Disaster, social contracts and self-reflection: community resilience in Tamborine Mountain

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On Christmas Day 2023, a tornado tore through the Queensland hinterland town of Tamborine Mountain leaving the community without power and without a quick emergency response to the event. How the community responded and recovered was studied to determine the baseline community resilience and recommend improvements.

Tucked up behind the Gold Coast, Tamborine Mountain was a magnet for tree-changers during the COVID-19 pandemic. The town is known for its subtropical rainforest, country-town feel and artistic pedigree. It has the added allure of being a 50-minute drive from the Gold Coast or Brisbane. It has a small-town vibe while being near urban economic centres. As a result, the resident population grew between the 2016 and 2021 censuses.[1] When a tornado tore through the town on Christmas Day in 2023 at roughly 9 pm, it caught many people unprepared and ill-equipped to be without power for 14 days.

This was not the first time this sort of event has struck the area. A decade before, ex-Cyclone Oswald hit the mountain. Some residents recall it being worse and some did not. What is clear is that roughly every 10 years, some major event happens, mostly storms but sometimes fire, that disrupts the community. While the pre-pandemic population grew at a modest rate (1,227 new residents between 2001 and 2016), the had community coped. But as the

A tornado caused significant damage to houses, roads and power infrastructure in the Tamborine Mountains, Queensland in 2023.

Image: Claire Elise Photography

influx of new residents who were unfamiliar with the area and its exposure to these hazards, resilience waned.

To establish the levels of knowledge and preparedness of people in the area, a study was conducted to identify how the community responded and recovered and to determine the baseline community resilience to recommend improvements. The study found that many households were not prepared in the physical sense. Without town water or sewerage, residences were reliant on power to operate household systems such as water pumps and biocycle systems. Compounding this was the community's unpreparedness for the on-the-ground chaos and a perceived lack of official response. Initial days were spent relatively idle expecting a response before the community realised that the local council was not coming to their aid in the way people thought it would. Only then did community members spring into action.

This delay raises questions. Is the community's collective action evidence of its resilience? Is it unrealistic that residents in semi-urban environments should expect continuity of power from power providers? Should everyone across Australia, regardless of their location and situation, invest in a portable generator? Was the community's expectation of a response overinflated? As a Tamborine Mountain resident, I found myself asking these questions to understand community expectations of preparedness and recovery.

Researching resilience

In part catharsis and part education, I dedicated my final MBA studies to researching my community's resilience using the Torrens Resilience Initiative Community Scorecard.[2] It was selected as the preferred tool as it

allowed for multiple potential hazards and was designed for a community to enact, the latter being an attribute that became more relevant as my research progressed.

The results from the Scorecard (see Figure 1) were relatively unsurprising. The community was moderately resilient. While many of the physical contributors to resilience posed little risk by themselves, it was the interaction of multiple indicators that contributed to a weakened resilience. Three of the 5 access roads for the town were cut and this slowed the response times from external providers to reinstate power. Without power, there was no running water or fans, which made the subsequent heatwave unbearable and the clean-up response even slower. On New Year's Day, a tropical low dumped 750mm of rain in the area. Many properties had damaged roofs or were not yet covered. Many also had debris that had not been removed and the excessive rainfall added water damage to already compromised structures. All of this was exacerbated by newer residents who were naïve to the local risks and were unprepared and without community connections. People didn't know what to do, who to turn to and, arguably, had some very unrealistic expectations.[3]

