

Transforming Governance: How National Policies and Organizations for Managing Disaster Recovery Evolved Following the 4 September 2010 and 22 February 2011 Canterbury Earthquakes

Laurie A. Johnson^{a)} M.EERI, and Ljubica Mamula-Seadon^{b)}

Large-scale disasters simultaneously deplete capital stock and services which then requires many complex rebuilding and societal activities to happen in a compressed time period; one of those is governance. Governments often create new institutions or adapt existing institutions to cope with the added demands. Over two years following the 4 September 2010 and 22 February 2011 Canterbury earthquakes, governance transformations have increasingly centralized recovery authority and operations at the national level. This may have helped to strengthen coordination among national agencies and expedite policy and decision making; but the effectiveness of coordination among multiple levels of government, capacity building at the local and regional levels, and public engagement and deliberation of key decisions are some areas where the transformations may not have been as effective. The Canterbury case offers many lessons for future disaster recovery management in New Zealand, the United States, and the world. [DOI: 10.1193/032513EQS078M]

GOVERNANCE AND LARGE-SCALE DISASTERS

Government responses to disasters have been the subject of disaster research for the last 50 years, but the focus has been mainly on the emergency period and less so on recovery or the institutional and policy adaptation ignited by the disaster (Drabek 2007, Tierney 2007). Kingdon (1995) and Birkland (1997) are some of the first to systematically explore how disasters influence public policy and institutional agenda setting and reform, but they did not specifically consider how the post-disaster agenda setting and policymaking transformed governance as well as the long-term recovery process and outcomes.

Closely observing post-disaster recovery following a number of major disasters, Olshansky et al. (2012) propose that such events simultaneously deplete capital stock and services which then requires that a whole host of complex rebuilding and societal activities must happen in a compressed period of time; one of those activities is governance. Observations of the effects of time compression on governments and governing in

^{a)} Laurie Johnson Consulting|Research, 23 Portola Avenue, San Rafael, CA 94903, laurie@lauriejohnsonconsulting.com

^{b)} Faculty of Engineering, The University of Auckland, Private Bag 92019, Auckland 1142, New Zealand, l.mamula-seadon@auckland.ac.nz

post-disaster recovery include: insufficient capacity to solve problems, provide resources and take actions; excess demands for information and stakeholder deliberation to make timely decisions; greater needs for organizational integration and coordination; and immediate demands for large amounts of money with existing distribution systems challenged to meet the needs (Rubin 1985, Olshansky et al. 2012, Reiss 2012, Smith and Birkland 2012).

Bureaucracies often struggle with these and other time-compressed demands of post-disaster recovery and, as a result, new organizations, both governmental and non-governmental, typically emerge to help provide more capacity, information, money, and other resources (Johnson and Olshansky 2013). Sometimes governments create new institutions to manage recovery, as in Louisiana (2005 Hurricane Katrina), Queensland (2010 floods), and Tohoku (2011 earthquake and tsunami). Other times, existing institutions and procedures are modified or adapted, as in Los Angeles (1994 earthquake), Kobe (1995 earthquake), and Chile (2010 earthquake and tsunami).

While these observations have been made, there is as of yet little detailed study as to how governance structures are often modified post-disaster, the conditions by which governance transformations and new or modified institutions for managing recovery are likely to occur, and what the new structures are able to achieve compared to pre-existing structures. In hopes of better understanding and addressing these gaps, this paper first describes the three governance frameworks that have guided post-disaster recovery in the Canterbury region of New Zealand in the two years following the 2010–2011 earthquakes. It then considers the key drivers of the recovery governance transformations and the implications for the Canterbury recovery, and more broadly for recovery management and governance in New Zealand and other countries following large-scale disasters. We caution, however, that this is not a complete analysis since it is still early in the recovery process. In particular, the recovery outcomes in the Canterbury region and implications for future recovery governance will take many more years to fully assess.

NEW ZEALAND'S GOVERNANCE AND DISASTER MANAGEMENT STRUCTURES

New Zealand (population 4.4 million) is a constitutional monarchy. Its democratically elected Parliament appoints a Prime Minister who chairs the Cabinet and together they run the central government. As a unitary state, the central government is supreme and delegates powers to its two subnational divisions—11 regional councils and 67 territorial authorities (cities, districts, and unitary councils) (LGNZ 2013).

On the country's South Island, the Canterbury Regional Council, also known as Environment Canterbury, is the largest regional council (population 565,800 in June 2010) and comprises ten local territorial authorities, including the Christchurch City Council (population 376,700 in 2010) and the district councils of Waimakariri (47,600 in 2010) and Selwyn (39,600 in 2010; Statistics New Zealand 2010). Environment Canterbury and other regional authorities are primarily responsible for environmental management, regional transport and public transit, and regional land management, while territorial authorities are responsible for local-level land use management, network utility services (water, wastewater, and solid waste management), local roads, libraries, parks and reserves, and aspects of community development (New Zealand Parliament 2002b, 2004a).

In the late 1980s and early 1990s, New Zealand became one of the first developed countries to adopt principles of sustainable management and decentralized and deliberative planning and decision-making processes for land use, development, and emergency management (Dixon et al. 1997, Britton and Clark 2000, DPMC 2001, Ericksen et al. 2003, Mamula-Seadon 2009). New Zealand's natural hazards risk management framework is largely formed by a suite of legislation adopted during this period of government reform and which is based upon the sustainable management principles:

- Resource Management Act (RMA) 1991: Guides environmental management of natural and physical resources, including land use development and permitting processes (New Zealand Parliament 2004a).
- Local Government Act (LGA) 2002: Defines the authorities, responsibilities and powers conferred upon local territorial authorities (New Zealand Parliament 2002b).
- Civil Defence Emergency Management (CDEM) Act 2002: Defines the emergency governance system (New Zealand Parliament 2002a).
- Building Act 2004: Controls the permitting and construction of housing and other buildings (New Zealand Parliament 2004a).

CIVIL DEFENCE EMERGENCY MANAGEMENT (CDEM) RECOVERY FRAMEWORK

The CDEM Act 2002 introduced a tiered emergency governance system, with the central government leading in policy and direction setting and local territorial authorities responsible for implementation as well as coordination through regional groups (New Zealand Parliament 2002a, MCDEM 2004a, 2004b). It also required a comprehensive all-hazards approach to emergency management that included more traditional functions of readiness and response, as well as recovery and risk reduction (New Zealand Parliament 2004a, DPMC 2001, New Zealand Parliament 2002a). The risk management-based approach was encapsulated in the Australia/New Zealand Risk Management Standards (1995), which among its guiding principles, emphasizes integrating knowledge and stakeholder input into a rational-adaptive, continuously consultative approach to decision making and implementation.

To administer the new legislation, the Ministry of Civil Defence & Emergency Management (MCDEM) was established and housed in the Department of Internal Affairs (DIA)—a government agency responsible for administering the Local Government Act 2002 and supporting local government in general. MCDEM supports the Minister of Civil Defence, and the agency is also staff to the National Crisis Management Centre during emergencies. The Cabinet Committee for Domestic and External Security Coordination (DESC) is the main emergency management decision-making body of the central government. It is chaired by the Prime Minister, and includes the ministers of departments that have emergency management roles, including the Minister of Civil Defence.

The country's disaster recovery policy framework dates back to 1987 and is expressed in the "Recovery Plan: Natural Disasters and Emergencies within New Zealand" or the National Recovery Plan developed by the Department of the Prime Minister and Cabinet (DPMC 1999). The National Recovery Plan acknowledged local leadership of recovery in most emergencies but also recognized that enhanced arrangements and a stronger central

government role could be required in larger and more complex emergencies. It allowed for the Minister of Civil Defence to appoint a national recovery coordinator to facilitate all aspects of recovery operations in such situations (DPMC 1999).

