15 December 2011

Barriers to Effective Climate Change Adaptation
Productivity Commission
LB2 Collins Street East
MELBOURNE VIC 8003

Via email : climate-adaptation@pc.gov.au

Insurance Australia Group (IAG) welcomes the opportunity to make a submission in relation to the Productivity Commission's *Inquiry into Regulatory and Policy Barriers to Effective Climate Change Adaptation.*

This submission identifies the high priority reform options needed to address the regulatory and policy barriers to effective climate change adaptation.

If you wish to discuss the issues outlined in the submission or make further inquiries, please contact David Wellfare, Senior Adviser, Economics & Policy on (02) 9292 8593 or myself on (02) 9292 9291.

Yours sincerely,

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Insurance Australia Group

SUBMISSION TO PRODUCTIVITY COMMISSION INQUIRY INTO REGULATORY AND POLICY BARRIERS TO EFFECTIVE CLIMATE CHANGE ADAPTATION

December 2011

EXECUTIVE SUMMARY

- Weather and climate are “core business” for the general insurance industry. At its most basic, insurers underwrite weather-related losses (including physical damage to insured property and interruptions to business continuity) by assessing, pricing and spreading the risk and then meeting claims when they arise.
- Adaptive measures can compliment insurance in dealing with the consequences of climate change. Insurance is a means to provide compensations for financial losses. However, it is preferable to prevent losses from occurring subject to the cost-benefits involved. The optimal solution is a combination of the two – implementing preventative measures to reduce loss frequency and severity and insuring against rarer and more costly events. Government preventative infrastructure spending reduces future losses and enables more affordable property insurance schemes.
- IAG appreciates that the Federal Government is mindful of a general policy, adopted by successive Australian Governments in recent times, to the effect that where commercial markets, including insurance markets, operate efficiently and effectively on their own, the government should be reluctant to intervene.
- IAG recognises the crucial role of government in providing a comprehensive and clearly-defined regulatory framework that promotes community resilience to risk and facilitates more affordable premiums and more predictable claim costs. Government has a particular role in encouraging and regulating risk-appropriate development of the built environment and providing an appropriate emergency services framework.
- To further mitigate against risk, IAG believes there is a need for greater emphasis by government on community adaptation to extreme weather events, including stronger building codes to protect structures from extreme weather hazards – tropical cyclones, severe storms, hailstorms, bushfires and flood – more risk-appropriate use of land and greater emphasis on hazard mitigation infrastructure.
- Until now, building code standards have focused in principle on protecting life and safety. IAG suggests there is scope to enhance building standards so that they also cost-effectively protect the property itself, and its owner’s financial interest, without sacrificing safety performance.
- Government has a crucial role to play in risk-appropriate land use planning and zoning. Land that is, or becomes, at unacceptable risk from hazards such as tropical cyclones, severe storms, hailstorms, bushfires and flood should not be zoned for residential or commercial use. Without sound and consistent government controls, there is little to prevent ongoing building in locations of extreme vulnerability.
- Cooperation and data sharing with government is essential to ensuring that the risks can be mapped and understood, and significant solutions are yet to be implemented.
- The general insurance sector argues that there is a clear social and economic case for eliminating or at least reducing State insurance taxes and charges as a priority in any reform of Australia’s taxation system.
- It is in the insurance industry’s interest to educate the community on how to become more resilient to increasingly severe weather events, as well as how to reduce their impact on the environment.

INTRODUCTION

Recent natural disasters have understandably generated a national discussion of how we may reduce our vulnerability to natural hazard threats and address any regulatory and policy barriers to effective climate change adaptation.

We are seeing marked increases in population density generally and especially in areas that are prone to natural disasters (particularly around coastal areas), leading to more damage producing natural disasters of all types. Climate change related increases in natural disasters will exacerbate these trends. This combination makes it all the more important that we increase our resilience to catastrophe so we spend less of our limited resources on rebuilding and more on investing in the future.

IAG believes the current circumstances present us with an opportunity to develop a national, long-term approach to managing catastrophe risk, through a co-ordinated response to natural hazards, including:

- building greater awareness among individuals of their own personal risk;
- encouraging a more efficient distribution of these risks via insurance; and
- adapting our built environment to reduce the impact of events when they do occur.

This Inquiry provides us with an opportunity to develop a more sustainable and comprehensive national approach to the complex issue of managing climate change. We look forward to working with the government and other stakeholders on the development of the most appropriate options to achieve the social and economic policy objectives, and to support a move towards a more sustainable and comprehensive approach to managing the regulatory and policy barriers to effective adaptation.

IAG

IAG is an international general insurance group, with operations in Australia, New Zealand, the United Kingdom and Asia. Its current businesses underwrite over $8 billion of premium per annum and paid around $6.0 billion in claims per annum. It employs more than 13,000 people of whom around 9,000 are in Australia. Across our portfolio of brands IAG insures 6.9 million cars, 2.4 million homes, 92,800 farms, 121,100 employers and 375,200 businesses. IAG had more than 16.2 million active risks in force or policies in force in financial year 2011.

IAG's Direct Insurance business provides personal insurance products as well as business insurance packages targeted at sole operators and smaller businesses are in NSW, ACT, Queensland and Tasmania primarily under the NRMA Insurance brand. SGIO is the primary brand in Western Australia, and SGIC in South Australia. In Australia, IAG also has a distribution agreement with RACV (underwritten by Insurance Manufacturers of Australia – owned 70% IAG; 30% RACV) in Victoria. Products are distributed through branches, call centres, the internet and representatives. Australia Direct contributed over 48% of the Group's gross written premium in financial year 2011.

IAG's intermediated insurance products are sold nationally, primarily under the CGU Insurance and Swann Insurance brands through a network of more than 1,000 intermediaries, such as brokers, agents, motor dealerships and financial institutions. CGU is also a leading provider of workers' compensation services in Australia. CGU contributed over 30% of the Group's gross written premium in financial year 2011.

INTRODUCTION (CONTINUED)

IAG'S INTEREST IN THE INQUIRY

Weather and climate are "core business" for the general insurance industry. At its most basic, insurers underwrite weather-related losses (including physical damage to insured property and interruptions to business continuity) by assessing, pricing and spreading the risk and then meeting claims when they arise.

