Global Trends and Challenges: Essential Pre-Disaster Planning for Post-Disaster Resilience

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Introduction

• The frequency of out of scale disasters continues to increase
• Novel problems and their consequences pose a significant challenge to our way of life
• A greater focus on preparedness contributes to improved response and recovery outcomes
• Pernicious traditions are a barrier to reform and an impairment
Global Context

Source: Swiss Re Economic Research & Consulting (2016)
Financial Context

• Total economic losses from natural catastrophes and manmade disasters were estimated to be USD 158 billion for 2016
Fort McMurray, Canada

- 230,000 hectare wildfire
- 90,000 evacuated
- 6.4 billion € of insured losses
Game Changers

2001: 9/11 attacks – more than 2,900 dead
2002: Bali bombing – 200 dead
2004: South East Asia Tsunami – 300,000 dead
2009: Victorian (Black Saturday) Bushfires – 173 dead
2015: Japanese Tsunami – at least 15,819 dead
## Regional Context

<table>
<thead>
<tr>
<th>Region</th>
<th>Number</th>
<th>Victims</th>
<th>in %</th>
<th>Insured losses in USD bn</th>
<th>in %</th>
<th>Economic losses in USD bn</th>
<th>in %</th>
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<tbody>
<tr>
<td>North America</td>
<td>51</td>
<td>278</td>
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<td>17.3</td>
<td>47.1%</td>
<td>28.6</td>
<td>31.2%</td>
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<tr>
<td>Latin America &amp; Caribbean</td>
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<td>746</td>
<td>2.8%</td>
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<tr>
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<tr>
<td>Africa</td>
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<td>0.0</td>
<td>0.1%</td>
<td>1.2</td>
<td>1.3%</td>
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<tr>
<td>Asia</td>
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<td>18,916</td>
<td>71.8%</td>
<td>7.0</td>
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<td>Oceania/Australia</td>
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<td>3.3%</td>
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<tr>
<td>Seas/Space</td>
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<td>0.9</td>
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<td>1.1</td>
<td>1.2%</td>
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<tr>
<td>World</td>
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<td>100.0%</td>
<td>37</td>
<td>100.0%</td>
<td>92</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: Swiss Re Economic Research & Consulting (2016)
Societal Affects of Disaster

- Loss of life / health
- Loss of shelter
- Loss of privileges
- Anger / denial
- Scapegoating Officials
- Reactive change
Rationale for Reform

• Disaster management systems and organisations continue to undergo reactive change and pressurised reform
• Deliberate and integrated reform is needed
• Acceptance that disasters happen is important
Drivers for Change

• Population increase
• Enhanced definition and reporting
• Global warming
• Urban sprawl
• Greater demand
• Terrorism / conflict
Pre-Disaster Framework

- Preparedness versus response as a focus
- Recognise that novel disasters are inevitable
- Functional and scalable arrangements are key
- Recognising pernicious traditions
Preparedness v Response

• Increasingly, the benefits of focusing upon preparing for, rather than responding to disasters is being recognised

• For every dollar spent on preparedness, five more is spent on response and recovery
Novel Disasters are Inevitable

• Novel, or out-of-scale disasters are a reality and will challenge our thinking, systems and arrangements

• The Japanese earthquake and resultant nuclear emergency and the Victorian Black Saturday bushfires, for example
Functional and Scalable Arrangements

• For effective preparedness and response arrangements, a functional (non-person dependant) approach is essential

• Plans and arrangements should be scalable so as decision making, particularly in relation to escalation, is not impeded
Framework Scaffolding

Comprehensive
• Plans and arrangements should consider all phases of a disaster and their consequences

Progressive
• The future should be anticipated and considered
• The role of the community and the need for engagement is fundamental
Framework Scaffolding

Risk-driven focus
• Proactive risk and early impact analysis are key to assigning priorities and resources

Integration
• The unity of effort and a consistent approach across layers of government and community

Collaboration
• Relationships that result in us working as one
Framework Scaffolding

Coordination
• Synchronised and effective activities and mitigation strategies

Flexibility
• Creative and innovative arrangements are required for an effective response to a disaster

Professionalisation
• Science, evidence and knowledge must inform our education, training and lessons cycle
Pernicious Traditions

• Pernicious traditions are those that continue to harm or detract, particularly in a graduated manner
• They degrade our thinking and halt innovative practice and the identification of novel solutions
• Pernicious traditions are a significant barrier to reform
Pernicious Traditions

• A focus on hazards, not consequences
• Independent operating pictures
• Decision traps Fixation with phases
  – mitigation, response, recovery
  – prevention, preparedness, response, recovery
• Desire for a sense of order
Pernicious Traditions

- Inconsistent approach to the coordination of response and recovery
- Lack of error based learning
- Reliance upon arrangements, not innovation
- Implementing recommendations, not lessons
- Inconsistency in education and exercising
World Trade Centre (2001)
Overcoming Pernicious Traditions

• Shift beyond hazard type planning and response
• Join up the approach to situational awareness
• Manage every significant disaster as new
• Attempt to recognise a crisis for what it is
• Conduct response and recovery concurrently
• Schedule a forward program of reviews
Overcoming Pernicious Traditions

- Allow and tolerate a degree of error, both during an exercise and a disaster
- Focus equally on response and recovery
- Recognise reviews and focus on imbedding lessons, not recommendations
- Routinely exercising capability and arrangements, using variable circumstances
- The implementation of a Red Team
Summary

• A focus on a pre-disaster framework will enhance and promote post-disaster resilience
• Novel disasters are inevitable and will happen