Multi-agency community engagement during disaster recovery: Lessons from New Zealand for three moderate-sized earthquake events

David Johnston, Julia Becker, Douglas Paton and Sarb Johal
Multi-agency community engagement

• Disaster recovery environment presents many challenges for government and non-government agencies, businesses, community groups and individuals.

• The need for effective community participation and consultation in recovery is now widely acknowledged in New Zealand recovery planning and lessons from the 2010-2011 Canterbury earthquakes.

• The importance of participation and consultation relates
  - to both its role in helping people understand and make meaning of a recent experience,
  - providing a collective forum for developing future community resilience and effective recovery.
The earthquakes & their impacts: 22 Feb 2011
March 2, 1987 $M_L$ 6.1 Edgecumbe earthquake

- The earthquake caused heavy damage in Edgecumbe, Te Teko, Kawerau, and Matata to both residential properties and industry.

- Considerable misinformation relating to the earthquake.

- Consequently, a number of public meetings were organized.
Multi-agency community engagement during disaster recovery

Lessons from two New Zealand earthquake events

David Johnston
GNS Science, Lower Hutt, New Zealand and Joint Centre for Disaster Research,
School of Psychology, Massey University, Wellington, New Zealand

Julia Becker
GNS Science, Lower Hutt, New Zealand, and

Douglas Paton
School of Psychology, University of Tasmania, Australia

Abstract
Purpose – The purpose of this paper is to look at the role of community participation in reducing anxiety and trauma in communities during two New Zealand earthquakes: the 1987 Edgecumbe and 2003 Te Anau events and explore the effectiveness of various approaches in providing information, reducing stress, and facilitating a recovery process.

Design/methodology/approach – The principle methods of data collection were semi-structured interviews were undertaken between October 2006 and March 2007 with key agencies and individuals involved in the response and comprehensive analysis of papers, reports and articles in newspapers.

The research was undertaken prior to the 4 September 2010 and 22 February 2011 earthquakes in Canterbury, New Zealand, and therefore community recovery from those events are not discussed in this paper.

Findings – Effective survival and recovery from disasters depends not just on people’s abilities to cope with the physical impacts of the event, but also on how the societal environment complements and supports the complex and protracted processes of community recovery. Central to recovery is how society organises, mobilises and coordinates the diverse range of organizational and professional resources that can be called upon to assist recovery.

Originality/value – The paper offers insight into the effectiveness and benefit of incorporating of community participation in reducing anxiety and trauma in communities during earthquakes.

Keywords Earthquakes, Disasters, Anxiety, Trauma, Community recovery, New Zealand

Paper type Research paper

Introduction
Effective survival and recovery from disasters depends not just on the physical impacts of the event but also on how the societal environment supports the complex and protracted processes of recovery (Gordon, 2004). Societal resources (e.g. emergency management, protective services) and organisational capabilities (e.g. to coordinate response activities on a large scale) are crucial in determining how well people adapt to stress, change and emergencies (Coles and Buckle, 2004). The coordination of diverse professional resources is required to deal with the physical consequences of disaster...
August 21, 2003 Mw 7.2 Fiordland earthquake

- Damage was relatively minor although spectacular
- District Council held a public meeting
- Public response to the meeting exceeded the initial expectations of the organizers with in excess of 300 people attending.
2013 6.6 Mw Cook Strait and Lake Grassmere earthquakes

- Two earthquakes - July 21, 2013, the 6.6Mw Cook Strait earthquake and the August 16, 2013 Lake Grassmere earthquake, also a 6.6Mw
• Wide spread property damage in the Marlbourgh Region exceeded NZ$50 million (in 2014 dollars).
• Less than a week after the first earthquake, a community meeting arranged by the Mayor of Blenheim
GNS seismologist Matt Gerstenberger speaking to a crowd of 200 Seddon residents at the Awatere Rugby clubrooms. Photo: Derek Flynn, Fairfax Media New Zealand/Marlborough Express.
Key observations

- Continued effort needs to be undertaken to ensure scientific information is easily accessible to communities following an event.

- Despite the effectiveness of the meetings, agencies involved reported only limited formal connections prior to the event and arrangements were frequently made in an ad hoc manner.

- Lack of prior planning for multidisciplinary and multi-agency interactions limits the effectiveness of both the response and recovery.