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Building Back Better: Learning from the Christchurch Rebuild

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Abstract

Rarely does a city find the opportunity to comprehensively reinvent itself. Following a spate of devastating earthquakes in 2010-11, the city of Christchurch in New Zealand has been presented with just that. With the city thrown into physical and emotional turmoil, the rebuild has been slow to gain traction. Indeed, many people still live in houses that remain unrepaired. Seeing the enormous opportunity, the local council quickly launched into a process of planning the shape of the new city. International experts were consulted, as were local residents and others. The Share an Idea campaign, an intensive public consultation, generated more than 100,000 ideas for how the city could be rebuilt better and these became the basis for the aspirational draft city plan. This plan was then taken by the government minister through a top-down refinement to create the Recovery Plan or Blueprint.

The paper discusses key attributes of the Blueprint along with the context for its development and implementation over time. The slow speed with which the recovery has unfolded in the central area can be attributed to lack of certainty for investors, many of whom have chosen to take their funds elsewhere, a receptive environment in surrounding suburbs that enabled business activity to continue and expand, difficulties with insurance settlements and continued residential development around the fringes of the city. The paper concludes with comments about leadership, emphasizing the importance that accurate and consistent communication with all parties plays in a successful recovery.

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1. Introduction

It is an awkward thing to acknowledge, but natural disasters can create opportunity as well as heartbreak.

Philp [1]

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This paper reviews the efforts to rebuild the city of Christchurch, New Zealand following a devastating series of earthquakes that struck during 2010-11 and which led to large swathes of buildings and infrastructure being destroyed. It discusses progress made toward realising the opportunity that the quote addresses, the opportunity to build a new and improved version of Christchurch. Over the past five years the city and its citizens have been pushing ahead making progress on the rebuild but, as can be expected, the process has not been easy and the outcomes have not always been equitable. Many remain living in houses that were severely damaged and not yet repaired, while others are enjoying the rewards of being able to rebuild on sites made available through the expansive demolitions that have taken place to prepare the ground from the new and improved city.

The circumstances surrounding the Christchurch earthquakes are now well rehearsed in a number of academic and media publications [2-4]. The first earthquake struck in September of 2010 and caused Cantabrians to wake up to the risk their forefathers had brought on them by situating the city on what is effectively a drained swamp. Although centred 40km away, this guake caused some soil liquefaction and extensive damage to a number of the city's unreinforced masonry (URM) buildings. The knockout punch was delivered in the form of a 6.3 magnitude earthquake on the 22nd of February 2011, which took 185 lives and reduced many parts of the city to rubble [2, 4]. Throughout the city, but particularly in eastern areas, the ground again turned liquid, causing buildings to settle unevenly and creating havoc throughout the roading network. This was the defining event, with ground accelerations recorded at one and a half times that of gravity leading to structural loadings of up to twice the levels specified in the New Zealand Building Code. The cumulative effect of these, and the many thousands more earthquakes that have been recorded since then, has been to render the central city as one large demolition site. Some 1,500 commercial buildings have had to be demolished, with many older, heritage buildings amongst them. Unquestionably the architectural character of the city has been forever changed and there are now few structures that can help link people with the city's past [5]. Christchurch's earlier sense of place has been severely damaged. As can also be expected, the events also affected people's mental and emotional wellbeing. The city's Missioner and others have noted the widespread feelings of powerlessness, depression, lack of hope and anger as residents have had to deal with housing shortages, bureaucratic red tape and poor communications from government leaders and their insurers [3, 6].

There are significant gaps in knowledge about post-disaster recovery. This research takes the form of a case study, seeking to shed light on the complexities, politics and process of disaster recovery, thereby providing a useful contribution to the knowledge base [7]. Some observations about other recent recovery efforts can help frame the international context for Christchurch's road to recovery. Within ten months of the 1995 quake that shook Kobe, Japan the city had opened a temporary container port, helping to ensure much needed capital would continue to flow through the city to stimulate the recovery effort. Even with this early achievement, three years after the event 45% of low-income families were still living in temporary accommodation [8]. In China, the government planned a three year process [later revised to two years] to recover Wenchuan after a quake levelled that city in 2008. The scale of the challenge and also the efforts to reconstruct were indeed staggering. Already by the end of the first year, more than half the overall budget for the reconstruction of Wenchuan had been spent [9]. The largest area of spending, nearly 39% of the total, was in the area of house reconstruction. These two recent precedents are indeed impressive and set a high standard for speed of recovery. However, it can also be noted that both examples are taken from Asian countries, where society generally does not question centralised authority or efforts taken to advance the greater good.

In their study of nine recovery processes, Olshansky & Johnson et al [10] found that the timeframes in which certain recovery activities take place can be predicted. In the first year, residents can expect temporary accommodation of people and business activities to be provided and preparation for the rebuilding effort to be made. They note that it in the second year significant rebuilding occurs with only those sites or areas considered difficult delayed beyond that point. It is clear that the rebuilding of Christchurch has not unfold at the speed of Kobe or Wenchuan. The effectiveness of recovery processes can be considered in terms of speed and of quality [7, 10]; the interesting question with Christchurch is whether the opportunity presented by these earthquakes can be parlayed into an improved built environment.

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