

**Insurance Indicators: Centre for Disaster Studies: <https://www.jcu.edu.au/centre-for-disaster-studies>**

**Key observations from research findings**

Low socio-economic status households are less able to afford insurance.  
 Older residents are better covered, or are more aware of their insurance coverage.  
 Many households do not have flood insurance, or do not know if they are covered by their house and contents policy.  
 Online surveys tend to select higher socio-economic respondents who are more likely to have insurance: door to door household surveys give better coverage but are expensive to administer.

**Cyclone and Flood: Jasper 2023 Cairns and FNQ & Kurrily 2024 Townsville**

Yetta Gurtner and David King. 2024. Cyclone and Flood Post Disaster Surveys: Cyclone Jasper December 2023 and Cyclone Kurrily January 2024; The Social Impacts and Preparedness Experiences of Households Which Experienced the Cyclone and Floods of Tropical Cyclone Jasper in Far North Queensland and Tropical Cyclone Kurrily in North Queensland. Centre for Disaster Studies James Cook University

**Table. Household/Contents Insurance**

<b>Q7. Did you/your household have household and/or contents insurance before the event?</b>	<b>Jasper Count</b>	<b>Jasper %</b>	<b>Kurrily Count</b>	<b>Kurrily %</b>
Yes	42	75	174	83
No	11	20	28	13
Other (please specify)	3	5	7	3
Total	56	100	209	100
Other Responses from Jasper Survey				
<i>I rent a room at Mt Haven</i>				
<i>Home only. No contents insurance.</i>				
<i>Building insurance only</i>				
Other Responses from Kurrily Survey				
<i>House insurance but not contents</i>				
<i>House only no contents. Too expensive</i>				
<i>House, contents and motorhome</i>				
<i>Household only, not contents</i>				
<i>I'm renting, but I assume the owner does</i>				
<i>Only home</i>				
<i>Renting. Landlord has house insurance, we don't have insurance due to prohibitive cost</i>				

Household insurance forms part of preparation and accords with responses to preparation of a disaster kit. There is a probability of rapidly increasing and already high costs for household and contents insurance. It is very likely that levels of insurance amongst the general population are much lower.

## Townsville Floods 2019.

Online survey results

Do you feel that you/your household was adequately prepared for a disaster before the flood event happened?	Percent
Yes	51
No	40
Other	9
Did you/your household have a disaster kit prepared before the event (minimum 3 days food, water and supplies)?	
Yes	65
No	35
Did you/your household have household and/or contents insurance before the event?	
Yes	74
No	24
Other response	2
TOTAL	100 (705)

## Brisbane Floods 2011

Deanne Bird, David King, Katharine Haynes, Pamela Box, Tetsuya Okada, Kate Nairn. 2011. Investigating Factors that Inhibit and Enable Adaptation Strategies Following the 2010/11 Floods A Report for the National Climate Change Adaptation Research Facility Synthesis and Integrative Research Program

### 5.2.2 Insurance

Overall, 33.3% of Brisbane respondents **thought** their insurance covered them for all types of flood, but only 24.6% of respondents **knew** their insurance covered them for all types of flood (Fig 5.5). Of those who thought they had full insurance cover, most were mid-high household income earners (> \$100,000) (57.1%), aged between 35 and 44 years (50.0%) and had lived in the wider Brisbane City Council area for more than 20 years (39.3%). In contrast, only a quarter of those in lower income brackets were unsure about their insurance cover, with the majority being aware what their insurance did or did not cover them.