Many concepts of the National Recovery Plan were continued and expanded with the passage of the CDEM Act 2002 (New Zealand Parliament 2002a Section 29). Under the Act, Civil Defence Emergency Management Groups (CDEM Groups) are the key coordination body for local CDEM response and recovery planning and implementation. CDEM Groups are consortia of local authorities—regional councils and their respective local territorial authorities—working in partnership with emergency services and other central government and non-government agencies (e.g., infrastructure services, social agencies, and non-governmental organizations (NGOs)) (MCDEM 2005c). CDEM Groups are typically led by mayors or their representatives and are, in essence, the key means for both vertical and horizontal integration and coordination among government and stakeholders in disaster management. Both CDEM groups and local territorial authorities are required to appoint recovery managers and develop recovery plans.

Figure 1 is a diagram of the CDEM recovery framework that was in place prior to the Canterbury earthquakes. It illustrates the multi-level and integrated approach to recovery with task groups for social environment, economic environment, natural environment and built environment to be established at each level of government during major emergencies to coordinate the efforts of agencies in each of these areas (MCDEM 2005b, 2005c). At the national level, relevant ministries would have key roles in each group, such the Ministry of Social Development (MSD; social environment), Ministry of Business, Innovation and Employment (MBIE)¹ or the Treasury (built environment and economic environment), and Ministry for the Environment (natural environment). At the local level, task group leadership might vary from region to region but typically would come from local departments that had program and funding links to the national-level ministries involved in each group.

Implementation of the framework is supported by a series of guidelines and technical publications on recovery developed by MCDEM, which, together with the recovery section of the National CDEM Plan, constituted a package of disaster recovery principles, processes and best practice examples (MCDEM 2004, 2005a, 2005b, 2005c). MCDEM also conducts regular training workshops for CDEM groups and local recovery managers across the country.

OTHER DISASTER RECOVERY-RELATED RESPONSIBILITIES AND EXPERIENCE

New Zealand is one of the few countries in the world to offer national disaster insurance. The New Zealand Earthquake Commission (EQC) is a Crown entity² that combines with private insurance to cover the country's residential property against loss or damage caused by earthquakes, volcanic eruptions, hydrothermal activity, tsunamis, natural disaster fires and natural landslips (New Zealand Parliament 1993). Practically speaking, this means that almost every household has private insurance as well as "EQCover" for home and land,

¹ MBIE now includes the former Department of Building and Housing.

² These entities are essential public sector corporations of the central government authorized under the Crown Entities Act 2004 (New Zealand Parliament 2004b).

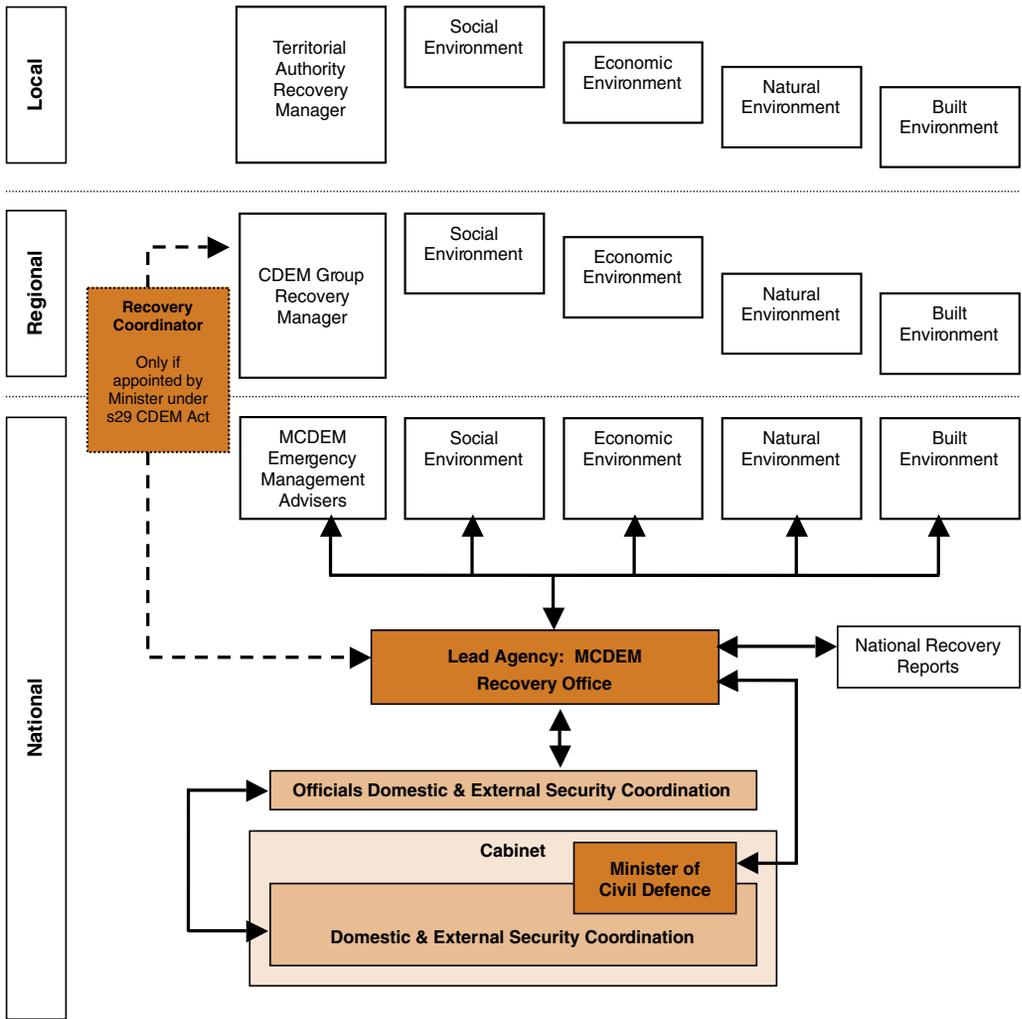


Figure 1. Multilevel recovery management structure from the New Zealand CDEM Group Guidelines (MCDEM 2005b).

as well as household contents, which are underwritten by the central government and its Natural Disaster Fund (EQC 2013a). Prior to the Canterbury earthquakes, the EQC had paid claims on many natural disasters; one of the largest of which was the 2007 Gisborne earthquake in which the EQC paid \$16 million on 6,200 claims (EQC 2011). In 2010, EQC was managing assets of NZ\$5.93 billion New Zealand Dollars (US\$4.74 billion)³ in the Natural Disaster Fund (EQC 2013b).

³ A currency conversion of 1 New Zealand Dollar = 0.8 U.S. Dollars is used.

New Zealand's central government also has the potential obligation to contribute 60% of the restoration costs for essential local infrastructure after a natural disaster, with local authorities contributing 40% (MCDEM 2005c, [New Zealand Office of the Auditor General 2012](#)). This includes local roads; potable water and wastewater systems; and stop banks.⁴ In 1993, local authorities created a Local Authority Protection Programme (LAPP) fund and make annual contributions to the fund to meet their 40% share ([New Zealand Office of the Auditor General 2012](#)). Also, at the national level, social agencies, such as the MSD and MBIE, along with NGOs such as the New Zealand Red Cross, assist affected individuals, families and communities with emergency relief—the provision of short-term shelter and accommodation, food, and clothing—and, in the longer term, psycho-social support and some limited financial assistance.

While New Zealand is exposed to many natural hazards, most of the 110 hazard-related emergencies of the past 45 years have been localized events with limited casualties or significant damage (MCDEM 2013). New Zealand's national leaders and central government staff had limited experience dealing with the complexities of large-scale, urban disaster recovery and rebuilding. Prior to the Canterbury earthquakes, the magnitude 7.8 Napier earthquake of 1931 was the most recent natural disaster that caused significant life loss and urban damage in the country; it claimed 256 lives ([GeoNet 2013a](#)).

