

## Impact of post-disaster government policy on reconstruction: A case study of post-earthquake Christchurch, New Zealand

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### ABSTRACT

*The New Zealand government, following the Canterbury earthquakes 2010-2011, adopted new ways to rebuild the city. Given an opportunity to find solutions to pre-existing issues in the city, the government was keen to rebuild faster and better. The blueprint that was finalised mid-2012, had 17 anchor projects to lead its rebuilding efforts along with governance and legislative changes to facilitate rebuilding. Drawing on past literature using the case study of Canterbury earthquakes 2010-2011, this paper first reviews the rebuilding process in Christchurch. 14 face to face interviews were held with those involved in and subjected to these governance and structural changes. The study suggests the complex post-disaster environment limit the effectiveness of the imposed changes. Rebuilding efforts were hindered by the absence of a proper legislative framework, the ambiguity in defining roles and responsibilities of recovery agents, the time-pressure to rebuild resulting in hasty planning, limited public involvement in rebuilding and the lack of strategic relevance to ensure the outcomes are accepted by the public and fit with the city's image in the long run. It is recommended that future research focuses on implications of post-disaster rebuilding practices on the wider community, businesses, and the government.*

**KEYWORDS:** Anchor Projects, Canterbury Earthquakes 2010-2011, Christchurch Central Recovery Plan (CCRP)

### INTRODUCTION

New Zealand (NZ), given its geographical setting, is especially susceptible to extreme and adverse weather conditions, including flooding, landslides, volcanic eruptions, and, most importantly, earthquakes (OECD/The World Bank, 2019). The country faced one of the worst earthquake sequences of its history from 2010-2011. The first significant earthquake with a magnitude of 7.1 occurred in 2010, 40km West of Christchurch, and resulted in water, power, and sewerage services being disrupted. With many aftershocks in between, the next and the most severe earthquake followed in 2011, 10km Southeast of Christchurch, recording 6.3 on the Richter scale, causing extreme damage and destruction to land, building, and infrastructure in the central city and the surrounding area (Potter, Becker, Johnston & Rossiter, 2015).

Reporters and researchers referred to the Christchurch earthquake (2011) as the worst natural disaster for 80 years of New Zealand's history (British Broadcasting Corporation, 2011; Telegraph, 2011). It took 185 lives and injured several thousand (Davies, 2011; Gillespie, 2019). The majority of the deaths resulted from falling structures that were damaged due to the first earthquake in 2010 (Potter, Becker, Johnston & Rossiter, 2015). It was the costliest natural

disaster for insurers worldwide since 1950, and the government estimated that the overall cost of the damage caused by the earthquake was equivalent to around 20% of the NZ Gross Domestic Product (GDP) at the time (Potter *et al.*, 2015).

The central government of New Zealand, given the scale of the catastrophe and the destruction caused by it, developed a city-wide rebuilding plan named 'Christchurch Central Recovery Plan' (CCRP). It constituted 17 public projects that were to lead the public rebuilding initiative following the disaster. Prior to designing the blueprint, the planners identified the problems Christchurch had in keeping with the image of a global city. An excess supply of bare land in the Central Business District (CBD), incoherence between buildings, a multiplicity of vehicles entering the city centre, yet with limited car parks caused the council to seek solutions to those issues (Canterbury Earthquake Recovery Authority, 2012). Prior to the earthquake, Christchurch City Council (CCC) had intentions to revitalise the city to match the likes of Copenhagen, Dublin, and Milan (Blundell, 2014). The planners viewed the opportunity to rebuild as a second chance to remedy the issues within the central city (Bakema, Parra, & McCann, 2019; McCloud *et al.*, 2014). The disaster called for a new rebuilding approach than the norm in NZ, following the first disaster of a grand scale.

### Research Interest and Research Methods

The NZ government made several significant changes to its disaster management policies and governance structures to rise back up economically and socially from the effects of the disaster. These changes were needed to facilitate rapid yet productive rebuilding efforts (Canterbury Earthquake Recovery Authority, 2012; Wilkinson, Rotimi & Mannakarra, 2014). With less than half of the projects fully completed and with limited reviews of the effectiveness of these changes, there exists a significant knowledge gap. This paper strives to assess the effectiveness of these actions when considered as a chain of governmental procedures for more significant turnaround times in their long-term reconstruction response and efforts.

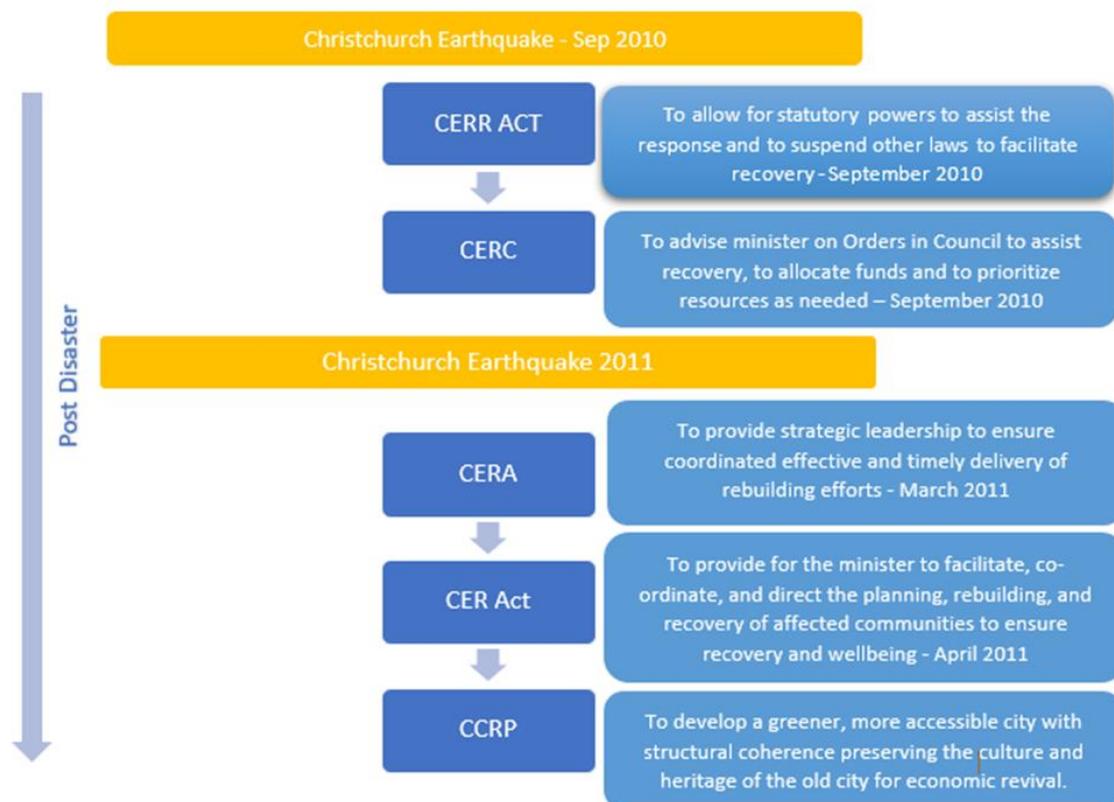
The article will first introduce literature related to the processes adopted after a disaster, along with a review of these processes and outcomes of these practices. The paper will then move on to research methods adopted for this study; interviews with key people who held top positions in organisations that made the changes as well as those that experienced the effects of these changes. These would feed into a set of criteria that limited the outcomes of the governance and structural reforms. The paper would conclude with a list of lessons learned for future flagship projects.

