

# **DISASTER PREPAREDNESS IN THE CAIRNS TOURISM INDUSTRY**

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## **INTRODUCTION**

### ***Disasters***

A growing discussion in the emergency management literature has centred on increasing the capacity of communities to plan for and respond to disasters in order to speed the recovery process. A disaster is defined as any event, either natural or human-induced, that overwhelms a community's normal processes for meeting basic needs. Because communities differ in resources and preparedness, a minor event in one community could easily be a disaster in another. Disaster management includes three phases: Readiness, Response, and Recovery.

*Readiness* means planning and preparing for potential disaster events. This includes educating people, instituting appropriate building standards, and setting up processes for dealing with disasters.

*Response* means taking action when a disaster strikes. This includes protecting lives and property, communicating with emergency managers, and educating people about emerging threats.

*Recovery* means returning the community as much as possible to a pre-disaster condition. This includes treating injuries, clearing debris, and rebuilding infrastructure.

### ***Tourism and Disasters***

Communities which are economically dependent on tourism face particular challenges in preparing for, responding to and recovering from disasters. Some key challenges with visitors include –

- Fluctuating numbers in the area, usually with no clear process for rapidly determining the visitor population
- Less knowledgeable about local hazards
- May not understand the local language
- Lack access to personal transport
- Lack stocks of basic supplies, such as food, water, and torches
- Limited access to social support networks, such as family or friends

Economically, a disaster can financially cripple a community in the short-term; however, in a tourism-based economy the effects are likely to last far into the future. If an area is deemed unsafe or if tourism services are significantly affected due to a disaster, visitors will seek another location. For example, the tourism industry in Bali crashed following the nightclub bombings of October 2002, with the average annual income dropping by 43% and international arrivals dropping by one-third (BBC 2003). Mega-businesses such as multinational resorts or restaurant chains may be temporarily affected, but they will quickly move operations to a more conducive locale. It is the local residents and local businesses who bear the true costs of a disaster.

For these reasons, it is critical that tourism-dependent communities plan and prepare for potential disasters. A rapid response which minimises loss of life and property, coupled with an efficient recovery, significantly increases the prospects of bouncing back economically following a disaster.

### ***Study Area***

Cairns is located in tropical North Queensland, Australia, approximately 1400km from the state capital of Brisbane (see Figure 1). The city's permanent population of 120,000 swells during the height of the tourist season to 150,000 people. About two million tourists pass through Cairns International Airport each year, comprising equal numbers of domestic and international visitors. Most of the tourist area is located in a low-lying area along the Trinity Inlet which was filled with dredge material to raise it two to four metres above tidal level (Geoscience Australia 2004). The tourism industry in Cairns exploded in the late 1970s and continues to experience steady growth. In recent years, terror events in other Southeast Asian

locales have spurred the popularity of tropical Australia as a safer option. According to Geoscience Australia (2004: 15), since British settlement the Cairns area has experienced “at least 53 tropical cyclones, seven major river flooding events, major landslides, earthquakes up to Richter magnitude 5.0, bushfires and Australia’s first major LPG explosion.” Cairns’ combination of hazard vulnerability, remoteness from other urban areas, and rapid growth in tourism place the tourist industry at serious risk in the event of a natural or human-induced disaster.

## **METHODOLOGY**

### ***General***

This study was carried out in partnership with another researcher. We compiled a list of tourism businesses in Cairns by utilising the online Yellow Pages and the Cairns Chamber of Commerce website. A letter of introduction was mailed to 180 businesses on 22 September 2004 stating the nature of our research and requesting a copy of any disaster plan (see Appendix A).

During the period 11 October to 13 October 2004, we conducted field visits in Cairns. We walked throughout the Central Business District (CBD), the Esplanade, and the Sheridan Street area, stopping at each accommodation business along our route. We also stopped at several tour operator offices. We targeted accommodation and tour operators because they were most likely to have responsibility for visitors for extended periods of times. Businesses that host visitors for brief periods, such as restaurants and shops, were given lower priority. At the front desk, we presented a copy of the letter of introduction, briefly explained our purpose, and requested a conversation with the appropriate staff member. This informal conversation covered topics such as the purpose of our study, perceived disaster risks, and any formal or informal plans. If a formal plan existed, we requested a copy. We also collected a business card and informational brochure if available. Conversations lasted between five and thirty minutes. Upon exiting a business, we wrote down the details of the conversation.