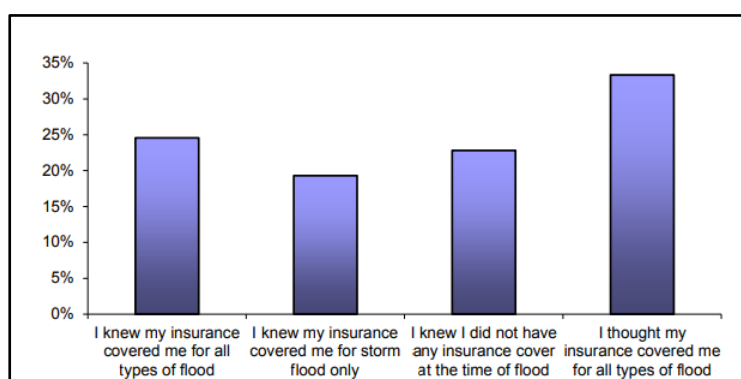


Figure 5.5. Knowledge of insurance cover prior to the flood

The length of time living at their current address did not have any significant impact on knowing what their insurance covered, with 66.7% of those who had lived at their location less than 2 years aware of what their insurance covered (whether it was full cover, storm flood only or no cover), and 65.2% of those who had been resident between 2 and 10 years, and 68.0% for more than 10 years. Interestingly, only 8.3% respondents aged between 35 and 44 years actually knew they had full cover. All suburbs except Graceville had residents with full insurance cover. Residents in Chelmer were most

likely to have full insurance cover, at 40.0% of respondents, with those in Graceville most likely to have thought they had full insurance cover, at 44.4%. Renters were significantly less likely to have flood insurance (11.1%) than those who owned their home or had a mortgage (27.1%). Most renters (55.6%) knew their insurance did not cover them for flood.

The cost of insurance did come up as a reason for not having insurance, as well as for choosing cheaper policies and others believed that flood insurance was not available to them. Several residents looked into flood insurance but decided the cost was prohibitive while others tried to purchase flood insurance in the immediate lead up to the floods, but were told that there was a ban on new flood policies. One resident in Rocklea said he had attempted to take out flood insurance in the years before the flood, but only one insurer would offer such cover at his location, and the cost of the premiums (\$6,000) was prohibitively expensive for his family. Some respondents admitted to not reading their Product Disclosure Statement in full. This issue was discussed at length during the flood community meeting, where residents also raised the lack of clear language in insurance policies as a concern (Fig 5.6). The point was made, however, that detail may be contained in the Product Disclosure Statements of insurance policies, and that it is necessary to be aware of that information.

### **Climate Change and Floods: Charleville and Mackay 2008**

Apan, A., Keogh, D.U., King, D., Thomas, M., Mushtaq, S., Hinkler, S., and Baddiley, P., 2010. The 2008 Floods in Queensland: A Case Study of Vulnerability, Resilience and Adaptive Capacity, A Final Report Submitted to NCCARF, Toowoomba, Queensland.

#### Findings concerning Floods and insurance

Almost 60% of businesses in Charleville were not covered by insurance and responses on the questionnaire indicate that it is virtually impossible to obtain insurance for flood for businesses in Charleville. A lot of these premises are situated in the flood plain area and thus the probability of flood occurrence is high. For Mackay, just over a third of businesses were not covered by flood insurance.

Almost all the Charleville businesses incurred business costs as a result of the flood, which were not covered by insurance (92% of the sample compared to 58% in Mackay). In total, Charleville businesses estimated these costs were \$375,000. This compares with a total of \$342 million insurance payouts as recorded by the Insurance Council of Australia (Emergency Management Australia (EMA) 2008).

In terms of insurance cover for flood, only around 32% of residents in Charleville had insurance, compared to 68% in Mackay. However, this type of insurance is very difficult to obtain in Charleville and very expensive, making these residents more vulnerable to economic losses in flood events.

## Cyclone Larry 2006

David King and Douglas Goudie. 2006. Cyclone Larry March 2006: Post Disaster Residents Survey. Centre for Disaster Studies, James Cook University, Australian Bureau of Meteorology

Household surveys carried out in Innisfail and surrounding communities.

**Table. Insurance Status of Vulnerable Families**

Property insurance	Vulnerable Families				Total	
	Elderly	Single Parent & Young kids	Special Needs	All others	Count	%
House only	3%	25%	5%	2%	5	4%
Contents only	0	0	5%	13%	12	9%
House & contents	84%	25%	75%	64%	96	69%
None	13%	50%	15%	21%	27	19%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>140</b>	<b>100%</b>

Note particular vulnerability of single parent families with young children.

