REGIONAL AUSTRALIA INSTITUTE

FROM DISASTER TO RENEWAL

THE CENTRALITY OF BUSINESS RECOVERY TO COMMUNITY RESILIENCE

FINAL REPORT

FOR THE GOOD OF AUSTRALIA

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Executive Summary

The Regional Australia Institute (RAI) commissioned Griffith University to examine the experiences and learnings arising from the communities that have experienced, first-hand, the challenges of recovering from and adapting to the impact of disasters.

Separately, a review of international literature about post-disaster business recovery was undertaken to identify key themes and learnings from overseas experiences. As the research progressed, it became apparent that there is extensive convergence between the challenges identified in the literature and the lived experience of case study participants.

This research highlighted the strong sense of community in rural and regional Australia and the commitment of communities to 'bounce back' from disasters. Within a resilience framework that emphasises positive adaptation in the face of disaster impacts, 'bouncing back' is not enough. Adapting to the 'new normal' needs to become an integral aspect of recovery planning.

Despite the determination of these disaster affected communities, they faced and continue to face a multitude of challenges to long-term adaptation. The impacts of a disaster are never straightforward, nor are they generic. Each disaster impacts a community in different ways, as a combination of the intensity of the disaster and the pre-existing economic and social features of the community itself. The challenges of recovering are multifaceted, complex and long-term.

Key considerations arise from the research findings; that business recovery is central to community recovery and that recovery needs to be integrated within the resilience framework. Aligning practice within the resilience framework will require the disaster management community to reframe its understanding of recovery, incorporating adaptation and renewal.

This report summarises the findings from each case study community and puts forwards a series of recommendations that reflect the research findings. Key recommendations are presented below:

- Recovery arrangements need to be viewed within a resilience framework which moves beyond relief and reconstruction to incorporating local renewal and adaptation to the post-disaster environment.
- Immediate relief efforts should focus on minimising population displacement. This requires an understanding of the drivers of population displacement, ranging from loss of employment/income, loss of accommodation and lack of schooling/child care facilities for families with children.
- Business recovery planning needs to be integrated into recovery planning from the outset of an event. A lead agency should be assigned responsibility for longer-term business recovery as the recovery progresses from relief to reconstruction and long-term adaptation.
- Local Government recovery planning must engage local communities leveraging knowledge, expertise and community-level institutional capacity.
- Government should develop baseline community resilience and vulnerability indicators to inform and tailor recovery planning activities during the prevention and preparation phases.
- Further research is needed to understand the challenges of implementing policies and plans in the recovery phase.

The key challenge facing governments, Non-Government Organisations (NGOs), local communities and other stakeholders in disaster management is recognising the shift in timeframes from short-term recovery to facilitating long-term community resilience. More detailed, comprehensive and locally contextualised planning is required to achieve this. Fully integrating the Prevent, Prepare, Respond, Recover method within the National Strategy for Disaster Resilience (NSDR) framework will enable long-term adaptation in disaster affected regions.

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Introduction

The Regional Australia Institute (RAI) has commissioned Griffith University to undertake a series of case studies examining the economic recovery of rural communities following natural disasters. The objective of the project is to critically review current economic recovery practices in Australia and, based on both field research and extensive literature reviews, develop proposals to improve approaches to facilitating economic recovery after disasters.

Four case studies were undertaken to inform the critical review:

- Cardwell after Tropical Cyclone Yasi in February 2011;
- Carisbrook after the 2011 flash floods;
- Emerald after the 2010-11 floods; and
- Marysville after the February 2009 "Black Saturday" Bushfires.

These case studies sought to examine the issues and implications of economic recovery following a variety of natural disasters in differing rural/regional settings. The case studies were developed using extensive interviews with residents, ranging from community leaders, business owners, long-term residents and government officials. Their stories constitute the lived experience of post-disaster business recovery in regional Australia. They create a tapestry of complex, inter-linked challenges facing rural and regional communities recovering from natural disasters. Findings from the field research underpin the analysis put forward in this report.

Separately, a review of international literature about post-disaster business recovery was undertaken to identify key themes and learnings from overseas experiences. The research examined in this review primarily considered cases of business recovery in developed-world countries, due to the vast contextual differences in disaster management practices and problems between developed and developing world countries. As the research progressed, it became apparent that there is extensive convergence between the challenges repeatedly identified in the literature and the lived experience of case study participants.

The different streams of recovery are notionally interlinked, but in practice are often treated independently and with differing degrees of attention by governments. The case studies highlighted the massive, and often overwhelming, support received in the initial post-disaster stages. From trauma counselling to hardship grants, to the mass donation of toothbrushes and mobile phones, there is extensive support and focus on the immediate disaster relief stage. The recovery process then traditionally focusses on assisting communities to recover their emotional/social well-being and rebuild damaged infrastructure. Whilst these are necessary components of the recovery process, in and of themselves, they are insufficient to enable robust recovery.

Economic recovery is generally treated as a 'stream' of the recovery process. The lived experience of case study communities indicates that 'the economy' does not recover with the provision of counselling and the rebuilding of infrastructure. To conceive of economic recovery as a stream is to confuse the outcome with the process that creates it. The process of business recovery, and its critical interconnections with community recovery, enables broader economic recovery in a disaster affected region. This report therefore considers 'business recovery' to be a process with 'economic recovery' being the desired outcome in a disaster affected region.

Recovery within a Resilience Framework

The *National Strategy for Disaster Resilience* (NSDR) (COAG 2011) encompasses the process of recovery within a resilience framework. The concept of resilience, originating from both physics and ecology, incorporates the idea of 'equilibrium'. On a day to day basis, 'equilibrium' could be considered the *status quo* of a community. The pre-disaster and post-disaster equilibria are likely to be qualitatively different, because the impact of the disaster will inescapably alter the lives of those experiencing it (Norris et al, 2008). In this context, recovery is the process of a community adapting to the disaster shock and establishing a 'new normal'; resilience comprises the personal, community and economic attributes that enable this process. As the US National Academy of Science (2012, p.1) observes "Resilience emerges, in large part, from the ability of local communities with support from all levels of government and the private sector to plan and prepare for, absorb, respond to, and recover from disasters and **adapt** to new conditions".