After returning from Cairns, we sent a follow-up letter to every business that we visited. Two letters were used, one thanking the business for their full cooperation (in cases where further assistance was not required) and another thanking the business for their cooperation and requesting additional information (see Appendices B & C). This further information was received by telephone, email, and mail.

### ***Existence of plans by business type and location***

Data were analysed with Excel spreadsheets and simple calculations. Trends were identified based on business type and location. To maintain privacy, business names were substituted with numbers. Businesses were assigned to one of six types:

- Hostel accommodation – hostels and guesthouses
- Budget accommodation – budget or family-style motels

- Upscale accommodation – 4 or 5 star hotels
- Strata holiday units – strata-titled units rented for holidays
- Caravan parks – facilities for recreational vehicles
- Tour operators – dive shops, boat trips, attractions, etc.

Businesses were also assigned to one of six locations (see Figure 2):

- CBD – roughly bounded by Bunda St., Florence St., Abbott St., and Spence St.
- Esplanade – the Esplanade from Spence St. to Minnie St.
- North Esplanade – the Esplanade from Minnie St. to Lilly St.
- Pier – roughly bounded by Spence St., Sheridan St., and Trinity Inlet
- Sheridan St. – roughly bounded by Smith St., Digger St., Grove St., and McLeod St.
- Outer Fringe – southwest of Bunda St.

### ***Cyclone plan components***

Since all plans featured cyclones, I analysed which of “The Three R’s” – Readiness, Response, Recovery – were included in Cairns cyclone plans. In addition, I analysed plans for evidence of attention to media liaison and business functions. Media liaison has gained importance with the rising power of the media to rapidly report on breaking events. Lack of control over information and the media during a disaster can cause serious issues for the tourism industry. Business function refers to processes aimed at protecting the company’s ability to function during a disaster. This includes steps such as downloading computer data, safely storing files, implementing alternate communication systems, and preparing a back-up office site. Attention to business function can keep a company operating throughout a disaster and speed re-establishment of normal trading following the event.

Plan components were assigned a value based on this scale:

- Not addressed = no mention, not addressed
- Aware = some mention but not sufficiently addressed
- Satisfactory = sufficient processes in place or mentioned
- Excellent = clear roles and responsibilities assigned for processes

## **RESULTS and DISCUSSION**

### ***General***

Three (3) businesses responded to our initial letter appeal. A further forty-two (42) businesses were visited during our Cairns data collection trip. We attempted to collect information from different business types in different locations. Figure 3 shows visits based on business type, and Figure 4 based on business location.

## ***Response rates***

Of these visits, twenty-two (22) agreed to discuss the issue of disaster preparedness. Reasons for non-response included --

- No manager available (8)
- Too busy (7)
- Require compensation (2)
- Not interested (2)
- Need permission from Brisbane office (1).

As shown in Figure 5, the response rate was highest for businesses located in Sheridan Street (80% response) and lowest for businesses located in the Esplanade (20% response). Ten attempts were made in each area.

By business type, Figure 6 shows that strata holiday units had the highest response rate (80%) and caravan parks the lowest response rate (0%). However, only two caravan parks were visited, compared to five strata holiday units. Only caravan parks and hostels were more likely to decline than to respond.

## ***Existence of disaster plans***

Only four businesses (16%) reported that they had no disaster plans or processes: one tour operator, one hostel, one strata holiday unit, and one budget accommodation. Three were located in the CBD and one in Sheridan Street. Reasons given included

- We tell guests to listen to the radio and follow instructions (2)
- The idea of a disaster doesn't make sense for this business (1)
- This is a new business and we haven't thought that far ahead yet (1)

Eleven businesses (44%) had informal plans or processes, meaning that they could quickly and easily list off the things they would do in the event of a disaster. These plans were not written down. Ten businesses (40%) had formal, written disaster plans.