4 SEPTEMBER 2010 EARTHQUAKE, IMPLEMENTATION OF THE CDEM RECOVERY FRAMEWORK, AND FORMATION AND IMPLEMENTATION OF THE CANTERBURY EARTHQUAKE RECOVERY COMMISSION (CERC)

Prior to September 2010, the main seismic threat to Christchurch and the Canterbury region was considered to be the Alpine fault located some 100 kilometers (km) west of the city center. The 4 September 2010 earthquake (magnitude 7.1) struck on an unrelated fault only 40 km from the Christchurch city center and was a true “seismic shock” to the Canterbury region. Given that it occurred at 4:35 AM, and the region's generally good building practices for residential buildings, there were very few injuries and no directly attributable fatalities; however, there was substantial damage to infrastructure and buildings, including areas experiencing dramatic lateral spreading and liquefaction ([EERI 2010](#)). New Zealand's Treasury estimated the economic impact at NZ\$5 billion (US\$4 billion)—a significant sum in the New Zealand context⁵ ([Bollard and Rachhod 2011](#)).

IMPLEMENTATION OF THE CDEM RECOVERY FRAMEWORK FOLLOWING THE 4 SEPTEMBER 2010 EARTHQUAKE

In the hours after the 4 September 2010 earthquake, the three affected local territorial authorities—Christchurch City Council and the Waimakariri and Selwyn District Councils—each declared a state of local emergency and activated their Emergency Operation Centers. The Canterbury CDEM Group, led by the regional council (Environment Canterbury), did not declare a region-wide state of emergency which effectively

⁴ Stop banks include levees and other engineered embankments of rivers and waterways.

⁵ In 2010, the country's gross domestic product (GDP) was nearly NZ\$190 billion (US\$152 billion; [Statistics New Zealand 2010](#)).

meant that the local authorities were leading response and there was no formalized regional coordination. The National Crisis Management Centre was activated and provided support to local authorities but its role was hampered by the lack of regional activation (McLean et al. 2012).

However, on September 6—two days after the earthquake—the Canterbury CDEM Group activated their recovery structure and started impact assessment and recovery planning. Within a week after the earthquake, the Group had developed a draft regional recovery plan—loosely based on their pre-existing Group Recovery Plan that had been developed in coordination with MCDEM (Canterbury CDEM Group 2005). The plan broadly identified key issues and recovery needs across the four task groups and included addressing ground failure issues, infrastructure restoration, and social, economic and business recovery, and all these regional task groups were activated. These efforts were led by the CDEM Group Recovery Manager, a contractor employed by the Group, and local authority recovery managers and recovery task group chairs met at least weekly to implement the plan.

Also on 6 September, Prime Minister John Key announced the appointment of the Honorable Gerry Brownlee—Minister for Economic Development and Parliament member from Ilam, a suburb of Christchurch—into a new Cabinet position as Minister for Canterbury Earthquake Recovery (CER Minister) and who would also head a newly appointed Adhoc Cabinet Committee on Canterbury Earthquake Recovery. Given the extensive damage to land, residential property, and infrastructure, the central government would obviously have major financial commitments to recovery and concerns were raised that after local emergency powers expired, the central government might not have adequate statutory power to address the recovery needs of the region (New Zealand Parliament 2010 Part 1). The newly appointed Minister argued that it was imperative to remove the bureaucracy of normal planning and consenting processes and speed up the recovery process (Bennett 2010). On 14 September 2010—just a day before the local state of emergencies were set to expire—the Canterbury Earthquake Response and Recovery Bill was introduced into Parliament.

ESTABLISHMENT OF THE CANTERBURY EARTHQUAKE RECOVERY COMMISSION (CERC)

The Canterbury Earthquake Response and Recovery Bill was passed with urgency and unanimously on the same day—14 September—exempt from normal parliamentary examination procedures that precede the introduction of new legislation. Stated purposes of the new Canterbury Response and Recovery Act 2010 included (New Zealand Parliament 2010 Section 3):

- Providing adequate statutory power to assist with earthquake response.
- Enabling the relaxation or suspension of provisions in enactments that: may divert resources away from the effort to efficiently respond to damage caused by the earthquake and minimize further damage; or may be difficult to comply with—partially or fully—due to circumstances resulting from the earthquake.
- Facilitating information gathering about any structure or infrastructure affected by the earthquake that is relevant to understanding how to minimize future damage.
- Providing protection from liability for certain acts or omissions.

The Act also provided for Orders in Council⁶ in the recovery process, which effectively meant that the central government ministers were permitted to suspend or make exemptions to almost any New Zealand law, and thus transferred considerable lawmaking power from the legislative to the executive branch of the central government.

The expansion of central government powers did cause concerns in political and legal circles. In an open letter to the Parliament released on 28 September 2010, a group of 28 New Zealand and international experts in constitutional law expressed their concerns that, combined with the process itself, the Act removed basic constitutional checks and balances on the broad array of ministerial powers that it granted and set a dangerous precedent (Geddis 2010). However, the overarching urgency to assist the impacted region was seen as paramount and more important than concerns about its broadening powers (Dalziel 2011).

To help facilitate better coordination between impacted local authorities and the central government, the Act also established the Canterbury Earthquake Recovery Commission (CERC) (New Zealand Parliament 2010). The Commission was comprised of the mayors of the three impacted local authorities and four government appointees, including an Environment Canterbury Commissioner and an independent chair. It was supported by a Secretariat hosted by the Ministry of Economic Development. It began functioning almost immediately after its authorization and was active through February 2011, and formally dissolved in April 2011.

RECOVERY IMPLEMENTATION UNDER THE CERC GOVERNANCE STRUCTURE

During its relatively short tenure, CERC addressed intergovernmental and cross-jurisdictional coordination matters related to recovery; acted as an information clearinghouse for local authorities, central government agencies and ministers and key stakeholders; facilitated a process to set recovery priorities; advised national ministers on financial and technical support needs as well as recovery impediments and how they might be overcome (including a coordinated approach to Orders in Council); and escalated issues that couldn't be resolved locally (National Library of New Zealand 2011). Its official charter acknowledged that local authorities were in charge of response and recovery in accordance with procedures defined by the CDEM Act 2002 and National CDEM plan (National Library of New Zealand 2011). Thus, CERC was not directly responsible for recovery activities; these were handled by local authorities or national ministries.

The scope of local recovery efforts and involvement of local leaders in recovery decisionmaking was not consistent. Christchurch City Council took responsibility for the repair of its damaged public buildings, services and infrastructure (New Zealand Office of the Auditor General 2012). Similarly, Waimakariri and Selwyn District Councils forged ahead with the repair of their damaged public buildings, services and infrastructure. However, the Waimakariri District Council, spearheaded by the mayor and the District's recovery manager, who also was a senior council planner and manager, went further, developing a recovery plan

⁶ In New Zealand, Orders in Council are required to give effect to the Government's decisions. Apart from Acts of Parliament, Orders in Council are the main method by which the government implements decisions that need legal force.

and establishing a “Recovery Hub” based upon the CDEM recovery framework with community, planning, social, and economic teams, in addition to the built environment and infrastructure teams (Markham 2012).

Within months following the 4 September earthquake, the Christchurch City Council had effectively returned to “business as usual” operations, and turned over much of the recovery management to the central government and CERC (Dalziel 2011, Brookie 2012). The central government was coordinating building demolitions and access control in Christchurch’s central business district (CBD), and the EQC was leading in residential building and land damage assessments (New Zealand Office of the Auditor General 2012, Taylor et al. 2012). Also, as the central government took on a stronger role through CERC and other ministries, the activities of the Canterbury CDEM Group Recovery Office dwindled; it was not a major force in region’s recovery coordination or leadership (Dalziel 2011, Brookie 2012).

