

# Multi-Peril Crop Insurance Incentive Measures

## Submission by Allianz Australia

Allianz welcomes the opportunity to provide a submission in response to the Information Paper as part of IPART's review of multi-peril crop insurance incentive measures.

### Background

Allianz's interest in this area arises out of our significant involvement in agricultural insurance in both Australia and internationally. The Allianz Group is one of the largest agricultural insurers globally offering multi-peril crop insurance (MPCI) products in more than 15 countries. Primacy, a specialist crop insurance underwriting agency and wholly-owned subsidiary of Allianz Australia, is Australia's largest provider of Crop and Forestry insurance. Through Primacy, Allianz released an MPCI product to market in 2015 called PrimeGuard.

This is a 'classic' production guarantee MPCI product that covers farmers against loss of yield due to a number of insured perils including drought, excessive rainfall, heat stress, hail, fire, flood, frost, wind and pest/wildlife damage. Farmers also have the flexibility to choose their own level of cover, ranging from 40% to 70% of the average crop yield.

Compared to traditional hail and fire crop insurance, MPCI products are able to provide farmers with significantly expanded levels of insurance protection and options for risk management. This product recognises the multiple sources of risk for farmers. Specifically, in the context of IPART's review, MPCI has the ability to protect farmers and rural communities in a relatively efficient, while at the same time facilitating and encouraging greater self-reliance and independence from traditional forms of government drought assistance. In this respect, a large take-up of MPCI can alleviate the need for, and influence the design of, government drought programs. The removal of key barriers to this take-up, in particular, the high price of cover, could lead to net fiscal benefits for governments that seek to assist farmers, related businesses and regional communities generally, protect themselves and recover from drought and other natural perils. Traditional MPCI support programs with high coverage levels might not be a solution for multi-year droughts. However, options with low coverage levels (eg 40% of the average multi-year yield) can be cost-effective to ensure farmers recover the cost of production at drought years. According to the data available for NSW, the cost of

such low-coverage options might be within the 3%-5% premium range and materially more affordable for farmers compared to existing MPCl products which have premiums around double this range.

In 2008, the Bureau of Meteorology (BOM) and CSIRO<sup>1</sup> undertook a study into future climate patterns. They concluded that there is an increased risk of severe drought projected over the next 20 to 30 years and farmers need access to better information about climate change preparedness in order to make proactive decisions regarding their farming business. If drought is to become more of a problem, then governments would benefit from supporting risk management solutions that not only better assist farm businesses and related communities protect themselves against the financial impacts of droughts but also if those solutions provided for smoother and more predictable fiscal impacts on government budgets, compared to the unpredictable and volatile budgetary impacts associated with traditional drought assistance programs.

### **What are the barriers to the offering and uptake of MPCl in NSW?**

- *High premium rates*

Relative to traditional crop insurance and other commonly purchased insurance products (eg home and business insurance), the large array of natural risks faced by farmers means that MPCl is expensive. Premiums are often around 7%-10% of sum insured or more, depending on the selected coverage level. Many farmers find premiums at these levels to be prohibitively expensive for farmers. The characteristics of MPCl that necessitate these high premiums include the pure risk cost, commissions to intermediaries, administration and loss adjustment costs and the reinsurance cost. International experience suggests that market penetration, that is, the take-up, of MPCl is low when premiums are set at pure risk levels.

The pure risk component of the premium is based on the loss cost due to claims and forms the preliminary basis of premium pricing. Australian farmers operate in one of the riskiest industries in one of the riskiest environments in the world. The extreme variability in agricultural production increases the risk cost; driving premiums upwards.