Of the businesses who responded, Figure 7 shows that increasing accommodation cost roughly equates to increasing attention to disaster readiness. Most hostels and budget accommodations had informal plans or processes, while most upscale accommodations had formal plans. Strata holiday units were a mixed bag – the most likely accommodation to have no plan at all, but more likely than hostels and budget accommodations to have a formal plan. Tour operators fared similarly, with 23% having no plans but 50% having formal plans.

Considering location, Figure 8 demonstrates that businesses in the CBD were most likely to have no plan (43%), the Esplanade most likely to have an informal plan (100%), and the Pier and Outer Fringe most likely to have a formal plan (100% each). However, the small number of respondents in the Esplanade (2) and the Outer Fringe (1) skew these percentages greatly. For example, in absolute numbers, the North Esplanade reported more formal plans (2) than the Outer Fringe (1). In general, location was less important than business type in determining the existence of plans.

## ***Types of plans***

Disasters can take a variety of forms, and disaster plans should contain not only general procedures but also specific processes for dealing with the most likely situations. Our study did not specifically review fire evacuation plans, since all businesses are required by law to have these processes in place. We considered cyclones, floods, and explosions/acts of terror as the greatest risks for the Cairns tourism industry. Of the twenty-one (21) businesses that had disaster plans, all included cyclones. None (0) included floods, except mentioned briefly connected to cyclones. Nine (9) included explosions or acts of terror (see Figure 9). In total, we found only three (3) Cairns businesses that had formal, written plans for dealing with an explosion or act of terror. This is somewhat surprising given Cairns' prior experience with a deadly LPG explosion in 1987 and the recent increase in terrorism against tourists in the Asia-Pacific region.

## ***Components of cyclone plans***

### **The Three R's**

An analysis of cyclone plan components was undertaken for both informal and formal plans, using "The Three R's" of Readiness, Response, and Recovery.

Examples of Readiness components in Cairns plans included –

- Briefing staff at the start of each cyclone season
- Checking or preparing cyclone kits
- Regularly checking the Bureau of Meteorology website
- Checking generator condition and fuel availability at the start of each cyclone season

Examples of Response components included –

- Securing outdoor furniture or other potential missiles
- Taping windows and closing curtains
- Updating and advising guests of the situation
- Storing water in tubs or buckets

Examples of Recovery components included –

- Advising guests when it becomes safe to leave the building
- Preparing a damage report
- Re-establishing computing capability
- Cleaning up the grounds

As illustrated in Figure 10, Cairns cyclone plans excelled in the Response component, possibly illustrating the success of public education campaigns or personal experience. However, the Readiness component was weak, with just half of all plans demonstrating satisfactory processes. The Recovery component was particularly weak, with only one business providing detail about post-cyclone procedures. This probably reflects the dominant attitude that Cairns is unlikely to suffer major cyclone damage.

The degree of adequacy of these components differed by business type, as illustrated in Figure 11. Of the plans examined, strata holiday units showed the least consideration for Readiness. This is likely related to the independent nature

of this accommodation choice, as compared to expectations for other accommodation types or tour operators. The data also indicate that upscale accommodations and tour operators have better plans for Recovery, suggesting that these business types will be able to bounce back sooner after a cyclone. In comparison, no hostel or budget accommodation providers mentioned Recovery components.

### **Media Liaison and Business Function**

Few businesses showed evidence of considering media liaison or business function in their cyclone plans. Indeed, only two instances were found: One tour operator and one upscale accommodation business scored “excellent” by providing clear processes for dealing with the media. It is possible that these directives are stored in a routine business document and therefore were not mentioned in disaster plans.

Business function attracted slightly more attention. One tour operator mentioned it, one upscale accommodation scored “Satisfactory,” two upscale accommodation businesses scored “Excellent,” and one strata holiday units accommodation scored “Excellent.” Our discussions suggest that most tourist businesses in Cairns do not have clear processes for maintaining or re-establishing normal business function in a disaster situation.

## **CONCLUSION**

### ***Key priorities***

The data presented is important in identifying strengths and weaknesses of disaster planning in the Cairns tourism industry. Based on these results, I suggest the following priorities for future research and funding:

- General disaster planning -- hostel and budget accommodations;
- Planning for explosions or acts of terror -- all types of businesses;
- Developing Readiness processes -- strata holiday units;
- Developing Response processes -- hostel and budget accommodations;
- Developing Recovery processes -- all types of businesses;
- Planning for media liaison – all types of businesses;
- Planning for business function – all types of businesses.