### POST-DISASTER GOVERNANCE & STRUCTURAL CHANGES - CHRISTCHURCH POST 2010 EARTHQUAKE

Earthquake Recovery Learning (2019) emphasised that "the disaster destroyed the box so ... have to think outside the box". There is a unique chemistry of circumstance that supports new thinking and ways of doing things". As a result, new tools and approaches to rebuilding were adopted under new legislative and governance frameworks. An extensive literature search revealed the most notable ones to include:

- Canterbury Earthquake Recovery and Response Act (CERR Act) to facilitate recovery following 2010 earthquake

- Canterbury Earthquake Recovery Commission (CERC) to coordinate government’s recovery efforts post 2010
- Canterbury Earthquake Recovery Act (CER Act) to facilitate rebuilding following 2011 earthquake
- Canterbury Earthquake Recovery Authority (CERA) to lead rebuilding post 2011
- Christchurch Central Development Unit (CCDU) to deliver 17 anchor projects in the CBD
- Christchurch Central Recovery Plan (CCRP) constituting of key redevelopment projects
- Anchor Projects as the prime rebuilding artifacts



**Figure 1: Governance and structural changes in post-disaster Christchurch (Author’s graphical presentation based on New Zealand Government (2010) and New Zealand Government (2011))**

Figure 1 is a literature-driven, author-made presentation of the various legislative, governance (i.e. Acts in parliament and planning documentation), and structural changes (i.e. Committees and Authorities) just before and in the aftermath of Canterbury earthquakes 2010-2011 as established through the New Zealand Government (2010, 2011).

Literature used for the review constitutes government reports, CERA archived documents, independent reports, and academic publications. For this paper, the governance and structural changes will be divided into two phases as those that were introduced pre 2011 earthquake and post 2011 earthquake.

### **Legislative Background Pre-2011 Earthquake**

The first major earthquake of the sequence that occurred on September 04, 2010, resulted in the NZ government declaring its first-ever local state of emergency (Canterbury Earthquake Recovery Authority, 2011b; Parliamentary Library, 2010). Within two days, the Prime Minister appointed a Member of Parliament solely responsible for the recovery work following the earthquake to send a message of commitment to recovery and rebuilding (Brookie, 2014; Parliamentary Library, 2010). The government had limited authority to influence the decisions of local councils, which was perceived to have a crippling effect on rebuilding (Greater Christchurch Group, 2017; New Zealand Government, 2010). Within two weeks of the appointment of the Minister, the cabinet passed new legislation in the form of the Canterbury Earthquake Response and Recovery Act (CERR Act). The cabinet approved this legislation to avoid bureaucracy and to speed up recovery (Johnson & Mamula-Seadon, 2014).

Ten days after the earthquake, the NZ government established the Canterbury Earthquake Recovery Commission (CERC) under the CERR Act. It had the responsibility to act as the advisory board to identify and inform of barriers to recovery and priorities of the process, to enable better coordination between local and central governments, that allowed for orders-in-council to the Minister (Canterbury Earthquake Recovery Authority, 2011b; Greater Christchurch Group, 2017; Johnson & Mamula-Seadon, 2014).

CERR Act expanded the statutory power of the executive level of the government. Yet, the Act restricted the role of CERC to an intermediary that collects information, disseminates funds, informs the government about recovery, and informs people about the government's decisions (Brookie, 2014; Greater Christchurch Group, 2017; New Zealand Government, 2010). As a result, the CERR Act faced problems from residents that the recovery was too slow, with rigid processes, unnecessary haste over planning, and lacking detail around the establishment of the CERR Act and the CERC (Brookie, 2014; Greater Christchurch Group, 2017; Johnson & Mamula-Seadon, 2014). Firstly, the general public was uncertain about the recovery governance process and how individuals and businesses can contribute positively to the recovery process. This was mainly a result of poor community engagement (Johnson & Mamula-Seadon, 2014). Secondly, a clear understanding of the roles of CCC and CERC was not achieved (Brookie, 2014; Glavovic, 2014), with the majority of top-level positions either being part-time or having permanent roles elsewhere. These issues brought the recovery to a halt.

