A Sunburnt Country – Storms, Surges and Sea Levels: Of Insurance and Flooding Rains

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Increasing population pressures and life-style choices are resulting in more people living in areas that are at risk of inundation from rising sea levels and flooding. However, following natural disaster events, such as the 2011 Queensland floods, many Australians discovered they were uninsured. Either their insurance policies did not cover flood; or multiple (and confusing) water-related definitions led them to believe they had cover when they did not. Several theories are analysed to try to explain what is a world-wide underinsurance problem but these do not provide an answer to the problem. This research focuses on uncovering the reasons consumers fail to adequately insure for flood and other water-related events. Recent Australian legislative attempts to overcome insureds' confusion of water related definitions are examined for this purpose. The authors conclude that Australian (and other) legislators should set a maximum premium for a minimum amount of flood and sea related cover; and restrict the building and style of homes in flood prone areas.

Keywords: *flood, sea level, insurance, Queensland, documentary literacy, town planning.*

Population pressures internationally are resulting in residential building developments increasingly being constructed in flood-risk areas. In the United States, development on 'flood plains' accounts for seven per cent of the total land area developed each year (Holway & Burby, 1990). In Australia generally the value of coastal properties continues to see their development and use, and redevelopment irrespective of the acknowledged risks from rising sea levels and other water events (Sheehan, 2012).

In Queensland this has seen permission given for new developments on old cane farms (notorious for flooding); and approvals for the raising and under-building of

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old high-set homes, such as those in Bradman Avenue, Maroochydore, which runs parallel to and on the esplanade of the South Maroochy River. Several decades of drought, non-typical low rain summers, plus an influx of those seeking a sea- or tree-change means local knowledge of past bad weather conditions dissipated with the sunshine.

In some international jurisdictions flood cover is included in standard domestic insurance policies but in many it requires an additional application and/or premium. The result is many home owners are priced out of the market as they cannot afford the extra premiums (Crichton, 2008). This is particularly so for those with low incomes as they tend to live in high flood risk areas, which have lower property prices (Bell, 2011). As insurance costs rise, many cannot afford the extra premium and therefore only effect minimum cover. Others simply do not renew their policies, not realising that in addition to other concerns, a failure to have adequate insurance is a breach of their loan terms.

This article discusses the non-financial reasons that homeowners fail to insure against 'water' risks, and draws analogies from experiences following the 2011 Queensland floods. A worrying number of homeowners were under prepared as they mistakenly thought they were covered against damage caused by the floods. These issues arose, in many instances, because people do not know how to read their policies. Lacking the familiarity with such policies, most people fail to read all the policy assuming if it says they are covered then they are for everything. They fail to appreciate the need to also read the exclusions *and* definitions sections. Similar issues can arise for any damage not of the most common *fire and theft* type, or where the policy cover depends upon how many hours after the *event* the water began penetrating the building.

The article commences by providing an overview of the relevant issues regarding rising sea levels and flooding. By means of comparison with the after-effects of the 2011 Queensland floods, the authors consider what influences consumers' insurance choices, and what specifically needs to be addressed to combat the issues. While some of the matters raised will be applicable to businesses, the paper's focus is on the impact to home owners and the solutions that legislators can implement.

RISING SEAS LEVELS – OVERVIEW OF THE ISSUES

Since the 1800s, European settlement in Australia has been adversely affected by severe natural disasters ranging from drought, through bush fires to flooding rains. Most notably coastal properties are now at an increased risk from rising sea levels (Mason, 2011). Associated risks include the adverse impacts of cyclones, storm surges, erosion, and flooding from these as well as from tidal inundation (Zeppel, 2012). However, despite the obvious risks associated with sea level rises, and the

acknowledgement of their existence by all levels of government, development and redevelopment continues in Australia coastal areas (Sheehan, 2012).

As other authors have considered, the adverse impacts from rising sea levels and other water events can be both physical and economic (Scott, Simpson & Sim, 2012). This is seen in Queensland following both 2011 and 2013 flood events with their resultant, and ongoing, impact to homes *and* businesses. While the impact of rising sea levels to Australia, as an island, may be more wide-spread, the concerns discussed here are universal. Flooding, and associated water issues, are becoming more prevalent worldwide, particularly for coastal areas. Rising sea levels in turn will result in more and worse; and more wide-spread flooding (Strauss, Tebaldi & Ziemlinski, 2012).