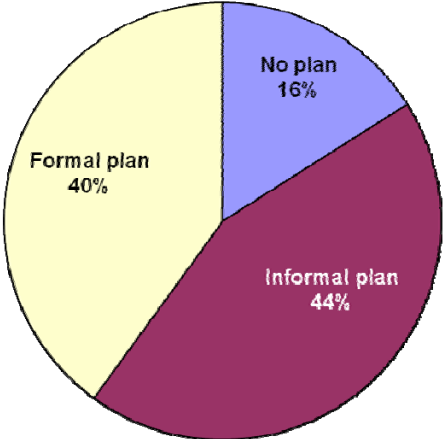
### ***Issues with the study***

My analysis did not consider businesses which chose not to respond. We may safely assume that some of these did not wish to participate because they did not have a plan. Lack of interest in the study probably indicates a lack of interest in the topic of disaster preparedness and consequently lack of planning. However, it is impossible to estimate the status of non-respondents. From personal observation, most seemed genuinely unable to respond due to the absence of a manager or lack of time.

Another issue was that four (4) businesses reported formal plans but did not provide us with copies. We were therefore unable to assess the components included in the plan. Where possible, we counted these plans as existing if our discussion indicated this.

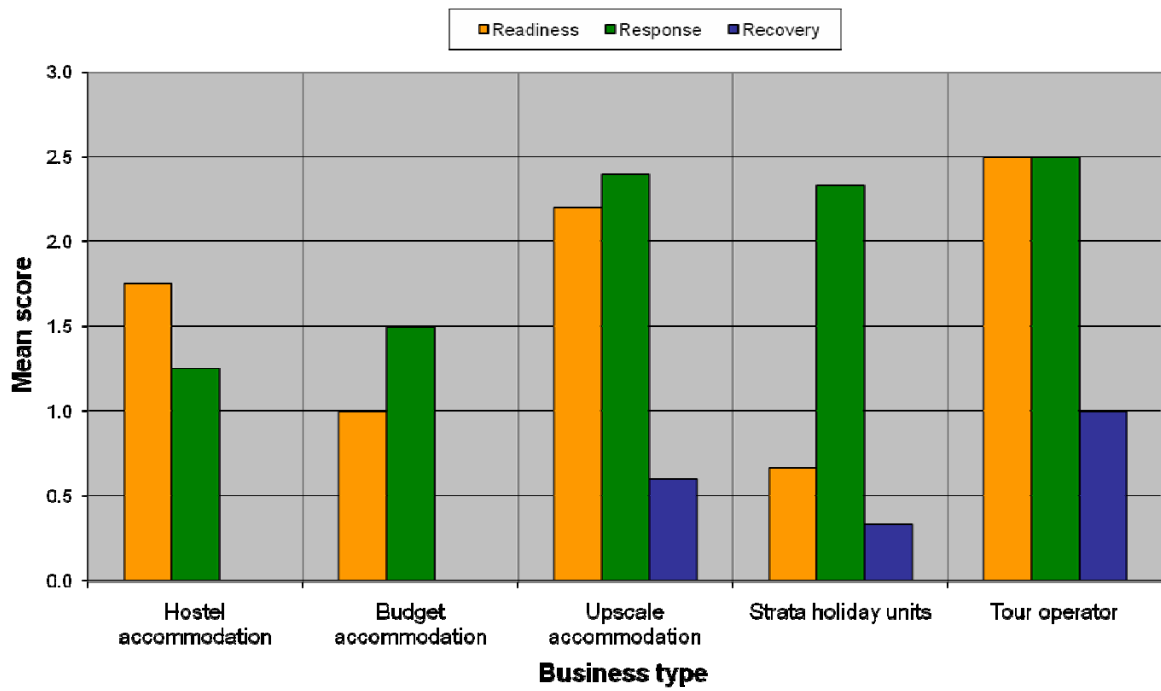
Businesses that host visitors for brief periods, such as restaurants and shops, were not given priority in our study. This was a simply matter of resources, as we did not have sufficient time or personnel to cover all tourism businesses. Certainly this is justified in the case of a cyclone, which arrives with adequate warning to usher most visitors back to their place of accommodation. However, rapid-onset disasters are as likely to strike visitors sitting in a café as those asleep in a hotel. Global experience demonstrates that restaurants, nightclubs, and attractions are particularly susceptible to acts of terror. Our study gives no indication of levels of readiness among these types of tourism businesses.