### **Legislative and structural changes post-2011 earthquake: A dedicated governmental department for rebuilding - Canterbury Earthquake Recovery Authority (CERA)**

However, the earthquake on February 22, 2011 was much worse in scale and damage. According to the United Nations International Strategy for Disaster Reduction, the main objective of establishing a recovery agent following a disaster should be to manage the recovery processes through better collaboration between a wider group of stakeholders (UN-ISDR,

2015). It further added that governments should rapidly implement the new arrangement, in unison with the existing good governance practices and institutional arrangements (UN-ISDR, 2015). According to Olshansky and Johnson (2014), Thirupugazh (2014), and Smart (2012), it is common practice to establish an authority after every large-scale natural disaster due to the realisation of the lack of existing capacity and due to the need to return to business as usual for the government agencies.

On March 24, 2011, just over a month (35 days) after February 22, 2011 earthquake, the government established an innovative organisational framework to lead the rebuilding work, especially the flagship projects that would make a part of the plan (Canterbury Earthquake Recovery Authority, 2011a; Johnson & Mamula-Seadon, 2014; The NZ Government, 2011). Handing over the rebuilding responsibility to an independent authority following a disaster has been practiced elsewhere in the world, such as Victoria Bushfire Recovery and Reconstruction Authority (VBRRA) following Victoria Black Saturday Bushfires, 2009 and Louisiana Recovery Authority (LRA) following Hurricane Katrina, 2005 and Queensland Recovery Authority (QldRA) following Queensland Floods, 2011 (Acosta, Chandra, & Feeney, 2011; Smart, 2014). The NZ government created CERA as a government department following the example of QldRA but with a different institutional framework. The Minister, as a member of the cabinet, indicated more direct control over the rebuild. CERA was a novelty response approach as it was the first time the government had established a disaster recovery agent closer to the disaster point (Office of the Auditor-General, 2017).

CERA was set up to lead a coordinated response to the earthquakes. Main responsibilities of CERA (Canterbury Earthquake Recovery Authority, 2011b) include:

- To lead and coordinate recovery efforts together with Greater Christchurch, the councils, and the communities to ensure timely and effective outcomes
- To handle projects and programs that are significant to the process (including demolitions and purchase of properties to facilitate the blueprint
- To administer the Act
- To establish and monitor the progress of the recovery process

The significant difference between CERC and CERA was that the former was independent but lacked the power to take action, whereas the latter had true power but was tied to the government through the Minister (Dalziel, 2011).

### **New Legislation to Allow for Speed of ‘Anchor’ Projects Deployment - Canterbury Earthquake Recovery Act**

With just two months to go before the expiration of existing orders-in-council, Canterbury Earthquake Recovery Act replaced the existing CERR act. It came with greater powers to override several local council plans and resource consents granted under the Resource Management Act (Office of the Auditor-General, 2017). The CER Act gave CERA the power to change or revoke statutory plans, demolish buildings to make space for the blueprint plan, and to acquire land to make way for the anchor projects (Canterbury earthquake Recovery

Authority, 2016b; Office of the Auditor-General, 2017; Smart, 2014). Minister of Canterbury earthquake recovery was given legislative power to bypass most New Zealand laws to achieve reconstruction objectives (Brownlee, 2012; Canterbury earthquake Recovery Authority, 2016b; Office of the Auditor-General, 2017).

### **A subdivision to Prepare a Blueprint for the Central City – Christchurch Central Development Unit (CCDU)**

CERA and the Minister of Earthquake Recovery understood that much of the city's rebuilding and recovery was based on the development of anchor projects (Brownlee, 2012). People had lost faith in redevelopment, having witnessed demolitions and slow progress for over a year (Carlton, 2013).

CCDU was established as a unit within CERA in April 2012 which was then responsible for delivering the blueprint plan (Brownlee, 2012; Canterbury Earthquake Recovery Authority, 2016a; Office of the Auditor-General, 2017). It was tasked to facilitate the delivery of these projects by streamlining consent processes and coordinating all 17 projects while identifying links between those and promoting the city and its developments to attract investors (Canterbury Earthquake Recovery Authority, 2016a). Location identification, concept development, and draft design, stakeholder management, and promotion of anchor projects were among its main tasks (Brownlee, 2012; Canterbury Earthquake Recovery Authority, 2016a, 2016b).

### **A Public-led Recovery Plan - Christchurch Central Recovery Plan (CCRP)**

A report to the cabinet committee by the Minister for Earthquake Recovery explained the reasons for new legislative changes, powers of CERA resulting from those changes, and the duties resting upon CCDU within the changed rebuilding framework (Office of the Minister for Canterbury Earthquake Recovery, 2012). It further allowed the Minister of Earthquake Recovery to hand over the responsibility to CCDU to prepare a recovery plan for Christchurch CBD in 9 months.

The idea generation for CCRP was exceptional with regard to the extent of public input into the process. Ten weeks following the disaster, a website - [shareanidea.org.nz](http://shareanidea.org.nz) was developed (Carlton, 2013). The website sought contributions towards

- The use: What activities they would do in the city? How would they want to get from one place to another within the city?
- The composition: What businesses and public places they want to see come back into the city? how they would want to move about the city
- The means: How can the city attract people back?

Additionally, public educational institutes, digital and print media were used to educate people about the campaign and to receive their input. (Greater Christchurch Group, 2017; Johnson & Olshansky, 2016). All of these means generated over 106,000 ideas to rebuild the central city.

A draft plan was released within 100 days by taking the input from the public through the aforementioned idea-generation activities. The exercise was a holistic approach involving urban planners, architects, and consultants. Boffa Miskell, Resource Co-ordination Partnership (RCP), Warren and Mahoney, Populous, WoodsBagot and Sheppard and Rout were a few of the companies that participated (Amore & Hall, 2016). They identified anchor projects based on the CCC draft, located them in the CBD and established strategic links between those and provided guidelines for surrounding areas (Amore & Hall, 2016; Canterbury earthquake Recovery Authority, 2016b; Canterbury Employers' Chamber of Commerce, 2016). The final revised version of the blueprint was publicised in July 2012 with details around the 17 anchor projects (Brownlee, 2012; Canterbury Earthquake Recovery Authority, 2012, 2016a).