As highlighted in the *Issues Paper:*

> *"Insurance can be an efficient way to adapt to climate change by spreading risks to those most willing to bear them. It can also create financial incentives to reduce exposure to hazards, which will be most efficient when insurers can match premiums closely to the risks faced by individual customers." (p.16)*

A changing, less predictable climate has the potential to reduce insurer's capacity to accurately assess, price and spread weather-related risk. Without appropriate mitigation and adaptation measures to offset these uncertainties, the cost of insurance is very likely to rise, with some locations becoming too expensive for consumers to bear the cost of insurance or leading to some insurers withdrawing in part or totally from that market. The total cost of risks insured across Australia has the potential to rise significantly making insurance more expensive for all Australians. This highlights the need for appropriate action to be taken in order to benefit the entire Australian community.

Australia is likely to be one of the countries most affected by climate change. This is a sobering thought when one considers that about 95 per cent of the most costly natural disasters in Australia, in terms of property insurance losses, are weather related. Australia already experiences tropical cyclones, severe storms, hailstorms, bushfires and flood. All these extreme weather events are predicted to increase in frequency and/or intensity in some parts of Australia as a consequence of climate change.

A number of other factors make Australia particularly vulnerable to the increased threat posed by climate change. For example, more than 80 per cent of Australia's population resides within 50 kilometres of the coast and about one quarter of Australia's population growth occurs within three kilometres of the coastline. These communities are particularly exposed to some of the most damaging extreme weather events, such as tropical cyclones, storm surges, windstorms, hailstorms and coastal river flooding.

FACILITATING INSURANCE MARKETS

What kinds of government intervention, if any, would be most appropriate for addressing any market failures or regulatory barriers? What are the costs and benefits of these interventions? (Issues Paper, p.16)

Role of Government

The *Issues Paper* notes:

> *"…intervention that dilutes the signals provided by the market may ultimately lead to significant costs and distortions. An example could be direct government provision or subsidisation of insurance where it is not available on the private market, which could encourage further development of disaster-prone land. This could impede the structural adjustment that may be required in a changing climate, or lead to significant costs to taxpayers when a major disaster occurs. Further, in some cases, 'moral hazard' might be an issue that arises when there are expectations that governments will make compensation payments following a natural disaster. This could reduce incentives to purchase insurance or manage risks." (Issues Paper, p.16)*

IAG appreciates that the Federal Government is mindful of a general policy, adopted by successive Australian Governments in recent times, to the effect that where commercial markets, including insurance markets, operate efficiently and effectively on their own, the government should be reluctant to intervene.

IAG notes the Geneva Association's *Climate Risk and Insurance Project - Tackling Climate Risk: An Insurance Contribution to the COP Discussions* (December 2011) view:

> *"In order to maximise the industry's contribution to climate change mitigation and adaptation, policymakers should resist the temptation to distort market forces. Private incentives to mitigate and adapt to risk can and are being undermined by ill-designed public vehicles, e.g. public disaster relief schemes which remove individuals' incentives to manage risk or government sponsored or -owned insurance initiatives that set premiums below the level at which a private sector insurer could run a viable business, as in some natural catastrophe prone parts of the U.S." (p.3)*

IAG recognises the crucial role of government in providing a comprehensive and clearly-defined regulatory framework that promotes community resilience to risk and facilitates more affordable premiums and more predictable claim costs. Government has a particular role in encouraging and regulating risk-appropriate development of the built environment and providing an appropriate emergency services framework.

To further mitigate against risk, IAG believes there is a need for greater emphasis by government on community adaptation to extreme weather events, including stronger building codes to protect structures from extreme weather hazards; - tropical cyclones, severe storms, hailstorms, bushfires and flood - more risk-appropriate use of land and greater emphasis on hazard mitigation infrastructure.

Moreover, individuals and communities need to take personal responsibility to understand what risks they are insuring against and individuals need to financially protect themselves against loss.

FACILITATING INSURANCE MARKETS (CONTINUED)

As the COAG National Strategy for Disaster Resilience (February 2011), highlighted:

> *"Underpinning a disaster resilient community is knowledge and understanding of local disaster risks. We all share responsibility to understand these risks, and how they might affect us. By understanding the nature and extent of risks, we can seek to control their impacts and inform the way we prepare for and recover from them".*

IAG suggests that key areas of government responsibility include building standards and planning codes.

Preventative measures

Adaptive measures can compliment insurance in dealing with the consequences of climate change.

Insurance is a means to provide compensations for financial losses. However, it is preferable to prevent losses from occurring subject to the cost-benefits involved. The optimal solution is a combination of the two – implementing preventative measures to reduce loss frequency and severity and insuring against rarer and more costly events. Government preventative infrastructure spending reduces future losses and enables more affordable property insurance schemes.

The Economics of Climate Adaptation Working Group

The Working Group found that there if current development trends continue to 2030, the locations studied will lose between 1 and 12 percent of GDP as a result of existing climate patterns. Within the next 20 years, a scenario of high climate change would increase today's climate-related losses by up to 200 percent as soon as 2030.

The study found that a portfolio of cost-effective measures can be put together to address a large part of the identified risk. In principle, between 40 and 68 percent of the loss expected to 2030 in the studies undertaken – under severe climate change scenarios – could be averted through adaptation measures whose economic benefits outweigh their costs - with even higher levels of prevention possible in highly targeted geographies. These measures include infrastructure improvements, such as strengthening buildings against storms or constructing reservoirs and wells to combat drought; technological measures, such as improved fertiliser use; systemic or behavioural initiatives, such as economics of climate adaptation awareness campaigns; and disaster relief and emergency response programs. Risk transfer or insurance measures also play a key role in addressing low-frequency, high-severity weather events such as1% AEP (Annual Exceedance Probability) floods. However, in most cases there remains a proportion of climate-related risk that cannot be averted through known adaptation measures – underlining the fact that adaptation, no matter how well designed, cannot be a substitute for action to reduce carbon emissions and slow the rate of global warming.

