



bushfire&natural  
**HAZARDS**CRC

# INTEGRATED URBAN PLANNING FOR NATURAL HAZARD MITIGATION

**Alan March**

Melbourne School of Design, University of Melbourne, Victoria

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# Increased Challenges on Human Settlements due to Extreme Events

Context of Complex Interactive Systems

Cascading Events and Settlement Change

- Increased Density of Building and People
- Rapid Population Growth without scenario testing
- Reliance on Electrical / Mechanised Systems
- Focus on Coasts and Rivers
- Legacy Building and Settlement Patterns
- Sprawl and Poor Design in Wildfire Prone Areas
- Loss of Natural Cooling eg Trees and Green Space
- Increased Social Isolation and Disconnection

## Direct Interactions with the Built Environment & Complex Event Scenarios Possible

- Heatwave
- Storm Surge and Erosion
- Bushfire
- Overland Flow and Flood
- Storms and Loss of Power



Melbourne Dust Storm 1983

# Issues and Opportunities: Short Term and Long Term Decisions

1. **Integration** of planning and risk assessment **processes**
2. The need for **shared forums** at appropriate levels and sequencing improvements
3. Use of a **wider range of planning tools**.
4. Planning actions across the whole **range of PRR / PPRR**.
5. **Terminology** inconsistency
6. Major and fast track “**extraordinary**” **processes**?
7. **Uncoordinated funding** allocation for projects
8. Long term risk assessment and **strategic forward planning**
9. A need for ideals and **best practice approaches** in urban planning acknowledging risk
10. Uncertainty regarding **municipalities’** role
11. Lack of attention to **equity and diverse social capabilities**
12. **Exclusion of transport and infrastructure**
13. Political and ministerial **executive control of urban planning**
14. **“Ignored” hazards : heatwave, landslip, storm, storm surge, food security and extreme events, and environmental crisis.**
15. Higher **density** and high rise settlements
16. **Legacy** risks
17. Improved **education**

# Integrated Urban Planning for Natural Hazard Mitigation Analytical Framework

**Legend**

- Disaster Risk Reduction Strategies
- Domains of Action/Agency



Risk Perception / Risk Translation

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