



FEED THE FUTURE

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

A QUASI-EXPERIMENTAL “POST-MORTEM” STUDY OF A DISCONTINUED INSURANCE PRODUCT IN HAITI

Background

Agriculture is the primary source of income in rural areas of Haiti, employing 60 percent of the population. Women who work as small-scale entrepreneurs and transporters—known as “Madam Saras”—interact with more than 90 percent of all domestic crops, forming the backbone of the agricultural value chain and its information network. These entrepreneurs face significant uninsured risk due to extreme weather events, reducing asset accumulation and investment in high-return but risky activities. Because of Madam Saras’ central role for transport and information, financial and informational products that offer protection against weather-related risk to this key segment of the agricultural value chain could positively impact the entire sector.

In January 2011, Fonkoze, the largest microfinance institution in Haiti, began jointly addressing missing credit and insurance markets by simultaneously providing weather index insurance along with credit to 60,000 borrowers. A significant portion of these borrowers was made up of Madam Saras, and 80 percent belong to households that engage in agricultural activities. The insurance was intended to have a positive impact, particularly for women. However, the product became financially unsustainable. However, the collapse of the program offers a unique opportunity to investigate the failure of the product.

Project Summary

Researchers supported by the Feed the Future Innovation Lab for Assets and Market Access are conducting a quasi-experimental study of the discontinued product using a variety of identification strategies and data sources, including new survey data, administrative banking data, cellular carrier and remittance data, and prior survey data.

Researchers have focused on two sources of problems that are potentially interrelated: basis risk in the parametric-based insurance arm and moral hazard in the peer loss adjustment- and indemnity-based insurance arm. Flooding risk is particularly complex to model physically. Even with a well-designed index based on granular, real-time weather data in developed country settings, significant idiosyncratic variation in damages to property due to flooding and extreme rainfall means that index insurance policies will retain large basis risk; and all the more so in mountainous, degraded topographies with sparse weather sensors and high variation in the slope of land.

At the same time, the proportion of verified claims was much higher than anticipated ex-ante, suggesting undue leniency in peer auditing, with borrowers commonly reporting preventable damages, implicating moral hazard. The inaccuracies of the index, in addition to several other factors such as possible moral hazard issues, eventually made the policy unsustainable.

Anticipated Impacts

Researchers will examine what went wrong with this index insurance product and why, in order to generate recommendations for possible improved models.

PROJECT OVERVIEW

Lead PI

Emily Breza, Columbia University

Partners

Quisqueya University and State University of Haiti

Timeline

2014-2015

Funding

\$100,027

Region

Haiti

Key

Innovation

Integrated credit/index insurance hybrid

Commodity

Various



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