According to the UN, there are some 500 million smallholder farmers in the world. In Africa around 80% of farmers operate on a very small scale, however the UN says these smallholder farmers produce up to 80% of the food consumed in Africa and Asia. Liz Booth reports on a new initiative that could help these farmers develop into commercial entities, with the help of insurance at their backs.

For many, managing Africa’s agriculture with a single simple solution and enabling its millions of smallholder farmers to have the opportunity to farm on a commercial basis is a dream.
The argument goes that there are so many million farmers, all operating in myriad difficult climatic and topographical conditions, so how can any scheme help them all?

However, the need to make change has never been more urgent according to the experts, who say Africa faces even tougher conditions ahead if the forecast climate changes unfold.

There are others who see Africa as the “bread basket” of the world in the future and see enormous opportunities ahead.

Back in 2006, former UN secretary general Kofi Annan said: “The time has come for African farmers to wage a uniquely African green revolution.”

Indeed, for some years, commercial investors have been land banking across the continent and are building great tranches of arable land into their portfolios.

But all acknowledge one of the greatest challenges is in knowing exactly what is out there. Who are the existing farmers, what are they growing and with how much success?

The advent of new technology could be set to change that question.

In the past week, news has come that the InsuResilience Investment Fund, set up on behalf of the German government by KfW Development Bank and managed by Switzerland-based impact investment manager BlueOrchard Finance, will invest US$6m in Tel Aviv-based Agritask in the company’s largest financing round to date. As part of the deal, Magdalena Zatorska, of BlueOrchard, will join the Agritask board. The objective of the InsuResilience Investment Fund is to contribute to the adaptation to climate change by improving access to and the use of insurance in developing countries, thereby reducing the vulnerability of low-income households and MSMEs to extreme weather events.

Agritask is a leading Ag-tech company providing data-driven decision support tools for end-to-end agronomic management of businesses throughout the agriculture eco-system. Through its global activities, the company is expected to reach out to more than 25 million farmers by 2025.
Its ‘One platform – One database’ precision agriculture offering is significantly upgrading decision-making processes across the entire agriculture eco-system. The platform is already deployed in more than 15 countries serving small and large-scale farmers, food producers, government extension projects and insurers, predominantly in emerging and frontier markets.

The company’s offering to agriculture insurers revolutionises their ability to perform accurate risk analysis, enabling them to drastically reduce operational costs, develop and manage more advanced insurance offerings, and deepen insurance penetration to new and under-served markets.

The proceeds of the investment will help Agritask to scale up its global expansion across the various agricultural segments and to further spur development of agriculture insurance markets globally, extending its outreach to small-scale farmers.

The investment is not subject to regulatory approvals.

Ernesto Costa, senior vice-president private equity at BlueOrchard, explained the rationale behind the investment.

“We see technology as a key enabler to make climate insurance affordable for populations with low income and small-scale farmers in particular. Agritask has developed a unique offering to digitalise agriculture insurance and take risk management to a new level.

“The company is uniquely positioned to capture the opportunity presented by 250 million under-insured small-scale farmers in developing countries. We are thrilled to support Agritask with capital, technical assistance and our international network in the agriculture insurance space, with the objective to increase the resilience of small-scale farmers to the consequences of climate change.”

Ofir Ardon, CEO of Agritask, adds: “Market penetration of agricultural insurance remains small across the globe, especially in developing countries.

“To a large extent this is a result of product design that often relies on limited data availability and visibility into the ongoing agricultural and climatic risks, which is exactly what we can resolve.”
So far Agritask has been involved with projects in Israel and in Latin America, as well as in Angola, Kenya, Cambodia, Philippines, Vietnam, Sri Lanka, Myanmar and in CEE. However, it now has plans to move deeper into Africa.

For example, an announcement with a leading Nigerian insurer is imminent, subject to regulatory approval, and work has already begun on the project, which should help develop agriculture insurance on a much larger scale than undertaken before.

Mr Ardon explained: “Most of the world is inhabited by small-scale farmers, who face the very same risks and challenges of large commercial operations, such as bad weather, low yields and supply chain challenges, however they do not have the resilience to cope in the same way that a larger commercial operation can.

“There is a huge need for greater risk management.”

At the same time, he said, there are many projects out there with the backing of major institutions. However, these projects tend to be led by small teams who struggle to access hundreds or thousands of farmers, simply because they do not have enough boots on the ground nor the technology required to back this scale of operation. Therefore, when the project funding stops, the impact vanishes.

What Mr Ardon and his team see as an opportunity with the small-scale farmers is to develop a more sustainable model.