The study reinforced the view that adaptation measures are in many cases also effective steps to strengthen economic development – especially in developing countries. Measures with demonstrated net economic benefit are more likely to attract investment – and trigger valuable new innovations and partnerships. Indeed, well-targeted, early investment to improve climate resilience – whether in infrastructure development, technology advances, capacity improvement, shifts in systems and behaviours, or risk transfer measures – is likely to be

FACILITATING INSURANCE MARKETS (CONTINUED)

cheaper and more effective for the world community than complex disaster relief efforts after the event. (http://mckinseyonsociety.com/shaping-climate-resilient-development/ *(Economics of Climate Adaptation Working Group; ClimateWorks Foundation, Global Environment Facility, European Commission, McKinsey & Company, The Rockefeller Foundation, Standard Chartered Bank and Swiss Re, 2009)*

Lismore

Flood mitigation works in Lismore illustrate the return on investment in mitigation and prevention. In 2005, after completing a $19 million levee, Lismore experienced a 10% AEP flood. The levee saved about $15 million in recovery costs on that occasion alone and also played an integral part in minimising flooding in Lismore in subsequent years. *(Attorney-General, Hon Robert McClelland MP Mayo Lecture James Cook University, Townsville, 6 October 2011, p. 4)*

The Dutch "Delta Plan" dam program

In January 1953 the Netherlands suffered a severe flood and storm surge. Approximately 1,800 people were killed and 72,000 had to be evacuated for an extended period. 3,000 houses and 300 farms were totally destroyed and more than 40,000 houses and 3,000 farms damaged. Almost 200,000 hectares were flooded. Losses are estimated to have been A$1bn in 1953 terms.

The Delta Plan began in 1958 and was completed in 1997 and included construction of a network of dams, locks and levees in the Rhine-Meuse-Scheldt river delta to reduce the coastline by 700km. The smaller number of dikes to defend the shorter coastline were raised to the so-called "delta level" five metres above the normal Amsterdam level. This reduced the flood risk to 1/4000 per annum for the delta area and 1/10,000 for the densely populated region of Western Holland.

The investment of up to $1.3bn was in contrast to the potential loss of $800bn in a worst case scenario. *(Swiss Re; Sigma No.3/2011 p. 11)*

Building Standards

IAG's post-event analysis of building damage after a number of major natural disasters indicates there is a crucial role for government to support community resilience by ensuring that new buildings in "at-risk" areas are constructed to withstand hazards such as tropical cyclones, storm surge, severe storms, hailstorms, bushfires and flood.

Until now, building code standards have focused in principle on protecting life and safety. IAG suggests there is scope to enhance building standards so that they also cost-effectively protect the property itself, and its owner's financial interest, without sacrificing safety performance.

Some of the strategies focusing on protecting life and built property are achieved through land use planning and zoning instruments. Strategies include:

- Minimum floor heights and structural requirements for foundations;
- Deep setback of buildings from rivers/shorelines;
- Relocation of buildings or infrastructure (including capacity for emergency relocation of demountable buildings); and

FACILITATING INSURANCE MARKETS (CONTINUED)

- Enhanced monitoring, emergency warning and evacuation procedures.

Examples of additional measures available include:

- Investment in permanent engineering structures such flood barriers, canals, dykes, pumps, levees, and importation of fill;
- Plantings (such as dune grasses, mangroves) to absorb water and/or stabilise erosion-prone surfaces;
- Sacrifice of land; and
- Land buyback schemes.

Improving the resilience of the built environment to severe weather and natural disasters will also enhance the community's economic and social resilience.

IAG notes that severe weather events can cause significant and costly physical damage to ancillary structures such as fences and sheds that are not currently covered by building standards. There is scope for further data analysis and research in this area to inform a review of the current situation.

The extension of the building codes to include the prevention or reduction of damage to buildings and contents should be implemented. The codes need to be extended beyond the normal principal place of residence and commercial buildings to include all forms of outbuildings and structures above an agreed size, such as garages, pergolas, sheds and anything else that could turn into a projectile in a tropical cyclone or other severe storm. Externally fitted structures such as air conditioners and solar panels should also have a building code to ensure at least a basic level of structural integrity in the event of a major storm – including hail storm.

One potentially useful approach could be to develop a form of resilience rating given to buildings, and especially external claddings and internal walls in flood prone areas - similar to the star ratings systems used for energy efficiency and water use. A five star cladding, solar panel or air conditioner should be able to withstand the wind effects of a Cat 5 cyclone, for example.

Once resilience ratings were widely in use there would be scope for the insurance industry to offer lower premiums to those people in more resilient buildings compared to those in unrated buildings, thereby providing a financial incentive for individuals to try to self protect and a tool for the construction industry to offer more resilient buildings to clients.

Consideration needs to be given to an economically viable mechanism to encourage people affected by a natural disaster to have repairs completed that will reduce the chances of a recurrence of similar damage in a subsequent severe weather event. Currently typical insurance policies replace like with like and so a damaged insured building is returned to the same level of vulnerability as it was before the event occurred.

A financial mechanism needs to be developed to encourage people having to repair their property following a natural disaster to have the repairs completed to a higher, more resilient rating. These repairs could take a number of different forms which would need to be tested for their viability and effectiveness, but could include strategies such as a co-contribution from government funds on top of the insurance funds, or tax offsets given to the individual, or some other financial incentive, to ensure the building was rebuilt in a manner more resilient to flood, fire or storm damage.

FACILITATING INSURANCE MARKETS (CONTINUED)

Planning Codes

Government has a crucial role to play in risk-appropriate land use planning and zoning. Land that is, or becomes, at unacceptable risk from hazards such as tropical cyclones, severe storms, hailstorms, bushfires and flood should not be zoned for residential or commercial use. Without sound and consistent government controls, there is little to prevent ongoing building in locations of extreme vulnerability.

This is a particular challenge for Local and State Government if not supported by a consistent Federal Government approach to such matters.

The example of the New Zealand Government offering to purchase land in the “red zone” of Christchurch is particularly relevant.