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<sup>1</sup> Hennessy et al. (2008) *An Assessment of the impact of climate change on the nature and frequency of exceptional climatic events*, A consultancy report by CSIRO and the Australian Bureau of Meteorology for the Australian Bureau of Rural Sciences, [www.bom.gov.au/climate/droughtec/](http://www.bom.gov.au/climate/droughtec/)

- *Significant administration and loss adjustment cost*

Administrative costs include the establishment costs of insurance, cost to collect information and the adjustment of estimates for asymmetric information. Asymmetric information occurs because the farmer understands his or her risks in greater depth compared to insurers. This gives rise to the pervasive insurance problems of adverse selection and moral hazard. To price MPCl correctly, insurers require relevant Local Government Area and farm level production and climatic data, which is often not readily available. The government has a role to play here to assist in the collection and provision of data as public goods to assist insurers to properly design and accurately price insurance contracts. The US Risk Management Agency uses geographic information systems (GIS) to manage information and analyse the crop insurance program, which lead to identified savings to the Agency of \$20 million per year. The installation of additional weather stations and the sharing of NSW Rural Assistance Authority data would help address MPCl information asymmetry issues by providing insurers with intelligence about weather related risks to a finer degree.

Loss adjustment costs for MPCl products are significantly higher due to the requirement to survey all insured fields for the purpose of establishing actual crop yields. This is different from traditional hail and fire crop insurance where the loss adjuster has to inspect only the fields affected by the insured risks. Although application of modern technologies (eg drones and satellites) helps reduce loss adjustment costs, they remain significant, and hence play a role in the high premiums faced by insureds.

- *Systemic risks require comprehensive reinsurance programs*

Systemic risk refers to a risk that affects a large number of policyholders at the same time. MPCl has significant systemic risk in the sense that insured perils, such as widespread drought, are likely to affect multiple farmers at once, leading to a large number of claims and substantial payouts. The affordability barrier to significant take-up of MPCl impacts on insurers' ability to spread risk geographically (although higher take-up can also add to systemic risk). Overcoming systemic risk requires the purchase of reinsurance, which places further upward pressure on premiums. Under the Standard Reinsurance Agreement, the United States Federal Government provides reinsurance, by covering a portion of private insurers' underwriting losses. Governments of Canada, Turkey, Spain and China also provide reinsurance support to MPCl programs.

- *MPCl programs have limited potential for development without government support*

International experience suggests that in the absence of government intervention through subsidies or other support that addresses the premium affordability issue, MPCl is generally not viable. There are no cases internationally where market penetration of

MPCI exceeds 20% of relevant farm business where premium subsidies are not provided by government. World Bank data (2010) indicates that for all high-income countries that offer MPCI, the producer loss ratio is greater than one in the absence of the subsidised portion of premiums<sup>2</sup>. At such low penetration rates, the availability of MPCI does little to alleviate the need for governments to fund traditional drought assistance programs, which then creates a moral hazard issue in itself that can further discourage farmers from purchasing MPCI. In the United States, the government provides compensation to private insurance companies to recover operating and administrative costs that would otherwise be included in the premiums paid by farmers. This has led to about 80% of total crop area being insured<sup>3</sup>. Spain, Turkey, Italy, Russia, China and Austria provide MPCI under a public-private partnership similar to the US, while Canada, Greece, Cyprus and Israel operate under schemes run by the Government. Subsidies on premiums range from 40% in Spain to 60% in Canada<sup>4</sup> and up to 67% in Turkey<sup>5</sup>.

- *Competition between insurance solutions and traditional government drought assistance programs*

A 2012 report by the National Rural Advisory Council (NRAC) into the feasibility of agricultural insurance products in Australia for weather-related production risks found that a low uptake of MPCI would result from farmers using other risk management strategies. These included ad hoc drought assistance programs provided by governments and a reduced incentive for farmers to participate in MPCI schemes due to the creation of a price wedge. In February 2015, the NSW State Government announced a range of assistance packages in response to the 2013 drought including \$150 million in low interest loans. The Commonwealth Government also provided \$250 million per year in low-interest loans and \$615 million over the next four years under the Farm Household Allowance.