“We launched our first project in Israel and what we discovered was that when the initial funding stopped, the farmers had seen the value brought and have paid for the project to continue.”

He believes this sustainability can be brought to Africa and thousands of farmers, if not millions, can be encouraged to cooperate and operate with the same resilience as larger commercial entities.

Once this happens, these farmers have a much better chance of mitigating the risks associated with climate change.

For example, he said, the project in the Sinai enabled farmers, either directly or through regional projects, to identify unforeseen climatic risks faster and to mitigate the risks much more efficiently.
“We effectively enable the needle in the haystack through our platform,” said Mr Ardon.

The platform provides easier and faster access to weather data as well as, uniquely, to the actual effect on and/or status of the crop at any given time, as well as giving supporting projects the ability to ‘prescribe’ necessary agronomic care more efficiently and to manage or monitor that the necessary processes are being followed (that is, timely harvest, preventative spraying).

The Agritask platform in these types of projects can generate and store data that did not exist before and can be used later as required. Mr Ardon said that in time (and across seasons), data collected and stored, among other insights, can provide farmers with better insights as per the required timeframes or changes in timeframes for planting and harvesting in a given region, and the potential damage of missing those timeframes.

Once the platform scales up, and data is stored across geographies and crops, new insights are generated into optimal climatic suitability of specific crops and practices, which can assist farmers in adjusting to climatic changes in time at massive scale, he added.

With warnings from UN Food and Agriculture Organisation that the world needs to produce 70% more food by 2050 to avoid mass starvation, that mission has a new imperative.

In terms of climate change mitigation, the benefits included:

- Usage of the platform results in more precise and efficient usage of resources required for crop growth – such as pesticides, fertilizers and water.
- More efficient usage of those resources result in lower environmental footprint overall, and reduced energy required to produce or deploy those resources (that is, reduced CO$_2$ emission).
- Overall risk mitigation, as real-time field data enables intervention often before ‘unpredicted’ hazards occur (such as weather alerts, pests outbreaks).

African insurance opportunities
In Africa, Mr Ardon said the opportunities are immense. “In many places there is no access to agricultural insurance. However, there are many small farmers who might benefit from insurance and there are companies out there who see the opportunities in providing it.

“For insurance to work, however, insurers need to know what risks they are pricing,” he said.

“In countries where there is no data, it is very difficult to provide insurance. Without accurate data, insurers at best have the choice of developing products on a commodity basis, which will not fit the exact needs of the individual insured, or price the product too highly, which then becomes unaffordable for the small operators.”

He believes: “The only way is to start by understanding exactly who are the clients, where they are located and what is actually happening in their farms.”

The platform can incorporate information held by a number of other invested groups, including governments, large international institutions and existing regional projects. It can use existing ‘feet on the ground’ to feed in information and build a more complete picture. It can integrate other sources of available data if and when relevant (ie weather). And the highlight, it enables risk assessment based on all of the above at the ‘single plot level’.

“Africa has an opportunity to build this information from scratch,” said Mr Ardon.

In Kenya the company is working with a client to map a picture of pests and disease.

“Imagine how useful it would be to know when a particular pest has first appeared and then to be able to warn farmers to spray a certain crop at a certain time.

“It would eradicate over-use of pesticides for starters, but it would also ensure the farmer took action at the right moment to protect his yield (and his neighbour’s yield),” said Mr Ardon.

In Nigeria the project is initiated by an insurer, enabling them to offer protection, via a variety of channels. For example, this could be through any lenders to the local farming community, through seed providers or through fertilizer companies.
Mr Ardon said: “For starters, the platform enables harnessing the foot on the ground of various regional projects for the purposes of insurance. This means enabling mass collection of data, that will enable developing and distributing insurance to the uninsured.

“But once this eco-system starts operating with a tech platform at its centre, the future potential of the unified (new) data (or access to this data) is huge (it doesn’t exist anywhere today). It can be used by inputs providers (ie fertilizers), consultants, financial institutions, etc… to deliver better support that is currently out of reach for those small-scale farmers.”

The value of insurance will reach the end farmer but without them directly paying a premium. With trust and understanding of insurance at a low across many regions of Africa, the team believe this will help deliver the benefits and prove the concept.

Mr Ofir explained that it is a long-term approach.

“In season one you are gathering data and in season two you can start creating improvements based on analysing the results from year one. But it is as you build that data over several seasons that the greater benefits appear and you are able to target information and realise that transition from smallholder farmer to commercial operation,” he said.

“Eventually, small-scale farmers can realise benefits that very few of the large-scale operations have access to today.”

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