NATURAL PERILS RISK ASSESSMENT

How well are Australian insurance markets coping with climate change and any associated uncertainties? (Issues Paper, p.16)

The policy response to recent natural perils must go beyond insurance. More insurance products will not prevent tropical cyclones, severe storms, hailstorms, bushfires and flood occurring in future. To truly build the resilience of our communities and reduce their exposure to significant natural peril risk, a broader response is required. IAG advocates:

- Higher quality planning standards must be required of local government, to ensure no further development is allowed in areas of unacceptable risk. In addition, existing owners of property in high risk areas should be provided with incentives to relocate to areas with less risk. The New Zealand Government's initiative in reclaiming land in Christchurch is an important example in this regard;
- Building standards must reflect the need to protect property against the risk of tropical cyclones, severe storms, hailstorms, bushfires and flood and other natural hazards in certain locations, in addition to the current focus on protecting lives – the two go hand in hand;
- All levels of government – led by the Federal government – must significantly boost their low investment in mitigation infrastructure (such as levees and barrages) that will protect assets like homes and businesses, and lower the cost of risk. IAG is offering to work with local governments that experience natural hazards to assist in understanding the vulnerability of the risks and examine cost effective mitigation measures; and
- There must be greater availability of and transparency around the mapping and information which will help householders and businesses understand the risk in their location. This information has significant economic value, as it reduces risk, will benefit planning authorities, banks, financiers and developers, and allow insurers to underwrite the risks with maximum certainty. Again, IAG is developing a community awareness program that will assist Australians in understanding the risks they face in their environment and possible options for reducing that risk. IAG would support moves by the Federal Government to have:

  - All States and Territories take urgent steps to ensure the mapping data produced by local governments in their jurisdiction is made available to the insurance industry and other relevant stakeholders, including if necessary by legislation; and
  - The Federal Government in collaboration with States and Territories progress longer term issues and develop a proposal for Government on a national approach to natural hazards modelling, with costed options.

Natural Perils Risk Assessment

One frequently overlooked fact relating to extreme events from any type of natural peril, whether occurring under the current climate regime or a climate change enhanced regime, is the fundamental requirement to quantify the extent, severity and impacts of the perils on the affected region and communities in a systematic manner.

It is impossible to detect climate change trends of extreme weather phenomena and their potential impacts when there is no long-term systematic measurement strategy in place for these extreme events. Tropical cyclone severity, size and changes in their structure and impacts as they move inland across the coast typify this. Even today none of the Australian region tropical cyclones have their true peak intensities and structures measured during the final approaches to land and following their landfall in a rigorous manner. The observations taken

NATURAL PERILS RISK ASSESSMENT (CONTINUED)

are purely those made through chance encounters of the tropical cyclones with often sparse observations networks. There is the ability to employ a range of flexible and remote monitoring technologies that are not optimally used at the current time to do this. There should also be a routine program of post event damage surveys rather than the current ad hoc surveys completed with limited time and resources. These surveys need to be properly structured so that the nature and extent of the natural peril is accurately documented, as are the impacts upon the affected communities. The surveys need to be hosted by an agency that can then make these surveys widely available to those who could use the information.

The recent Queensland floods also demonstrated the need for accurate and detailed geospatial information ahead of, during and after a natural peril has affected a region of Australia.

Flood

The challenge for insurers in providing cover to date has been a lack of data and lack of consistency in the available data.

In responding to this issue the insurance industry has argued that the provision of flood insurance relies largely on the availability of adequate flood mapping and other information to enable the underwriting of risks. In partnership with each of the State Governments, the general insurance industry has developed and licensed the National Flood Information Database (NFID). NFID is an address database containing property addresses, overlayed with the known flood risk according to Government flood mapping. NFID is used by insurers to determine the flood risk to individual properties. Presently, not every flood prone area in Australia is covered by the NFID.

IAG is an active participant in the general insurance industry's considerable work towards developing greater access to residential flood products for Australian communities. Through the ICA, the industry is developing a national flood mapping tool to support better understanding of the risks to the community. Cooperation and data sharing with government is essential to ensuring that the risks can be mapped and understood, and significant solutions are yet to be implemented.

IAG contends that flood maps represent information that is of significant public interest and importance and that it would be inappropriate for governments to restrict in any way public access to flood map data. All parties with a legitimate interest in a property – including potential purchasers, tenants, residents, developers and insurers – should have access to up-to-date flood risk mapping data.

The flood database should be available to the public so that individuals can understand their level of flood risk. This level of transparency is essential in reducing consumer confusion and encouraging people to take steps to manage their risk (such as understanding the flood risk of a property they are buying and purchasing appropriate insurance cover). A flood database would make decisions about mitigation measures, planning and building standards easier for local councils and ensure consumers were more aware of the likely impact of their geographical location on costs such as land value and insurance premiums.

It would be inappropriate and impractical for insurers to take on the role of communicating this risk to the public, which is properly the domain of local government. In addition, under existing laws, only licensed advisers can provide financial advice.

NATURAL PERILS RISK ASSESSMENT (CONTINUED)

Ultimately, the goal is to ensure that communities, planners, emergency services, individuals, property owners and insurers understand the flood (and indeed other natural peril) risks that they face, and that effective risk mitigation measures can be undertaken.

As the Attorney-General's Department outlined in its submission to the Senate Standing Committee on Environment and Communications Inquiry into emergency communications (2011):

> *"Providing communities with information empowers them to make more informed judgements. Key to this is the availability and accessibility of transparent, accurate and trusted information sources in various forms and providing the tools to help communities understand and act on the material provided. While providing information and warnings is important, educating people how to respond is equally important." (p. 7).*

As the ICA notes in their submission to the NDIR:

> *"Without a national repository of publicly funded flood maps, where it can be guaranteed that all possible information has been made available, a gap analysis completed, and a national standard for future mapping established, there will always be an unknown element regarding the level of property risk nationwide. This unknown risk is a complicating factor for insurance companies when allocating capital and reinsurance to cover potential losses and to establish an appropriate risk premium." (ICA Submission to NDIR p.7)*

Storm surge

Storm surge risk is of particular concern with the point risk of storm surge expected to rapidly increase over the coming decades due to the effects of climate change linked increases in sea level *(Haigh, I.D., Pattiaratchi, C., 2010. 21st century changes in extreme sea levels around Western Australia. Proceedings of the 17th National Australian Meteorological & Oceanographic Society Conference, Canberra, Australia)*. The related coastal erosion vulnerabilities of Australia's growing coastal communities also require thorough investigation and quantification.

The issues faced by communities and the insurance industry on storm surge have many similarities to the issues related to damage produced by the flooding of rivers. There is a pressing need to more accurately quantify the risks facing properties in potential storm surge affected coastal and estuarine regions, particularly in locations where there is a merging of the riverine floods with coastal storm surge effects.

Inundation maps for a range of Annual Exceedance Probabilities (AEPs) are needed and high resolution Digital Elevation Models and coastal bathymetry are required for these areas. Open access to the information for the communities at risk and the insurance industry is required. The availability of reinsurance to cover storm surge insurance should improve once the storm surge risks are more reliably and comprehensively quantified.