Working to address "flood risk from tidal, fluvial, surface and ground water sources" is an international concern (Wilby & Keenan, 2012, 349). Hurricane Katrina did not just cause damage to the US coastline. It caused economic catastrophe to a wide geographic area, including New Orleans and the Gulf Coast. This one event caused US$38 billion damage to insured property resulting in 1.75 million claims (Maurstad, 2006). Similarly, the disastrous UK summer of 2007 cost insurers UK£3 billion and damaged 55,000 homes (Karouski, 2009). Heller (2005) reports up to 60 per cent of homeowners in New Orleans and the Gulf Coast did not have flood insurance. Many were told by their agents that their wind/hurricane coverage policies would cover flooding resulting from a hurricane. Claims for damage from storm surges, however, were subsequently denied on the basis that storm surge was covered by flood not wind/hurricane insurance. A lack of flood cover therefore equated to no cover.

In the 2013 Queensland floods, it is noted that many affected areas had not previously flooded, or had not flooded for several decades. Many residents, although desiring to be prepared, were caught unawares and with little capacity to resist the water. A similar situation arose in the US where some of the affected areas had a measure of flood mitigation in place that, despite the low lying areas, had prevented previous inundations. This time, however, those mitigation measures failed. With rising seas levels and other factors of nature the authors suggest that unthinking reliance on mitigation efforts, or the expansion of those efforts in low lying areas, is misguided. A better approach may be that seen in a progressive relocation of homes and businesses to higher land (Niven & Bardsley, 2013).

Progressive sea levels rises are a concern for homes and buildings, and arable land (Strauss, Tebaldi & Ziemlinksi, 2012). In the shorter term, however, it is likely that extreme rises, caused by a variety of other factors, will be more challenging to address than that of the general sea level rises (Cooper & Lemckert, 2012). In Australia such events include storm surges, tsunamis, and landslips. Rising sea levels are a specific concern as they will increase the likelihood of and severity of flooding following a storm surge (Strauss, Tebaldi & Ziemlinksi, 2012). Currently these events, more commonly than not, are excluded from insurance cover either directly

by a specifically stated exclusion clause (which arguably may be easier to identify) or by carefully worded definitions of insured events. As storm surges in particular are predicted to increase (Shepard et al., 2012) the need to ensure that consumers are appropriately insured against such events becomes crucial.

Ensuring appropriate planning for land use in the future also will be vital (Mitsova & Esnard, 2012; Sheehan, 2012). In the meantime, legislators need to raise consumer awareness of the associated risks. A lack of understanding of relevant risks appears universal. That a house is built below sea level and behind a levee should by itself indicate, if the levee is damaged, or water comes over its top for whatever reason, the house will be flooded. As recent research indicates, however, even the intelligent consumer does not fully appreciate such risks (Ludy & Kondolf, 2012). For many people owning their own home is their largest investment in property. It would be reasonable to assume protecting it against all possible risks would be a priority. For many, however, the decision to insure is one made only at the insistence of their lender (Lamond et al., 2009). That is, without the requisite insurance in place the lender will not provide the loan funds needed to complete the purchase.

Two categories of home owners can be identified from the 2011 Queensland floods. The first are those who thought they had appropriate cover when they did not. The second are those who consciously chose not to insure against the risk of flood. The low uptake of flood insurance is not unique to either the US or Australia. In Germany where about two-thirds of private insurers offer some form of cover for flood damage, "less than 10 per cent of private property is insured against this peril" (Browne & Hoyt 2000, 291). The question arises – *Why do some people insure while others do not?* The more important questions is - *Why did so many misunderstand the cover provided by their insurance policy?* The article now seeks to answer these questions.

WHY PEOPLE INSURE (OR NOT?)

Those with a history of living in or close to at-risk areas, or a desire to properly research their home, would never build in flood-prone areas or enclose high-set houses. If they did they would ensure they were protected against foreseeable risks. However, without the flood markers found on buildings in 'old' towns (Ludy & Kondolf, 2012), many coastal home owners must rely on other information sources for details of these risks. Where flood levies have been erected, and the land behind these levees is no longer classed as 'flood plain' purely because the levee exists (Ludy & Kondolf, 2012), this can be difficult. Where some form of insurance is in place, damage from external water – flood, sea and/or storm surge – notably is not covered (See Financial Ombudsman Service Case Number 239172 re storm surge exclusion).

