

Kilimo Salama (Safe Farming) Weather Index Insurance in Kenya: Early Market Success

The Syngenta Foundation's Kilimo Salama weather index insurance program has taken off in Kenya and has recently expanded to Rwanda. Beginning in 2009 with a pilot project offering index insurance to 200 farmers, at last count **51,000 farmers in Kenya and 14,000 farmers in Rwanda have the insurance**. In 2011, Kilimo Salama's partner UAP Insurance collected KSh 19 million in premium payments, and **premium revenue has nearly doubled to KSh 33 million in just the first six months of 2012**. These premium volumes are approaching levels than can make index insurance economically sustainable in the long term in Africa.

Mobile phone technology has proven pivotal to the program's success. Syngenta Foundation, on behalf of Kilimo Salama, partnered with telecom giant Safaricom in 2010, which provided a less expensive and dense communications network for product sales and customer communication. Safaricom's M-PESA mobile banking system helps Kilimo Salama to keep index insurance premiums affordable for smallholder farmers and actually makes reaching them economically viable for insurance companies for the first time. Farmers receive their index insurance policy numbers and premium receipts via SMS, and payouts likewise are sent electronically via M-PESA.

Weather Station Technology and Index Insurance

Kilimo Salama's use of technology is the key to the micro-insurance product's affordability and the model's scalability. The 64,000 clients are smallholder farmers scattered throughout rural Africa. In one distribution channel, Kilimo Salama works with agricultural microcredit institutions and local agro-vets or stockists who sell farming inputs like seeds, fertilizer, and pesticides.

When a farmer purchases insurance, the microcredit officer or agro-vet registers the purchase by scanning a quick-response code using a specially-developed mobile phone application. The purchase is transmitted to a cloud-based server, which administers the policies and sends the farmer an automated SMS with the policy number.

At the end of each growing season, weather statistics collected from solar-powered weather stations are automatically compared to an index of historical weather data. Rainfall measurements are put in specialized agronomic models to determine the impact and potential loss farmers experienced. Insurance payouts are calculated and sent to the insured farmers via automated mobile payments. There is no claims process.

In 2011, UAP made payouts totaling KSh 8.7 million (approximately USD\$103,000) to 2,168 farmers in five regions of Kenya, triggered by weather station measurements of below average rainfall. The payouts provided much needed cash to farmers after crops had failed, and such payouts are critical in building farmers' trust in insurance products (see text box).

Just as impressive, farmers who have purchased index insurance through partner microfinance institutions are taking out more agricultural loans. **One of Kilimo Salama's key MFI distribution partners has more than doubled its loan portfolio to farmers in just the first six months of 2012, and 2012 index insurance premium income has likewise increased from KSh 9.8 million in 2011 to over KSh 17 million – with nearly 46,000 farmers insured.**

The ultimate aim of micro-insurance products like index insurance is to reduce the risk from adverse weather and thereby provide a much needed safety net for farmers, promoting increased agricultural investment and improved livelihoods.

According to Kilimo Salama team member Nila Uthayakumar, “*Kenya is the innovation center and testing lab for our agricultural index insurance portfolio.*” Given the current state of agricultural insurance in Africa, it takes several years for an index insurance program to be profitable. Kilimo Salama has recently expanded the program to Rwanda and hopes to expand to other countries in eastern and southern Africa. “*We have a conservative goal of reaching 200,000 farmers by 2014 and if conditions are right for scaling up the product and expanding into new markets, we hope to be financially sustainable, and profitable, in the next couple years. This requires investment capital, partnerships with insurance companies, agribusiness aggregators, microfinance institutions, and of course farmers being increasingly interested in our index insurance products.*”



Kilimo Salama solar-powered weather stations collect weather data every 15 minutes. At the end of each growing season, the collected data is compared to historical weather data and any payout owed is calculated and sent via mobile phone to farmers.

Kilimo Salama is the first micro-insurance product in the world to be distributed and implemented over a mobile phone network.