**All respondents: Existence of Plans**

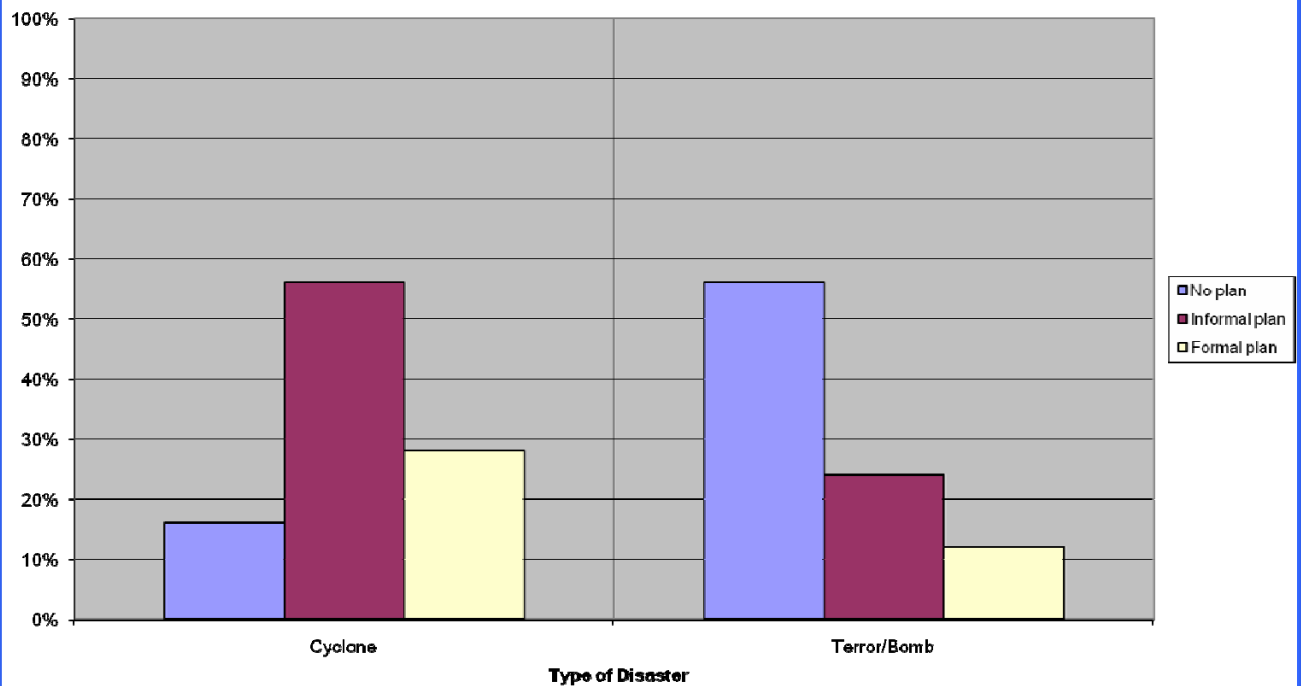




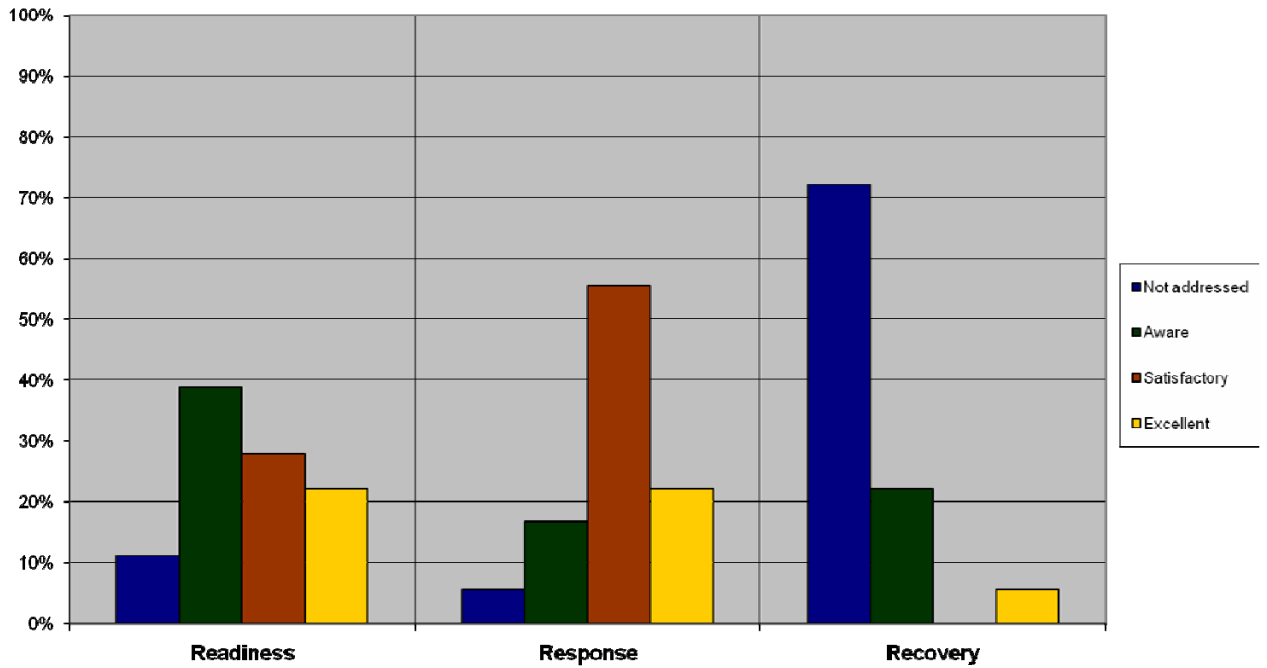
