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Indian farmers can now breathe easy

L-R: Mr Vikas Wadhera, Dr Ashish Kumar Bhutani, Dr Pramod Aggarwal and Ms T L Alamelu.

The Pradhan Mantri Fasal Bima Yojana scheme launched by the government of India in February 2016 is turning out to be a game changer and has contributed largely to the vibrancy of agriculture insurance in India, said speakers at the 5th Asia Agriculture Insurance Conference held in New Delhi.

By Jimmy John

Indian farmers can now breathe easy, as the government has issued new guidelines to the Pradhan Mantri Fasal Bima Yojana (PMFBY), which will ensure timely settlement of claims and compensation reaches those insured for crop losses.

PMFBY CEO Dr Ashish Kumar Bhutani believes that the new operational guidelines issued by the government for the scheme have the potential to be a game changer. "We have been able to position the PMFBY as the single most powerful and effective risk mitigation mechanism in the country," he said.

He said that the government has recently done a review of the scheme and has come out with the new comprehensive guidelines. "Under the new guidelines, insurers will have to pay correct claim amount to the farmers in the shortest possible time, advanced the enrolment cut off dates and reduced the time taken by various stakeholders for data entry, reconciliation and approval of application and submission and approval of e-data," he said. To make all stakeholders accountable, a performance ranking for insurers and the state government has been included and this will be put in the public domain.

Huge opportunities for insurers

Agriculture insurance has become the third largest line of insurance in India after motor and health and is expected to grow further as the government seeks to scale up its flagship programme.

Agriculture Insurance Company (AIC) chairman and managing director T L Alamelu said that agriculture was the lifeline of the Indian economy and agrarian distress resulted in immense hardships to farmers and affects the economy. "The introduction of PMFBY has opened up huge opportunities for insurers in India and this segment has the potential to challenge the motor insurance sector," she said.

She suggested the use of blockchain solutions to speed up and make the system more transparent. South Asia for Climate Change, Agriculture and Food Security's regional programme leader, Dr Pramod Aggarwal, spoke of how countries from around the world were looking to learn from India's crop insurance schemes.

"Risks are increasing as a result of climate change and this will make insurance all the more relevant and demanding in the days ahead," he said. He highlighted the need for

L-R: Mr Giriraj Amarnath, Mr Mangesh Patankar and Mr Mangesh Patankar

insurers to adopt an innovative approach that is growth oriented.

RMS director of modelling and analytics Vikas Wadhera spoke of the critical role of agriculture insurance in protecting crop yields and farmers interests. "The insurance and reinsurance sector must come out with solutions to help bridge the protection gap and help the interest of the farmers," said Mr Wadhera, who was also the chairman of the two-day conference.

He called for the setting up of PPP models for the successful implementation of PMFBY and said the role of probabilistic crop models that provide a mechanism to integrate science and data to expand on past historical experience. JB Boda crop climate modeller Nirav Khimashia said that agriculture insurance will grow into multiple emerging markets, as there has been a long-term trend in diversification with agri-business.

Using advanced technology for agriculture risks

Advanced technology available today can be utilised to a large extent to improve risk management in agriculture. International Water Management Institutes research group leader Giriraj Amarnath spoke of the successful use of the latest remote sensing data, GIS and computer modelling for index-based flood insurance in the state of Bihar in India.

"Known as Agricultural Remote Sensing Insurance for Security and Equity (AgRISE), seeks to provide all farmers, no matter how small their holding, with the security that insurance can provide," he said of the approach, which it plans to scale up with the support of government and the insurance industry in India.

Swiss Re senior underwriter, agriculture Mangesh Patankar said that satellites were becoming smaller and datasets getting bigger but in agriculture, the gap between raw data and possible end users is a largely uncultivated area.

"Innovative remote sensing products for agro insurance enable access to various client groups with tailor-made solutions," he said. RMSI director for strategic initiatives Roli Jindal said the need for centralised data portals would ensure transparency, availability and access to data for all stakeholders. "Technology can make an impact if data is good and we have to, over a period of time, improve our yield increasing mechanism," she said.

Technology aids in improving efficiency


Mr Pushpendra Johari

In Asia, it is important to keep costs low and hence technology becomes vital to improve efficiency. RMSI head of risk and insurance Pushpendra Johari spoke of the need to use technology to gather more data from the ground. "We need to get all the data that is already there, and this will do wonders for the industry," he said.


Mr Raman Singh

Gramco Infratech founder and managing director Raman Singh Saluja spoke of how automation of farming process and systems could take place on the back of data from drone based image analytics integrated with IoT devices for individual fields and localised conditions. "Insurance companies have the potential to be major drivers in the agtech revolution and for this the industry must adopt blockchain and develop farm level actionable solutions," he said.