Changing disaster social contracts

This study opened a bigger question about the social contract around emergencies and disasters. In post-event reviews of Hurricane Katrina, the 2011 Tokyo earthquake and tsunami, the 2011 Brisbane floods and other events, commentary returns the theme that command-and-control bureaucracies were limited in their response and fall short of the expectations of affected populations.[4,5] This is a theme that crosses cultural boundaries.
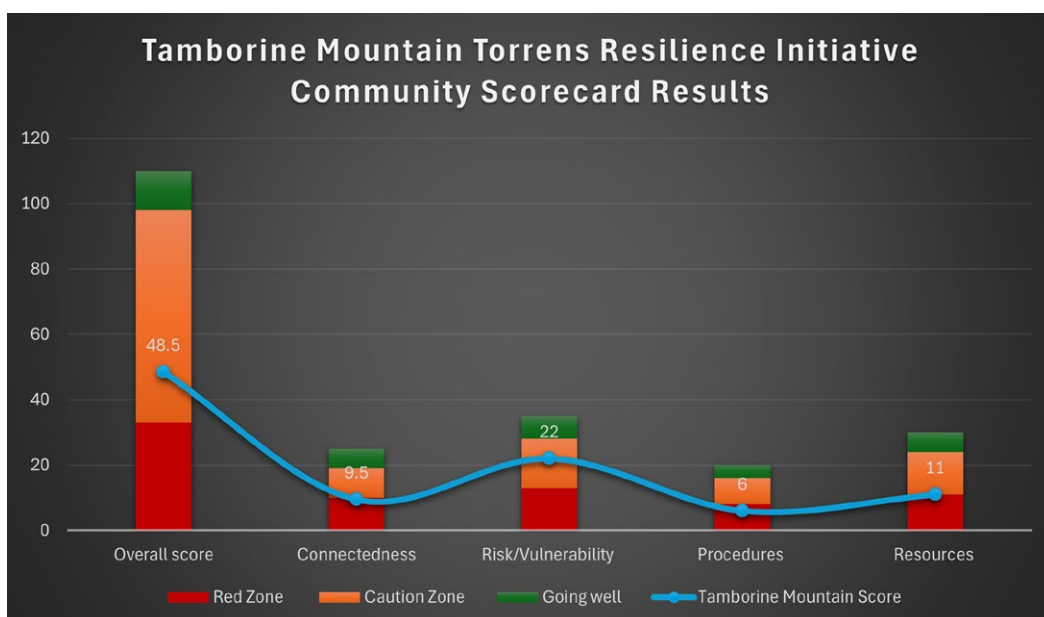

Figure 1: The Scorecard graphed the resilience levels results from the study.

NEWS AND VIEWS

People expect that as they are contributing members of society, governing bodies will recognise their discomfort and distress in times of need and provide aid regardless of individual preparation. Conversely, governing bodies expect people to prepare for their risks and self-manage during recovery by using insurance companies as safety nets and, in so doing, free government resources.[6] It is the distance between these stances that causes discontent in both sides. Research has shown that the more authorities attempt to raise hazard awareness through public campaigns, the more dependent populations became on emergency services organisations.[7] By raising awareness, it is also raising expectations of an official response that could, in part, explain current declining volunteer participation rates.[8]

From research to action

With the research complete, my question becomes 'Where to from here?'. There are some unavoidable truths facing Tamborine Mountain. Firstly, it is likely that memories of the most recent event will fade and the allure of its natural beauty will continue to attract new residents. Secondly, the community is highly vulnerable to high-risk hazards so more can be expected in the future and insurance companies are unlikely to provide a comprehensive safety net.[9] Finally, there needs be a shared responsibility and resources for preparedness, management and response and so structures should be established that support preparedness, through a new empowering social contract.[10,11] Government, top-down information alone does not create actionable knowledge. That required reflection, local assessments and co-creation[12] and will only come from within a community that must be motivated to initiate and continue the work.

In hindsight, I selected the Torrens Resilience Initiative Community Scorecard because, as a resident rather than a researcher, it provided a meaningful sense of community empowerment to identify actions we can do to improve our collective resilience. For Tamborine Mountain, those actions are to reinstate monthly peer-to peer information sessions for new residents supported with community-developed material on preparation, biannual inter- and intra-community scenario planning sessions to develop a preparedness mindset and embedding disaster preparedness in the local schools to develop the resilience in the next generation. I would strongly encourage communities to use the scorecard to get a greater appreciation of resilience and to devise interventions to improve resilience in a community.

Access the full report on this study from the Queensland University of Technology website, https://eprints.qut.edu.au/248393.

Endnotes

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