For identified storm surge high risk areas there could be some mitigation options to reduce the potential for wave action and run-up. For example, subject to suitable studies to ensure there are no unwanted adverse effects, the installation of structures such as sea floor barriers (artificial reefs) may reduce the force of waves on the more exposed coastlines.

NATURAL PERILS RISK ASSESSMENT (CONTINUED)

Tropical cyclones

IAG's modelling indicates that in the next four decades we are likely to see an increase in the number of the most destructive category 4 and 5 tropical cyclones in the Queensland cyclone region and that there will be an increased frequency of cyclones tracking several extra degrees of latitude further south.

It should be noted that there is no tailored program of surveillance of tropical cyclones as they approach the coast, despite the knowledge that improving the accuracy of tropical cyclone forecasts reduces the unnecessary community dislocation through over-warning. There is a mix of remote sensing technologies that could be better utilised to monitor their approach to the coast, ranging from satellite mounted radar systems to enhanced networks of Doppler weather radar to the deployment of dropwindsondes and use of synthetic aperture radar by airborne means.

An improvement in the accuracy of the tropical cyclone predictions should result in better community preparations with a subsequent reduction in damage. These improvements could partially offset the damage expected due to increases in the population becoming exposed to tropical cyclone impacts in the future, thereby helping to stabilise insurance costs.

Windstorms

The importance of providing damage mitigation support for major windstorms, such as the severe East Coast Low that produced extensive damage across the Central Coast and Newcastle regions of New South Wales in June 2009 and lead to 98,000 claims (Insurance Council of Australia), across the southern half of Australia should not be overlooked. These extreme weather events can produce major multi-peril damage (severe flash flooding, river flooding, storm surge, coastal erosion and severe wind damage) across some of the most populous parts of Australia.

Some initial investigations have been conducted into these types of events by the National Climate Change Adaptation Research Facility (NCCARF) – (see http://www.nccarf.edu.au/node/214 - Verdon-Kidd, D.C., Kiem, A.S., Willgoose, G. and Haines, P. 2010. *East Coast Lows and the Newcastle/Central Coast Pasha Bulker storm*. Report for the National Climate Change Adaptation Research Facility, Gold Coast, Australia).

An important insurance related factor in this storm included ambiguities in the determination of what actually produced the damage (a mix of all the factors in some cases) as many affected properties suffered flood damage that could relate to either flash flooding or river flooding. In coastal areas there were storm surge and coastal erosion effects. This highlights the need for speed and accuracy in the assessment of the nature of these extreme events and clarity in the cover offered by the insurance industry.

Severe thunderstorms

Although a very common and recurring cause of damage right across Australia with Sydney (1999), Brisbane (2008), Melbourne (2010) and Perth (2010) all experiencing severe thunderstorm related natural disasters in recent times, apart from IAG's research into the future climate impacts on severe hail storms in the Sydney region (*Leslie, L.M., M. Leplastrier & B.W.Buckley (2008) Estimating future trends in severe hailstorms over the Sydney Basin: A*

NATURAL PERILS RISK ASSESSMENT (CONTINUED)

climate modeling study. Atmos. Res Pp 37-51) there have been no thorough investigations into likely changes in the distribution or seasonality of these severe storms in the future. This research, where involvement of the insurance industry should be sought, is very important if our major urban centres are to be made more resilient to the impacts of these storms in the future. For example, over the next four decades we project that hailstorms involving larger stones of up to 10cm (similar to the major Sydney storm in 1999) to double in frequency in the Greater Sydney region.

Bushfires

The paper “Bushfire Weather in Southeast Australia: Recent Trends and Projected Climate Change Impacts” by C. Lucas, K. Hennessy, G. Mills and J. Bathols September 2007 highlights the growing threats posed to Australian communities. Yet the experiences from several recent bushfire events indicate there is still a low level of community preparedness to these recurring, devastating events. There has been considerable research undertaken following the disastrous Bushfires across Victoria in 2009 and it is important that the findings from this research are implemented at both the individual level through improved adoption of building codes and encouragement to retrofit buildings to make them more fire resistant, and at the community level where ongoing bushfire mitigation activities are required.

TAXATION

Are any existing regulatory arrangements (including state-based insurance taxes and disaster recovery policies) impeding the efficient operation of the Australian insurance market, or reducing incentives to take up insurance? (Issues Paper, p.16)

Australia's financial services sector has been a strong advocate for improved State taxation bases and State taxation reform that sees State revenue dependency shift from transaction style taxes (for example insurance) towards those State taxes that are more efficient.

The general insurance sector argues that there is a clear social and economic case for eliminating or at least reducing State insurance taxes and charges as a priority in any reform of Australia's taxation system. This case is based on recognition of the essential benefits of insurance to the economy and community generally and of the role of the tax system in encouraging insurance coverage.

Indeed, a number of reviews and inquiries have argued for insurance tax reform - the IPART Review of State Taxes (2008), the Henry Tax Review (2009), the Victorian Bushfire Royal Commission (2009), and the Johnson Report into Australia as a Financial Centre Forum (2009) as well as the Treasury Brief - Red Book (2010 and Tax Forum (2011).

Taxation Burden on Insurance Sector

Australian Bureau of Statistics (ABS) data indicate that nationally, taxes on insurance totalled $4,579 million in 2009-10 up $92 million or 2% on 2008-09 and accounted for 1% of total taxation revenue collected in Australia in 2009-2010.

	2004-2005 $m	2005-2006 $m	2006-2007 $m	2007-2008 $m	2008-2009 $m	2009-2010 $m	Change 2008-09 to 2009-10 %	Contribution to total taxes 2009-10 %
Taxes on insurance	3 502	3 550	3 684	4 250	4 505	4 597	2.0	1.0

Source: ABS (2011), *Taxation Revenue Australia* 2009-10, Cat.No. 5506.0, April 2011.

Taxes on Insurance 2009-10

	NSW $m	VIC $m	QLD $m	SA $m	WA $m	TAS $m	NT $m	ACT $m	TOTAL $m
Insurance companies contributions to fire brigades	554	538	-	-	-	17	-	-	1 109
Third party insurance taxes	135	100	59	-	-	4	-	-	389
Taxes on insurance *nec*	1 073	725	449	295	428	43	29	57	3 099
TOTAL	1 761	1 403	508	347	428	64	29	57	4 597

Source: ABS (2011), *Taxation Revenue Australia* 2009-10, Cat.No. 5506.0, April 2011.
nec – not elsewhere classified

TAXATION (CONTINUED)

Non-Insurance and Under-Insurance

The general insurance sector believes the current regimes for the taxation of insurance are an historical anachronism that is indefensible upon the generally accepted principles of taxation of simplicity, efficiency and equity. These tax regimes are inappropriate, regressive and based on historical circumstances rather than any concept of tax equity. These regimes contribute to under-insurance and non-insurance, with consequential negative fiscal impacts when the public purse is inevitably called upon in times of climate related disasters.