The early theoretical model of the demand for property insurance by policyholders (Smith, 1968), is based on the assumption that policyholders and insurers are

able to form accurate estimates of the probabilities associated with all possible loss outcomes. The factors identified as important determinants of insurance consumption include wealth, probability of loss, price of insurance, value of the item exposed to risk, and the utility function of the policyholder when considering their purchase (Smith, 1968). These findings indicate that if the price of insurance per dollar of coverage is less than one, and the probability of no loss is greater than zero, the optimal insurance purchase decision may be to self-insure.

Self-insurance will be optimal when there is a greater probability of loss and the person is classed as risk seeking. Self-insurance is also positively correlated to a person's wealth, that is, the higher a person's wealth the more likely that self-insurance will be an optimal decision provided the person's utility function is associated with decreasing absolute risk aversion. For a particular price of insurance a person is more likely to self-insure when the probability of loss declines. In contrast, given a downward sloping demand curve, for a given probability of loss a person is more likely to insure as the price of insurance declines. Finally, the value of the item at risk is also theorised to have a positive relationship to insurance purchase decisions, all things being equal (Smith, 1968).

The probability of loss parameter is assumed to be known by both the insurers and insureds. In contrast, the theory of adverse selection in insurance markets predicts that insureds have private information about expected claims that insurers do not possess (Rothschild & Stiglitz, 1976). The theoretical literature offers a number of different adverse selection models but all are consistent in their prediction of the correlation between coverage and risk ('coverage-risk correlation') (Chiappori & Salanie, 2000). Insurers attempt to control risk by establishing separate risk classes based on observable characteristics and placing policyholders into an appropriate risk class. However, when asymmetric information is present, an insurer is not able to distinguish between higher-risk and lower-risk policyholders who belong to the same risk class (Cohen & Siegelman, 2010).

For the purposes of the 'coverage-risk correlation', policyholders have higher risk if they expect a higher payout, either due to a larger number of claims or a higher payout in the event of one claim, or both. These policyholders have private information about either of these circumstances not known to the insurer (although this position is to an extent addressed in Australia by the insured's disclosure obligation). As insurers are not able to distinguish between high-risk and low-risk policyholders they must offer both groups the same price for insurance. Since the two groups are able to obtain the same prices, theory predicts that their different risks will encourage them to act differently. High-risk policyholders are expected to purchase more insurance, that is to choose insurance policies that offer more comprehensive cover and with lower deductibles, in comparison to low-risk policyholders.

The cost of insurance is also determined by the extent of cover provided. *Basic* cover is the cheapest and *all in* cover the most expensive. Experience shows the majority of insureds hold either a *basic* policy or *defined events* policy, mainly because

of cost. Theory would suggest that the most affluent insureds would hold a *basic* policy and self-insure for the small events, and the least affluent would have an *all in* policy. However, prior research reveals that wealthier insureds are more likely to be risk averse and hold *all in* policies (Sydnor, 2009). The extra cost of flood cover therefore may deter the less wealthy from purchasing it.

In contrast to the adverse selection literature, Kunreuther (1984) argues policyholders might not purchase flood insurance because they underestimate their true probability of loss. This would suggest, in the case of flood insurance, policyholders underestimate their loss probability irrespective of risk class (Browne & Hoyt 2000.) Lack of understanding of risk affects home owners' perceptions of the true cost of having, or not having, insurance. Under Smith's (1968) model, when making decisions whether to purchase or not purchase flood insurance, potential policyholders underestimate their true probability of loss as they would consider the price too expensive. This applies to both classes of insureds. Where land searches fail to indicate the home is built on a flood plain, because the land is 'protected' by a levee, even the intelligent and/or affluent consumer can be misled into failing to appreciate the full risk of building or buying a home in that area (Ludy & Kondolf, 2012).

Based on the above discussion of the theories, it could be expected that it would be those with the least financial capacity that would represent a large proportion of the uninsured (Buckle, 2001). However, where the event to be covered is an 'extra' to the standard policy, this is not always the case. A number of possible reasons appear in the literatures as to why there is such a low up-take of flood insurance. These range from price (Lamond et al., 2009); availability of cover, the "charity hazard" (relying on the charity of others such as family, friends, government emergency programs, or not-for-profit organizations) (Browne & Hoyt, 2000); the perceived security offered by flood loss mitigation efforts (Pasterick, 1998); underestimation of the risk (Kunreuther, 1984); unavailability of flood mapping (relevant easily accessible information) (ICA, 2010); and confusion about cover and faulty advice (Heller, 2005).