## Climate Change and insurance

King, D., Ginger J., Williams S., Cottrell A., Gurtner Y., Leitch C., Henderson D., Jayasinghe N., Kim P., Booth K., Ewin C., Innes K., Jacobs K., Jago-Bassingthwaite M., Jackson L.. (2013). Planning, Building and Insuring: Adaptation of Built Environment to Climate Change Induced Increased Intensity of Natural Hazards. Centre for Disaster Studies, James Cook University, Cyclone Testing Station, James Cook University, School of Geography and Environmental Studies, University of Tasmania, Housing and Community Research Unit, University of Tasmania. Pub. National Climate Change Adaptation Research Facility, Griffith University

Note: emphasis of the insurance research was on Fire hazard and Climate Change. Planning research focussed on floods, and building research addressed cyclones and climate change.

Summary of Insurance and Climate Change Findings as follows:

1. Having insurance is not always a priority or even an option for all. Significant rates of noninsurance and underinsurance
2. Declining insurance availability and affordability in a changing climate
3. Lack of affordability for low-income earners
4. Limited interest in using insurance for climate change adaptation, including risk mitigation
5. Evidence of emerging insurer engagement with climate change adaptation.
6. The capacity of insurance to have a role in climate change adaptation and associated risk mitigation is constrained by limitations in governance
7. Tensions between the role of the community and the role of the individual in relation to insurance and risk.
8. Tensions between government and individual responsibility for risk.
9. Inconsistencies in governance between agencies and between levels of government, and an associated lack of leadership

Recommendations:

1. That further research is conducted into the contexts and processes informing people's prioritisation in the purchase and maintenance of insurance policies, including their awareness of, and interest in, what these policies do and do not cover
2. That public expectations in relation to insurance are more closely aligned with the insurance reality through clearer insurance industry communications with customers and through government-driven education initiatives.
3. That research to ascertain the likely changes in the costs and availability of insurance coverage and subsequent impacts on the built environment is undertaken in light of climate change with direct reference to bushfires and other natural hazards.
4. That mechanisms for providing affordable insurance to low-income earners are further investigated.
5. That insurance is recognised and explored as a mechanism for promoting disaster preparedness as well as recovery with regard to climate change adaptation
6. That insurance is recognised as acting in concert with other mechanisms such as building codes and land use planning regulation.
7. That a review is undertaken into the factors that impact on insurer activity in encouraging and incentivising climate change adaptation and associated risk mitigation measures
8. That further research is conducted into the public's prioritisation of climate change adaptation and risk mitigation measures and the influence of this on possible roles afforded insurance
9. That government in collaboration with insurers investigate the viability of climate change adaptation initiatives such as the development of long-term insurance contracts.
10. That a review is conducted to examine how climate change adaptation and associated risk mitigation measures might be included in the determination of insurance coverage and premiums, and that opportunities and limitations, as well as instances of innovation are identified.
11. That research is undertaken to assess how insurance operates at the individual, household, business and community levels to determine which one or combination of them offers the most opportunity for use in climate change adaptation.
12. That government interventions into the insurance industry and insurance markets are considered and undertaken where appropriate in ways that reconcile the existing tensions between government and individual responsibility for risk.
13. That non-regulatory and regulatory approaches to the use of insurance in climate change adaptation and associated risk management are investigated with respect to collaboration between the public and private sectors.
14. That more effective linkages are fostered between the various, relevant agencies and organisations across public and private sectors, including those in the insurance and reinsurance industries.
15. That greater leadership on climate change issues, including in relation to how insurance might operate as a key mechanism of adaptation, is demonstrated by government at both state and federal levels.
16. That a comprehensive program is undertaken at multiple scales across states and territories to update data sets and produce and make widely available risk maps and related information that render different hazards more meaningful to a range of stakeholders in the context of climate change adaptation.