As the *Issues Paper* notes "…state-based insurance taxes, which raise the cost of insurance and thus could discourage individuals or firms from taking out insurance or from purchasing an adequate level of insurance" (p.15).

The Insurance Council commissioned study *"The Non-insured: Who, Why and Trends"* (2007) into non-insurance by Dr Richard Tooth and Dr George Barker of the Centre for Law and Economics at the Australian National University considered the effect of State Government based insurance taxes on non-insurance. The Report found:

> *"Rates of non-insurance are found to be closely correlated with insurance taxes when examined over time and across jurisdictions. Following the removal of the Fire Services Levy in Western Australia (which came into effect 1 January 2004), the level of non-insurance in both building and contents (as measured from the Roy Morgan Research data) declined while rates climbed elsewhere.*
>
> *The Roy Morgan Research data and the Australian Bureau of Statistics (ABS) Household Expenditure Survey (HES) data support the finding that states with higher tax rates on insurance premiums have higher rates of non-insurance for both building and contents insurance." (p.4)*

The Report is available at:
http://www.insurancecouncil.com.au/Portals/24/Issues/The%20Non%20Insured%20-%20Report.pdf

Additional research by Dr Richard Tooth (2011), Flood insurance: economics and issues commissioned by Insurance Australia Group highlighted the effect of insurance taxes:

> *"…is to increase the price of the insurance service for consumers and reduce consumer demand for taking out insurance. This lower demand could be seen in households either choosing not to insure; or choosing to under-insure i.e. reduce their premiums by partly self-insuring".*
>
> *The effect of taxes on demand has been estimated by analysing how demand has changed in responses to variations in taxes across jurisdictions and time. The estimated impact (summarised in Sullivan, 2010) of removing the non-GST taxes from insurance premiums is an increase in the number of households without contents insurance by around 300 thousand and an increase in the number of owner-occupiers without home insurance by around 69 thousand" (p.9)*

TAXATION (CONTINUED)

Taxation Reform – A Case for Insurance Taxes Reform

The Financial Industry Council of Australia (FICA) commissioned Access Economics in 2008 to review state taxes and, especially their impact on economic efficiency. The 2008 FICA report detailed a quantitative analysis of the efficiency of individual taxes and a number of revenue neutral tax reform scenarios. The efficiency rankings reported that state stamp duty on motor vehicles and insurance are amongst the least efficient of taxes, generating significant deadweight losses. The Report is available at: http://www.bankers.asn.au/FICA-Launches-State-Tax-Reform-Report-/default.aspx

FICA commissioned Deloitte Access Economics in 2011 to report on the efficiency of existing State and Federal taxation arrangements. The 2011 study found that State governments remain heavily reliant on inefficient tax bases. Again, the 2011 study found motor vehicle taxes (specifically, stamp duty on motor vehicles) and taxes on insurance are least efficient while municipal rates, land tax and gaming taxes are most efficient. The 2011 Report suggests that the potential gains from the reform of state taxation are large and rival the gains derived from past microeconomic reforms.

IPART's *State Taxation Review* noted in relation to insurance taxes:

Insurance Duty

> *"Insurance duty is a highly inefficient tax that creates disincentives for appropriate insurance. This suggests that the State should seek to reduce its reliance on this duty over the long term."(p.61)*
>
> *"Insurance duty is a highly inefficient tax. By adding to the price of insurance, it encourages underinsurance and non-insurance in a market that already exhibits significant market failures. The effect on consumer and business behaviour is amplified because the duty is applied on top of the embedded fire services funding contributions and the GST. The Royal Commission into the collapse of HIH recommended governments throughout Australia review their taxes on insurance."(p.61)*
>
> *"The ad valorem nature of insurance duty means that individuals with more assets to protect pay higher premiums, to the extent that the risk related to those assets is the same. However, risk plays a significant role in determining insurance premiums so the link is very weak. Furthermore the equity impacts are confused by the incentive to underinsure."(p.61)*
>
> *"In principle the insurance duty should be a reasonably stable source of revenue – the changes in the revenue collected would largely reflect changes in the condition of insurance markets. However, in practice, it may be less robust due to the incentive to underinsure. Furthermore, tax rates have been subject to significant changes."(p.62)*

Fire Services Funding Contributions

> *"The Fire Services Contribution by insurers is effectively a levy on insurance and creates disincentives for taking out appropriate insurance. On this basis, its removal should be a priority."(p.65)*

TAXATION (CONTINUED)

> *"Fire services funding contributions by insurers (known as the 'fire services levy' – FSL – by policy holders) is a relatively inefficient tax. The extent to which insurers pass through the cost of their contributions to policy holders acts as a disincentive to insure. This may lead to underinsurance and non-insurance in a market that already exhibits market failures. The effect on consumer and business behaviour is amplified because the FSL becomes part of the base premium to which the GST and insurance duty are applied." (p.66)*
>
> *"The FSL may be seen to be neutral or progressive because it is based on property values (albeit indirectly through house values). However, the opportunities for avoidance and minimisation through underinsurance means its horizontal equity is poor. Those who underinsure or don't insure avoid contributing via insurance policies to the cost of operating the fire services while they still receive the benefit of these services in the event of fire affecting their property." (p.66)*

The Henry Tax Review (2009) recommended the following in relation to insurance:

> *"All specific taxes on insurance products, including the fire services levy, should be abolished. Insurance products should be treated like most other services consumed within Australia and be subject to only one broad-based tax on consumption."*

The New South Wales Treasury in its submission to the New South Wales Public Accounts Committee Inquiry into Fire Services Funding (2003) stated, "…It would be undesirable if consumers and businesses were choosing not to insure, or underinsuring, because of higher prices caused by taxes on insurance. Not only could this affect the persons or businesses concerned, but overall economic efficiency and growth would be affected by the changes (in) resource allocation" (NSW Treasury submission, page 14).