Despite the frequency of flood events the uptake of flood insurance is low in the US and although flood premiums are low, only "44 per cent of homes that should have flood insurance do have flood insurance" (Boreczky, 2006, 10). It would not be unrealistic to expect much difference in Australia (Buckle, 2001). However, not every prospective insured fails to purchase insurance because of cost. For some a lack of understanding of insurance documents can lead to confusion as to whether the desired cover exists and/or the level of cover is appropriate.

WHY HOME OWNERS DO NOT UNDERSTAND INSURANCE

Demand theory predicts why flood insurance is purchased but does not explain why policyholders are confused about the protection provided. As suggested by the

general manager of the Insurance Council of Australia, it may be that policyholders do not read their policies (Guest, 2011). When, for example a *defined events* policy is 75 pages long and without a summary page, and the policy wording is *not* written in 'plain English', it is easy to understand why the average consumer chooses not to. Also, in order to read *and* understand such a policy requires a full appreciation of the relevant risk *and* a certain level of literacy. The general consumer, however, is neither a good judge of risks (Sydnor, 2009) nor is s/he appropriately literate (ABS, 2006).

In 2006 the Australian Bureau of Statistics (ABS) conducted research into Australian literacy levels. The research measured prose literacy, documentary literacy, numeracy and problem solving. These four skills are of particular relevance for the selection and purchase of insurance, because of the complexity, cost and pressure involved in the process. A low level of skill attainment in these areas will impact upon consumers' ability to understand their insurance and risks.

As considered by the ABS (2006) 'prose literacy' refers to the skills necessary to read and understand a variety of narrative texts and enables consumers to read and understand product disclosure statements (PDSs). 'Document literacy' enables consumers to understand pricing tables. 'Numeracy' refers to the skills required to manage and respond to the mathematical demands of diverse situations, these enable the consumer to determine what the pricing information means for a final bill. 'Problem solving', which requires goal-directed thinking and action in situations for which no routine solution is available, enables consumers to determine which offer out of a number is the most suitable.

The survey developers regarded level 3 as the "minimum required for individuals to meet the complex demands of everyday life and work in the emerging knowledge-based economy" (p. 5). The 'prose' results (where 1 is the lowest and 5 the highest) indicated that "46 per cent of Australians between 15 and 74 scored Level 1 or Level 2; 37 per cent scored Level 3; and 16 per cent scored Level 4 or Level 5" (p. 5). The other results were similarly low. These findings indicate that between 7 and 10 million Australians have literacy levels below the "minimum required for individuals to meet the complex demands of everyday life and work in the emerging knowledge-based economy" (ABS, 2006, 1).

The ABS (2006) findings are reinforced by determinations of the Australian Financial Ombudsman Service. These determinations highlight the difficulties consumers have generally with reading policy wordings and understanding their level of cover and/or the rights and obligations of the insurer and the insured (See Financial Ombudsman Service Case Number: 229543 re 'accidental breakage' v 'explosion'; Financial Ombudsman Service Case Number: 203254 re the amount of excess properly payable for an earthquake claim; and Financial Ombudsman Service Case Number: 205708 re the insurer's right to repair rather than replace a motor vehicle).

More recently, the ASIC (2011) conducted research into consumers' financial literacy and behavioural change using definitions of financial literacy derived from the United States Federal Reserve. While not specifically considering insurance policies,

the results further support the earlier ABS (2006) findings. Participants reported that they were overwhelmed by the amount of information and complexity of the documents. Additionally, some women indicated that they did not understand the financial terms/expressions used and felt that they were expressed in 'another language'. A number of investors revealed they do not read PDS as they feel that they will not understand them (ASIC, 2011). While these comments relate to investment PDSs they reinforce the position that most PDSs are beyond the comprehension of the average consumer. Indeed the US experience is not dissimilar with confusion regarding the interpretation of insurance policy terms being a long-standing issue (Young et al., 1975).

