Satellite and weather station-based weather index insurance -- MicroEnsure

Country of Operation: Rwanda
Region: Africa
Sub Topics: Business viability, Other channels, Data analysis and processing, Financial institutions, Product development, Partnerships, Consumer education, Improving value, Demand, Agriculture, Agriculture

Organizational Overview

MicroEnsure serves over four million people around the world with insurance, 80% of whom have never before been insured. Two million of their clients are in Africa, served through their subsidiaries in Kenya, Ghana and Tanzania as well as satellite operations in Malawi, Mozambique, Rwanda, Zambia and Zimbabwe.

Activities Overview

The majority of agricultural activities in Rwanda are by non-commercialized smallholder farmers, with minimal investment leading to reduced yields and continued food insecurity. Commercial banks and microfinance institutions are using weather index insurance as a tool to reduce their portfolio at risk when lending to smallholders. This enables rural investment to increase, which in turns provides higher agricultural outputs leading to higher incomes. In addition, weather index insurance provides a safety net against the effects of adverse weather.

MicroEnsure operated two main weather index insurance products in Rwanda:

- **weather station-based product** that provides coverage against dry spells and excess rain. Weather station-based products measure rainfall at a single location, and farmers are eligible to be insured provided that farms are within a given radius of the weather station location.
- **satellite-based product** that also provides coverage against dry spells and excess rain. Satellite-based products estimate rainfall within a given area, which typically gives a better average than weather station-based products. [Read more about the products in MicroEnsure project page on the GIIF website](http://www.impactinsurance.org).
Learning Agenda

- Which consumer education/promotion tools are effective in explaining the index to small holder farmers?
- What factors can reduce spatial and temporal basis risk for index insurance products?
- How to measure performance of index insurance?
- Are different channels more effective for selling different products?

Lessons

- Large increase in farmer numbers and sums insured in the latter part of 2013.
- Introduction of satellite-based products, which allows areas to be covered where there is no current or historical weather station data available.
- Payouts of over $15,000 in 2013 demonstrate the effectiveness of the product.
- Market growth acts as a catalyst for new distribution channels to become involved with the weather index insurance market (e.g. input suppliers).
- Using satellite data, MicroEnsure is no longer limited by weather station locations for implementing products.
- Higher value crops such as Irish potatoes and coffee have the potential to increase the total sum insured per farmer. This means that farmers will take out higher loans and more insurance, improving the profitability threshold for creating a sustainable market.

Contributor/s: The content of this page is from the project's page on the GIIF website.