



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

BIOMETRIC AND FINANCIAL INNOVATIONS IN RURAL MALAWI: A FIELD EXPERIMENTAL APPROACH

Background

The incomes of Malawian smallholder farmers are severely constrained by the low productivity of their crops. This is due primarily to a lack of applying improved agricultural inputs such as seed, fertilizer and, in some cases, insecticides. Higher value cash crops, such as tobacco, cotton and paprika, offer the prospect of larger returns to investments for improved inputs. Yet input purchases remain constrained by the high cost and limited availability of credit.

The efforts of agro-industry to promote the use of credit have in turn been constrained by low repayment rates. A large proportion of farmers fail to repay their loans due to the ease of side marketing and the lack of sanctions for default. These problems are particularly difficult in Malawi because of the absence of a national identification system. Biometric identification in conjunction with a national credit bureau is one potential way to screen potential borrowers and ultimately improve rural credit markets.

Project Summary

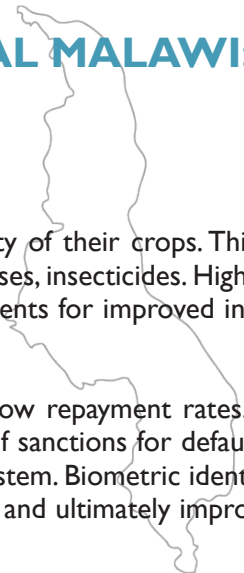
Researchers supported by the Feed the Future Innovation Lab for Assets and Market Access are working to demonstrate how biometric technology can help improve the functioning of rural credit markets in Malawi. In particular, the project will develop and evaluate fingerprint-based credit history databases to help lenders to expand credit to borrowers who have proven reliable and withhold credit from those who have defaulted in the past.

The project will explore a series of interlinked questions. How does biometric identification affect the decision to take out a loan? What impact does biometric identification have on farming practices, such as input utilization, use of family labor and use of hired labor? Finally, and of ultimate interest, what impact does biometric identification have on repayment?

The follow-on stage of the project will investigate innovative methods of encouraging farmers to deposit crop proceeds into formal savings accounts. The combination of credit with savings should have a multiplier effect on farmers' abilities to finance future farm inputs. Key partners on the project have agreed to provide a substantial number of small production loans to farmers wishing to expand their output of paprika, a profitable export crop, and to identify roughly 4,000 paprika farmers seeking new loans for fertilizer and other inputs.

Anticipated Impacts

Higher loan repayment should lead to broader provision of credit in rural areas, and at lower cost. This improved access to credit has the potential to dramatically expand these farmers' participation in commercial agricultural markets. By showing how expanded financial services in rural areas can help farmers afford fertilizer and other inputs on their own, the project could identify scalable market-based government policies that would raise food security and the well-being of poorer farmers.



PROJECT OVERVIEW

Lead PI

Xavier Giné, World Bank

Partners

University of Michigan, Bunda College of Agriculture, Malawi Rural Finance Company, Cheetah Paprika, Ltd.

Timeline

2007-2008

Funding

\$278,591

Region

Central Malawi districts of Kasungu, Dowa, Mchinji and Dedza

Key

Innovation

Biometric technology to improve the functioning of rural credit markets

Commodity

Paprika



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