The Report is available at:
http://www.parliament.nsw.gov.au/prod/parlment/committee.nsf/0/e5fea4093a03babeca256dec001570b5/$FILE/Treasury%20submission.pdf

The New South Wales Treasury (2003) noted, "It seems reasonable to expect that high tax rates would contribute to non-insurance and under-insurance – price increases generally lead to a reduction in demand for goods and services." (NSW Treasury submission, page 14). The Treasury (2003) also noted:

> *"The principle underpinning the Fire Services Levy is to ensure beneficiaries of the fire services contribute to funding the service. However, the presence of non-insurance and under-insurance indicates that a significant proportion of beneficiaries are either not contributing to funding the fire services or are under contributing.*
>
> *As a means of matching contributions to fire risk, the levy performs poorly particularly for householders. Fire risk is only one element of insurance policies, and it is evident that there is not a strong correlation between fire risk and fire services levy contributions.*
>
> *A weakness of the current arrangements is that the government is not able to ensure the extent of recovery from each type of insurance policy category is appropriate. However, even if this were addressed, the fact remains that insurance policies are*

much broader in scope than fire so that the premiums will substantially reflect risks other than fire risk.

It is also apparent that insurance is relatively highly taxed – with the fire services levy the highest impost. High tax levels are likely to discourage insurance and lead to under-insurance with adverse consequences for resource allocation and economic growth." (NSW Treasury submission, page 20).

Federal – State Government Financial Relations

When the Federal Government announced that it would fundamentally reform the Australian taxation system by introducing a Goods and Services Tax (GST) it also announced that the revenue would go to the States and Territories. The stated intention was that the GST, as a growth tax, would build revenue for State Governments and as a result an opportunity should be created to reduce certain State Government taxes. Under the Intergovernmental Agreement, all GST revenue collected by the Australian Taxation Office is provided to the States.

As the Henry Tax Review (2009) highlighted:

"…Changes are required to taxes, transfers and other types of expenditures across levels of government. Reforms would also need to be sequenced in a way that allows people to understand the reason for change and how they will be affected. One way to coordinate and implement reforms over time would be through an intergovernmental agreement between the Australian government and the States. A well-managed process would not only allow for poorly performing taxes to be replaced by more sustainable ones, it could also be a mechanism to deliver better policy outcomes across the federation on an enduring basis." (p.70)

In relation to **stamp duty on insurance** the general insurance sector believes it is appropriate for the Federal and State Governments to examine a new set of undertakings beyond the current Intergovernmental Agreement to assist further reform of State taxation. A strong case can be made that reform of insurance taxes should have a high priority.

The general insurance sector also believes a **fire services funding system**, which encourages full value insurance, would result in economic and community benefits, especially as regards under-insurance. A system that is fair, consistent and more understandable to taxpayers and the community at large is needed. The most effective way of achieving this end, is to implement a system that sees all property owners sharing the responsibility for funding fire services.

INSURANCE PRODUCTS

What new insurance products might be developed by the market in response to climate change (for example, insurance for land values or insurance linked to weather indexes)? Would regulatory changes be required to accommodate these or to improve the operation of the insurance market in a changing climate? (Issues Paper, p.16)

As an insurer, we are committed to assisting our customers manage and reduce their risks and, in the event of unexpected loss, we support customers and communities in recovering and rebuilding.

IAG supports the introduction of a workable standard definition for flood and will continue to work with the Federal Government to achieve this outcome. While this process is ongoing, through its Australian businesses IAG will expand its flood insurance products during 2012 to offer flood cover as a standard inclusion to all our home and contents customers.

IAG continues to improve its ability to accurately identify risks at a geographical, suburb and even individual household level. NRMA Insurance, SGIC and SGIO, for example, have implemented a Home Buildings Sum Insured Calculator which enhances their ability to provide customers with a more accurate sum insured – or a dollar value to replace their home buildings. The calculated sum insured is based on data provided by an external supplier (Cordell Information) and is updated quarterly.

All customers taking out new policies are required to go through the calculator process. To help prevent underinsurance, we use our knowledge and years of claims experience to check that customer's sum insurance falls within a range that would be accurate for their type of building. If it looks like a customer may be at risk of underinsurance, they will need to go through a process of providing more information. If an accurate level of insurance cannot be agreed, we will consider declining to provide cover.

Sum insured policies provide clarity on values for the consumer, limiting insurers' potential loss, keeping the exposure stable for reinsurers and therefore keeping products more affordable for consumers. Furthermore, price signals are an important factor in consumers' awareness of their risk.

NRMA Insurance has also introduced a new home and contents product called "Home Plus". Home Plus provides customers with a higher level of cover than the standard home product and gives them simple and flexible options to choose from when protecting their home and contents. We recognise that widespread disasters can lead to a high demand for building services which can increase rebuilding costs, as well as contents replacement costs. So, along with other key policy features, NRMA Insurance's "Home Plus" product offers a safety net of up to 25% on top of the sum insured for both the buildings and general contents sum insureds.

IAG offers the online Greensafe Car and Greensafe Whitegoods energy efficient profilers to help customers to make purchasing decisions based on environmental considerations.

IAG's direct businesses in Australia offer Fuel Efficient Savings, which enable customers to save up to 10 per cent on their Comprehensive Car Insurance if they own one of our recognised fuel efficient cars.

IAG also encourages community action through financial incentives. For example, IAG's direct businesses offer A$5,000 grants to grass roots community groups to help fund programs which have a focus on environmental sustainability.

INSURANCE PRODUCTS (CONTINUED)

The emergence of low cost Global Positioning System (GPS) receivers has spurred the development of an increasing number of satellite-based positioning applications for the motor industry. GPS technology enables motor insurers to provide an insurance product called Pay As You Drive (PAYD) whereby the insurance premiums for cars are calculated on actual usage (e.g. distance travelled, time of day, location, type of road) as well as the more conventional rating factors such as vehicle make and driver age. Under PAYD, customers who drive less and at safer times than the average motorist would be rewarded by a cheaper insurance premium correlating with the associated lower risk.

Government can also apply GPS-enabled Pay-As-You-Drive (PAYD) pricing to road use related charges such as vehicle registration fees, compulsory third-party (CTP) insurance schemes, road tolls and, in relevant jurisdictions, congestion pricing.

