Agriculture: Factors for sustainable schemes

Mr Peter Book of **Allianz SE Reinsurance Branch Asia Pacific** breaks down the essential points of what sustainable agriculture insurance schemes are about.

Whilst agricultural insurance schemes are varied in their make-up, most have a common purpose at their core. Their intended purpose is to provide effective, efficient, timely and fairly rated risk management against substantive perils to a geographically diverse group of farmers so as to allow them to continue to engage in the sustainable production of agricultural produce that does not otherwise distort their farming operation at a cost and level that allows them a reasonable standard of living.

The end result being that produce (food) is made available to the local populous for consumption (domestic food security) or exported (global trade) for profit.

Key points to note in statement

Risk management

In commercial insurance schemes, risk is never "transferred" away, it is merely smoothed out with one-off or shock losses cushioned by the insurance system. After allowance for administration expenses and return on capital, insurance premiums will over time always exceed the pure sum of claims. It is a misnomer to use the term "transfer", we should consider using the term "volatility smoothing" when we talk about insurance.

Highlights

- Farmers should view insurance as a form of volatility smoothing and not as a cash handout
- There should be some form of government or other external financial contribution in the way of premium subsidies or other forms of subsidies to result in a retail rate/ premium within the farmers' buying power

Substantive perils

A small number of perils are normally responsible for the majority of losses (drought, hail, flood etc) and schemes should address as many of these major perils as possible to ensure a meaningful outcome for farmers.

Geographic diversity

Attritional losses in agriculture tend to be localised. Focusing only on farmers in a small area is likely to lead to a binary outcome; high losses or high profits. A widespread portfolio will be more resilient, and whilst still exposed to severe systemic losses, less reactionary to localised events.

Effective

The concept of indemnity should apply – the insured should be put back in the same

position they would have been had the insured event not have occurred. Over-compensation can increase moral hazard and fraud whilst systematic under-compensation reduces the farmers' willingness to participate as they retain a large percentage of the volatility. Farmers should be aware of the existence of the insurance, and its cost. It should not be hidden in the cost of finance with the beneficiary being the financier. This is not indemnification to the farmer, only the financier.

Efficient

Excessive loading of the risk rate with high administration charges and a resultant high retail rate dilutes the farmers buying power. Ideally sales channels should operate in parallel with existing transactions to avoid the creation of an additional bespoke process and costs.

Timely

The timing of insurance claims payments can be as critical as the quantum. A loss in one season that is not indemnified in time for a farmer to use the claim proceeds to replant or restock in the next season can result in severe financial hardship or bankruptcy. In multi season systems, it is necessary to resolve claims close to the end of season to provide farmers with funds to plant in the next season or to even replant within the same season.

Fairly rated

Excessive loading of the risk rate for inadequate data, uncertainty and volatility should be minimised through a concerted effort to attain quality data.

Distortion

Risk rates should not be excessively smoothed to provide a homogenous rate over wide areas that have an underlying heterogeneous risk profile. To do so disincentives participation in low risk areas and increases participation in high risk areas, ultimately resulting in higher and higher loss ratios. An insidious effect of excessive rate smoothing is the change in the makeup of the agricultural industry as farmers shift from systems that are low risk but uninsured to those that are high risk and insured. Their profession changes from that of a farmer to a serial claimant.

Sustainable

Increasing population and changing diets will create increasing demand on agriculture to supply more and more produce from finite resources (land, water, chemicals, labour). To do so will require the use of improved technologies and mechanisation which will require investment by farmers and aggregators of inputs and outputs. This investment will come at a higher cost if insurance is not available to support it.

Cost of insurance

Agriculture primary production is somewhat unique in that it has an excessively high sensitivity to weather. High attritional loss costs are exacerbated by low frequency extreme losses. Once insurance extends beyond simple hail/fire only cover and assumes a multi-peril type offering, the true loss potential may be difficult for farmers to comprehend and they may struggle to accept a full commercial rate. There is an adage that states that farmers will only pay for one in 10-year losses, rates (premiums) beyond that are often beyond their comprehension and or their buying power.

Standard of living

Unfortunately the agricultural sector is often overrepresented in socio-economic groups with low income levels and high poverty rates. Many participants are heavily exposed to adverse weather and live a season to season existence leaving them stuck in a poverty cycle. To break this cycle we need to limit the loss potential within a season and facilitate access to regulated finance to encourage resilient investment. Such finance or investment is more effective when backed by insurance which, if lasting change is to be effected, is likely to require some degree of cost subsidisation.

Domestic food security

This is an understandable concern for any government that finds its economy being a net importer of food. Intervention by governments in such a situation is common and insurance is often used as an instrument to influence farming practices through the provision of subsidised finance, inputs or price support schemes.

Sustainable success

Taking all the foregoing into account, the factors that contribute to the sustainable success of agricultural insurance schemes can be summarised as:

- Recognition by the participants that what is being offered is volatility smoothing and not a cash handout.
- Coverage against the major perils that consistently impact on production/yield and by extension farmers' standard of living.
- Intense marketing and distribution or ideally a compulsory approach to attain geographic diversity.
- A genuine level of payment to the farmer that represents the extent of their loss or as a bare minimum the sunk investment cost in the season or livestock.
- A retail cost as close to the risk rate as possible attained through efficient distribution.
- A claims structure that minimises the potential for delays in funds reaching claimants.
- Minimal loadings for uncertainty via the use of accurate data to assess the loss cost.
- A retail rate that is reflective of at least the relative underlying risk in the specific location without undue rate smoothing.
- Some form of government or other external financial contribution in the way of premium subsidies, acquisition and administration expense subsidy, governmental stop loss or subsidised reinsurance for extreme losses all to result in a retail rate/premium within the farmers' buying power.

Whilst the foregoing would depict a somewhat utopian insurance scheme, it is acknowledged that none of the currently large international schemes started out like this and few have reached it. However, there is another adage that states "one should start how one intends to finish". With this in mind, the end or intended state of any new scheme should be understood at the outset and requisite structures and resources put in place from day one.

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