In Canada, if a farmer does not participate in agricultural insurance programs, government drought payments are reduced by the estimated premium that would have been paid to insurers. This encourages farmers to actively engage in risk management strategies and avoids undermining the MPCI program. Canada has introduced one of the best integrated agricultural risk management frameworks internationally, with various elements complementing each other (agri-insurance, agri-stability, agri-invest,

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<sup>2</sup> Deloitte Access Economics (2015), *Scoping study on multi-peril insurance and its application to agricultural industries in NSW*, Report for the Department of Primary Industries NSW

<sup>3</sup> Shields, D.A. (2015), *Federal Crop Insurance: Background*, Congressional Research Service <https://www.fas.org/sgp/crs/misc/R40532.pdf>

<sup>4</sup> M. Bielza Diaz-Caneja et al. (2009), *Risk Management and Agricultural Insurance Schemes in Europe*, JRC Reference Reports [http://www.preventionweb.net/files/12515\\_jrcreferencereport200909agriins1.pdf](http://www.preventionweb.net/files/12515_jrcreferencereport200909agriins1.pdf)

<sup>5</sup> Necati Icer, TARSIM (2016) *Claims Handling in Agricultural Insurance in Turkey*

agri-recovery, etc.). This framework is jointly financed by federal and provincial governments, finance and insurance institutions, producer associations and farmers.

- *Complexity of MPCl program and design*

MPCI programs are fairly complex in their design. They require significant information and educational activities to be implemented for the farmers to understand how the cover works. If governments were to provide premium support for MPCl, there would be merit in the standardisation of insurance products, and underwriting and loss adjustment guidelines to assist with increasing farmers' awareness and understanding of MPCl programs, as well as reduce potential for disputes. Currently, there are a number of MPCl products offered by insurers in Australia. All of them differ significantly in design and in the application process. For example, revenue-based MPCl insurance offering farm-level coverage requires a significant amount of financial information because it seeks to take account of both yield and price risk. PrimeGuard by Primacy is a production guarantee product based on average crop yields and pre-agreed commodity prices. Another product available is a production cost product based on rainfall index, crop revenue and market pricing. Another MPCl product now available is an agreed production cost form of insurance. While product choice is generally a positive feature of markets, in a new area of crop insurance in Australia, such variety of MPCl products makes it very difficult for farmers to assess the options available and to choose the best solution for their situation. The experience internationally is that government supported MPCl schemes work best when insurers offer a standardised product and compete on other elements such as price and service.

- *Taxes and duties increase the cost of insurance to farmers*

Currently, farmers have to pay GST and Stamp Duty on crop and livestock insurance premiums. This increases the premium to be paid by at least at 12.5% (NSW). The international experience is that many countries have decided to waive taxes on subsidised insurance. The main reason is that the governments have realised that it makes little sense to apply taxes to the premium paid by agricultural producers when the premium is being subsidised to address affordability concerns. In the Australian context, there is little tax policy argument in favour of carving (more) products out of the GST net, in the current context, not least because the tax is imposed by the Commonwealth Government. However, Stamp Duty is a State Government responsibility and it makes little sense for the NSW Government to be both seeking to alleviate an affordability issue related to insurance while at the same time directly contributing to the problem.

## What issues should IPART take into account when designing a measure to reduce the upfront cost of MPCl premiums?

- *Catastrophic cover and mandatory requirements*

One of the practical ways to reduce the cost of MPCl premium is offering Catastrophic (CAT) covers (40% or 50% of the average yield). Usually CAT cover options are low priced due to the low probability of complete crop failure. The government can impose a mandatory requirement on farmers to sign up for CAT cover to be eligible for other government assistance programs. For example, the US government offers an individualised CAT cover at 50% of yield and 55% of commodity price. This cover is fully subsidised by the Federal government with the requirement for farmers to cover an administrative fee of \$300 for each crop in each administrative unit (county).<sup>6</sup>

- *Insurance provides individualised cover*

There are obvious benefits from having MPCl as part of a drought policy toolkit. The major benefit of insurance is that it provides timely and certain protection against losses for farmers, which in turn improves business decision making and self-reliance. This benefits not only farmers but also businesses that supply inputs to farming, as well as regional communities generally that rely on the financial health and sustainability of surrounding farm businesses. The certainty and timelines of support that insurance provides contrasts markedly with some government drought assistance measures. Insurance policies come with largely predictable outcomes from specific events providing individualised cover to each farmer, unlike the variety of types and eligibility conditions through which some drought assistance measures are currently provided.