The objective of governments in the recovery process should therefore focus on enabling and assisting the disaster affected community to renew, rebuild, adapt and thrive in the 'new normal'.

Findings and Recommendations

This report identifies the key findings arising from the case study field work and places them in the context of relevant international research and experiences. The report concludes by making a series of high-level policy recommendations intended for consideration by all levels of government and contributors to the disaster management space. The National Strategy for Disaster Resilience (COAG, 2011) emphasises the importance of shared responsibility; facilitating more effective disaster recovery requires all parties to learn from previous experiences and ensure these lessons are integrated into practice.

Findings

1. Business Recovery is a Pre-condition for Community Recovery

The term 'community recovery' is used in a range of contexts in disaster management. According to Emergency Management Australia (EMA), community recovery is the process of reconstructing the physical environment and restoring social, economic and physical well-being (EMA 2002, EMA 2004). The term 'community recovery' is also used interchangeably to mean the restoration of social/emotional well-being. Despite the emphasis in official plans and documents on the inter-relationship of all the strands of recovery, social/emotional well-being and physical reconstruction are accorded disproportionate emphasis. The case studies have shown that business recovery is, to a large extent, overlooked compared to other recovery streams. In Marysville, spending on infrastructure and community recovery activities significantly outstripped that provided in grants and assistance to businesses. This trend was repeated in the other case study communities.

The lack of funding for small business recovery reflects a lack of appreciation of the critical interdependencies between business recovery and community recovery, particularly in rural settings where the majority of businesses are owned and operated by local residents. This trend is not unique to Australia. International experiences highlight the abundance of support provided for community recovery (ie. social/emotional), whilst a survey of the business disaster recovery literature shows a pattern of business failure and failed assistance programs extending for nearly 20 years.[1]

The National Strategy for Disaster Resilience (COAG 2011, p. 5) identifies that the attributes of a disaster resilient community include:

- "They (people in the community) have committed the necessary resources and are capable of organising themselves before, during and after disasters which helps to restore social, institutional and economic activity"; and
- "Businesses and other service providers undertake wide-reaching business continuity planning that links with their security and emergency management arrangements".

Research into post-disaster psychological/emotional recovery at the individual and community level has highlighted the importance of economic functions to broad community recovery (Norris et al 2008). Narrow economic bases with high levels of income inequality are correlated to poor individual and community recovery (Adger 2000, Norris et al 2008). The resilience of a community, and its corresponding ability to rebound from disasters, is underpinned by its economic base (Norris et al 2008, Rose 2004, Vigdor 2008).

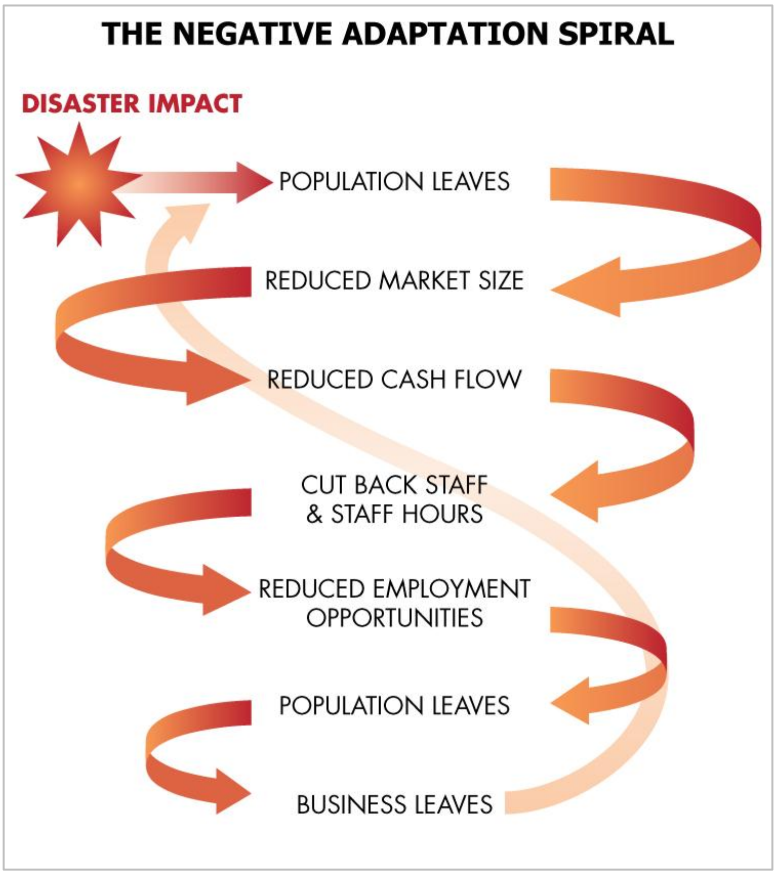
The distinctions drawn between community recovery and business recovery, and the seeming lack of focus on business recovery, miss the vitally important link between two areas. Community recovery will not occur without business recovery. In the absence of an adapted and functioning economy, a disaster impacted region will remain in a state of post-disaster dysfunction (Norris et al 2008).

1.1 Population displacement and the negative adaptation paradox

One of the critical impacts of disasters on a local economy is the destruction of housing. An immediate flow-on effect is population displacement in the affected region. As the experience of Marysville clearly demonstrates, the longer residents are displaced the less likely they are to return. Of the 90% of residents who lost their housing, over 50% have not rebuilt in the region (ABS 2011, BCG 2009). It was argued by many remaining residents that if it had not been for the temporary village which was created, the population exodus would have been greater.