### Anchor Projects as Primary Rebuilding Artifacts

The blueprint constituted of seventeen key projects that would lead the rebuilding initiative of the government. These were addressed as 'anchor' projects.

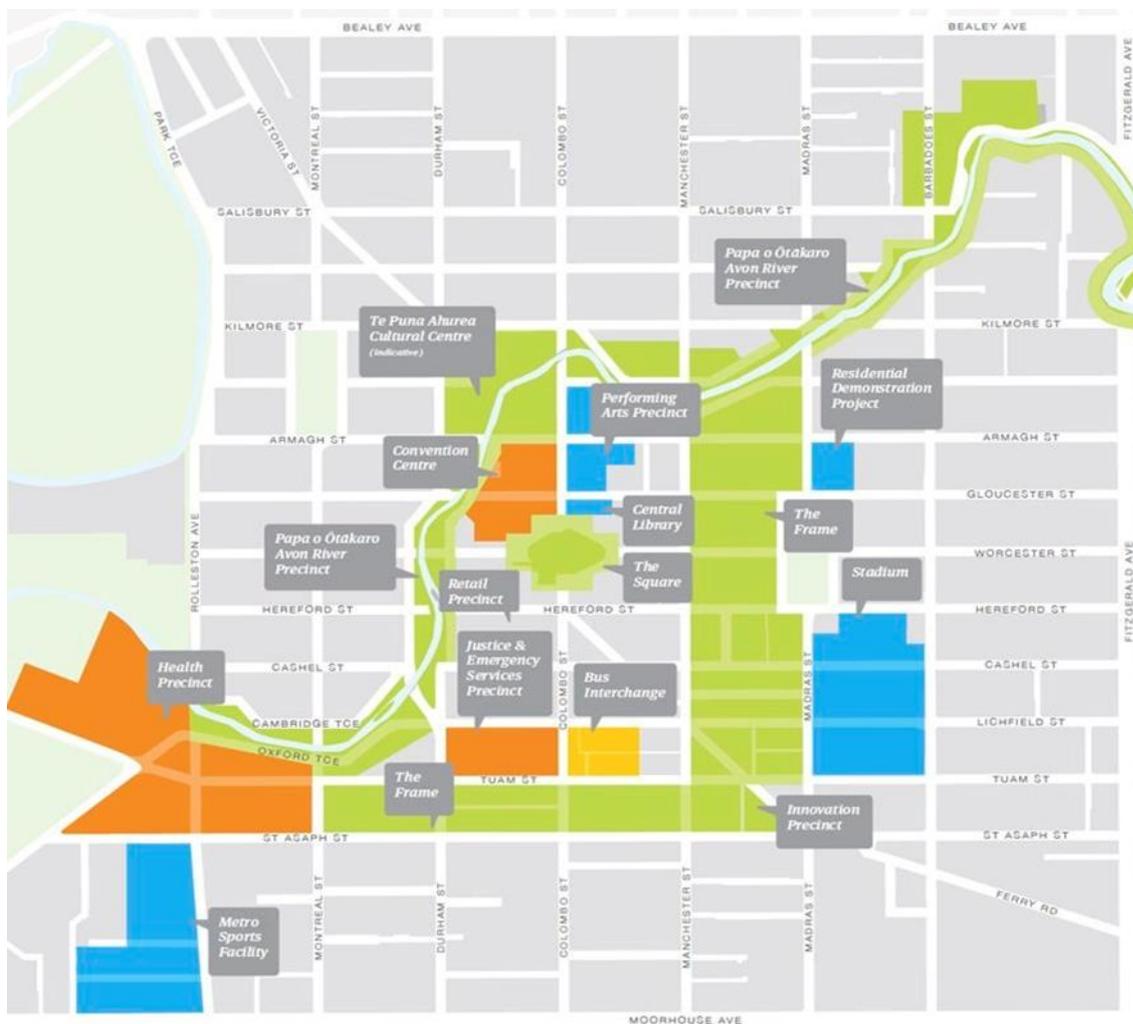


Figure 2: Anchor projects in Christchurch CBD (Source: Christchurch Central Recovery Plan (CCRP))

Ōtākaro Limited (2019), the company responsible of handling all crown-led regeneration projects in Christchurch after CERA was disbanded, defined anchor projects as those projects which aim to attract people into the city and create opportunities for related establishments to blossom due to their existence in a given location (See Figure 2).

These projects, once completed, will be known as places to live, work and visit (Canterbury Earthquake Recovery Authority, 2012). The definition implies a spill-over effect where the key buildings, once established, will pave the way for other businesses to take root in and around the area. The legislative powers of CERA facilitated the rapid deployment of these buildings allowing the Minister to shorten the process of designating land under the Resource Management Act 1991 (Supreme Court of New Zealand, 2015). The significant effects of the designation were that the landowners had to abide by the wishes of CERA to obtain their lands (either by voluntary agreement or compulsory acquisition) and waive off on the provision of land use consents (Canterbury Earthquake Recovery Authority, 2016a, 2016b). Furthermore, there were restrictions in place for construction work within the CBD as the priority was anchor projects (Sheppard, 2014). The government perceived it necessary to get the city going again before investors return (Wilkinson, Crampton & Krup, 2018). These actions were deemed necessary to unveil the plans in place for Christchurch.

Convention Centre, Avon River Precinct, The Frame, and the Metro Sports facility were indicated as the first projects that would be built. The aim was to bring people back to a more compact CBD that facilitated 'Live, Work and Play' concept of CCRP (Canterbury Earthquake Recovery Authority, 2012).

## DATA COLLECTION

The research design for this study takes the approach of a case study. A case study eliminates the gap between theory and real life, by allowing to base the findings in a real life setting (Crowe *et al.*, 2011; Roselle, 1996; Yin, 2014). Rowley (2012) recommended that qualitative methods such as interviews be used if the researcher wishes to find insights and opinions on a relatively unexplored topic that needs to be studied. Extending this idea further, Denscombe (2014) listed:

- Deeply-rooted, personal opinions, feelings, emotions and experiences
- Complex matters
- Privileged insights from key informants

can be obtained through the use of interviews. There is a lack of literature on how government policy affects the reconstruction of the city following a disaster, especially the effect on flagship projects that have been common in the recent past. Therefore, a qualitative approach constituting personal interviews using a case study was undertaken.

