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**Timeline**

2014-2015

**Sample Size**

157 markets

**Research Implemented by IPA**

Yes

# The Impact of Ebola on Market Prices in Sierra Leone

## Abstract

Starting the summer of 2014, many risk factors pointed to a potential food crisis in areas of West Africa hit hardest by the Ebola outbreak. Innovations for Poverty Action, in partnership with researchers and the International Growth Center, began monitoring markets across Sierra Leone for changes in food prices and supply. Researchers provided rapid feedback to the government and other development partners on where food shortages were occurring.

## Policy Issue

The Government of Sierra Leone and its development partners must have valid, credible data and analysis to ensure that their policy responses to the Ebola outbreak are evidence-based and well targeted. While many reports are circulating about the outbreak's effects on the economies of affected countries, hard data on what is happening on the ground is in short supply. Some communities have been quarantined under a "cordon sanitaire," potentially affecting food prices and supply in these areas. A slowdown in agricultural production, local and international trade, and/or labor supply could also be impacting food security. By tracking food prices and the supply of staple foods in markets countrywide, this research

aims to identify food insecurity before it happens and provide rapid feedback to the government.

*Note: This is not a randomized controlled trial.*

## Context of the Evaluation

To help contain the Ebola outbreak, the Government of Sierra Leone has restricted movement in and out of certain areas of Sierra Leone. The quarantine of certain areas under the cordon sanitaire was imposed around the towns of Kenema and Kailahun in the summer of 2014, and expanded to other areas in September. This cordon could be obstructing the movement and marketing of food and causing spikes in food prices.

## Details of the Intervention

Researchers are measuring the impact of the Ebola outbreak on market prices in Sierra Leone. IPA is gathering data from markets across the country, and researchers are measuring changes over time and comparing the information to similar data we gathered from the same markets in 2011 and 2012.

In mid-August we collected data from 153 markets on food availability, prices of key food stuffs (including imported and domestic rice, cassava, palm oil, and fish), and the number of traders operating in the market. We then conducted a second round of market surveys during mid-September in 157 markets.

IPA staff based in Freetown surveyed individuals by phone that manage markets across the country. (We gathered the phone numbers in 2011 and 2012 during a previous survey.)

Using data from previous surveys, we have been able to compare these prices to those at the same time of year in 2012 and, for most markets, in 2011. Because we have the GPS location of the markets it has also been possible to compare outcomes for areas badly hit with Ebola or subject to transport restrictions, such as closure of borders, with those that have been relatively Ebola-free and not subject to transport restrictions.

Collecting data every month during the course of the outbreak is allowing researchers to track shortages pre-harvest and potential surpluses post-harvest (which may accumulate if transport is disrupted and drive prices down in some areas).

The latest round of market surveys took place in early October shortly after all Sierra Leoneans were asked to stay at home for two days and after the introduction of new cordon restrictions in Port Loko, Moyamba, and Bombali.

## Results and Policy Lessons

The latest rounds of market surveys took place in late 2014, between November 19-26 and again between December 17-21.

### *Findings:*

- Rain fall returned to more seasonal levels in November and December and the rice harvest was underway throughout the country by late November.
- Prices for most basic foods remain at or below previous year's prices.
- With the rice harvest came a modest increase in the number of domestic rice traders, which has returned to levels similar to those in 2011.
- Traders in markets for other staples like processed cassava (gari) and palm oil are still below those for previous years although the gap closed somewhat in December.
- The number of markets reported to be closed in November is largely unchanged since October, and slightly lower in December.
- Preliminary evidence suggests that international shipping in West Africa fell in September, but appears to be similar in October and November relative to 2013. These results are consistent with emerging results from other surveys (including surveys of households) which suggest informal activity has been depressed by the Ebola outbreak but that food prices have not been impacted.

### *Earlier Findings:*

Data collected in August and September revealed that prices were relatively stable. Evidence from October revealed prices of basic food commodities were not significantly higher than they were in recent years, but some findings suggested the situation was worsening:

The number of traders selling basic food items continued to fall in all districts. In Kailahun and Kenema (the first districts to be cordoned) there were 69 percent fewer domestic rice traders than in 2012 while the decline in newly cordoned areas is 29 percent. Other key findings from October 2014:

- Prices of basic food commodities at markets were not significantly higher in October than they were at that time in previous years, nor were they higher on average in cordon areas.
- There were outliers where prices were much higher and there were more of these outliers than in normal years.
- There was an increasing number of markets that are closed. In most of these cases traders report they are selling food from their homes. However, it will be important to monitor food security at the household level to ensure that food (at reasonable prices) is reaching households especially in remote locations.
- Very preliminary data suggested a new risk to food security, or at least a potential delay in the rice harvests. Rainfall in September was much higher than it usually is at this time of year, but it began to decrease in October. This could negatively impact the rice harvest or at the very least delay the rice harvests.
- Food security is not just a function of food availability and price but also of income. The reduction in the number of traders suggested reductions in economic activity more generally.

Researchers presented data to the government after it was gathered.

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