"..there is a decrease in houses which leads to a decrease in population and a decrease in jobs….which then leads to a decrease in population…Just everything decreases."
Cardwell resident

[1] Refer to supporting research paper for a discussion of the difficulties with business recovery assistance programs. Research dating from earthquakes in the United States in the 1990's through to 9/11 and Hurricane Katrina showcase recurring themes of the difficulties experienced by businesses and the ineffectual nature of government support to businesses in disaster affected areas.



The negative adaptation spiral, shown opposite, depicts the process by which a business adapts to a shrinking population and, in so doing, exacerbates the problem. Beneath the surface issue of population loss, lies a marked change in the demographic composition of the remaining population. As economic opportunities decrease, working-age residents leave the region, meaning that the remaining population becomes older, generally with lower disposable incomes, thereby simultaneously decreasing the economic productivity and increasing the vulnerability of the region. Marysville and Cardwell both exhibited this cycle. Where communities have already entered this spiral due to general economic conditions in the region the impact of the disaster will reinforce it (Vigdor 2008; Dalhammer and Tierney 1998).

Extensive research in the United States points to a strong inter-relationship between business recovery and population return post-disaster (Xiao and Van Zandt 2012; Vigdor 2008; Dahlhamer and Tierney 1998, Zhang, Lindell and Prater 2009; Webb et. al. 2002). Keeping residents in the local region, and assisting those displaced to return, is critical to business recovery. In the absence of a viable market, businesses are less inclined to re-establish themselves after a disaster. Promoting the rapid recovery of housing, along with keeping residents in the local area during the rebuilding process is central to facilitating business recovery.

From the perspective of displaced residents, a key factor in the decision to return to a disaster-affected region is the extent to which businesses commit to rebuild and re-open. Research suggests that this relationship is more heavily weighted towards businesses re-opening, meaning that business re-opening will pull residents back into a disaster affected region (Xiao and Van Zandt 2012).

1.2 ‘Drawcard’ businesses can provide a ‘pull’ factor

The Marysville case study indicated that certain businesses were key ‘drawcards’ for tourists to the town. Residents noted that the artist café and local patisserie shop were attractions that tourists specifically cited as reasons for visiting. Cardwell residents similarly emphasised the ‘drawcard’ nature of local environmental attractions. These ‘drawcards’ form a fundamental aspect of a region’s identity and economic rationale (Norris et al 2008; Vigdor 2008; Sherrieb, Norris and Galea 2010). Their loss has significant impact at a psychological as well as functional level as they can come to symbolise the broader disaster impact on the region (Norris et al 2008). In contrast regional centres, such as Emerald, with diversified economies and key industries largely unaffected by disasters are well placed to recover rapidly from disaster impacts (Adger 2000; Sherrieb et al 2010).

The differences in the economic basis of regional centres indicate that government interventions should be on a case-by-case basis.

1.3 Keeping businesses operating

Enabling business to re-open quickly is contingent on access to lifeline utilities such as power and water as well as access to road and rail transport. Telecommunications, EFTPOS and access to the internet are increasingly central to business operating models. As cashflow, once lost, cannot be recovered, strategies for business recovery need to consider how to assist businesses to reopen quickly, including allowance for temporary operating measures.

Businesses which are forced to cease trading for a period may lose their customer base which is often painstakingly built up over a long period. These personal and business relationships are not easily restored, particularly as those suppliers and customers have had to seek alternative sources. The longer the period of closure the more difficult the re-establishment of the customer base becomes and the more likely a business is to fail (Dahlhamer and Tierney 1998; Zhang et. al. 2009; Webb et. al. 2002).

2. The Reconstruction 'Mirage' and Recovery Horizon

In the aftermath of a major disaster, the reconstruction stage of recovery generally drives a significant influx of construction workers to the affected region. The reconstruction boom often distorts measures of a region's economic performance and obscures the long-term challenges faced in achieving sustained economic recovery. The reconstruction boom can also have the unintended consequence of furthering population displacement. In Marysville and Cardwell, the reconstruction boom drove a demand for housing in a market with reduced stock causes a rental prices spike, serving to push out local residents in marginal financial circumstances and key workers such as teachers and nurses (see also Yates, Randolph and Holloway 2006). Those most at risk are residents whose employment or employment opportunities have been compromised by interruptions to business operations.

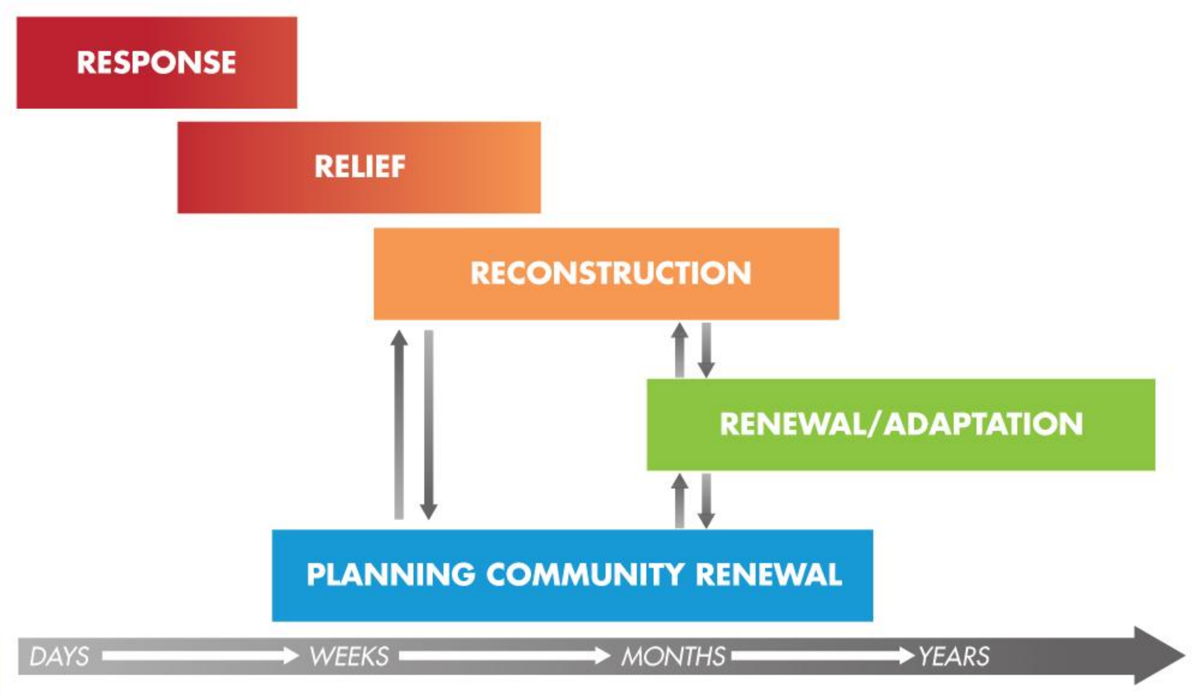
The boom of activity driven by reconstruction is frequently a mirage that masks a longer-term decrease in population and broader business performance issues. The data from the case study locations supports this observation; reconstruction activity does not equate to overall economic recovery.