General insurance policies are complex and to refer to any policy as 'basic' or 'standard' (as occurs in the industry) is potentially misleading. As consumers do not deal with these products on a daily basis, it is difficult for them to understand the risks covered and those excluded. This complexity and unfamiliarity also makes it difficult for consumers to make comparisons across companies offering similar products. Regretfully, consumers' lack of capacity to understand their insurance policies and exclusions does not necessarily assist them with their claim (Financial Ombudsman Service Case Number: 242649).

AUSTRALIAN INSURANCE LAW IN 2011

Under the *Insurance Contracts Act 1984* (Cth) (ICA) home building and home contents insurance policies are prescribed contracts with Standard Cover (ICA, Section 34). The prescribed policy included cover for flood damage as a "prescribed event" as defined within the *Insurance Contracts Regulations 1985* (Cth) ('IC Regs') (IC Regs, Reg. 10(a)(xi) and Reg. 14(a)(xi)).

There are generally three types of policy available to home owners in Australia; these may be classed as 'basic', 'defined events' or 'all in' cover. A basic policy provides cover for fire, storm and a few other perils but generally not flood, fusion of electric motors, glass breakage, etc. A defined events policy lists the events covered, which may include a flood extension or allow flood cover to be added, usually for an extra premium. An all in policy provides cover for all accidental damage to the insured property (to which flood cover *may* be able to be added) but which is subject to a number of exclusions, which could include damage caused by flood. The authors consider the all in's proscribed PDSs the easiest to read as the home owner only has to read the exclusions in order to understand the full extent of the cover offered.

Importantly, not all policies automatically included, nor do all insurers currently, or then separately, offer flood cover. Some insurers offered restricted cover and several others only offer cover after the insured made a separate application, a survey is carried out and an additional premium paid. This means that the home owner must be aware of the need for flood coverage, then inquire about its availability, and

obtain a flood rating before the insurer is able to quote a price for the cover. This assumes that insureds have the requisite knowledge of the risks to be insured against. Prior research shows that this is not the case as evidenced by people making claims for events for which they have no cover (ASIC, 2000).

The fact flood is included within the Standard Cover, does not mean that insurers were required to provide that cover. The ICA allowed insurers to vary the standard cover (i.e. to derogate from the standard stated in the legislation) provided the insurer clearly informed home owners in writing of this variation before they took out the insurance or in circumstances where they knew or could be expected to be aware of the derogation (ICA, Section 35(2); *Marsh v CGU* [2004] NTCA 1). This meant if an insurer was aware that technical policy distinctions, such as the difference between damage caused by flood and damage caused by storm water, could lead to policyholder confusion, they must clearly inform the home owner of these distinctions beforehand.

Where appropriate information was provided whether a payment is due to the insured under the policy depends upon the exact circumstances of the 'event' for which the claim is made and whether or not an exclusion clause applies *and* if that exclusion clause is effective to exclude the particular claim (Sutton, 2004). Where proper notification was given to the consumer exclusion clauses generally are upheld (Derrington & Bell, 2011). In the circumstances of coexisting causes of loss this can mean that a 'flood' claim fails (*Eastern Suburbs Leagues club Ltd v Royal & Sun Alliance Ltd* (2004) 13 ANZ Insurances Cases 61-599; *Prosser v AMP General Insurance Ltd* [2003] NTSC 80).

Confusion and the inability to recognise risk, such as the danger posed by flood, can often arise through the lack of relevant information. The issue arises regarding the type and quality of information that is being provided to policyholders at the point of sale, and the effect that consumer protection legislation may have on the information (advice) provided. Until approximately the 1970s general insurance products were distributed by insurance company agents. These agents provided direct personal contact with their clients and were readily available to provide advice both at the time when policies were taken out and at the time of claims. During the 1970s direct telephone selling became a feature of the Australian market, which now has expanded into internet sales. The result is this personal contact has been lost so that little, if any, personal insurance advice is now provided (Mason, 2011).

The introduction of the *Corporations Act 2001* (Cth) ('CA') changed the legal requirements for providing financial product advice by imposing significant compliance, training and disclosure obligations. The CA requires that in order to provide advice on financial products, which includes home building and home contents insurance, a person or firm must hold an Australian Financial Services License ('AFSL') or be an authorised representative. The AFSL holder is responsible for the quality of advice provided by their representatives, and has on-going training and supervisory responsibilities. However, this obligation is not absolute. Where only

factual information is provided in response to a query this is not considered to be 'financial product advice' and as such the same obligations do not apply. (CA Section 766B(7)). So, if a consumer does not know what to ask they will not be provided with all the information they need to make an informed decision.

