When it comes to launching an affordable crop insurance in Africa aimed at smallholders, traditional options have proved too expensive. This obstacle has been overcome thanks, in part, to the use of open data, allowing development experts to access a combination of archive and up-to-date climatic information collected by satellites.

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Spotting the problem for poorer farmers, the Dutch based Geodata for Agriculture and Water organisation, better known as G4AW, launched the Scaling Up Micro-Insurance (SUM) Africa programme, drawing together a specialist team to help farmers in Mali and Uganda solve their insurance problems. The Netherlands Space Office is executing this programme, commissioned by the Dutch Ministry of Foreign Affairs. With the new service tested in East and West Africa, it is anticipated a low cost insurance model can be offered to other parts of the continent.

Open data is seen as one of the best ways to create new insurance products.

For G4AW it is clear smallholders have been held to ransom by the fluctuations in climatic conditions; either facing too much rainfall or suffering drought. These factors lock farmers in Mali and Uganda into the poverty trap, taking years to recover from a bad harvest. While effective insurance is seen as one of the key factors needed to escape this cycle of uncertainty and loss, existing methods are just too expensive for low income smallholders so open data is seen as one of the best ways to create new insurance products. And with the ability to afford cheaper crop insurance, low income farmers can unlock credit, enabling investment that helps sustain higher levels of production and better incomes.

“The SUM-Africa project has just wrapped up its first year in Uganda and Mali. Drought insurance products have been developed and sold in Mali for maize and sesame, and in Uganda for maize, beans, and livestock fodder.” explains Koko Alberti from EARS Earth Environment Monitoring, part of the G4AW’s implementing consortium.

The breakthrough is delivered through a creative combination of insurers, brokers, index providers and aggregators. Together they have based their policies on the development of a system called index insurance. The whole endeavour is reliant on open data, derived from output provided by Europe’s meteorological satellites, Meteosat.

The service is central to the new farming index insurance, enabling the team to derive relative evapotranspiration (RE) data which is proportional to crop growth and can be linked to rainfall figures known as Cold Cloud Duration (CCD). Accurate weather cycle predictions are possible by using relevant data collected by the satellites stretching...
back to 1982. The Meteosat based data helps the experts create the index insurance calculations combining growing season monitoring and loss assessments.

Alberti is sure that with some fine tuning the new affordable service can expand, “We are now in the process of reviewing the performance of our satellite indices and further improving our product assortment. In the coming year we will develop products for additional crops and for different distribution channels, for example via mobile phone operators.”

The ultimate goal for the SUM Africa project is to scale up the technology and turn it into a viable business case. Certainly, over the last year the index insurance system pioneered by the SUM Africa programme proves it is possible to insure against unfavourable weather conditions rather than relying on assessing actual losses.

Climatic conditions across Africa can be verified and monitored using historic satellite imagery through the newly designed monitoring system. Because the process is founded on access to open data it avoids the need for costly assessment teams examining conditions after crop failures and the sharing of open data translates into affordable insurance costs for low income farmers. It opens up a brighter future for smallholders in Mali and Uganda protecting them from the cruel vagaries of the weather and helping them to build sustainable farming businesses. Together with local partners Alberti is optimistic, “...we hope that these developments will further scale up our activities and protect more smallholder farmers against drought related crop losses.”

The SUM Africa programme is focusing on nine million smallholders in Mali and Uganda. The objective is to serve 430,000 farmers in three years and one million up to six years after the start of operations.

Sources:
http://g4aw.spaceoffice.nl/en/About-G4AW/