This highlights a critical issue: that the process of recovery involves a number of sub-stages, each with impacts that need to be carefully managed.

2.1 Inside the recovery phase

Resilience is generally considered a community's ability to 'bounce back', ie. to recover, from disaster (Manyena 2006, COAG 2011). The original concept of 'resilience' refers to how quickly a disturbed system can re-establish a point of equilibrium (Manyena 2006). In context of disaster recovery the post-disaster equilibrium, the 'new normal', is likely to be qualitatively different to the pre-disaster context of the community (Norris et al 2008).

This process of adapting to a post-disaster equilibrium is not linear and is highly contingent. It is an adaptive process between the experiences of the community and their evolving vision for their future. The diagram below illustrates the concept of the different stages, timings and relationships in the recovery process. [2]



Inside the Recovery Phase

[2] Note that terminology differs between agencies and countries. There are numerous approaches to segmenting the recovery phase. The point of this diagram is to highlight the distinctly different stages within the recovery phase rather than argue for any one particular set of terminology.

2.2 The recovery horizon

As the scale of recent disasters in Australia, and internationally, has increased, governments have increasingly chosen to establish purpose-designed departments to manage the recovery process. The Victorian Bushfire Reconstruction and Recovery Authority, Queensland Reconstruction Authority and Canterbury Earthquake Reconstruction Authority are three leading examples of this trend (Smart 2012). The establishment of a fixed term, focused entity, reporting to a Cabinet Committee, is intended to fast-track the recovery process. Research and reports on this approach have generally noted the advantages to this approach in coordinating, streamlining and driving the complex process of recovery (World Bank 2011, Smart 2012).

However, the recent trend towards establishing short-term recovery authorities runs the risk of creating perceptions that the recovery process is complete after two years and reinforces the notion that the recovery phase ends with the completion of reconstruction activities. Four years after Black Saturday, Marysville is still struggling to get back on its feet. Residents estimate the recovery process will take anywhere between 10 to 25 years. In Cardwell, two years after Cyclone Yasi, businesses are still rebuilding. The common consensus there is that the recovery process will last at least another five years.

This experience is well documented internationally: Christchurch proposes a 10+ year recovery horizon (CERA 2012); Eastern Japan prefectures propose a 10 year reconstruction period and up to 40 years for full rehabilitation of Fukushima (Great Eastern Japan Earthquake Reconstruction Agency 2013); New Orleans proposes a 10 year recovery (Olshanksy 2007, City of New Orleans 2007); Kobe proposed a 10 year horizon (Kobe Government 1995). The horizon will differ from location to location and depends on the context of the region and the extent of disaster impacts. Despite these contextual variations, recovery is a long-term undertaking, comprising overlapping stages in a process of renewal and adaptation to a new equilibrium (Cutter et al 2008).

Although Queensland and Victorian recovery plans identified long-term outcomes, the experience of residents in affected communities is of a short-term focus on reconstruction. The case study communities held deep fears about what would happen after the reconstruction boom ends. Residents in disaster affected areas are acutely aware of the reconstruction mirage, directly linked to the masking effect of the reconstruction boom. The dispersion of authority for managing recovery due to the short remit of previous recovery agencies adds to their sense of short-term focus.

2.3 'Thing' theory

Another aspect of the reconstruction 'mirage' faced in recovering communities is the focus on building 'things' to demonstrate commitment and action (Rietveld et. al. 2001, Handmer and Hillman 2004). This theory, where economic development is presumed to flow from possessing or building things, is most frequently seen in practice in developing countries (Jacobs 2000). Massive amounts of aid money are funneled into reconstruction projects following disasters, only to have that money go to companies outside the disaster area. The Boxing Day Tsunami is cited as a classic case of high profile assets being rebuilt without materially improving the economic situation of local residents (Handmer and Dovers 2007).

There is a difficult balance to strike between Government taking action to break the negative adaptation cycle caused by population displacement and investing in 'things' that exacerbate the reconstruction boom yet fail to support long-term business recovery. The hotly debated new community centre in Marysville embodies this problem; many in the community feel it is unnecessary and a highly under-utilised asset. An excessive focus on building 'things' appears to have resulted in over-expenditure on infrastructure that does not serve the long term needs of the community as it is not integrated with longer term business recovery strategies.

Local Government representatives also identified the difficulty arising from a contracting rates base being required to cover a significant increase in maintenance and insurance liabilities attributed to new infrastructure. This over-investment in reconstruction bolsters the mirage of recovery. It adds to the long-term economic challenges faced in the region by creating maintenance obligations that have to be met from local revenue sources that are likely depleted through reduced population. Early commitment to rebuilding 'things' also tends to lock-in pre-existing vulnerabilities and miss opportunities to fundamentally redesign the future of a disaster-affected region.