In instances where an insurer was unwilling to offer flood cover, an insurer was able to fulfil its duty under Section 35(2) ICA by providing appropriate notices to the prospective insured (by providing a policy document) that cover was not offered. (*Hams v. CGU Insurance Limited t/as Commercial Union Insurance* [2004] NTCA 1). However, if it was held that an insurer failed to comply with the requirement to 'clearly inform' the insured, then the insurance policy is deemed to be a legislatively 'prescribed contract' and the ICA proscribes that it will automatically include cover for flood damage.

In 2006 an attempt was made to address the information asymmetry between Australian insurers and insureds, and to improve consumer understanding of insurance generally. Amendments to the General Insurance Code of Practice ('Code') was introduced for this purpose and applies to the sale of general insurance products, which includes home and contents policies (Section 1.17(a)). The Code contains a number of provisions that relate to flood insurance, with the key objective of facilitating the education of insureds about their rights and obligations under insurance contracts.[1]

The Code led to an improvement in policy wordings and an increase in the number of companies offering flood insurance. It also has led to more losses being settled under the cover provided by the storm definition. However, not all insurance companies followed this practice which resulted in policyholder "confusion and inequality in dealing with claims, when some claims arising from a single event (in the public's eye) were treated as flood and others as storm damage". (Mason, 2011, 7,) This scenario was exacerbated by the fact that there was not one universally accepted, and used, definition of 'flood' and related events.

The Code, however, does not enable the resolution of all claim disputes, and some matters still proceed to litigation in the courts. Factors, such as source, manner of arrival of the water, and the area and character of the place affected will influence the court in determining whether the proximate cause of the damage was covered by the policy and the court's construction and application of the policy terms. A reading of the policy as a whole also influences the court's determination as to whether cover is provided by it, and/or whether any exclusion clause is effective (Derrington, 2011).

2011 QUEENSLAND FLOODS

Physically isolated as it is from the rest of the world can be both a benefit and disadvantage to Australia. One physical attribute that shows both, depending on the season, is its unique and lengthy coastline. Australians have a love affair with water

and over 90 per cent of the population lives close to it. All capital cities, other than Canberra (which has the man-made Lake Burley Griffin at its centre), are relatively close to the sea. While many buildings in the coastal fringe are built upon solid land many, notably some areas of the southern Queensland coast, are built upon sand. All coastal areas are at risk from rising sea levels and associated climate changes (Zeppel, 2012). Coastal areas of South East Queensland in particular are at risk from high tides and storms, which cut into sand dunes and can cause buildings to topple into the sea.

The 2011 Queensland floods were significant because it may be "Australia's costliest disaster in history" (Zappone, 2011, 2). However, while flood insurance was available from nearly half of the insurance companies approximately 70 per cent of households were uninsured (Ooi, 2011). Notably (or should that be 'notoriously') of those adversely affected and, despite the Code being in operation for five years at that time, over 50 per cent discovered after the event that, despite belief to the contrary, they were in fact *not* insured for flood. The public outcry over their rejected claims was significant. The matter for consideration here is – *why were these people not appropriately insured?*

Despite the severity of their impact, major flood events previously tended to occur relatively infrequently. Following a major flood event, those areas that were affected often have a stigma attached to them (Butler, 1995) and suffer a decline in property values (Reed, 2011), albeit one that usually resets four to five years after the flood event. By the time another major flood event occurs (often 30 to 40 years since the last major flood event), most of the current inhabitants are too young to appreciate the significance and devastation caused. Prior to the 2011 floods, the last major flood that occurred in South East Queensland was the Brisbane floods of January 1974.

At the time of the 2011 floods there was no legislated definition of flood. It was therefore at the insurer's discretion as to what definition was used. As the authors discovered, after reviewing 42 policy wordings, there was not one consistent definition used by industry. That by itself meant home owners were not easily able to compare products as some, although apparently providing flood or flash flood cover, linked the cover to time frames from when a relevant downpour or storm occurred.

Despite the CA and Code, and consistent with the research findings discussed above, ongoing consumer confusion still existed in 2011. This is reflected in the post-event determinations of the Financial Ombudsman Service. Although not always successful in their actions against their insurance companies, what recent cases clearly reflect is that many insureds impacted by the 2011 floods/storms had difficulty in reading *and* understanding their insurance policies, irrespective of the documentation presented and/or the verbal (recorded telephone call) information provided by the insurance company's representative.