The 4 September shock was followed by a massive 1,400 aftershocks in the same month alone, the aftershock intensity continued in the following months creating a new and unsettling “normal” in the Canterbury region. Three of the larger aftershocks—a magnitude 5.0 on 19 October 2010, magnitude 4.9 on 26 December 2010, and a magnitude 5.1 on January 20, 2011—also caused additional damage, closure of the Christchurch’s CBD and other areas for building’s inspections, and power outages.

Public and political support for CERC and local leaders also dwindled during these early months. Local advocacy and other grassroots groups began forming, calling for greater levels of government assistance and engagement; while, at the same time opposition politicians started publicly challenging the recovery approach (Dalziel 2011, Vallance 2011, Brookie 2012). Speaking of that time period, Brookie (2012, 23) reported that “with CERC lacking capacity for action, and the Christchurch City Council failing to develop recovery plans, the recovery process (in Christchurch) ground to a halt.” McLean et al. (2012) concluded that CERC “had yet to make an impact on recovery when the 22 February 2011 earthquake occurred. As an essentially coordinating and advisory body, CERC did not have executive powers. Although the mayors of the three affected local authorities were members of the Commission, the Mayor of Christchurch delegated his role after initial participation. The chair was part-time and the appointment of the chief executive took some time. CERC took no part in response to the 22 February event and disappeared thereafter” (McLean et al. 2012, 30).

22 FEBRUARY 2011 EARTHQUAKE AND THE FORMATION AND IMPLEMENTATION OF THE CANTERBURY EARTHQUAKE RECOVERY AUTHORITY (CERA)

On Tuesday, 22 February 2011, at 12:51 pm, the Canterbury region was struck by a magnitude 6.3 earthquake that was only 6 km from the Christchurch CBD and less than 5 km below ground (EERI 2011). While smaller in magnitude, this earthquake caused far greater damage than the September earthquake including two dramatic building collapses. One hundred eighty-five people died and the Government declared a National Emergency for the first time in New Zealand history, that remained in place until 30 April 2011 (MCDEM 2013). Christchurch city and the surrounding districts of Waimakariri and Selwyn had heavy

damage to homes, businesses, infrastructure, and education, medical, and community facilities. Over 65,000 homes were damaged severely, especially where widespread liquefaction affected the north and eastern suburbs; as of June 2013, 422,547 residential building damage claims have been submitted to the EQC with many more claims for land damage and contents (EQC 2013c). Most buildings in Christchurch's CBD were damaged beyond economic repair and the CBD was cordoned off and accessed restricted with major effects on businesses (EERI 2011). The total cost for reconstruction is now estimated at NZ\$40 billion (US\$32 billion) with the central government estimating its net contribution at NZ\$15 billion (US\$12 billion; [The National Business Review 2013](#)).

Further aftershocks greater than magnitude 5.0 occurred on 13 June 2011 and 22 July 2011; two occurred on 23 December 2011, and all caused additional damage, including additional liquefaction, ground failures, and building and infrastructure damage. In all, more than 4,400 aftershocks (of magnitudes greater than 3) have been registered from September 2010 to September 2012 ([GeoNet 2013b](#)).

ESTABLISHMENT OF THE CANTERBURY EARTHQUAKE RECOVERY AUTHORITY (CERA)

On 16 March 2011—three weeks after the 22 February earthquake—the Ad Hoc Cabinet Committee on Canterbury Earthquake Recovery began considering new national governance arrangements to manage the Canterbury earthquake recovery effort. The first Cabinet paper, released on 28 March 2011, noted select aspects of the recovery experiences following the Napier, New Zealand earthquake (1931), Australia's Cyclone Tracy (1974), Victoria Bushfires (2009) and Queensland floods (2011), and the United States' Hurricane Katrina (2005), and recommended that a new, national public service department be created to “provide leadership and coordination for the ongoing recovery effort of Christchurch and the greater region” and “to balance expectations of (the central government's) contribution to funding the recovery while carefully managing its fiscal situation” ([Brownlee and Ryall 2011a](#), 1). As described in the paper, the investigation considered alternative models for the new organization, and given the “political and fiscal risk to the Crown” and the need for a “high degree of Ministerial control,” recommended a national department model ([Brownlee and Ryall 2011a](#), 18 Annex 3).

The paper also recommended that normal parliamentary procedures and the normal timeline for establishing a new national department both be waived given the emergency situation, allowing for the Canterbury Earthquake Recovery Authority (CERA) to be provisionally established the next day, 29 March 2011 ([Brownlee and Ryall 2011a](#)). CERA began with an Acting Chief Executive appointed by the Minister for State Service until a permanent appointment could be made.

A second Cabinet paper, also released on 28 March 2011, described legislative alternatives and outlined the recommended purpose and powers of the new legislation as ([Brownlee and Ryall 2011b](#)):

- Repealing the CERR Act 2010, including the dissolution of the Canterbury Earthquake Recovery Commission (CERC), but saving and validating those things done under the repealed Act.

- Continuing in effect the emergency authorities granted under the CERR Act and extending the expiration date of those authorities where appropriate.
- Conferring on the Minister for CER and/or CERA a series of powers that would enable the timely and coordinated recovery of greater Christchurch.

Parliament agreed to an abbreviated legislative process to consider the recommendations made in both Cabinet papers and, on 14 April 2011, it passed the Canterbury Earthquake Recovery (CER) Act 2011 with a near unanimous vote (Hartevelt 2011). Some modifications were made to the draft legislation based upon input during the limited hearing process; but opponents still expressed concerns that the Act granted a “wide range of unilateral powers” to both the Minister for CER and CERA (Hartevelt 2011). Some of these powers, as stated in the Act, allow the Minister of CER to (New Zealand Parliament 2011):

- Obtain or require information from any person or source for any reason.
- Take land in the name of the Crown and acquire land compulsorily.
- Suspend, amend, and revoke whole or any part of the RMA 1991, LGA 2002 and other Acts, as well as any plan or policies developed under various Acts, and to impose a moratorium on further changes or variations to plans, policies or the Acts.
- Direct any local authority to take or stop any action, or make or not make a decision, or perform or exercise specific responsibilities, duties, or powers.

The Act also allowed the chief executive of CERA an array of powers, including (New Zealand Parliament 2011):

- Carry out or commission works, including erection, reconstruction, demolition removal and disposal of any building.
- Restrict or prohibit access to any specified area or building, or any road or public place.
- Subdivide, amalgamate, improve and develop all or any land acquired by the Crown.
- Purchase or otherwise acquire, hold, sell, exchange, mortgage, lease and dispose of land and personal property.

CERA officially became a national department on 19 April 2011 (New Zealand Parliament 2011). When the national “state of emergency” from the 22 February 2011 earthquake ended on April 30, CERA effectively assumed primary responsibility for recovery in the Canterbury region. Under the Act, CERA is also required to undergo annual review until its sunset on 18 April 2016, at which time all recovery activities are to be transferred to existing local and national government agencies and relevant infrastructure owners responsible for the activities in normal times (New Zealand Parliament 2011).

RECOVERY IMPLEMENTATION UNDER THE CERA GOVERNANCE STRUCTURE

Figure 2 illustrates the governance structure and roles for CERA proposed in the 28 March 2011 Cabinet papers (Brownlee and Ryall 2011a). In the first two years of CERA’s existence, this structure and the key roles and functions have stayed largely consistent with the Cabinet papers’ proposal as well as those defined in the CER Act 2011.

