors of cost, impact on income, and, of greatest influence, risk.