The lack of consumer awareness of risk and of their actual insurance cover is best explained by reference to one example from the 2011 floods. Mr. Bill and Mrs.

Maria Gilbert owned a home in the Queensland suburb of Bundamba, west of Brisbane. The Gilberts held a home and contents policy with a national insurer and believed they were covered for flood damage (Don & Warne, 2011). However, in an interview published in The Australian on 20 January 2011, Mr. and Mrs. Gilbert said their claim they filed for flood damage to their building and contents was declined because of an exclusion contained in the policy. On examining the relevant policy wording, the authors found that although damage by storm and rainwater were covered, flood damage was specifically excluded.

It is possible that confusion arose due to the wording of definitions within the policy. The Gilbert's (then) policy defined flood as:

> Flood means the inundation or covering of normally dry land by water which: escapes or overflows from, or cannot enter, because it is full or has overflowed, or is prevented from entering, because other water has already escaped or been released from it, the normal confines of any watercourse or lake, including any that may have been modified by human intervention, or reservoir, canal, dam or stormwater channel.

However, the policy also provided that:

> Flood does *not* mean stormwater runoff from areas surrounding the site, or water escaping from any water main, drain, pipe, street gutter, guttering or surface. [italics added]

Although this definition could be quite complicated for a policyholder to interpret, the policy clearly stated damage caused by flood was *excluded* from the cover provided. The clarification of what 'flood does not mean' merely confirms that damage caused by 'storm and rainwater including storm water runoff' *is* covered by the policy.

The Gilberts were not the only ones confused about the level of cover. Many others were in a similar position regarding their 'understanding' of their policy terms. This resulting confusion included misunderstanding what is flash flooding; misunderstanding of the actual level of cover provided by the policy for flash flooding (Financial Ombudsman Service Case Number: 241879); and part rejection of a claim on the basis that the backflow of water through the public drainage system is still to be charaterised as 'river flood' (Financial Ombudsman Service Case Number: 242752). A solution was needed.

SOLUTIONS(?)

In 2012 significant changes were introduced to Australian insurance laws. These changes were introduced by three separate pieces of legislation - *Insurance Contracts Amendment Act 2012* (Cth); *Insurance Contracts Regulation 2012 (No. 1)* (Cth) and *Insurance Contracts Regulation 2012 (No. 2)* (Cth). These amended the ICA and the IC Regs. The most significant change introduced was for "prescribed contracts" for home building and/or contents insurance (Regs. 29C(1)(a)-(d)). The term 'flood' is

now defined by means of a mandatory definition (ICA Section 37B(2)(a) and Reg. 29D). Flood is defined to mean

…the covering of normally dry land by water that has escaped or been released from the normal confines of any of the following:

(a) a lake (whether or not it has been altered or modified)
(b) a river (whether or not it has been altered or modified)
(c) a creek (whether or not it has been altered or modified)
(d) another natural watercourse (whether or not it has been altered or modified)
(e) a reservoir
(f) a canal
(g) a dam

This definition must be used for all home insurance policies and will prevail over any other definition the insurer seeks to adopt (ICA, Section 37B(3)). In the future Key Fact Sheets ('KFS') will need to be provided to all new and renewing insureds (ICA Sections 33B and 33C; IC Regs, Reg. 4C). The format of the KFS is proscribed by the IC Regs, however there is some discretion to the insurers as to the details provided.

While the changes only commenced on 19 June 2014 (Reg. 41) it is predicted that these changes will mean home owners will have an easier time if they need to make a claim following the future floods (Crowe, 2013). However, more work is still to be done. For future generations rising sea levels, and associated impacts (Zeppel, 2012), will be a matter of considerable concern. While events such as "the sea, high water, tsunami, erosion or land slide or subsidence" are "prescribed events" (IC Regs, Reg. 10(a)(xi) and Reg. 14(a)(xi)), insurers retain the right to derogate from any of the other "prescribed events" provided appropriate notices are given to the prospective insured before they purchased the insurance policy (ICA Sections 35C and 37C). The KFS is designed to raise awareness of the events covered, the level of cover and the excesses (deductibles) that will apply. However, where terms such as "actions of the sea" are not standardized or defined by legislation the authors are concerned that new confusion will arise.