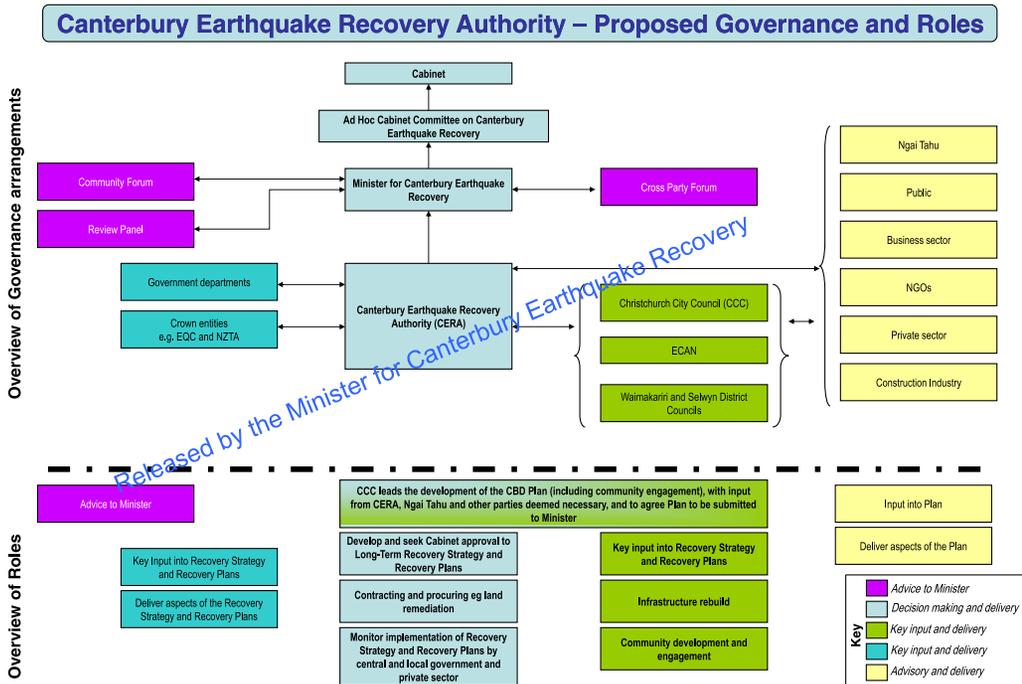


Figure 2. The 28 March 2011 Cabinet Paper’s proposed governance structure and roles for CERA (Brownlee and Ryall 2011a).

Some of the key functions and roles are:

- CERA, as a national department, and CERA’s Chief Executive both report directly to the Minister for Canterbury Earthquake Recovery.
- A four-person Canterbury Earthquake Recovery Review Panel, appointed by the Minister, and charged with reviewing draft Orders in Council developed by the Minister or CERA before they are recommended for national government approval (New Zealand Parliament 2011 Part 2, Subpart 2, sec 8). During the first 12 months of CERA’s existence, the Review Panel issued 19 reports on draft Orders in Council (Murdoch 2012). The four members come from across New Zealand and include a former senior High Court judge working predominantly in Christchurch, a former Prime Minister and Parliament member from the Canterbury region, a former chief executive of the local Maori tribe Ngai Tahu, and the former chair of CERC.
- A Cross-party Parliamentary forum (CPPF), comprised of members of Parliament from the Greater Christchurch area, was established to provide the Minister with information and advice about the operation of the CER Act; however, the Act does not require the Minister to consider that information in carrying out his duties (New Zealand Parliament 2011 Part 2, subpart 1, section 7). In 2011, the CPPF met 15 times and only once in the first half of 2012 (Murdoch 2012). According to CERA’s first annual review, the CPPF routinely receives draft Orders in Council at the same time that they are sent to the Review Panel (Murdoch 2012).

- A Community forum (CF) of at least 20 members was also required by the CER Act to meet at least six times a year and provide information and advice to the Minister which he must consider in carrying out his duties ([New Zealand Parliament 2011](#)). In actuality, the CF has always had more than 20 members—31 members as of March 2013—representing a wide cross-section of Canterbury business and ethnic interests, residents associations and other groups ([CERA 2013a](#)). It met 9 times in 2011 and 17 times in 2012; all meetings are formally noticed and open to the public, and meeting notes are available on the CERA website ([CERA 2013a](#)).

Highlights of CERA Activities – Year One

During its first year, CERA was involved in a wide range of activities, including all the functions authorized to the chief executive under the Act. Some of these activities could be described as part of the relief and rehabilitation phase of disaster management, while others, such as planning and land purchases, might be more appropriately assigned to the recovery and rebuild phases. According to CERA’s first annual review, this wide breadth meant that “CERA was ‘in catch-up mode’ as far as administrative good order was concerned. The staff had not always had the time and space during 2011 to ‘hardwire’ (i.e., capture and codify as explicit behaviors) the processes and practices they were adopting to ensure compliance with the Act” ([Murdoch 2012](#), 5). A few key activities are briefly discussed here as illustration of CERA’s involvement in recovery planning and implementation in the region.

CERA Recovery Strategy

The CER Act required CERA’s chief executive to develop a Recovery Strategy for the Minister’s consideration which it defined as: “an overarching, long-term strategy for the reconstruction, rebuilding, and recovery of greater Christchurch” ([New Zealand Parliament 2011](#) Part 2, Subpart 3, Section 11). The draft Recovery Strategy was completed in September 2011—within the nine-month timeframe dictated by the Act ([CERA 2012a](#)). The Strategy acknowledges upfront that it has not been able to address all the issues raised in the Act, partly due to the ongoing seismic activity as well as the complexity and enormity of the recovery process ([CERA 2012a](#), 2). In particular, it did not define the locations and sequencing of repairs, rebuilding and other redevelopment in as much detail as was intended by the Act; and, similarly, it is not as specific about the nature of additional recovery plans that may be needed and what they should address ([CERA 2012a](#)). Instead, it presents an overall vision, goals, and guiding principles for the Canterbury recovery effort and focuses on identifying work programs centered on six recovery components of: leadership and integration; economic recovery; social recovery; cultural recovery; built environment; and natural environment ([CERA 2012a](#)). These components are reflective of the CDEM recovery framework ([CERA 2012a](#), [Brookie 2012](#)). CERA staff has the lead role for some of these work program areas, and provides support to other central government agencies for others.

Recovery Plans and the Christchurch Central City Plan

The CER Act 2011 also gave the Minister the authority to direct responsible entities to create recovery plans for all or part of greater Christchurch for any social, economic, cultural, or environmental matter, or any particular infrastructure, work, or activity ([New Zealand Parliament 2011](#)). The CER Act 2011 specifically named the first recovery

plan to be developed, directing the Christchurch City Council to lead in the development of a draft recovery plan for the whole or part of the CBD within nine months ([New Zealand Parliament 2011](#)). Christchurch City Council completed a draft plan by late August 2011 and submitted a final draft for Ministerial approval in December 2011 ([Christchurch City Council 2011](#)). The vision, objectives and priority projects in the final draft Central City Plan are organized around five key principles that were derived from the vast community input. The Council estimated the cost of implementing the Plan to be almost NZ\$2 billion (US\$1.6 billion) and that “projects would be fully scoped and funded through the Council’s Long-Term Plan (LTP) and normal consultation process” and weighed against other demands for recovery ([Christchurch City Council 2011](#), 28). According to the Christchurch City Council, the Minister for CER “reviewed the Council’s draft Recovery Plan, taking into account its impact, effect and funding implications, and came to the view that it could not be approved without amendment. In particular, there was insufficient information in the draft on how the Recovery Plan would be implemented and it proposed changes to (city plans) that were considered unnecessarily complex” ([Christchurch City Council 2012](#)). Thus, the Central City Plan and Christchurch city’s responsibility for recovery planning effectively came to a halt.

Residential Red Zone Buyout Program

On 23 June 2011, CERA released detailed geotechnical maps identifying residential properties that were deemed unsuitable for reconstruction as “land repair would be prolonged and uneconomic” and also announced a Crown package to buy insured residential properties in these “red zones” ([CERA 2011a](#)). With this action, CERA essentially took on a lead role in defining residential land use policy in the Canterbury region, halting, for example, the land remediation and infrastructure rebuild strategy that the Waimakariri District Council had developed in consultation with impacted residents and businesses and was about to launch in June 2011 ([Vallance 2013](#)). While the Crown offer is voluntary, and owners of properties are under no obligation to accept it, the central government has stated that local governments will not install new utility services in the residential red zones ([New Zealand Office of the Auditor General 2012](#)). There are added uncertainties about availability of insurance and reconstruction financing and future resale values for those who do not sell.

