Building Market Linkages for Smallholder Farmers in Uganda

Abstract

Prices of staple foods like maize, beans, and rice vary substantially in Sub-Saharan Africa, depending on the season, country, and region. Addressing the imbalance in food supply and increasing farmer income may require a multi-pronged approach that tackles multiple barriers at once. Researchers will evaluate the impact of contract farming services and a mobile technology-enhanced trader alerts system on food markets across Uganda.

Policy Issue

Prices of staple foods like maize, beans, and rice vary substantially in Sub-Saharan Africa, depending on the season, country, and region. Some countries face food shortages when there is ample supply in the country as a whole, and the same is often true on a regional level.[1] The inability of markets to efficiently move food from surplus to deficit regions has a major effect on both farmer incomes and food security. Seasonally, farming families tend to sell when prices are low in the months following the harvest, and buy when prices are high in the months preceding the harvest. Within countries, some fertile and rainy regions experience a food surplus while other regions are chronically in crisis. This imbalance in food supply is often attributed to poor roads and infrastructure, as well as high transportation

costs, but other factors likely hinder efficient market integration. Small-scale farmers often lack accurate or sufficient information about prices in other geographical areas, or any guarantee that they will be able to sell their goods elsewhere. Yet, research suggests that better information alone is not enough to persuade farmers to move their food surpluses to areas where there are deficits.2 Addressing the imbalance in food supply, and simultaneously increasing farmer income, may require a multi-pronged approach that tackles intermediation, information, and contracting barriers at once.

Context of the Evaluation

A large portion of people in Uganda face food insecurity, though rates vary regionally. According to a 2013 report, almost half of Ugandans are food energy deficient.3 Over a third have low dietary diversity, but that number reaches 55 percent in the western region—a region also burdened with the highest rates of childhood stunting.

AgriNet, Ltd. the main project implementer, is the largest private-sector market brokerage firm in Uganda. AgriNet signs contracts with major buyers and then organizes supply from farmers. The company also has a "trader alerts" system, which feeds basic market information to farmers to help them bulk and sell at higher prices than are available on spot markets.

Details of the Intervention

Researchers will carry out a randomized evaluation in 230 markets in 110 sub-counties in northeast, western, and central Uganda. The aim is to evaluate the impact of AgriNet's mobile technology-enhanced trader alerts system on farmers and intermediaries' profits, intermediaries' method of connecting with farmers, additional market linkages, and price dispersion. Three institutions—AgriNet, Kudu, and IPA—will collaborate to implement and evaluate the program.

The study team will randomly assign half of the sub-counties to the treatment group and half to the comparison group. In each of the 130 markets in the treatment group, AgriNet will recruit, train, and certify four commission agents.These agents, recruited from a pool of local traders, will actively link farmers to large buyers and operate the enhanced trader alerts system. The amount of grain farmers have for sale will be uploaded onto the trader alert platform and broadcasted to potential buyers and vice versa. Kudu, the mobile application integrated in the trader alerts, will serve to electronically bulk the grain, allowing buyers to view what is available for purchase at the village-level. In addition, traders will send information on local market prices to Kudu via SMS. Kudu will post this information daily, enabling farmers to sell when prices are most favorable and to negotiate for the prevailing market price.

In the 55 sub-counties that serve as a comparison group, AgriNet will not execute any activities for the duration of the study.

To evaluate the impact of the project, IPA will conduct three types of surveys—an initial survey of farmer households, a survey of traders, and a market price survey—in both treatment and comparison markets. The trader survey will track the revenue, income, volumes, crops, and locations of trading for five buyers in each studied market as well as for commission agents in the study. The agricultural household survey will be administered to 11 households in each catchment area that are active in agricultural markets (i.e. not subsistence farmers) around study markets, for a total of 3,000 households.

In addition, the market price survey will measure the impact of the project on price dispersion. For each market, IPA will recruit two traders, who are aware of market prices, train them to use the SMS survey system, and pay them (with mobile phone credit) to answer a detailed market survey every two weeks.

Results and Policy Lessons

Results forthcoming.

Sources

[1] Feed the Future, East Africa Regional Profile.

[2]Fafchamps, Marcel, and Bart Minten. "Impact of SMS-based agricultural information on Indian farmers." *The World Bank Economic Review* 26, no. 3 (2012): 383-414.

[3] World Food Program; Uganda Bureau of Statistics (UBOS). "Comprehensive Food Insecurity and Vulnerability Analysis, Uganda," April 2013.

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