Ongoing climate changes will see more extreme weather conditions as well as increasing sea levels (Wilby & Keenan, 2012; Strauss, Tebaldi & Ziemlinski, 2012). A reduction in pollutants may over time assist in slowing the rate of sea level rise (Hu et al., 2013). Long-term solutions also may include the gradual relocation of people and services to higher ground. Authors such as Niven & Bardsley (2013) refer to this as a 'planned retreat' and note that several jurisdictions are implementing this as a mechanism of addressing issues for coastal communities. Another solution would be ensuring the enforcement of appropriate planning schemes (Zeppel, 2012). While there is recognition of the issues, there has been limited effective response in Australian planning laws to addressing them (Sheehan, 2012).

More recently, however, the Planning & Environment Court of Queensland considered a matter where the contested issues included "[t]he extent to which

the proposed development would potentially be subject to storm surge, including having regard to potential sea level rise consequent upon climate change" (*Rainbow Shores P/L v Gympie Regional Council Ors*, [2017] QPEc2b, [6] and [353]). While the applicant submitted that consideration of such issues based upon documents not in existence at the time of their application (i.e. subsequently created) would be unfair (*Rainbow Shores P/L v Gympie Regional Council Ors*, [2017] QPEc2b, [359]) the Court refused to allow the developer's appeal and would not grant preliminary approval for the development based on the plan of development in its current form (*Rainbow Shores P/L v Gympie Regional Council Ors*, [2017] QPEc2b, [360]).

A more immediate concern, and one within the control of individual home owners, is effecting appropriate insurance against these risks. A difficulty is that doing so may come at a considerable expense. Despite the attractiveness of offering assistance to those with limited financial capacity, the authors suggest that adopting a system of discounts for cover for those in affected areas (NDIR, 2011, Pivotal Recommendation 3) is not in fact a solution. As is seen in overseas jurisdictions that have such systems in place regarding flood, notably the US (Murdock, 2012), this can compound issues. The authors suggest it would further reduce consumer awareness, lead to a false sense of security and, worse still, encourage development in low lying areas most at risk from rising sea levels. The converse is that, as matters currently stand, the cost of appropriate insurance for those most at risk can be prohibitive, such that either inadequate insurance is purchased or no insurance is affected.

Anecdotal evidence suggests the cost of flood cover makes home insurance unaffordable. Where the insurer includes the cover automatically (resulting in a higher standard premium) and there is no ability for the insured to opt out, some may not affect any insurance. A more appropriate solution may be to legislate to set the maximum premium that can be charged for the minimum amount of flood and sea related cover. A precedent already exists for this action as State-based compulsory third party insurance for motor vehicles, tied to the registration of those vehicles, is regulated in this manner. An overriding issue, however, that cannot be addressed is the issue of the consumer who elects not to effect any insurance not through ignorance but by a deliberate decision to retain the risk.

CONCLUSION

While cost is one factor influencing policy choice, other factors are also present in the decision-making process. People often leave themselves uncovered by events that are genuine possibilities but low probability events like flood. Behavioural economics suggest that people tend to be more aware of small, frequent risks such as glass breakage or fusion of electric motors than infrequent but unaware-of catastrophic events such as flood or bushfire. Another factor that helps explain why people fail to insure is their inability to understand the cover by and exclusions contained in their

policies. Lack of awareness of potential risks in the immediate vicinity of their home also plays a part in the failure to insure.

Planning and land laws can be used to address a variety of concerns for land use. In the future, in order to address rising sea levels, such laws will need to address key matters including the relocation and modification of existing homes and buildings. This process, however, will take time. Of more immediate concern is protecting current property assets. The most immediate and necessary concern is in ensuring that people are appropriately insured against flood and other water-related risks. Many would probably think they are adequately covered but they may not be. Individuals need to check their current insurance cover and effect adequate insurance cover.

Legislators also need to either prohibit development of, or more stringently regulate the permissible style of buildings, such as unenclosed high-set, that can be built in at-risk areas. Where necessary, they also need to give consideration to assisting those less financially able by means of proscribing the minimum cover for the maximum premium to ensure that those most at risk have adequate insurance in place. The only other real long-term solution to avoid the risks from rising sea levels is to do as the authors have done – live on hills!

NOTE

1. The current version of the Code was revised in February 2012 and took effect in July 2014. The general objects however remain the same.

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