As of the June 2013, there were 7,414 eligible properties for the buyout program, of which 7,090 had accepted a Crown offer ([CERA 2013c](#)). Additionally, the central government has extended offers to purchase vacant land and insured commercial properties inside some of the “red zones” ([CERA 2012b](#)). Total costs to the central government to buy and manage residential “red zone” lands are estimated at NZ\$678 million (US\$542.4 million), but some of these costs are expected to be recovered from the benefits paid on land and buildings by the EQC and other insurers ([New Zealand Office of the Auditor General 2012](#)). The policies and procedures for land acquisition have been praised as providing swifter certainty for homeowners to relocate and recover, and it has been criticized as having evolved over time with often reactive and unclear reasoning ([Heather 2011](#), [Greenhill 2013](#)).

Highlights of CERA Activities – Year Two

In the second year, new recovery and rebuilding programs were launched, such as creation of a Central City Development Unit (CCDU) within CERA, and many of the relief and rehabilitation activities began tapering back, such as CBD demolitions. Nonetheless,

CERA's wide breadth of involvement has continued and the organizational staffing increased considerably over two years. Initially, CERA staff mainly came from other central government agencies and it was forecast that CERA would have eventually have 55 full-time equivalents (FTEs); as of May 2012, there were 147 FTEs and another 112 short-term contract personnel (New Zealand Office of the Auditor General 2012). Also, criticisms about lack of meaningful public engagement in planning and delays in program codification and documentation have persisted (Oram 2012, Greenhill 2013, McDonald 2013).

Central City Development Unit (CCDU)

In June 2012, the Minister established a special unit within CERA—the Christchurch Central Development Unit (CCDU)—and charged it with the creation of a new central city plan; to lead the core government sector activities detailed in the plan; and to attract private sector investment (CERA 2013b). CCDU seconded staff from the Christchurch City Council, and together with a consulting team, developed the Christchurch Central Recovery Plan in two months (CCDU 2013). The plan defines the form of the central city, sets out the locations of key anchor projects, and also specifies CERA and the central government in a leadership role in collaboration with the Christchurch City Council for land acquisition, development proposal decisions, and reconstruction management, as well as funding. It is effectively the next planning incarnation of Christchurch's Central City Plan.

The process for establishing the CCDU has been criticized for its interference into a local authority-led initiative and for the soundness of the very short tendering process itself (Oram 2012). The CCDU has been praised for accelerating design and implementation of the CBD rebuild but also criticized for beginning to accept development applications without having established clear criteria for screening and selecting among competing applications (McDonald 2013).

Regional Land Use Recovery Plan

In October 2011, the Minister introduced a new chapter into Environment Canterbury's 1998 Regional Policy Statement that, among other items, would effectively expand the region's development footprint to provide more land for post-earthquake rebuilding (Chisolm 2012). Some of the region's largest land owners led by Independent Fisheries challenged, and in August 2012 the High Court overruled stating that the Minister's had exercised authority provided by the CER Act unnecessarily and for the wrong purposes (Berry 2012). In December 2012, the Minister directed Environment Canterbury to develop a Land Use Recovery Plan for greater Christchurch. The is intended to "respond to the impacts of the earthquakes on residential and business land use, providing a platform for transitioning from rebuild to longer-term planning" (CERA 2013b, 7). After completing a final round of public review, the finalized Land Use Recovery Plan took effect on 6 December 2013, with policies and recommendations to provide for an anticipated 40,000 new households in both greenfield and intensification areas across the region (CERA 2013e). It effectively achieves the Minister's original objective to release land for development.

ANALYSIS

This section considers the key motivations for the recovery governance transformations that occurred during the first two years following the Canterbury earthquakes. It then reflects

on the implications for Christchurch's recovery, and more broadly for recovery management and governance in New Zealand and other countries following large-scale disasters.

MOTIVATIONS FOR THE RECOVERY GOVERNANCE TRANSFORMATIONS

Over the course of two years, the governance structures for managing recovery following the Canterbury earthquakes have transformed significantly at both the national and local levels. At the national level, recovery governance has transformed from a national service delivery coordination and support role for locally affected areas, as specified by the CDEM recovery framework, to one of increasing national-level decision-making authority and operational responsibility for recovery activities first with the creation of CERC and even more so with the establishment of CERA. At the local level, recovery governance transformed from a more locally-led and collaborative approach, to a more supportive role with, in some cases, little to no involvement, in recovery decision making or implementation.

Following the 4 September 2010 earthquake, the Prime Minister's appointments of both a Minister for Canterbury Earthquake Recovery, as a new Cabinet position, and an Adhoc Cabinet Committee on Canterbury Earthquake Recovery signalled an expanding central government role. The CER Act 2010 gave significant authority to the Minister and it also established an oversight body for recovery policy and decision making with the creation of the CERC. These actions effectively relieved MCDEM and the Canterbury CDEM Group of its recovery management roles. After the 22 February 2011 earthquake, the passage of the CER Act 2011 further centralized authority with the expansion of the roles and authority of the Minister for CER and the establishment of CERA as a new national department focused on national service delivery and far less responsibility with local and regional authorities.

The Cabinet papers list four key reasons for needing a national department—the final and most pronounced step in the recovery governance transformation. They are ([Brownlee and Ryall 2011b](#)) the severity of the 22 February earthquake and the incomparable scale of the post-earthquake rebuilding effort; lessons from international experience and from recovery efforts following the 4 September earthquake; the need for timely and effective decision-making processes; and the need for significant coordination among all levels of government, residents, and other stakeholders. The political and fiscal risks were also cited in the papers, although not as well elaborated.

These reasons are consistent with observations of time compression and its effects on governance ([Olshansky et al. 2012](#)). It is important to review them, not to judge the rational-analytic principles behind each, but rather to further our understanding of the conditions by which different post-disaster recovery governance transformations and resulting institutions are likely to occur. This analysis considers prior disaster recovery research, the legislation and policy products guiding the Canterbury recovery governance structures, and public, political and scholarly critiques of these structures, as available.

Severity of the 22 February Earthquake and the Incomparable Scale of the Post-Earthquake Rebuilding Effort

The 1931 Napier earthquake was the most recent major urban earthquake that New Zealand has faced. Following this disaster, the country instituted a national disaster insurance program, stronger building practices, an integrated natural hazard and risk assessment policy

framework, and a well-established and frequently tested emergency management system. The Canterbury earthquakes, however, were a shock to local leaders and staff who did not expect near-field earthquakes of this magnitude and to New Zealand's national leaders and central government staff who had not experienced large-scale disaster recovery and rebuilding before and were facing such challenges in the country's second most populous region.

Lessons from International Experience and from Recovery Efforts Following the 4 September Earthquake

Following the 22 February earthquake, New Zealand's leaders looked at the prior recovery experiences in New Zealand, Australia, the United States, and elsewhere and recommended that a new national public service department was needed (Brownlee and Ryall 2011a). In these countries and many others around the world, governments created new organizations or significantly rearranged existing organizations in order to add capacity to deal with the extraordinary recovery and reconstruction management challenges caused by large-scale disasters (Johnson and Olshansky 2013). Governments need to attend to normal business while simultaneously handling the demands of rebuilding impacted communities. Creation of a new government department can focus daily attention on rebuilding while coordinating the recovery-related activities of multiple government agencies. This is consistent with views expressed in the Cabinet papers that a new, national public service department could "provide leadership and coordination for the ongoing recovery effort of Christchurch and the greater region" (Brownlee and Ryall 2011a, 1).

