

## UNISDR Scientific and Technical Advisory Group

### Case Studies – 2014

#### Māori Community-led Disaster Risk Management: An effective response to the 2010-2011 Christchurch Earthquakes

##### The problem

On the 4<sup>th</sup> of September 2010 an earthquake measuring 7.1MS occurred in Christchurch New Zealand. The earthquake heralded a series of earthquakes which caused wide spread devastation, injury to 9000 inhabitants and the loss of 185 lives<sup>1</sup>. Eastern Christchurch, the region most impacted by the earthquakes, was primarily comprised of communities with limited socioeconomic resources. According to 2006 census figures the urban Māori community comprising 25,725 individuals constituted 7.3% of the urban population<sup>2</sup> and was concentrated in the Eastern suburbs, while the resident tribe Ngāi Tahu comprised a minority 42% (10,965) of the Māori demographic<sup>3</sup>. Christchurch City Council household estimates from 2010 indicated that although still concentrated in the Eastern city the Māori demographic had decreased to 4.1% of an urban population that approximated 390,000 individuals.



**Figure 1:** The Catholic Cathedral in Christchurch: An exemplar of urban devastation in Eastern Christchurch, 25 March 2012. (Photo source Dr Christine Kenney)

##### The science

Research into community-led disaster management is relevant to hazard mitigation, preparedness, response and recovery planning, as well as sustainable development<sup>5</sup>. The Joint Centre for Disaster Research conducted Kaupapa Māori qualitative research in partnership with Ngāi Tahu, to identify, and document the ways Māori cultural attributes have facilitated disaster risk reduction and enhanced community resilience in response to

The geospatial concentration of Māori in Eastern Christchurch suggested that in comparison to the wider community, Māori had disproportionately reduced financial resources, access to basic necessities, utilities, transport and support services and therefore reduced collective adaptive capacity. Anecdotal evidence suggested that local Māori acted rapidly, drawing on cultural attributes to facilitate community recovery and resilience following the earthquakes. Attributes that are protective in times of adversity have previously been noted in Māori communities, but rarely documented<sup>4</sup>.

natural hazard events<sup>6</sup>. Initial research findings indicated that in conjunction with Māori knowledge, cultural values that are embedded in sets of understanding about identity act as cultural strengths during adversity through shaping social practices<sup>6</sup>. In the Christchurch context exemplars included kotahitanga (enacting community unity), whakapapa (operationalising familial networks) whanaungatanga (utilising social relationships), manaakitanga (extending respect, support, hospitality), kaitakitanga (ensuring protection, guardianship) and marae (activating community support centres). Historically, marae (Māori community centres - See Figure 2) provide a sense of place that is central to Māori collective identity and wellbeing as well as rapidly mobilised centres of support that unite Māori communities when adversity strikes<sup>4</sup>. Ngāi Tahu marae opened immediately following the February earthquake and provided shelter, food, water, social support and hospitality to the wider community<sup>7</sup>. Whānau (families), the core units of Māori cultural capital, operationalise marae<sup>8</sup>. Familial networks enacted whanaungatanga through sharing resources, providing emergency accommodation, ensuring the safety of family members, staffing marae, securing and/or clearing damaged property and assisting Christchurch residents to negotiate the bureaucracy of responding government agencies. Other tribal risk mitigation initiatives included establishing a 24 hour telephone help line, arranging financial support, receipt, storage and distribution of donated goods through makeshift offices at Wigram a disused air force base, logistical support for Māori wardens and 'barefoot' medical teams that were working in Eastern Christchurch, as well as liaison with government, NGOs and responding agencies<sup>9</sup>. At the local level approximately 2% of the population provided material, social and financial support to 20,000 households<sup>9,12</sup>. The 12 Ngāi Tahu marae located in Canterbury, for example, were able to feed and accommodate up to 4,000 individuals situating them as an important emergency management resource<sup>9</sup>. Research findings indicate that the earthquake sequence catalysed a revitalisation of traditional values and practices, which were operationalised by Māori as moral and relational cultural technologies to facilitate emergency management and disaster risk reduction<sup>7</sup>. The interrelated technologies constituted a dynamic and holistic framework; an actor network<sup>10</sup> for ensuring urban community recovery, social resilience, and regional sustainability. The collective Māori earthquake response enacted cultural values and practices that were positively associated with the psycho-social and material well-being of both Māori responders and the wider non-Māori community<sup>6,7,9</sup>.

##### The application to policy and practice

Recommendations arising from the research include incorporating cultural attributes and technologies in regional recovery and resilience planning as well as national civil defence and disaster risk reduction strategies. Research findings have supported the premise that the Māori community-led response to the earthquakes constituted best practice in disaster risk reduction in regards to the five priority areas outlined in the Hyogo Framework for Action. A nationalised Ngāi Tahu-led Māori Recovery Network also linked with mainstream emergency managers, government agencies and other responders to ensure resources and support were inclusive of



**Figure 2:** Māori Earthquake Recovery Network representatives at Rēhua Marae (Ngāi Tahu Urban Community Support Centre) which following the earthquakes was formally designated a Recovery Assistance Centre by the Ministry of Civil Defence and Emergency Management. (Photo source Te Rūnanga o Ngāi Tahu)

and accessible to the culturally diverse communities of Christchurch<sup>12</sup>. Publicizing research findings and recommendations that showcase the value of Māori cultural attributes for enhancing the recovery and resilience of the wider Christchurch community, has facilitated Te Rūnanga o Ngāi Tahu in developing a statutory governance role in the Christchurch recovery programme as stipulated in the Canterbury Earthquake Recovery Authority Act (CERA) of 2011<sup>11</sup>. Ngāi Tahu has drawn on cultural authority as the kaitiaki (guardians) of Canterbury lands and natural resources to ensure that the cultural attributes kaitakitanga, whanaungatanga and manaakitanga that were documented during the research, inform the Christchurch urban rebuild and recovery planning for regional resilience<sup>11,12</sup>. Exemplars include the establishment of joint Māori/Crown ecological and environmental resource management projects<sup>14,15</sup> as well as social (economic/employment /housing) initiatives, which have been implemented to reduce the impact of social determinants of risk<sup>12</sup>. Ngāi Tahu epistemological knowledge and values are shaping integrated risk management strategies developed in collaboration with other local stakeholders including the Crown, CERA, and the Christchurch City Council who are engaged in civil/disaster preparedness planning<sup>11,12,15</sup>.

#### Did it make a difference?

Community-based initiatives are a useful tool for building social resilience following disasters<sup>13</sup>. Yet Māori resources and cultural attributes are not integrated into pre-disaster planning and emergency response strategies at the local, regional or national levels. Research showcasing the effective Māori response to the Christchurch earthquakes has enhanced increased engagement and collaboration between Iwi (tribes), local authorities and government<sup>9,11,12,14-16</sup>. In the Canterbury context, Ngāi Tahu research partners have communicated research outcomes directly to the New Zealand cabinet, relevant government agencies and local authorities<sup>15</sup>. Information arising from the research is also facilitating contextually relevant disaster risk reduction policies, Māori capacity and capability development and regional resilience planning in other parts of New Zealand. The Hutt Valley Māori Civil Defence and Emergency Management Collective's collaboration with the Wellington Regional Emergency Office provides an exemplar<sup>16</sup>. The role and value of Māori cultural attributes such as marae are being considered in the current redevelopment of the New Zealand Civil Defence and Emergency Management Strategy, while the communitarian value-based recovery approach adopted by Māori has relevance for other small island states, nations with indigenous communities and/or similar sets of values<sup>17</sup>.

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