Two qualitative research methods were undertaken to understand the innovative approaches to rebuilding following a disaster and their effectiveness: 14 semi-structured in-depth face-to-face interviews and document analysis from 2012 to 2020.

The focus of this paper is only a fraction of a larger doctoral study. In order to make the findings and lessons relevant to Australasia, governance and structural changes in both Australia and NZ following two large scale disasters were studied. A pilot study to understand governance and structural changes after Black Saturday Bushfires 2009 was undertaken in Melbourne. The pilot study helped determine the most appropriate questions to be asked from people implementing and affected by policy and structural changes. To validate the designed questions to the NZ context, those were then sent to six experts in NZ. Their feedback helped ensure the suitability of the interview questions against the context and the research questions. The final interview questions intended to gather information about the research questions: what governance and structural changes were incorporated for reconstruction and recovery processes, what were the outcomes, what were the successes and failures, and what could be taken as lessons based on the participants' experiences.

Each interview lasted approximately an hour. 13 interviews were conducted in Christchurch, and one was held in Auckland in March 2019. The sample was drawn using purposive sampling to ensure that the participants' views were the expert views and contained the correct information. Purposive sampling is useful in studies where the researcher wishes to pick out 'key players' precisely because they are "specialists, experts, or highly experienced – and their testimony carries with it a high degree of credibility" (Denscombe, 2014).

The potential participants were drawn by referring to industry articles, paper, and online material related to post-disaster rebuilding and corporate websites. Using these materials, a list of people (32 in total) who initiated reconstruction work, those who were managing the process, and the decision-makers were identified. The potential participants were then reached through email along with the ethics approval documentation and consent form for participation, which offered more detail about the type of study. Where the potential participants could not take part, other suitable correspondents at the same hierarchy were proposed. The researcher reached out to the total number of directors or highest level of authoritative staff in each company and ensured at least two from each category were on board for the study. All participants belonged to the highest level of authority /decision-making unit within their companies (Director, CEO, Councillor etc.). The study participants were picked to represent the major stakeholders who had a direct involvement in the rebuild. Therefore, the sample can be regarded to be widely representative (see Table 1 for a list of participants).

**Table 1: List of study participants**

ORGANISATION	NUMBER OF PARTICIPANTS	INTERVIEWEE CODES
Government departments including CERA, CCC, CCDU, and Ōtākaro	6	P1, P2, P3, P4, P5, P6
Engineers involved with demolition	2	P7, P8
Designers of the blueprint	2	P9, P10
Project managers involved with demolition and the blueprint	2	P11, P12
Community Recovery Committees (CRCs)	2	P13, P14
<b>Total</b>	<b>14</b>	

As the number of people at the highest level of authority was limited and often conveyed the same information and popular opinions, the interviews reached saturation after 11 interviews. Three additional interviews were conducted to confirm data saturation. The number of interviews was deemed to be theoretically sufficient for this type of study when the same insights/opinions were repeated and no novel ideas could be generated by each subsequent interview but are adequate to understand or build a theory (Fusch & Ness, 2015; Nelson, 2017). The findings and opinions were cross-checked against the publicised documents about the governance and structural changes before and after the earthquakes.

The General public was not included in this particular study because the opinions and experiences of the policymakers and the implementers were given prominence over the former. However, local community-level organisations such as the members of Community Recovery Committees (CRCs) were interviewed as representatives of the wider community as they made a part of certain policy decisions and reforms. The sample consisted of the highest managerial level staff at CERA, CCC, CCDU, and Ōtākaro, engineers volunteered during the emergency phase post-disaster, designers, and urban planners involved with the blueprint and project managers that handled demolition work.

Document analysis involved evaluating documents such as progress reports by CERA, CCDU, Earthquake Recovery Learning, government legislation, guidelines, and building reports related to the earthquakes. The advantage of using documents is that they are conveniently accessible by the researcher at a time convenient to him/her, but a significant limitation during analysis is the subjective nature of the material (Fitzgerald, 2012). The researchers were cautious about limiting themselves to primary sources (first-hand accounts produced by the relevant parties) to avoid interpretation and analysis of an event that could be biased and interfere with accurate data analysis (Fitzgerald, 2012). Official information also fared well against the four criteria, first introduced by Scott (1990) that need to be considered before including documents as data sources. These include authenticity, credibility, representativeness, and meaning. The cross-verification of interview data against the analysis of existing documents strengthened the reliability and validity of the research findings (Guion, Diehl & McDonald, 2011). Document analysis also served the purpose of triangulation of data.

Interviews were recorded and transcribed with participant permission. The researchers used a third-party transcribing service. Data analysis was done with the aid of the computer program NVivo 12. The transcriptions uploaded to NVivo were coded and analysed using common concepts and themes along with other documents to formulate recurring themes and categories and contextual relationships among the emerging themes (Hilal & Alabri, 2013). Interview data and information from the document analysis were grouped under five recurring themes. The limitations of the governance and structural changes include the absence of a proper legislative framework, the composition and role definition of the new government organisations, hasty planning, and a non-strategic approach to rebuilding, public involvement in decision making, and lack of reviewing, monitoring and controlling of plans. The results of this analysis will be explained in the following section.

## ANALYSIS AND DISCUSSION

The research exercise found that the changes to governance and structural arrangements did not deliver the expected results. The data collected revealed several factors impeded the quick deployment of ‘anchor’ and other significant developments in the CBD.

### Absence of a Proper Legislative Framework

The governance and legislative changes by way of new acts and the establishment of recovery agencies after the 2010-2011 earthquake sequence were perceived to be flawed.