What had been learned from the recovery efforts following the 4 September earthquake is not articulated in the Cabinet papers. But, as New Zealand politicians and researchers have noted, by February 2011, there was growing sentiment that recovery approaches taken by the CERC and local leaders weren't working and greater levels of public engagement were needed. In their assessment of the CDEM response to the earthquakes, McLean et al. (2012) also concluded that CERC was essentially a coordinating and advisory body, and did not have adequate executive powers to make an impact on recovery.

Need for Timely and Effective Decision-Making Processes

Governments' need for simultaneous decision making is a well-documented challenge of post-disaster recovery (Olshansky and Chang 2009). Some governments respond by streamlining bureaucratic processes; others accelerate and broaden the flows of information among recovery actors, through planning and public engagement processes and the establishment of forums to facilitate coordination (Johnson and Olshansky 2013).

Concerns that New Zealand's pre-earthquake governance and legal frameworks could impede the recovery process are well documented in statements made by national leaders and the legislative enactments following the Canterbury earthquakes. Introducing the CERR Act on 14 September 2010, newly appointed Minister Brownlee said "business as usual won't work . . . This bill will be the House's expression of a strong desire to remove bureaucracy that could slow down the very necessary work we now have to do" (Bennett 2010). The authorities granted to CERC, CERA, and the Minister of Canterbury Earthquake

Recovery all aimed to improve the timeliness and effectiveness of recovery-related decision making, but the variations in approaches merit further consideration.

The Orders in Council first approved under the CERR Act 2010, and continued with the CER Act 2011, gave central government ministers and the executive branch extraordinary, unilateral decision-making authority by permitting them to suspend or make exemptions to almost any New Zealand law. The formation of CERC, which included the mayors of the three impacted local authorities, provided a mechanism for local and regional representation in recovery decision making. It might be described as a transitional governance model intended to unify decision making. CERA, as a national department, and CERA's chief executive both report directly to the Minister for Canterbury Earthquake Recovery, and thus concentrate recovery decision making at the national level and particularly within the executive branch of the central government. The four-person Canterbury Earthquake Recovery Review Panel, created under the CER Act is the only governance oversight body for CERA, but it does not include any locally elected or regional government representatives.

Thus, the creation of CERA and simultaneous dissolution of CERC have broken some of the vertical, multi-level integration in decision making established under both the CDEM and CERC recovery governance structures. However, in CERA's first year annual review, strategic partners of CERA (chief executives or their representatives) report that "although recalling instances of feeling 'blindsided,' they consider, on the whole, they had been well-engaged by CERA in the judgments being made about the necessity to take recourse to the powers of the Act" (Murdoch 2012, 7). This issue merits further observation as CERA and the recovery process evolve.

Need for Significant Coordination among all Levels of Government, Residents, and Other Stakeholders

Scholars agree that successful post-disaster recovery requires increased coordination and communication, both horizontally and vertically, among different levels of government as well as affected residents and stakeholders (Norman 2004, Chandrasekhar and Olshansky 2007, Smith and Birkland 2012). This increased coordination is critical to managing the increased flow of funds, information, and other resources across different aspects of recovery—social, built, natural, and economic. If multiple subnational or local jurisdictions are involved, cooperation among jurisdictions is essential (Johnson and Olshansky 2013).

CERC's role was largely one of coordination and facilitation between local authorities and the central government and closely resembled the recovery manager and recovery coordinator functions defined by the National CDEM Plan (MCDEM 2005c, New Zealand Parliament 2011). Its lack of executive power and the potential lack of recognition, or consensus, on its role versus the role of local and national authorities under the pre-existing CDEM framework may have undermined its effectiveness (McLean et al. 2012). As discussed, local authorities also exhibited different levels of involvement and collaboration in recovery in those first few months following the 4 September earthquake.

CERA's national department status combined with the extraordinary ministerial powers granted by the CER Act, have likely strengthened horizontal organizational coordination and communication at the national level. The CERA Recovery Strategy and implementing work

programs closely resemble the task groups defined in the National CDEM Plan with relevant ministries working both in leadership and supporting roles, alongside CERA, to fulfil the various recovery activities. However, CERA has been criticized for its lack of vertical coordination, particularly in ensuring local collaboration and engagement. In reviewing CERA's draft recovery strategy, local and regional authorities raised concerns about the involvement of key local partners in planning, implementation, and input on key decisions, and also involving the public in meaningful forms of engagement and collaboration, as well as information sharing and consultation (CERA 2011b).

Public consultation has been required for all planning efforts under the CER Act and the CERA Community Forum and Cross-Party Parliamentary Forums are two additional mechanisms mandated by the CER Act to provide local and national input and coordination. CERA's first annual review found that both forums faced organizational challenges in their first year but had hopes that there would be more systematic two-way communication going forward (Murdoch 2012). In particular, the Community Forum ramped up its meeting frequency in the second year (CERA 2013a). In terms of planning consultation, both CERA and the Christchurch City Council have endured criticism for a lack of meaningful engagement with local communities in recovery planning deliberations (Dalziel 2011, Vallance 2011, Brookie 2012, Oram 2012). In its second year, CERA instituted a number of new workshop and community consultation processes, for the red zone buyout program and the regional land use recovery plan (CERA 2013c). The level and style of public consultation and engagement in recovery decision making, as compared with New Zealand's planning consultation processes in normal times, merits further study.

Political Risks

Birkland's (1997, 2006) analyses of disasters as focusing events for policy and politics, found that the larger the disaster in terms of lives lost, property damaged and physical area covered, the larger the potential influence on the political and policy world.

The political risks caused by the Canterbury earthquakes to New Zealand's central government—or other levels of government, for that matter—are not as clearly stated in the Cabinet papers or other official documents. However, in the New Zealand context, as a country with a well-established social welfare system (Carpinter 2012), the government likely sensed that it could face significant political and policy risk if it did not act with political urgency and consensus among leaders to expedite legislative actions (Brookie 2012).

Also, local governance was in turmoil in the Canterbury region at the time of the September 2010 earthquake, with the central government already having to intervene and appoint commissioners to lead the regional council—Environment Canterbury. The breakdown in relationships between local authorities and the regional council had also affected the functioning of the Canterbury CDEM Group (McLean et al. 2012). Additionally, Christchurch was in the midst of a mayoral and council election when the September earthquake struck. All these issues may have raised concerns among central government leaders—which also happened to represent the relatively newly elected (in 2008) National party-led government—that the risks of government inaction or ineffectiveness under the pre-existing governance structures were high.

Fiscal Risks

When large amounts of public funds are involved, the true power over the recovery resides with the level of government that controls the flow of money and how it is acquired, allocated, disbursed, and audited (Johnson and Olshansky 2013). From the moment that the first earthquake struck the Canterbury region, the fiscal responsibility, as well as the risk, resided in great part with the central government to fund a majority of the local public facilities and infrastructure repair costs, uphold the residential insurance policy obligations of the EQC, and provide additional social and economic services as needs arose. The central government's total cost is now estimated to be NZ\$15 billion (US\$12 billion) and the total reconstruction price tag of NZ\$40 billion (US\$32 billion) is over 20% of the country's GDP (The National Business Review 2013).

IMPLICATIONS OF THE RECOVERY GOVERNANCE TRANSFORMATIONS

This section of the analysis considers the implications of the recovery governance transformations at multiple levels: first for the Canterbury region, then for recovery management and governance in New Zealand, and lastly for further studies and application following future large-scale disasters around the world. However, since at the time of this writing the Canterbury region is just into its third year of recovery and even the most optimistic estimations project that rebuilding will take several more years to complete (Gates 2013), it is not yet possible to fully assess the strengths, weaknesses and outcomes of the governance structures guiding the process. So instead of attempting to provide answers, questions and issues are raised that hopefully will be considered further both in New Zealand and elsewhere.