Some thought should also be given to reducing the vulnerability of motor vehicles to hail damage. Reduced vulnerability of vehicles to hail and storm damage should immediately reduce the insurance costs of those vehicles, assuming everything else remains unchanged. Some form of agreed rating system could be developed to quantify the resilience of a vehicle to hail damage along the same lines as the IAG Research Centre rates vehicles for their performance in the event of a collision.

NATURAL DISASTER RELIEF FUNDING

Are current relief payments, such as those funded through the Natural Disaster Relief and Recovery Arrangements appropriate? (Issues Paper, p.21)

IAG believes individuals electing not to insure their assets place a burden on the community when governments, in the absence of private insurance, are faced with the position of taking on the responsibility of insurer of "last resort". While there may be an equity argument for individuals who are financially disadvantaged to access government assistance, open-ended assistance is inequitable when it is provided to individuals who are able to responsibly insure, but choose not to do so.

Open-ended government assistance further reduces the incentive for private insurance. Clearly there is a role for governments to ensure appropriate risk management policy settings do not crowd out the private insurance market.

Governments need to avoid interventions that promote dependence on government assistance and reduce incentives for self-reliance and personal responsibility. Indeed, as the Productivity Commission's Draft Inquiry Report into Government Drought Support (2008) noted: "It is also important that governments do not blur the boundaries between risk management and equity objectives" (p.165).

If governments see a need to provide financial support to non-insureds, IAG considers that a counter-balancing policy setting, possibly using an income tax measure, is required to ensure there remains continued incentive for individuals to exercise prudent risk management by taking out private insurance.

The Australian Attorney-General has recently stated:

> *"Put simply it is counter-productive if government assistance acts as a disincentive to people taking steps to build their own resilience – such as taking out insurance. I believe we need to be more strategic and more ambitious than just getting people back on their feet – only to be knocked down again."*
>
> *"…disaster relief and recovery assistance should not supplant, or operate as a disincentive for, cost effective insurance or disaster mitigation. The Commonwealth is also working with the insurance industry on the identification of priority flood mapping needs. This has informed work that my department is undertaking with the states and territories to look at improving flood mapping. This will not only help with insurance coverage but also with better land use planning and emergency response." (16 May 2011)*

CONSUMER AWARENESS OF RISK AND INSURANCE

IAG works proactively to educate the community on the risk of natural perils. Across the country we run joint campaigns with our community partners to encourage the community to prepare their homes to help prevent the risk of property damage through weather events. As part of this, we encourage consumers to check their level of insurance cover and participate with our organisation in ways other than just at sales and claim time.

IAG's product documents are explicit about what is and is not included in the cover being sold. Indeed, policy terms and conditions, including coverage and exclusions are clearly outlined in Product Disclosure Statements and communicated to customers. Importantly, IAG supports the industry commitment to simplify and improve insurance product disclosure statement summary arrangements to enhance consumer understanding of insurance cover.

Disaster risk awareness and risk reduction education are effective when the public, private, education, and community sectors collaborate. To involve these many stakeholders, cross-sectoral platforms such as disaster risk reduction task forces or networks can promote a collaborative process for the creation, implementation and dissemination of risk awareness and risk reduction education programs and strategies.

Many government-sponsored and community programs continue to place heavy emphasis on emergency response and civilian response-preparedness. While important, this focus often fails to emphasise the individual and collective actions that can be taken prior to a disaster and may even promote a sense of public helplessness.

Risk awareness and education efforts should place emphasis on concrete risk reduction tools and strategies that can be adopted; moreover, to be fully effective and efficient, these efforts should take place at, and be targeted to, every level of society – at the individual, business, community, and governmental levels. As shown by recent events, the social and economic impact of large-scale catastrophes leads to human tragedy, and hinders growth and development. Building a comprehensive education/awareness program is widely recognised as a key plank in developing more resilient societies.

Simple fact sheets on suitable reputable websites should be prepared with lists of practical things people in at-risk areas could do to help safeguard their property and possessions from damage. These would be specific to the types of risk various communities face with different things provided for bushfire, flood, hailstorm, wind storm and storm surge.

It is in the insurance industry's interest to educate the community on how to become more resilient to increasingly severe weather events, as well as how to reduce their impact on the environment.

Collaboration between Governments, Academia and Industry

Climate change impact research at a more local scale and the development of workable adaptation strategies are complex and require actions between governments at Federal, State and Local levels. It is apparent there are many activities underway at all levels of government but these activities vary greatly from State to State and Local Government Area to Local Government Area.

For the insurance industry to be able to effectively identify and price risk to keep insurance affordable, risk information for the current climate and future climate projections are required down to local levels. At the moment there is no simple mechanism that tracks and harmonises

CONSUMER AWARENESS OF RISK AND INSURANCE (CONTINUED)

the research and adaptation efforts across the states and local governments in a manner accessible to the insurance industry. Supporting datasets are fragmented and often non-existent. An increased role for a Federal Government agency, possibly Geoscience Australia, to act, in conjunction with the insurance industry, as the facilitator for tracking these efforts and a portal for sharing the data to other government and other interested community and industry parties could assist in this respect. In the academic world there are also potentially relevant research projects considered or underway. Encouraging collaboration with the insurance industry should help ensure research results produce the required information and have an immediate real world application.

The Australian Research Council (ARC) should give special emphasis to research projects where the insurance industry partners with academia and other research groups to better quantify the regional effects of climate change on a range of high impact natural perils or on the development of effective adaptation approaches and technologies.

The Victorian bushfires in 2009 demonstrated the strong benefits to communities severely affected by this major natural disaster of a rapid response by the insurance industry through the reduction of trauma to affected individuals and the subsequent faster recovery of the communities.

Currently there is no tailored information available from emergency response organisations to the insurance industry to assist them to provide an appropriate level of response. Being able to gain access in near real time to information that enables the extent or magnitude of the impact of the natural disaster on their insured properties to be rapidly quantified enables the insurance industry to mobilise additional resources to an appropriate level.

Remotely sensed imagery can often provide a quick yet accurate look at these disasters. The imagery is very expensive for emergency managers and the insurance industry acting alone to obtain, leading to unacceptably long delays before the required imagery is requested from the data providers. Having pooled access to these datasets that are requested as soon as a State of Emergency is declared, through an appropriate agency that has the capacity to host these suites of imagery (Geoscience Australia or the Bureau of Meteorology), would greatly reduce response times and expedite the post-event analysis process. For this to be achieved there would need to be pre-existing data provision arrangements in place with the potential imagery providers.