2.4 Betterment

Despite multi-billion dollar recovery bills, it appears that the betterment provisions within the Natural Disaster Relief and Recovery Arrangements (NDRRA) have not been widely accessed.[3] Government infrastructure and assets are still being rebuilt like for like and, notwithstanding incremental improvements in design, this misses the opportunity to fundamentally rethink the vulnerability of key infrastructure and plan accordingly. As the rebuilding of the highway through Cardwell highlights (rebuilt with extra flood protection measures but still along the foreshore) the window of opportunity provided by the reconstruction stage of recovery has not been fully utilised.

The question of betterment is particularly salient in light of the need to provide value-for-money in the reconstruction phase. In this context value-for-money is not simply a cheaper reconstruction option or an effectively delivered reconstruction project; the lifecycle of the asset needs to be considered, including its likely exposure to future hazards and the costs of future reconstruction.

[3] In 2011 Griffith University was engaged by the Department of Community Safety (DCS), QLD through an NDRP grant to develop a framework to enable applications under the 'betterment' provision of the NDRRA program. Although the betterment provision has been incorporated into the NDRRA Determination since 2007, it has not yet been broadly operationalised (DCS, 2012).

3. Community-Led Recovery is not Straightforward

The case studies revealed the presence of numerous local recovery groups, a lack of engagement or inclusion of local government, conflict over roles and responsibilities and confusion about the direction of recovery. This conflict undermined community cohesion and created uncertainty and delays in the reconstruction process. Hurricane Katrina is instructive in this regard as the absence of effective communication, lack of community engagement and political deadlock has seen five separate recovery plans developed for New Orleans and subsequently rejected by the community and vested interest groups (Chamlee-Wright and Storr 2010). In circumstances where recovery was effectively managed at the community level, local government was engaged in the process and committees were led by people with expertise, experience and credibility. (Storr and Haeffele-Balch 2012, Chamlee-Wright and Storr 2011).

The importance of engaging local government, community leadership and effective communication was again showcased in the case study communities. The process must link the community with local authorities, other elected representatives and community leaders to assist with the dissemination of information to the public. Local authorities which do not effectively engage with and involve the local community and community organisations not only risk their alienation from the process but also the loss of local knowledge, innovation, enthusiasm and the determination of those local groups.

The Central Highlands Regional Council had prepared and refined disaster recovery plans following flooding in 2008. Their rapid implementation of these recovery plans in 2011, including establishing committee structures and communication channels, enabled the Council to engage with the community and effectively facilitate community-led recovery.

Additionally, the roles and responsibilities of key people need to be understood in advance of an event. The existence of a plan, in the absence of exercising, is not sufficient. The necessary structures and relationships cannot be effectively developed post-event. The absence of well-documented disaster recovery plans in case study communities other than Emerald tended to generate a leadership vacuum which was then filled by a variety of competing groups.

3.1 Community led recovery requires commitment

Whilst community led recovery is essential for local ownership of the outcomes and building community resilience, driving the recovery process requires a degree of institutional capability to coordinate, communicate, keep records and facilitate engagement with government and the broader community (Chamlee-Wright and Storr 2010, Smart 2012).

Community members themselves identified the capacity issues and that they were not necessarily in the right frame of mind to be undertaking such activities in the immediate aftermath of a disaster. The immediate focus of most affected residents lies in addressing basic needs of safety, housing and access to lifeline utilities. Once these issues are somewhat contained, individuals and communities gradually progress from the relief stage to engaging in planning for renewal.

In a number of cases, government officers were appointed as liaison/support officers or administrative support to community recovery committees. Feedback from case study sites has indicated that where government officers or staff from NGOs are embedded in the community, their assistance was much better received than those who drove in on an ad-hoc basis from a capital city or major regional centre.

4. Assistance to Business Needs to be Better Targeted

Businesses affected by disasters suffer two compounding impacts – there is the initial loss of cash flow due to business interruption which is compounded by costs to repair damages. Despite the interruption to cash flow, businesses are still obliged to service overheads such as loans and creditor invoices. As the period of business interruption and loss of market activity may cover some weeks to months, the ongoing impact to cash flow is a critical factor in the survival of disaster affected businesses. The loss of customers over this period, as they move to vendors who are operational, can exacerbate the irretrievable loss of cash flow. In addition to businesses directly harmed by the disaster, businesses in the surrounding regions reported negative impacts on their performance due to broader negative flow-on effects.

4.1 Business support can take a variety of forms

The restoration of critical infrastructure such as power, telecommunications and rail and road networks is critical to business recovery (Haynes et. al. 2011, Webb et. al. 2000, Dahlhamer and Tierney 1998). The isolation of Cardwell and Emerald by road and rail closures had a disproportionate impact on businesses by limiting the supply of stock and materials and their access to external markets. Telecommunications (including internet access, electronic banking and EFTPOS) are now critical to most business models.

These findings reinforce the primacy of re-establishing these physical and virtual networks. Moreover, it reflects the need for the learnings from response and recovery activities to be integrated into the policy and funding frameworks, supporting a higher priority on prevention (ie mitigation and adaptation strategies).

"Buy local" strategies were identified as useful, particularly in the relief and reconstruction phases. Insurance companies were frequently criticised for engaging external builders, although it was also acknowledged that there were often no real alternatives.

The greater vulnerability of locally focused small businesses was established in all the case studies. Branch offices and franchised businesses generally received support and advice from the parent organisations. Primary producers acknowledged the support, advice and advocacy from their peak bodies such as AgForce and the National Farmers' Federation which often have direct access to decision makers. Small businesses lack these support mechanisms.

