Natural Disasters and the Government’s Role

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Overview

- Natural disaster history and trends
- Current research – government impact
- Government responsibilities
- Elements of natural disaster management
- Governance challenges for boards
# Natural Disasters – Lives Lost

<table>
<thead>
<tr>
<th>Disaster</th>
<th>Date</th>
<th>Lives Lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drought</td>
<td>1905</td>
<td>600</td>
</tr>
<tr>
<td>Extreme temperature</td>
<td>2009</td>
<td>347</td>
</tr>
<tr>
<td>Wildfire</td>
<td>2009</td>
<td>180</td>
</tr>
<tr>
<td>Wildfire</td>
<td>1983</td>
<td>75</td>
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<tr>
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<td>1905</td>
<td>71</td>
</tr>
<tr>
<td>Flood</td>
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<td>70</td>
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<tr>
<td>Storm</td>
<td>1974</td>
<td>65</td>
</tr>
<tr>
<td>Wildfire</td>
<td>1967</td>
<td>62</td>
</tr>
<tr>
<td>Wildfire</td>
<td>1905</td>
<td>49</td>
</tr>
<tr>
<td>Flood</td>
<td>1984</td>
<td>36</td>
</tr>
</tbody>
</table>

Source: EM-DAT, CRED
## Natural Disasters – People Affected

<table>
<thead>
<tr>
<th>Disaster</th>
<th>Date</th>
<th>People Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drought</td>
<td>1992</td>
<td>7,000,000</td>
</tr>
<tr>
<td>Extreme temperature</td>
<td>1993</td>
<td>3,000,500</td>
</tr>
<tr>
<td>Storm</td>
<td>1994</td>
<td>2,500,104</td>
</tr>
<tr>
<td>Extreme temperature</td>
<td>1994</td>
<td>1,000,034</td>
</tr>
<tr>
<td>Extreme temperature</td>
<td>1995</td>
<td>500,100</td>
</tr>
<tr>
<td>Storm</td>
<td>1996</td>
<td>450,220</td>
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<tr>
<td>Storm</td>
<td>1995</td>
<td>400,045</td>
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<tr>
<td>Storm</td>
<td>1994</td>
<td>240,220</td>
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<tr>
<td>Flood</td>
<td>2010</td>
<td>200,000</td>
</tr>
<tr>
<td>Storm</td>
<td>1994</td>
<td>120,090</td>
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</table>

Source: EM-DAT, CRED
<table>
<thead>
<tr>
<th>Disaster</th>
<th>Date</th>
<th>Damage (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flood</td>
<td>2010</td>
<td>$7,300,000,000</td>
</tr>
<tr>
<td>Drought</td>
<td>1905</td>
<td>$6,000,000,000</td>
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<tr>
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<td>2002</td>
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<td>1992</td>
<td>$1,500,000,000</td>
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<tr>
<td>Storm</td>
<td>1999</td>
<td>$1,500,000,000</td>
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<tr>
<td>Storm</td>
<td>2010</td>
<td>$1,390,000,000</td>
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<tr>
<td>Storm</td>
<td>2010</td>
<td>$1,330,000,000</td>
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<tr>
<td>Flood</td>
<td>2007</td>
<td>$1,300,000,000</td>
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<tr>
<td>Wildfire</td>
<td>2009</td>
<td>$1,300,000,000</td>
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<tr>
<td>Storm</td>
<td>2006</td>
<td>$1,180,000,000</td>
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</table>

Source: EM-DAT, CRED. Dollar value in year of occurrence
Natural Disasters – Worldwide Trends

![Graph showing natural disaster frequency from 1900 to 2010](attachment:image.png)
Impact of different models of government

• More democratic/ higher GDP = lower death tolls
• But more democratic/ higher GDP = higher economic cost
• Rich countries are still vulnerable
• Bigger government doesn’t always mean better outcomes
Government responsibilities

• State and Territory governments
  – Regulatory arrangements that protect life, property and the environment
  – Ensuring the provision of appropriate disaster awareness, education, and warning systems
  – Primary responsibility for providing adequately prepared and capable emergency services directly to the community
Government responsibilities

• Commonwealth government
  – Provide leadership and collaborate with other levels of government in disaster research, information management and policy making
  – Mobilise resources when State and Territory response resources are insufficient
  – Provide national support for disaster relief and community recovery
Government responsibilities

- Local government
  - Ensuring that all local disaster planning and preparedness measures are taken
  - Routinely conducting disaster risk assessments on their communities
  - Ensuring there are adequate local disaster response resources, including volunteer resources
  - Reducing hazards through land use planning
  - Public education and awareness
  - Providing local disaster warnings
  - Representing community interests in disaster management to other levels of government
Recent policy developments

- COAG adopted the National Disaster Resilience Strategy
- Modern life relies on complex and interdependent infrastructure
- Hazards are part of life in Australia
- Frequency and size of disasters is increasing – calls on government resources are rising at unprecedented rates
- Governments want to help people in need, but expectations may be unrealistic and unsustainable
- Communities need to take a bigger role
- ‘Shared responsibility’: States and local governments must improve their capacities to protect, advise and respond and individuals and households must take greater responsibility for their own safety
Disaster management

Natural Disaster Management

- **Relief and Recovery**
  - Longer-term relief, recovery and rehabilitation measures

- **Post-disaster Assessment and Mitigation**
  - Addressing risks revealed by the disaster

- **Short-term Relief**
  - Short-term measures that are concurrent with the response, e.g. emergency shelter; food; funds

- **Response**
  - Measures to combat the disaster and reduce its impact, e.g. sandbagging; fire-fighting; back-burning; evacuations

- **Preparedness**
  - Ready for disasters, e.g. trained personnel, equipment, community awareness, counter-disaster plans

- **Mitigation**
  - Measures to reduce risk and the impact of an event, e.g. land use planning; building standards, designs and materials; levees; disaster-resilient infrastructure; self-help; insurance

- **General Disaster Research**
  - Disaster-related policy formation

Source: Australian Journal of Emergency Management, 2004
Challenges for directors

- Any different to other board business?
- Decision-making during a disaster
- Political context
- Preparing before disaster strikes
- Guidelines for effective governance
Different to other board business?

- Limited information
- Limited time to make decisions
- Insufficient resources
Decision-making

• Role of the Chair
• Cognitive factors
  – “First cab off the rank” solution
  – Over-focus of attention
  – Loss of focus
Political context

- Do we really do things differently out here?
- Special circumstances
- Squeakiest wheels?
- Who is representing your stakeholders?
- Governance schmuverance?
Preparing before disaster strikes

- Disaster recovery funding
- More than just IT planning
- Be properly insured
- A big role for HR
- Manage expectations
Guidelines for effective governance – natural disasters

- Ask about disaster plans
- Value disaster preparation
- Include a range of scenarios
- Prioritise stakeholder relationships
- Understand that the plan is never complete
- Have effective board processes