### Mean Cyclone Plan Scores by Business Type



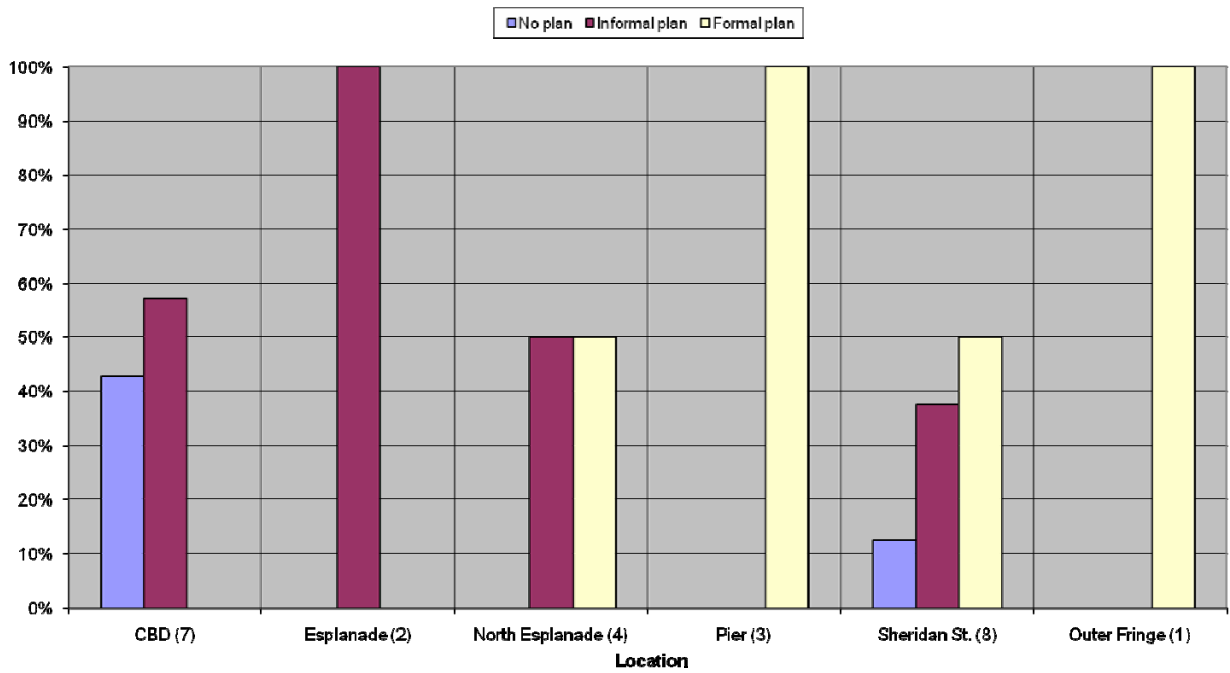
### Respondants' Plans for Specific Disasters