It was stated that government agencies do not understand small business. There may be value in identifying organisations such as local banks with which small businesses deal regularly and engaging those organisations to provide the advice and support and/or administer the support arrangements. In the aftermath of a disaster, the sourcing of the expertise of external business leaders and philanthropists to act as mentors could also assist individual businesses to recover.

4.2 Government assistance to communities impacted by disasters

An extensive array of government assistance was provided to these affected communities to facilitate recovery. However, this money was disproportionately spent on infrastructure and psycho-social community recovery rather than business recovery. Over $300 million was donated by the public to the Victorian Bushfire Appeals Fund was used to support the recovery effort. Yet due to the governing legislation, the Red Cross, which administered the relief fund, was unable to use donated funds to assist small businesses to recover.

Feedback from business owners suggested that, outside of immediate clean-up grants, they received very little government support. As a general rule, businesses felt that either they were not eligible for government support, were unable "to jump through all the hoops", or it was too slow to arrive.

The National Disaster Relief and Recovery Arrangements (NDRRA), which specify cost sharing provisions between levels of government as well as eligible recoverable costs, were extensively used for the restoration of physical infrastructure. However, Category B, which generally covers restoration of public infrastructure, does not provide funding for the restoration of the natural environment. This reflects a lack of recognition of the importance of the natural environment component of business recovery. Environmental restoration works were seen as important as the reconstruction of hard assets to business. This is particularly the case where tourism based on the natural environment is a significant contributor to the local economy. Businesses in Cardwell and Marysville rely on the natural environment as the regional 'drawcard'.

4.3 Problems with uptake of government assistance

According to a report detailing the economic impacts of the Emerald 2011 floods, businesses overwhelmingly used internal sources to finance recovery, with the primary financial resource indicated by business being "absorbed own losses" (59.6% of all responses) (Lawrence Consulting 2011). This reflects international experience where businesses have shown a marked reluctance and/or inability to access government recovery programs, generally using internal sources to finance recovery, such personal savings, bank loans or insurance. The provision of business recovery assistance has been shown to have, at best, a neutral impact on a business' likelihood of recovery (Haynes et. al. 2011, Webb et. al. 2000, Dahlhamer and Tierney 1998).

The grant programs available in case study locations were often criticised for inflexible or insufficiently responsive rules and procedures. Problems included:

- Programs excluding businesses on the grounds of receiving other grants;
- Programs excluding businesses who got up and running quickly;
- Excessively difficult application processes;
- Unrealistic criteria that did not recognise the impact of disasters;
- Lack of flexibility to accommodate differing business models;
- Delays in disbursement of funds; and
- Onerous reporting requirements.

Furthermore, business owners were generally reluctant to take on more debt in highly uncertain environments. It should be noted that the problems identified in case study communities are by no means unique. The challenges identified above are well-documented in international literature (Haynes et. al. 2011, Webb et. al. 2000, Dahlhamer and Tierney 1998, Zhang et. al. 2009)[4].

The grant schemes also did not recognise the post-disaster impacts of population displacement and disrupted supply chains on "unaffected" businesses either in the immediate disaster zone or surrounding region. The disaster 'stigma' created by media coverage continues to negatively impact on case study locations that are heavily reliant on tourism.

A more holistic approach would also see emergency assistance ("hardship") grants as an integral component of a strategy to assist the economic recovery of local businesses.

4.4 Psychological support and case management

Case study data suggests the impact of psychological trauma on the small businesses should not be underestimated. Under severe emotional stress, many of small businesses found it psychologically difficult to access and deal with government assistance or other support mechanisms (e.g., insurance). The application processes were simply too overwhelming in the context of personal loss and emotional distress.

Counseling is vital but needs to be available for longer, recognising the reality of recovery horizons, and have a financial/business planning component. A case management approach that engages businesses on a one-to-one, outreach basis may help to address these problems. While there is value in locating counseling at a central, one stop shopfront, it may not be well utilised by the people that need it most. Case managers need to be based locally for the duration of the recovery project but should not be 'locals' themselves. Businesses owners across the four case study locations showed a marked reluctance to talk to locals about their emotional and financial challenges because of concerns over privacy.

[4] Refer to the research paper for a more detailed discussion.

4.5 Property investors and 'part-time residents' are important to local economies

An important spin off of the problem of population displacement is the role of property investors and "part time residents" in rural areas. Many 'part-time residents' and investors may deem a rebuilding 'bad bet' after catastrophic natural disasters. The absence of rental housing stock places significant pressure on a local economy, particularly in light of a reconstruction boom. By way of example, part-time residents provided nearly 10% of Marysville's income. To date the majority of this cohort has not rebuilt. In Cardwell, Emerald and Marysville, the loss of rental housing stock has seen rents spike through the reconstruction boom.

Aside from private insurance, there is little by way of government incentive for these investors/residents to remain in or return to the market.

4.6 Shared responsibility

The National Strategy for Disaster Resilience refers to shared responsibility where all involved take greater responsibility to prepare for the impact of natural disasters. In this context, disaster events are no different to the other risks or shocks with which a business owner might be confronted. Larger businesses and large primary producers generally acknowledged the benefits of business continuity planning. However, it is much more difficult for small businesses which lack the necessary expertise, resources and support. Banks could provide a mechanism as part of the loan application and business support processes. Industry associations could assist to raise awareness of the benefits of risk assessments and business continuity planning.

5. Unforeseen Consequences of Good Intentions

5.1 Material donations

In every case examined in this project, the unintended consequences of donations were raised in some form. Community members were generally appreciative of material donations, seeing them as a symbol of broader national support and noting the value in having quick access to basic items such as toiletries, blankets and clothes. Business owners and disaster management practitioners alike expressed extensive reservations about material donations.

Managing, storing, distributing and acquitting donations is an expensive, labour intensive distraction from key activities in the emergency relief phase. Beyond the logistical challenges posed, which were in some cases resolved by leveraging NGO support, the donation of material goods are highly problematic for local businesses. These donations effectively undermine the local market by saturating it with free goods, adding a further blow to businesses already dealing with reduced cash-flows. The experiences of businesses around Marysville demonstrated that the effects of market over-supply extend into the broader region, depressing demand in businesses that were not impacted by the disaster in question. Vouchers redeemable at non-local businesses also had the same effect.