Recovery in the Canterbury Region

At the time of this writing, CERA has been in existence for a little more than two years, and the Minister for Canterbury Earthquake Recovery has held his appointment for nearly three years. In this time, strong criticisms have been levied against the Minister and the central government for largely unilateral decision making on such matters as the creation of CERA and the residential red zone buyout program, the sustained cordoning of the CBD, and launch of the CCDU (Oram 2012, Greenhill 2013). However, these same decisions have been identified as some of the most important to-date in the region's recovery (Taylor et al. 2012).

Leonard and Howitt (2010) have credited early demonstrations of leadership competence and the availability of resources as powerfully impacting the rate of recovery and encouraging impacted residents to "tip in" to recovery efforts. In the Canterbury case, there are many indicators of a positive recovery trajectory being set: employment, household income, and housing starts are all up (CERA 2013c, 2013d). However, experience has shown that the complexities of large-scale disaster recovery often require more than hierarchical and centralized management processes can provide; they need local innovation and localized long-term capacity building among the ultimate stakeholders—the affected local authorities, residents, and businesses (Norman 2004, Johnson and Olshansky 2013).

Unless amended, the CER Act and the authorities of CERA and the Minister will expire in April 2016. Ensuring that recovery efforts remain effective after CERA is disestablished is

one of the major challenges facing CERA ([New Zealand Office of the Auditor General 2012](#)). Will recovery governance evolve so recovery decision making becomes more vertically integrated with local authorities and will the central government have an increasingly lesser role over time? Will local authorities have the necessary expertise and capacity to assume the leadership and operational reins for recovery governance in less than three years' time? Have the planning and consultation processes been sufficiently robust that residents and businesses are invested in the vision for their rebuilt communities and willing to endure the challenges that disasters of this magnitude continue to inflict for years to come? Since June 2013, Christchurch City Council has been embroiled in a controversy having had its building consenting authority revoked by the International Accreditation New Zealand (IANZ) and forcing both the resignation of the Council's chief executive and the Mayor's withdrawal from the October 2013 mayoral election ([Bayer 2013](#), [Stewart and O'Callaghan 2013](#)). This change in local leadership and its effects on local governance and national relations merits continued study.

Recovery Management and Governance in New Zealand

Canterbury's increasingly nationalized and centralized recovery governance transformation could have a substantial influence on both future disaster recovery management and governance in general in New Zealand. A first question is whether the CDEM Act and National CDEM plan will continue to guide recovery in future disasters? The CER Act was explicit that its commencement would not affect the operation of the CDEM Act 2002 ([New Zealand Parliament 2011](#) Section 86). Will MCDEM and regional and local authorities maintain their policy and planning responsibilities for national- and local-level recovery management? In a recent review of the country's emergency management capabilities, including all 16 regional CDEM Groups, recovery was among the weakest, citing the challenges of local recovery managers to strategically lead and influence recovery as well as the lack of understanding among top-level local managers of what large-scale disaster recovery involves (MCDEM 2012). Also, in the aftermath of the Canterbury earthquakes, MCDEM's position within the broad portfolio of the Department of Internal Affairs, and its subsequent disadvantages in dealing with other central government agencies in the response period, have also been questioned ([McLean et al. 2012](#)). Similarly, investigations into the U.S. government's response to Hurricane Katrina found that the effectiveness of the Federal Emergency Management Agency (FEMA) was hampered by its position and integration into the much larger Department of Homeland Security ([U.S. House of Representatives 2006](#)).

In December 2013, it was announced that MCDEM will transfer to the Department of the Prime Minister and Cabinet (DPMC) on 1 April 2014 to better align civil defense emergency management to DPMC's role in leading the coordination of natural security planning, risk management, and resilience ([New Zealand Government 2013](#)). Otherwise, New Zealand's recovery framework for the rest of the country remains consistent with the National CDEM Plan, apart from the special arrangements for the Canterbury region. However, the Department of Internal Affairs has commenced a review of the CDEM Act 2002 and long-term changes may result. Perhaps, modifications will be made to provide for a two-tiered approach to recovery governance with continuation of the CDEM recovery framework for more moderate and localized emergencies, and allowing for a more operational role of the central

government in large-scale disasters. This is comparable to the centralization efforts made in U.S. legislative reforms following the 2005 Hurricane Katrina, and in response and recovery operations in China following the 2008 earthquake and in Japan following the 2011 earthquake and tsunami (Rubin 2012, Johnson and Olshansky 2013).

For governance in general, the Canterbury transformations could be viewed as a rapid governance adaptation embedded within an overall trend in governance reforms underway in New Zealand. The National party-led government has introduced similar reforms to several key government policy frameworks and accompanying legislation, particularly the Resource Management Act 1991 and the Local Government Act 2002, in an effort to strengthen the central government's role, streamline policies, curb perceived bureaucracy and shorten decision-making processes (New Zealand Parliament 2009, DIA 2012, Anderson Lloyd Lawyers 2013, Ministry for the Environment 2013).

Lessons for Recovery Management of Large-Scale Disasters

Challenges of "Time Compression" and Its Effects on Governance

Examination of the Canterbury case shows how post-disaster "time compression" can spotlight the strengths and weaknesses of recovery management processes and governance frameworks. However, it can also cause distortions. Aspects of the processes and governance frameworks may not be as effective, or ineffective, as they seem in the high-pressured political and decision-making environment. The effectiveness of vertical coordination of multiple levels of government, capacity building at the local and regional level, and public consultation and deliberation of key decisions are some critical areas of concern. These and other possible distortions merit further study and also offer a cautionary note for future disaster recovery policymaking.

The Challenge of Integrated Recovery Governance

Around the world, disaster management plans and processes are based upon a shared system of governance and policy making with common and overlapping responsibilities apportioned among layers of government (May and Williams 1986). New Zealand's disaster management framework, like that of the United States and many other countries, is structured to engage from the "bottom-up," with local governments having primary responsibility for supplying disaster-related resources and regional, subnational and national agencies providing support as requested. By design, the system requires extensive coordination and cooperation among all levels of government, as well as with the many NGOs involved in disaster management. But, by their very nature, large-scale disasters exceed local capacity and capabilities and demand an elevated and sustained commitment of funding, information and other critical resources from higher levels of government and thus require oversight and accountability. Furthermore, models for effective and sustainable integrated recovery governance that ensure meaningful deliberation and engagement in large-scale disaster recovery require additional study and should be carefully considered in future disaster recovery policymaking (Smith and Birkland 2012).

The Relationship between Resilience and Recovery

To a large extent, the challenge of building disaster resilience is a matter of democratic governance that involves partnering with communities, building mutual support within communities and across jurisdictional boundaries, and sustaining involvement. In general, the work of building resilience, both pre- and post-disaster, demands cooperation, among citizens, between subnational and national levels of governments, and integration of both the public and private sectors, and thus closely resembles the collaborative nature of community recovery. Furthermore, research and policymaking have been advanced by views of resilience as a construct formed through the interdependencies that evolve from established societal patterns and not as a replica of institutional, group or program arrangements (MRPG 2013). These theoretical constructs may also inform disaster recovery practice and policymaking and also merit further study.

CONCLUSIONS

Over the course of two years, there has been a national-level centralization of operations and transformation of governance structures for managing recovery following the Canterbury earthquakes. These transformations may be symptomatic of the effects that time compression has on governments and governing following large-scale disasters. The need to make timely and effective decisions, add capacity and capabilities for the recovery, and ensure accountability for the considerable public expenditures are some of the key motivations for this centralization. While it is still early in the recovery process, this analysis shows that there are signs that the centralization may have helped to strengthen horizontal coordination at the national level and expedite policy and decision making; but the effectiveness of vertical coordination of multiple levels of government, capacity building at the local and regional government levels, and public deliberation of key decisions are some areas where the transformations may not have been as effective. The long-term outcomes of the CERA model and the Canterbury recovery governance transformations merit further study. They also provide some cautionary notes for future disaster recovery policymaking and the development of effective and sustainable integrated recovery governance models for large-scale disaster recovery.

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