#### *CERR Act and CERC*

The CERR act was passed in parliament the same day that a new Minister was appointed to take responsibility for recovery and reconstruction post-disaster. This was an indication of the urgency of the government to commit to rebuilding. This was embraced by the public as a quick reaction. However, as P1 and P3 commented, previous natural disasters did not call for a planned and strategic intervention initiated by governance and structural changes. As per P3

“We were navigating uncharted waters, and it was a learning curve for all people involved. We needed time to understand the governance structure that was needed, but time was what we could not spare”.

P13 and P14 said that the general public believed that establishing an authority was done for two reasons. First, to establish the trust of the residents. Second, to follow the example of other developed nations stricken by large-scale natural disasters.

Moreover, according to all the respondents, the recovery was mainly central government-led, and the ministerial powers for execution facilitated central government involvement. P1, P2, P6 and P7 admitted that the role played by the commission was, therefore, nominal and intermediary.

#### *CER Act and CERA*

To eliminate the drawbacks of a commission without any decision-making power, CERA after the 2011 earthquake, came with greater statutory power. Due to the liberty to make decisions, CERA had performed well during recovery-initial six months, assessing buildings, cordoning off the red zone, and demolishing unfit buildings. P1 added that there were significant legislative loopholes that were not addressed by the Act, which partly led CERA to have a prolonged recovery phase. The reconstruction phase could not begin as the central and the local governments could not agree as to how the project costs would be divided. P5 addressed that the governance policy should have set out how the financial responsibilities of reconstruction would be shared and about ownership and maintenance of flagship projects that made a significant portion of the vision of a new Christchurch.

P1 believed that much of the blurred vision of CERA was a result of the minister's intervention within CERA's continuously expanding role. International best practice suggests having a layer of governance between the recovery agency and the ruling political party but CERA was established as a government department. Therefore, the mechanism was seen as an

‘untried’ and ‘untested’ recipe that New Zealand was trying (Greater Christchurch Group, 2017). P1 and P2 mentioned that CERA was mainly coordinating with the government and the Minister, while the input from the council was non-existent and direct ministerial control was what the set up wished to achieve. According to all the respondents, the blueprint plan was used as a political tool. P4 and P5 expressed the view that the flexibility and freedom given by the Act, resulted in many of the buildings being wiped out from the CBD due to the political pressure. Previous work by Ballard *et al.* (2015) quoted some examples of heritage buildings being wiped out from the urban setting as a result.

### The Composition and Role Definition of the New Government Organisations

Both CERC and CERA were established as government departments headed by the Earthquake Recovery minister appointed after the respective bills were passed at the parliament. CERC led by an independent chair had members including the mayors of Waimakariri, Selwyn, and Christchurch District councils, Environment Canterbury (ECan) Commissioner, and four government appointees. From the beginning, there was inconsistency in how recovery was arranged. CCC failed to make any recovery plans for the city as the Central government took leadership in deciding the fate of the CBD. P3 and P7 held the view that there was a lack of understanding about the separate roles of CERC, the local council, and the central government and how these should be inter-woven to arrive at one common recovery goal.

Unfortunately, the same vagueness in defining the roles and responsibilities of the recovery agent, the council and the central government post-2011 earthquake resulted in similar outcomes. In terms of composition, the team was made of personnel belonging to different government bodies, who had taken temporary roles within CERA. Those people most often were directly affected by or witnessed the disaster and possessed local knowledge (Canterbury earthquake Recovery Authority, 2016b; Office of the Auditor-General, 2017). According to P1, local knowledge could not be put into use due to the lack of knowledge these people possessed in a project environment. Also, P10 declared that most of the staff did not have commercial know-how that was necessary for anchor project deployment and marketing of the recovery plans. P1 revealed that they did not have faith that the people for the organisation have been chosen according to skill, expertise, or experience. The time pressure for results did not allow for the careful selection of people for top-level positions. The same respondent emphasised that the governance arrangement brought together two teams of people who did not have in-depth knowledge of designing or accurate insights on those complex projects.

CERA also struggled from its ever-expanding role during the reconstruction phase. CERA suffered from coordinating issues (Controller and Auditor General, 2017, Wilkinson, Crampton, Krupp, 2018) when at one point, it had to work with 33 public (national and local government agencies) and private entities (Office of the Auditor General, 2017). Complex and expanding role thus limited CERA’s effectiveness as a rebuilding agency.

CERA had a flat organisational layout in terms of the structure, allowing people in control to make speedy decisions leading to smoother and effective communication than a tall structure (Smart, 2014). P2 revealed that the structure encouraged separate reporting from each team within CERA, leading to a lack of an organisation-wide effort. Furthermore, its structure meant that CERA’s actions overrode the local planning and created power struggles between the local and national governments, delaying funds for the projects (Office of the Auditor-General,

2017). Later in 2012, CERA's lean structure changed to that of a matrix to facilitate the delivery of projects.

The new structure was adopted because it was thought to be more in line with the New Zealand government's recovery framework. P3 expressed the view that cross-team reporting and job rotation created enhanced knowledge and information management. On the negative side, members reporting to multiple managers received conflicting instructions. There was also uncertainty about decision-making and taking ownership of certain decisions that were made (CERA Recovery Learning, 2016). According to all the respondents from the government organisations, top-level employees were not aware of the reasoning behind grassroots level project and programme decisions and this created overall dissension between projects within the government rebuilding portfolio.