5.2 Physical labour and volunteers

The recent spate of disasters across Australia has seen a rise in ad-hoc mass volunteerism by unaffected individuals. Affected communities generally agreed on the overwhelming importance of the donation of physical assistance. Volunteers assisting with clean up, particularly those who came equipped with earth moving gear, tools and personal supplies, were singled out for praise. Problems arose where well-meaning volunteers came to help without being suitably prepared for post-disaster conditions.

5.3 Hardship grants

Government disaster relief, such as the Australian Government Disaster Recovery Payment, poses issues of moral hazard is recognised in international literature (Rietveld et. al. 2001, Handmer and Hillman 2004, Shughart 2011). This issue is also framed from the perspective of the donor community, as the dilemma of the Good Samaritan, whose well-intentioned help, financial and material, undermines self-reliance in recipients. Case study communities raised concerns that hardship grants were creating an ‘entitlement mindset’, where people expected and relied upon ‘the government’ to come to their assistance rather than helping themselves.

Distributing hardship grants to affected communities is, generally speaking, intended to spur the initial recovery of local businesses. Where this concept runs into difficulty in practice is the replaceable nature of straight money grants. Recipients are able to spend the money anywhere, on anything; consequently this leads to the grant leaching away from its intended market and reducing its impact on local business recovery (Wenger et. al. 2013).

Hardship grants, unless carefully structured and targeted, have the potential to undermine the community resilience that sits as the core objective of the National Strategy on Disaster Resilience.

Recommendations

Aligning Recovery within a Resilience Framework

The concept of resilience in disaster management has been progressively incorporated into government policy since COAG released its 2002 report 'Natural Disasters in Australia: Reforming mitigation, relief and recovery arrangements'. With the release of the NSDR in 2011, developing disaster resilience through the phases of Prevent, Prepare, Respond, Recovery became the over-arching government policy objective. This recasting of the policy framework has introduced a range of conceptual challenges to existing plans and arrangements. The key focus of developing resilience is to develop greater community capacity before an event, thereby enabling that community to recover more quickly and adapt positively to impacts of a disaster. Resilience, in the sense of an adaptive system, is more than recovering to pre-impact functioning. This introduces the complexity of different temporal scales where short-term decisions in the immediate recovery phase aimed at returning to a pre-event 'normal' can undermine long-terms goals of positive adaptation. The disjunction in planning timeframes can be seen in the short duration of recovery and reconstruction agencies and the long horizons for recovery and adaptation reported by case study communities.

The following recommendations are made to enhance the integration of recovery within an overarching resilience framework:

1. Recovery arrangements need to be viewed within a resilience framework which moves beyond relief and reconstruction to incorporating local renewal and adaptation to the post-disaster environment.
2. All tiers of Government need to recognise that reconstruction and recovery is a long term process which requires formal integrated planning for each element within the recovery phase.

One of the major problems identified through this research is the focus on preparation for response to events, without a corresponding level of planning for recovery. Consequently recovery planning is undertaken in a reactive manner. The lack of formal planning and allocation of responsibility leads to ad-hoc decision making at all levels, which can distort operational and strategic priorities arising from the disaster event.

3. Disaster management planning should occur within the resilience framework which recognises the inter-relationship between the NSDR phases.
4. The definition of resilience for the purposes of recovery planning should incorporate the following considerations, drawn from the US National Academy of Sciences (2012, p1):
   "Resilience emerges, in large part, from the ability of local communities with support from all levels of government and the private sector to plan and prepare for, absorb, respond to, and recover from disasters and ***adapt*** *to new conditions".*

Business Recovery is Central to Community Recovery and Resilience

Although the importance of economic recovery is discussed in a variety of Local, State and Federal level planning documents, this has not translated well in practice. Extensive attention is paid to psycho-social recovery at the individual level. However, resilient individuals do not make a resilient community. Particularly in rural and regional areas, businesses form the central element of a community, providing jobs, income and underpinning economic vitality. Without a strong and diverse economy, a disaster affected community cannot recover, and beyond that positively adapt, to the impacts of a disaster.

The challenges faced by businesses recovering from disasters have been documented throughout this report. The following recommendations are made to enhance prospects for business recovery and adaptation:

5. Immediate relief efforts should focus on minimising population displacement. This requires an understanding of the drivers of population displacement, ranging from loss of employment/income, loss of accommodation and lack of schooling/child care facilities for families with children.
6. Local Governments should work with communities to develop ‘community continuity plans’ that address the provision and continuance of basic community services in the relief and early reconstruction stages. These plans should seek to ensure the continuance of services deemed essential by the community to minimize population displacement.
7. Business recovery planning needs to be integrated into recovery planning from the outset of an event. A lead agency should be assigned responsibility for longer-term business recovery as the recovery progresses from relief to reconstruction and long-term adaptation.

The impact of any disaster is a function of the pre-existing levels of community resilience and economic conditions in the affected region. As each case study community exhibited different economic conditions recovery planning needs to be contextualized to reflect this.

8. In assessing the interventions needed after a disaster, governments need to consider the nature of the region’s economy before the disaster, understand the impacts of the disaster and facilitate the rapid recovery of key economic drivers including transport and telecommunications networks.