Highlighting the technological developments taking place in the agriculture space, CelsiusPro director of business development Sebastian Glink spoke about the PMFBY tool developed by his company that does high-speed calculations. "The CelsiusPro PMFBY tool can do a loss cost calculation of multiple clusters on district and crop level within seconds and has easy and flexible adjustments of costing parameters such as applying linear detrending and creates comprehensive reports," he said


Mr Sebastian Glink

Government support critical


Mr Rajeev Chaudhary

Government support is critical for the success of the PMFBY as almost 85% of the premium is borne by the central and state governments. AIC general manager and chief risk officer Rajeev Chaudhary said that farmers in India are stressed and so suicides are high and hence the real focus of the scheme is to ensure farmers' needs are promptly addressed. "Insurers and reinsurers cannot expect a windfall from the scheme but for the scheme to be sustainable there needs to be a fine balance between all stakeholders," he said.

New horizons for Indian agriculture


Mr Rajeev Chaudhary

Highlighting the different crop insurance schemes in India since 1972, IFFCO Tokio executive vice president Rajeev Chaudhary said that PMFBY has been the most successful scheme to date. "Farmers acceptance is high due to low premium, no capping in sum insured and early settlement of claims by using technology," he said.


Dr Sabina Yasmin

SRM University assistant professor Dr Sabina Yasmin said that distance from financial institutions, total land holdings and access to non-farm incomes were some of the key factors that determined purchase of insurance

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by farmers. "Lack of awareness is one of the major constraints in the adoption of crop insurance among the uninsured farmers," she said.


Ms Aruna Anand

Oriental Insurance Company manager Aruna Anand said that PMFBY alone would not be enough to cover all the pure risks arising from agricultural activities but instead, a total insurance package should be designed and offered for farmers' subscription. "Since insurance is a risk-adaptive mechanism, it can be packaged with other financial risk mitigating instruments, which will help to expand agriculture risk management in a cost-effective way thereby managing the overall economy," she said.


Dr Hema Yadav

CCS National Institute of Agricultural Marketing director Dr Hema Yadav said that currently insurance products are viewed by farmers as an additional cost and they see no benefit in purchasing insurance unless mandated as part of the loan from a rural bank. "Over the last two years, the technology platform has got more robust, and with further improvements, the transparency and creditability of data generated will enhance. What is critical is the commitment of all the stakeholders to use the deployed technology," she said.


Mr Satyajit Tripathy

GIC Re deputy general manager Satyajit Tripathy, while speaking about crop yield data said that crop yields typically exhibit substantial variation, mostly due to varying weather events and technological improvements, which do not contribute to the risk a farmer faces at a specific point in time. "For actuarial purposes, the volatility related to changes in technology have to be isolated from yield time series resulting in better value for the product," he said.


Mr Saurabh Srivastav

AgRisk founder Saurabh Srivastav called for the creation of stronger bonds between insurers and the farming community on the ground. "Agriculture business is diverse from other lines of insurance business and the risk should be managed by creating a consistent strategy to deal with the inevitable uncertainty of today's volatile markets," he said.


Mr Aditya Khanna

Calling for public private partnerships in expanding agriculture insurance in India, Prudent insurance broker vice president Aditya Khanna said that there was need for more investment in the sector. "Pricing and delivery is a problem currently and so a public private partnership model should be tried out in agri insurance, which also has the scope of creating mass employment opportunities," he said.

Underwriting issues

Agriculture underwriting is different considering that the insured product has a huge socio-economic impact and underlying factors keep on changing. Bharti AXA General vice president for agriculture and rural business Alok Shukla highlighted the various challenges facing Indian agriculture market. "The availability, accuracy and granularity of data is a challenge followed by diverse climate, diverse crops and diverse resource availability. Along with this is the quickly changing environment and on-field dynamics," he said.

Considering the huge volumes in premium, the temptation to underwrite agriculture insurance is huge. SBI General Insurance Company national head – rural agriculture Suresh Kumar advised the industry to be cautious as there are uncertain exposures in this portfolio. "Decide where you want to operate and ensure your accumulation is not in one region," he said.

L-R: Dr Jeff Amthor, Mr Suresh Kumar and Mr Alok Shukla.

Speaking of the challenges in crop yield modelling in India, AIR Worldwide assistant vice president and principal scientist Dr Jeff Amthor said that the best process models depend on the objectives. "A simple model is more practical, and the key is in creating a balance between empiricism and mechanism. Condense the model and remove components that add noise rather than numerical precision," he said.

Reinsurers have important role


Ms Nymphea Batra

India currently generates the third largest agriculture reinsurance premium and, in a few years, could become the largest. Guy Carpenter Marsh India senior vice president Nymphea Batra said that considering the huge volumes being generated by crop insurers, there needs to be adequate reinsurance support for the market. "There is a need for an alternate to shareholder's capital to meet the massive demand, and the cost of reinsurance as capital is generally lower than the cost of shareholders' capital for insurers. Insurers will also need to protect their balance sheet from extreme volatilities inherent in crop insurance," she said.

State-owned GIC Re is supporting the market but to remain sustainable and stable in the long run, the agriculture insurance market needs the support of the international reinsurance community. The main concern for the global players is that India, being highly dependent on monsoons, faces fluctuating weather and could have extreme crop losses. AIC deputy general manager Ajay Singhal said that collaboration between different stakeholders was important to succeed in crop insurance.

The two-day conference was sponsored by RMS.