## Townsville Flood 1998

David King 1998. Townsville Thuringowa Floods, January 1998: Post Disaster Household Survey. Report to Department of Emergency Services, Bureau of Meteorology & Emergency Management Australia

### Ownership and Insurance

Significantly fewer renters, 23%, think they have flood insurance than the group of mortgagees and home owners, 37%. Home ownership would seem to have some positive impact on the decision to take out content insurance.

Inundation affected renters and owners almost identically: 84% of renters were not inundated, while 16% were; 86% of owners and mortgagees were not inundated, while 14% were.

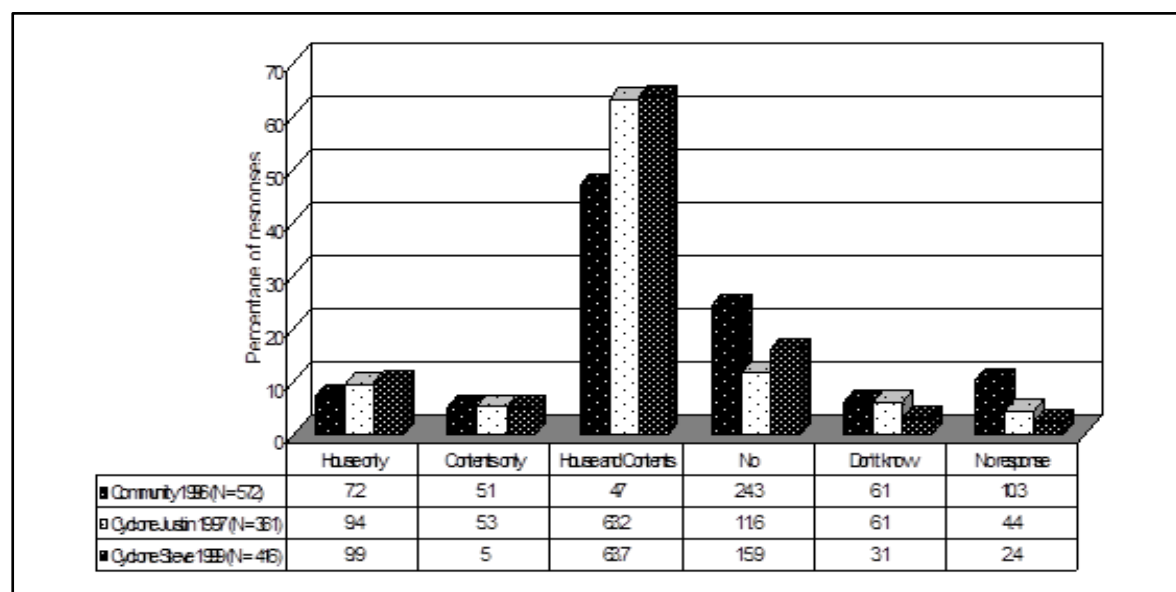
The experience of being flooded before has virtually no influence on insurance. The proportions of those who have previously experienced a flood are virtually the same for no or yes to insurance.

Table 20. Dwelling Ownership by Flood Insurance

	Flood insurance				Total Number
	No	Yes	Other response	Unsure	
	Number	Number	Number	Number	
<b>Home ownership</b>					
Rented	185	62		22	269
Mortgage	128	75	1	36	240
Owned	202	189	1	71	463
Other ownership	14	3		4	21
Defence	2	2			4
Other Response		1			1
Total	531	332	2	133	998

## Cairns Community and Post Disaster Surveys 1990s.

Linda J. Anderson-Berry 2003. Community Vulnerability to Tropical Cyclones: Cairns, 1996–2000 Natural Hazards 30: 209–232, 2003. Kluwer Academic Publishers. Netherlands.