**Table 2: Status of anchor projects (Source: Ōtākaro Ltd and interview respondents)**

NAME OF PROJECT	STATUS
<b>The Frame</b>	Mostly complete
<b>The Earthquake Memorial</b>	Completed in February 2017
<b>Cultural Centre</b>	Scrapped
<b>Avon River Precinct</b>	Partially completed with the first phase completed in 2013. Avon Loop repairs are ongoing
<b>The Square</b>	In construction
<b>Retail Precinct</b>	Partially completed and opened to the public
<b>Convention Centre Precinct</b>	Scheduled to open in October 2020
<b>Health Precinct</b>	Partially completed with the construction of acute services building underway.
<b>Justice and Emergency Services Precinct</b>	Completed in September 2017
<b>Performing Arts Precinct</b>	Planning with the land to build the theatre secured
<b>Central Library</b>	Completed in 2017
<b>Residential Demonstration Project</b>	20 + homes complete, out of the proposed 900 townhouses and apartments
<b>Metro Sports Facility</b>	Construction
<b>Stadium</b>	Planning stage with a business case being commissioned in 2018
<b>Cricket Oval</b>	Completed in September 2014
<b>Bus Interchange</b>	Completed in May 2013
<b>Innovation Precinct</b>	Partially completed with some tech-related organisations occupying the space.

### **Hasty Planning and Non-Strategic Approach to Rebuilding**

The legislative changes, the establishment of CERA, and the designing of CCRP all had a significant role in ensuring anchor projects are established fast so that the city can recover

economically. However, to date, only five projects have been completed in full out of the 17 projects proposed by CERA with the first project being completed in 2013 (See Table 2).

CCDU was put in place to make sure the 17 projects happen to plan. However, even though the blueprint plan was in place by mid-2012, repetitive aftershocks, delay in developing individual business cases, land acquisition for anchor projects, land remediation work and funding arrangements meant the quick turnaround of projects that was expected took longer (Greater Christchurch Group, 2017; Johnson & Olshansky, 2016; Office of the Auditor-General, 2017). Apart from these, according to P5 the delays were further fueled by outdated plans that had to be revisited to fit the times (plans made in 2012 but executed in 2014 and beyond) and design complexities of flagship projects.

P3 mentioned that there was a sequence for the projects. However, this was restricted to paper. The projects with the resources and a builder went ahead whilst priority projects such as the stadium and the convention centre are still under construction. Restricting individuals and businesses to rebuild their homes and trade until the city plan was decided meant that people shifted away from the city into the outskirts (Williamson, Crampton and Krupp, 2018). P1 admitted that what the government should have done was to establish facilities they have lost in small scale before directing large investments for flagship projects “to keep something going was fundamental to keep the faith of the businesses and tourists”.

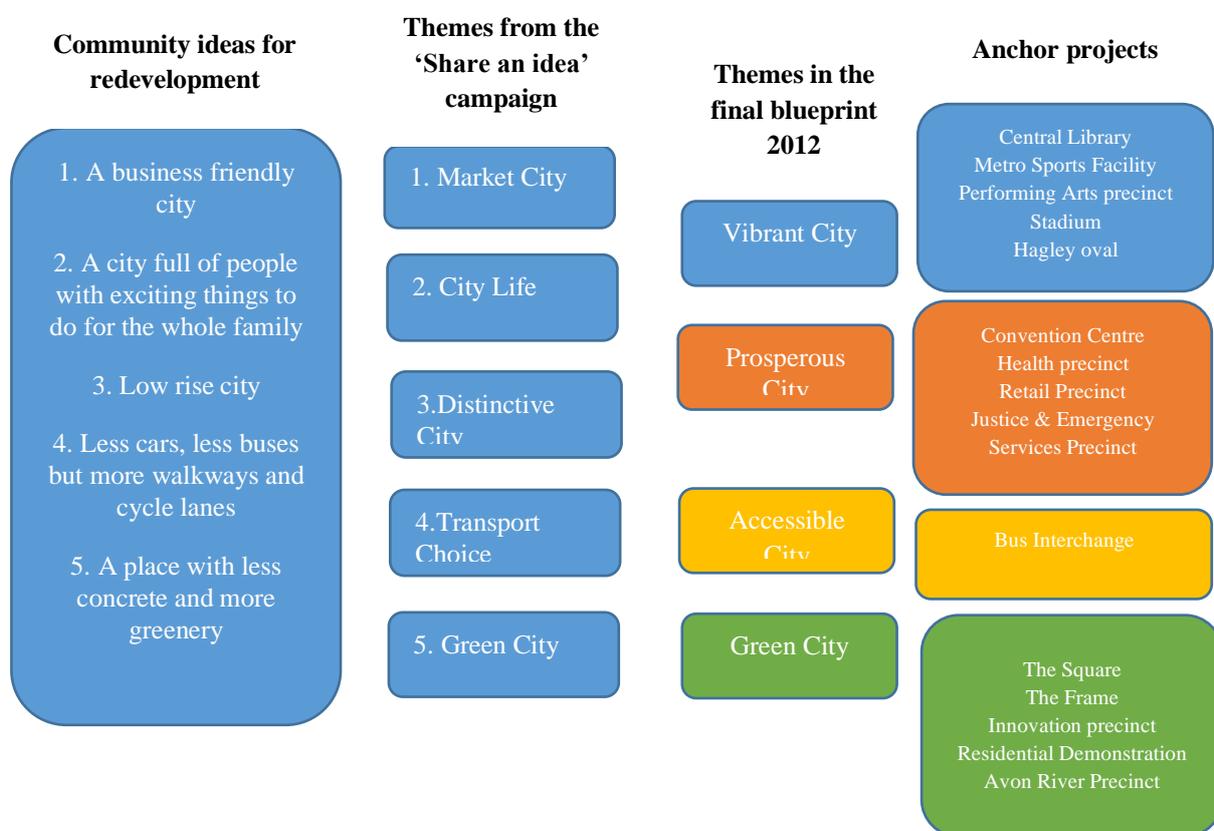
P10 and P14 identified that the first earthquake called for a restorative approach. In contrast, the 2011 earthquake needed a strategic approach to rebuilding as many significant rebuilding projects in Christchurch were proposed and built after the second major earthquake.

The government publicised that public engagement and input were the foundation for CCRP and ran an intensive opinion gathering programme stretching over more than three months (Office of the Minister for Canterbury Earthquake Recovery, 2012). Ironically, a strategic plan for the urban setting of Christchurch was only allowed 100 days. The plans, once confirmed, did not offer certainty around ownership of projects (e.g. who is going to own and operate the convention Centre?) or structural relevance (e.g. How the green space (the Frame) will be realised?) (Sheppard, 2014). Structural relevance in this paper is an extension of what has been previously mentioned by McCloud *et al.* (2014). Their work highlighted that flagship projects in Christchurch may promote land use monoculture, leading to other parts of town deserted.