Throughout the community case studies the question of grants, loans and government assistance was explored in detail. Opinions were mixed on the utility and necessity of these grants. Whilst individuals were generally grateful for the support, numerous respondents expressed concerned about their impact in driving a ‘handout mentality’. Business owners were generally either reluctant to or unable to access government assistance programs. Fundamental structural flaws were identified in the design and delivery of assistance programs. Business owners in disaster-affected regions are frequently victims twice over – as affected residents and then as business owners. The complexity of negotiating two assistance pathways often overwhelms business owners. The following recommendations are made to facilitate more effective provision of support to businesses in the recovery phase:

9. The case management approach for businesses should be extended to a ‘single door’ model. Assigning a case manager to a business who understands government and small business will assist business owners to more rapidly re-establish their operations and reduce the complexity of this process. This case manager should be able to act as a mentor to this business and may not necessarily be a government official.
10. Banks, credit unions, insurers and peak bodies need to be engaged in the recovery planning and assistance process, specifically to:
    a. Incorporate a rapid impact assessment which should include the deployment of business ‘triage’ teams to impacted areas, with teams comprising banking representatives who are already engaged with local businesses. This approach will bring a surge capacity of people with relevant, specific knowledge and skills to support affected businesses. This approach would leverage pre-existing relationships between businesses and their operational networks, transferring ‘ownership’ of recovery to the community.
    b. Develop a market-supported approach to business assistance programs. This approach could involve assistance programs facilitated through commercial entities with the backing of government. This approach would

streamline access to support programs as it will leverage pre-existing relationships between businesses and their commercial financing structures.

c. Develop their understanding of assistance programs available through the State and Federal Governments.

11. Application process for business assistance programs should be streamlined to be more flexible and accessible to affected business.
12. Emergency assistance ('hardship') grants should be tailored as part of a holistic, targeted approach to facilitating local business recovery.

Sharing Responsibilities

The NSDR (2011) makes a clear call for greater engagement of all levels and groups within society to achieve a disaster resilient nation. This shared responsibility is envisaged as the core element of resilience; self-reliance and mutual support together strengthening communities to overcome disasters. Local community engagement in the recovery process is essential to harness local knowledge, commitment and existing institutional capacity. The case studies demonstrated that failing to engage effectively with the local community will lead to confusion and conflict.

13. Local Government recovery planning must engage local communities leveraging knowledge, expertise and community-level institutional capacity.

The role of two sectors has come into prominence through the major disasters experienced in the past five years in Australia; philanthropists and the media. The Black Saturday Fires led to a massive outpouring of financial and material support, from individuals and organisations; a trend that has been repeated following subsequent disasters. The extent of the support is often overwhelming and much effort has been undertaken to incorporate philanthropy in a more structured role in disaster management. The recommendations made below are intended to address the areas where further progress can be made:

14. Industry associations should be engaged to promote disaster preparedness and business continuity planning in local small business and primary producers.
15. Governments should facilitate a greater role for philanthropy organisations and philanthropists in the recovery process. This would entail closer planning and consultation with philanthropists before an event as well as integration in the recovery coordination process.
16. The legislation governing the use of tax-deductible donations needs to be reviewed to enable these donations to be directed towards facilitating business recovery following disasters. These donations may be made eligible for use on commercial ventures through a special time-limited waiver provision enacted by the relevant Minister following a disaster. This approach would ensure that disaster donations are sequestered from normal philanthropic activities but also provide philanthropy organisations with greater discretion regarding how they engage in supporting the recovery process.

A key theme that arose from discussions with case study communities was the long-term impact of media coverage of the disaster. Particularly in tourist-dependent regions, the post-disaster 'stigma' had significant consequences well after the regions had started to recover. There was extensive discussion that saw 'the media' as a problem to be managed rather than an ally to assist the recovery process. Media has a critical role to play in communicating event related risks and warnings to the community before and during an event. However, their role in facilitating recovery has, to date, received less attention.

17. Disaster managers should engage with media before events to outline the recovery process and highlight the long-term impacts of media coverage as well as identifying how the media can support recovering communities.

Recovery Doesn't Happen in a Vacuum

The case study communities demonstrated clearly that the pre-existing conditions in the community combined with the disaster impacts had a significant bearing on the trajectory, challenges and support needs in the recovery and adaptation process. The point of this observation is that one size does not, in fact, fit all. A core aspect of resilience is leveraging community capacity so that the community is engaged in, and takes ownership of the recovery process. A blanket approach to implementing recovery plans, including the nature of support provided to individuals and businesses, will not leverage the pre-existing community capacity. Recovery strategies need to be tailored to the context-specific nature of the community and the disaster impacts. The follow recommendations are intended to support the implementation of this approach:

18. Government should develop baseline community resilience and vulnerability indicators to inform and tailor recovery planning activities during the prevention and preparation phases.
19. Further research is needed to understand the challenges of implementing policies and plans in the recovery phase.

Conclusion

Building resilience requires the integration of all the NSDR phases. 'Resilience emerges, in large part, from the ability of local communities with support from all levels of government and the private sector to plan and prepare for, absorb, respond to, and recover from disasters and **adapt** to new conditions' (National Academy of Sciences 2012, p.1). The lessons learned by communities such as Cardwell, Carisbrook, Emerald and Marysville in responding to and recovering from natural disasters must be integrated back into the prevention and preparedness phases.

Each of the four phases should provide feedback loops to improve performance, policy development and resourcing priorities with the broader objective of building resilience. Currently these feedback loops are poorly developed, as evidenced by the disproportionate funding allocations between the response and recovery phases and the prevention and preparation phases. Further within these phases, the relationships and interdependencies are not well understood. Although community recovery is dependent upon business recovery, experiences in Australia and internationally often treat the recovery phase as having too short a time horizon, focusing predominantly on relief and reconstruction.

The experiences of communities which have been affected by natural disasters suggest ways to reframe the policy and funding frameworks for disaster management. The issues raised in this paper are central to the overarching objective of developing the resilience that will assist communities to adapt to their new social and economic environments post-disaster.

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Independent and informed by both research and ongoing dialogue with the community, the Regional Australia Institute develops policy and advocates for change to build a stronger economy and better quality of life in regional Australia – for the benefit of all Australians. The Regional Australia Institute was established with support from the Australian Government.