Index-based agri solutions can boost insurance penetration in Asia

Parametric solutions can help insurers propagate agriculture insurance in Asia, provided they can manage some of the tricky issues that come with it.

By Ridwan Abbas

Index-based solutions could in time surpass indemnity-based agriculture insurance in Asia through the help of technology, thus offering potential advantages to both insurers and insureds.

Speaking at the 4th Asia Agriculture Insurance Conference in Singapore organised by *Asia Insurance Review* recently, Mr Hemant Nagpal, Director, Model Product Management at RMS said one of the reasons for low agriculture insurance penetration in places like China and India is the fragmented nature of farming communities.

Approximately 87% of the world's small farms (less than 2 hectares in size) are found in Asia, with the average size of landholdings set to decrease further due to increasing population and limited land resources. For insurers, the large number of landholdings makes it difficult to administer crop insurance policies, underwrite risks and adjust losses.

"In short, as the landholding and value of the crop decreases, inefficiencies in implementing an indemnity based product increases," said Ms Harini Kannan, Head of Agriculture, Asia Pacific (ex China) at Swiss Re in Singapore.

Index-based solutions become more feasible

In turn, index-based solutions (like weather index, yield index), become more feasible, aided by technology that allows insurers to have a granular view of risk at a farm level without the cost of collecting such data manually, said Ms Kannan.

"Technology can provide a rich source of underwriting and loss assessment data for insurers to improve their index as well as indemnity products," she added.

However, insurers need to be mindful of basis risk – which is the difference in the actual losses and the losses projected by the product.

Ms Kannan believes a combination of technology, parametric and indemnity will be the way of the future in offering agriculture solutions.

(L-R): Ms Harini Kannan, Mr Hemant Nagpal and Ms T L Alamelu.

However for this to happen seamlessly, all stakeholders – including farmers, (re)insurers, technology providers and local governments – have to be aligned, she said.

Parametric pros & cons


Mr Jakub Nugraha

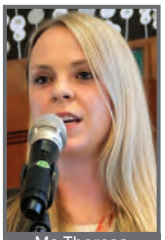
However there are practical issues with parametric insurance which may affect its perception amongst farming communities, said Mr Jakub Nugraha, Senior Vice President of Microinsurance at PT Asuransi Central Asia in Indonesia.

For one, should an index be triggered but no losses arise, then the insured might expect a similar payout to happen when he or she buys a traditional policy. On the flipside, should losses arise but the event was not enough for an index to be triggered, or the payout does not commensurate with the actual loss, it may cause unhappiness thus causing the insured to not renew in the future.

Mr Nugraha proposed that a solution could be found through a combination of intense educational outreach as well as product innovation.

He gave the example of a micro loan scheme bundled to a parametric policy whereby in cases where the payout based on the parametric trigger was not sufficient to cover actual loss, a lump sum of US$125 would be provided if a home or most of the business stock were lost as a result of a natural disaster.

Microinsurance


Ms Theresa Blissing

Incidentally, agricultural microinsurance only accounts for 14% of microinsurance premiums in Asia, revealed Ms Theresa Blissing, Insurance Lead for Asia at Detecon Consulting.

In making a case for the benefits of agricultural microinsurance, she stated that microinsurance can be one of the tools in developing and growing smallholder farming. Smallholder farmers are expected to be under more pressure in the coming years due to automation and agri-technology.

She added that microinsurance can serve as an innovation test bed for digitisation in the insurance industry.

Tech in Agri

Today, technology can be utilised to a large extent to improve risk management in agriculture. For instance, satellite remote survey and GIS Data can be used to survey remote risks; while a combination of satellite imagery, radar images and proprietary software are some of the things that may be utilised to assess crop yields pre- and post-date of loss.


Mr Ken Bullen

With technology set to play an even bigger role in the agriculture sector, it will usher in an "era of expertise", said Mr Ken Bullen, National Agriculture Leader at Crawford Agriculture.

He added that moving forward, machinery technologies will increase farm efficiency and benefit insurers through ease of data collection, both historical and current data including agronomic input data for assessing potential yields.

Improving efficiency


Mr Jovian Ang

In Asia, it is important to keep costs low and hence technology becomes vital to improve efficiency, said Mr Jovian Ang, Vice-President, Business Development at Asia Risk Transfer Solutions.

For example, in the absence of weather stations in an area to provide the parameters on which the insurance trigger is based, virtual weather stations are a possibility as it could interpolate data from nearby weather stations. Although the capabilities are there, it has yet to be tried commercially, said Mr Ang.

He highlighted that among other things, technology has the ability to help insurers manage large datasets through data processing and algorithms as well as data analytics; optimise and manage portfolios; and improve the speed and accuracy of loss assessment.

Data analytics


Mr Yogesh Patil

Meanwhile, Mr Yogesh Patil, Chief of Instrumentation and Govt Business at Skymet Weather Services, spoke about leveraging on data to further aid smallholder farmers as well as policy makers in harnessing the full potential of agriculture insurance.

But even as data for agricultural insurance purposes is available, its quality is often not high enough, which has critical consequences for farmers, said Mr Patil.

"To make high quality data available, governments have to establish a framework for data collection, auditing, financing and management of technology and Big Data to increase the efficiency and efficacy of crop insurance.

"Technological innovations need high investment in data collection and management," he added.

To achieve that, Mr Patil advocates for a private-public partnership model. The insurance and reinsurance industry also has a role to play validating the data to ensure its robustness.

Human interaction

On a concluding thought, Mr Ken Bullen raised the issue of a lack of interaction with farmers should technology fulfil the gamut of roles in the relationship between insurer and insured.


Mr Toh Rui Jie

To that, Mr Toh Rui Jie, Vice President, Product Management at Asia Risk Transfer Solutions said interaction and relationship-building can still be preserved through the prism of risk management, where technology can help insurers to intervene in a timely fashion at whatever stage of the farming cycle.