Time pressure also resulted in projects appearing on the blueprint just hours before the cabinet approved it. These were added without economic reasoning. P9 and P10 opined that, as a result, they could not make the best out of the skillfulness and expertise of the design team. P10 insisted that some financial return should be generated by rebuilding projects to ensure the economic revival of the city. P11 and P12 voiced their concerns over the fact that the vast majority of these projects are welfare oriented. According to them, once completed, these projects would take several more years to bring in inward investment within the surrounding areas. Thus, P11 and P12 considered complex high-investment projects to add to the already weak financial position of the local council.

## Lack of Public Engagement in Reconstruction

The NZ government had been certain from the first major earthquake that rebuilding would be public led and catered to local needs. However, the general public was uncertain about the recovery governance process and how the individuals and businesses can contribute positively to the recovery process post- 2010 earthquake. P11 and P12 concurred that there was not much opportunity for input into the plans, but the communication was mostly one-way. CERC gathering information about the damage and the destruction and then communicating the government plans accordingly. This was mainly a result of poor community engagement (Johnson & Mamula-Seadon, 2014).



**Figure 3: Evolution of themes from idea generation to the final version of CCRP (Author's own using CCRP Canterbury Earthquake Recovery Authority (2012))**

CERA started out better, placing the public in the centre of their rebuilding initiatives. However, the significance of CERA's opinion-gathering exercises for the formation of the recovery plan diminished when the final version of the blueprint was released. P5 and P7 felt that the final version was a mere selection of projects off the Christchurch City Council draft plan of February 2010 (Menzies, 2015). Transport-related rebuilding was put down as secondary. The Minister expressed the need to consider the implications of some proposals such as one-way to

two-way street conversions and light rail. These were deemed time-consuming exercises, given their strategic nature and initial investment.

It is universally accepted that public involvement and local knowledge are essential elements to be fed into the decision-making process for urban development following a disaster (Burby, 2003), ensuring high-quality planning (Burke, 1979). However, irrespective of such consultation, it was evident that the government went ahead with its recovery plan (See Figure 3).

Hirschman (1970) emphasised that mere participation without any power to affect decisions may lead the citizens to exit the recovery process, weakening the information base for long-term strategic planning. As a result, some of the projects are considered little relevant to Christchurch but seem to serve national goals of development (Brand & Nicholson, 2016)

### Review, Monitoring and Control of Plans

Even though the Office of the Minister for Canterbury Earthquake Recovery (2012) recommended keeping the blueprint as the guide to recovery, P1 said that the Minister did not want to revisit the plan for review and amendments. P6 added that hundreds of pages that gave background details of the projects were never signed off or revisited once the initial draft proposal was accepted and approved. CERA produced its first progress report in 2014 after almost 3 years in operation (Canterbury earthquake Recovery Authority, 2016b). Since then, program management improved, and internal reports, project briefs, weekly status updates to the minister, and programme concept reports were on paper as monitoring and control measures. The lack of consistency in reporting caused missed milestones, unclear expectations, and changes in scope. It was also understood that CERA's ever-changing role made it difficult to keep to the agreed reports and reviews. P5 said that monitoring and control procedures for anchor projects were the same for any public project, irrespective of the urgency to complete. The findings of this research reemphasised the importance of monitor and control during implementation. Previously, under the Build Back Better (BBB) concept, the relevance of monitor and control for successful outcomes across the areas of risk reduction, community recovery, and implementation have been widely studied (Mannakkara & Wilkinson, 2015).

### CONCLUSION

This paper explored the limitations of governance and structural changes after a disaster in long-term recovery and reconstruction. To obtain an in-depth understanding of governance and structural changes, relevant literature was compared with the findings from interviews and document analysis. This paper highlights several key factors that hindered the outcomes that were expected from these governance and structural reforms. These include the absence of a proper legislative framework, the composition and role definition of the new government organisations, hasty planning and non-strategic approach to rebuilding, public involvement in decision making, reviewing, monitoring and control of projects and programmes. Lessons learned from the study include:

1. Governance and legislative structures should consider the local disaster context and preferably should be reviewed at six months or so for relevance. If these reforms seem to have limited impact, these can be changed to support rebuilding.

2. To avoid duplication of work and the ambiguity of roles and responsibilities, individuals should agree on workload. It is important to determine how each individual role reflects in the collective approach by the organisation in the broader plan.
3. Strategic city-building projects need careful consideration and planning that require time and should be considered once the city is operating with the bare minimum.
4. Local relevance fuelled by resident input for projects is important to ensure that these projects will be accepted and used once built.
5. Independent governance of projects or a layer of governance between the government and the Minister should be considered to avoid public projects being political tools.
6. To reap the benefits of these reforms, a clear and consistent connection to the end result /outcome and milestones should be determined at the start and reviewed periodically to ensure success.
7. Prioritising anchor projects and having arrangements to incorporate private investment along with these public rebuilding initiatives would have helped the investors gain more confidence in rebuilding.

The findings of this study have to be seen in the light of some limitations. The effectiveness of governance and structural changes studied for this research was limited to short to medium-term effects. It is worthwhile to explore the long-term impacts of those changes on the rebuilding of Christchurch in similar future research work. Another limitation is the applicability of findings of the study internationally or the inability to generalise the findings. Nevertheless, a globally applicable finding from this study could be the importance of linking the proposed governance initiatives with those planning tools and reviewing the rebuilding programs to ensure those changes are delivering the expected.

Some of the practical implications of this current study will help the policymakers avoid these limitations in future disasters that call for structural and governance changes. The evaluation reveals the need for further research to understand these innovative approaches post-disaster on the community, businesses, and the government.

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