**Table. Residents perceived extent of their insurance cover**

Cyclones	Steve (N = 416 )		Justin (N = 361)		Community surveys 1996 (N = 572)
		% change since 1996		% change since 1996	
Storm surge	15.6	<b>-1.4</b>	16.1	<b>-0.9</b>	17.0
Erosion	9.9	<b>+ 0.8</b>	7.2	<b>-1.9</b>	9.1
Landslide	10.1	<b>+ 1.2</b>	6.9	<b>-2</b>	8.9
Flood	19.0	<b>+ 0.8</b>	19.1	<b>-0.9</b>	18.2

**Table. Additional flood insurance cover**

Residents who have purchased additional household insurance specifically for flood damage. (N = 416)	
Yes	7.7
No	73.3
Don't know	2.6
No response	16.4

**Response to Productivity Commission Report 2015**

**On behalf of James Cook University, compiled by David King, Centre for Disaster Studies and David Henderson, Cyclone Testing Station**

Submissions concerning insurance based on NCCARF research

- Household and private residential insurance costs are borne by the private sector -- householders and the insurance industry. The report urges an increase in insurance cover, but as this is a private household matter it will require a great deal of education and incentives, as well as disincentives, to prompt people to increase very expensive costs of insurance cover. Home and household insurance may be enhanced by government policy -- campaigns, targeted locations, local government development conditions, or compulsion similar to the vehicle compulsory third-party insurance. However compulsion is perceived by many householders as unfair, as people have chosen to live in hazard vulnerable locations, while others have chosen to avoid such hazardous locations. Insurance does not encourage re-building to a better or higher standard of hazard risk reduction (King et al. 2013). People after the Queensland 2011 floods referred to a desire to "build back better", but hazard adaptation was generally not encouraged by insurance cover. Many householders expressed a willingness to adapt and to reduce risk, but are constrained by a lack of money (Bird et al 2013).
- Governments experience political pressure from the uninsured and underinsured to provide help in recovering from a disaster. Householders who have taken out insurance are disadvantaged by government assistance schemes. The insured are ineligible to receive government scheme support while uninsured neighbours receive benefits. The 2011 Brisbane floods showed many instances of people waiting for insurance assessment, thereby missing deadlines to apply for government support, and subsequently finding they were not covered by their insurance policies (Bird et al 2013).
- Relocation is a disaster risk reduction strategy. The cost of relocation of households, residential properties and private enterprises is borne by the private sector -- householders and commercial businesses (King et al 2014). Formal relocation and buyback schemes are high cost government funded strategies that may facilitate the process of retreat and thereby avoid future recovery costs. These may address some of the legacy issues of urban development in hazard prone

locations. However these are generally not favoured by local and state governments on whom funding responsibilities primarily fall. This point was made very clearly in the Queensland Flood Commission of Inquiry. The cost of relocation is a disincentive to both the private and government sectors, but relocation, or retreat, will be cheaper in the long term than recovery costs. However, the recovery cost is not a certainty -- the disaster may not happen in any given location.

Protect is the contrasting strategy to retreat. This leads to construction of medium-term control measures such as levees. The report acknowledges that some locations have been rewarded for the construction of levees by a reduction in insurance premiums. A survey of planners (King et al 2013) indicated a total lack of consensus concerning the efficacy or desirability of levees. In the case of Charleville's protection strategy, it should be noted that the 2008 floods occurred inside the levee (Apan et al 2010).

4. Residential dwellings reduce recovery costs of hazard impact through building standards (Boughton et al 2011, Henderson and Ginger 2008, King et al 2013). Building standards are compulsory with the cost borne almost entirely by the private sector. This has been most effective in cyclone prone areas but a great deal of development is yet to occur in flood proofing, bushfire mitigation and retrofitting of older buildings more generally. Subsidy schemes may be a necessary incentive. Federal government has pulled funding and support for three things that all offer a significant potential return by reducing the post-disaster costs far more than the initial costs involved. These items are:

- 1) support for ABCB and National Construction Code
- 2) support for development of Australian Standards and
- 3) support for independent technical experts who have no vested commercial interests in codes and standards outcomes (such as CSIRO) to continue to conduct research and be involved in the codes & standards development processes.

5. Residential dwellings may be much less vulnerable to hazards (especially floods and storm surge) than government and private sector structures and infrastructure (King 2005). A primary legacy issue of settlements throughout Australia is that towns and cities were founded with close access to navigable waterways, or at the very least in low topography. The retail and commercial sectors are frequently at the lowest elevations.