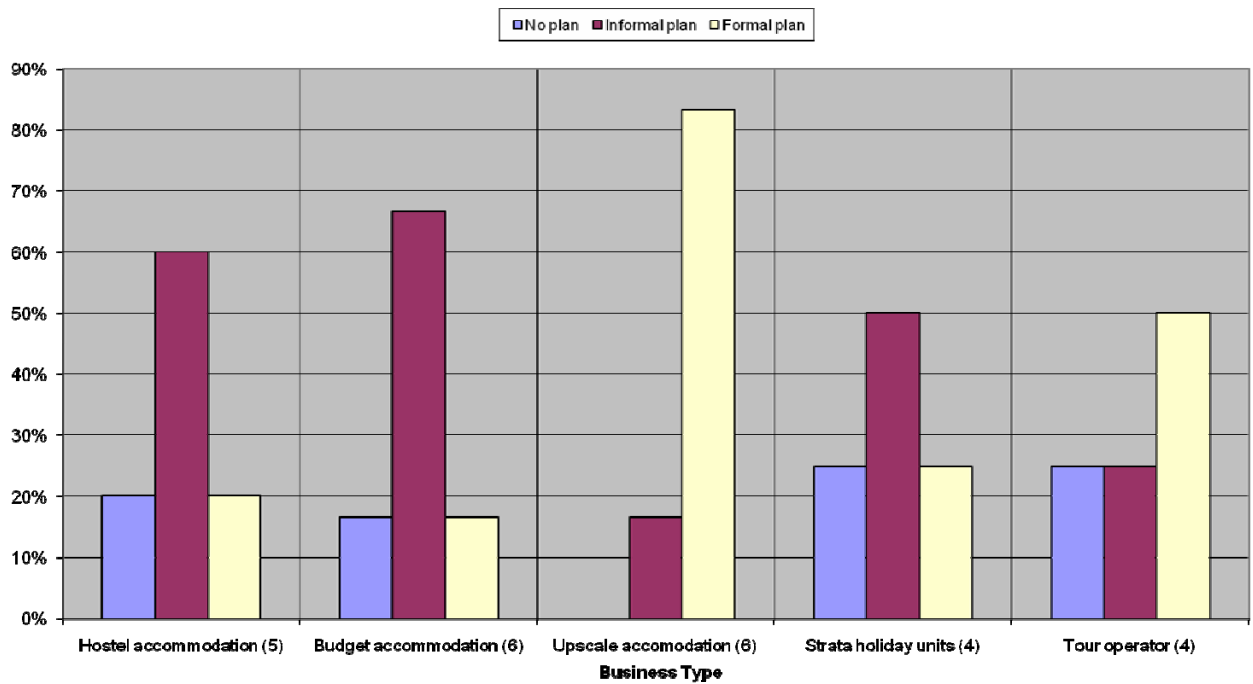
### Adequacy of Cyclone Plan Components



### Existence of Plan by Location



**Type of Plan by Business Type**



Comments about disaster preparedness collected during site visits to tourism businesses:

“Load of rubbish”

“The media sensationalises”

“We haven’t thought that far yet”

“We take common sense actions”

“We deal with it in our own way”

“We have no plan”

“We just tell guests to listen to the radio”

“We prefer to think positively, not negatively”

“We just follow instructions in the media”