- *Delivery of better-targeted assistance to farmers*

Another major benefit is the more efficient provision of government support to farmers. A Productivity Commission conducted review of Government Drought Support found that there was a mismatch between the objectives of National Drought Policy and drought programs. Specifically, there was a clear divergence between the aim of promoting the self-reliance of farmers to prepare against drought and the majority of programs being emergency payments to farmers. The Productivity Commission noted:

Farm performance is strongly correlated to vulnerability to drought. Apart from local climatic circumstances, how drought affects farming families and farm businesses depends on farm management practices, the degree

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<sup>6</sup> <http://www.rma.usda.gov/policies/2015/15cat.pdf>

of income diversification and the store of capital that farmers can draw on.<sup>7</sup>

MPCI is able to take into account geographical differences and drought impacts and also gives farm managers the flexibility to choose what level of cover they actually need, rather than broad handouts. The Productivity Commission also noted that nearly half of Australia's broadacre farmers in drought-declared areas managed without assistance. Farmers in 'Exceptional Circumstances' (EC) declared areas who did not receive support were generating higher farm net cash incomes, had higher off-farm investment income to draw on, had higher liquid assets and had the lowest debt levels. Insurance places more onus on the farmer, who know their own individual situation better than any government can, to decide the level of drought protection they will likely need taking into account their own risk appetite. The claims process is also based on a stringent set of rules and definitions, ensuring that only those farmers who actually experience losses receive compensation.

The consideration here, however, should not purely be on the net dollar impact on government and farmers but also on the broader financial and social impacts of drought on farm families, rural businesses and communities. In 2008, an expert panel commissioned by the Commonwealth Government completed an assessment of the social impacts of drought<sup>8</sup>. The panel concluded that there is widespread distress in drought-affected rural communities and too many farm decisions are made under stress. It is clear that insurance has the potential to alleviate this stress and lead to better clarity of decision-making. They also found that policy needs to address the social needs of farming families, rural business and communities in ways that do not inhibit the efficiency of agricultural industries. MPCI, if implemented correctly, should enhance efficiency rather than detract from it in the way that emergency payments often do. Finally, they noted that the connection between the farm as a place of work, residence and family tradition has important implications for the effectiveness of institutional support. The increased certainty from MPCI and also its ability to help farmers on an annual basis is certainly beneficial for farming families and the communities to which they belong. MPCI also has the potential to provide more tailored support in a drought event leading to more equitable outcomes than the current approach which relies on declaring broad geographical areas for eligibility for drought assistance.

Any assistance measures, whether in their development or evaluation, should generally be assessed using general equilibrium economic analysis rather than static economic

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<sup>7</sup> Productivity Commission (2009), *Government Drought Support*, Report No. 46, Final Inquiry Report, Melbourne. Pg. XXII

<sup>8</sup> Drought Policy Review Expert Social Panel (2008), *It's About People: Changing Perspective. A Report to Government by an Expert Social Panel on Dryness*, Report to the Minister for Agriculture, Fisheries and Forestry, Canberra

models or other financial accounting approaches. As noted above, the impacts of drought are not isolated to primary producers. There are also significant downstream and broader community impacts. The advantage of the more holistic picture provided by a GE analysis is:

- I. the ability to derive better measures of the economic welfare gain or loss associated with a new or existing policy, thereby assisting policy analysis and design; and
- II. that they are solved numerically and rather than analytically. The numerical solution of the general equilibrium models can handle substantial changes more easily and reliably and take second and subsequent round impacts into account compared to static or input-output economic models.

### **Are there any other issues that IPART should have regard to in assessing the measures to increase the uptake of MPCl?**

The framework should include a specific, regular trigger for drought assistance program review (eg every 3 or 5 years, or after a drought event). The discussion paper is not clear on this point, providing only that “existing drought programs should be periodically reviewed”.

It has been questioned in the past whether there are enough formal requirements for transparency in the assessment of the impact of drought on farmers and on the provision of drought assistance. This ambiguity in process came to a head in September 2007 when the Commonwealth Government declared 14 interim assistance areas (totaling 46% of agricultural land in WA and 51% in Tasmania<sup>9</sup>), thus activating non-recoverable interim assistance for these areas. None of these communities therefore applied for formal EC status. The Tasmanian Minister for Primary Industries and Water described this declaration as ‘an election stunt’. The Productivity Commission even stated in its report that “it appears that a generous interpretation of the criteria, rather than protracted low rainfall, is mainly responsible” for some areas being declared for 14 out of 17 years.

The materiality of the impact on the attractiveness of MPCl from any support measure is relevant to its impact on the uptake of MPCl. For example, while the removal of Stamp Duty could make a contribution to a broader approach to premium support, on its own it would have little impact in NSW. For example, in NSW, the levy for all crop types is 2.5% whilst in other states it is as high as 11% (SA). As such, a proposed waiver in NSW would have a negligible impact on MPCl uptake and reduction in the role of government as an insurer of last resort. To put this in context, for the current average

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<sup>9</sup> Productivity Commission (2009), *Government Drought Support*, Report No. 46, Final Inquiry Report, Melbourne. Pg. XXVIII

premium under PrimeGuard of approximately \$25,000, the saving would only be \$625. The measure would be an admirable as a preliminary step, but would need to be coupled with other premium support for there to be any real impact on MPCl take-up.

Any proposed change also needs to conform to the 2013 Intergovernmental Agreement on National Drought Program Reform (IGA). There is a gaping hole in Commonwealth drought assistance when it comes to a specific program to help farmers post-event. The Farm Management Deposit Scheme assists in dealing with variable income but it is one small tool, as are the concessional loans provided for those businesses experiencing significant financial impact due to drought. NSW programs encourage drought preparedness and also support rural families post-event. All of these assistance measures would not be mutually exclusive to MPCl measures. The measures to be evaluated by IPART, in particular premium subsidies, would give farmers another option to ensure they can survive and flourish after extreme weather events such as drought.

An MPCl support implementation strategy should have a long-term planning horizon (10 or more years). Usually the pilot stage for launching an MPCl support program takes at least 3-5 years. This time is required to educate farmers on the basics of a new program and to inform them on the risk mitigation options available. Moreover, information activities need to be continuously undertaken as the structure of the program or product design will likely change. Additional educational activities would need to be put in place for new and young farmers entering the agricultural production sector. For example, Turkey has started a subsidised MPCl program in 2006 offering from 50% to 67% of premium subsidy. This country has one of the best performing MPCl programs in Europe that has been introduced during the last 15 years. However, even with the extensive government support offered (premium subsidy, catastrophe loss co-financing, reinsurance capacity provision and support for loss adjustment costs) the overall penetration rate is only 14% and increasing only gradually. Other countries also recognise the importance of education and outreach programs. In 2015 alone, nearly 90,000 farmers and ranchers in the USA participated in outreach events organised by the MPCl program administrator RMA<sup>10</sup>.

Special attention should be given to the product design. Although insurers are often apt to offer the most comprehensive coverage, this should be done with caution in relation to an MPCl support program. Usually, it is advisable to start offering MPCl cover for key strategic crops (eg based on export potential) with gradual extension of cover to other crops. This will help to learn from doing and to ensure program stability. Significant amount of time will be required to fine-tune the underwriting and loss adjustment protocols, which can't be done overnight, especially taking into account the current variety of MPCl products offered in Australia by different insurance providers.

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<sup>10</sup> Risk Management Agency, [www.rma.usda.gov](http://www.rma.usda.gov)

MPCI support programs are data intensive. Premium rate calculation methodologies usually require large amounts of different information including farm and LGA level yield production data, annual loss data structured by types of perils, area planted and harvested per crop type, weather data and crop marketing information. Although some of this data is available in Australia, there is no one source that could provide the comprehensive data sets for actuarial analysis. Usually, governments provide the necessary data to insurers for at no cost on the condition that this data is used exclusively for MPCI insurance purposes.