



bushfire&natural
HAZARDSCRC

MAPPING AND UNDERSTANDING NATURAL HAZARD VULNERABILITY AND RISK AT THE INSTITUTIONAL SCALE

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Australian Government
Department of Industry,
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Centres Programme

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OUR PROJECT AND THE TEAM

Researchers

- 1) Roger Jones VU
- 2) Celeste Young VU
- 3) John Symons VU

End Users

- 1) Pauline Cole DCSI, SA
- 2) Hamish Webb DELWP, Vic
- 3) Ed Pikusa DEWAR, SA
- 4) Patrick Schell, RFS, NSW
- 5) Chris Irvine, SES, Tas
- 6) Greg Christopher, EMV Vic
- 7) Michael McKiterick, AGEM
Vic

WHAT WE SAID WE WOULD DO

The project objective is to develop a framework for understanding the ownership of risks from bushfires and natural hazards at the institutional level in order to improve risk governance

through a range of measures, including:

- investment strategies **Implicit**
- resilience and **If the process works, yes**
- risk mitigation **Explicit**

RESEARCH SCOPE

Institutions:

Federal, state/territory and local government, business and industry and community.

Values (tangible and intangible)

Built infrastructure, social, environmental and Economic.

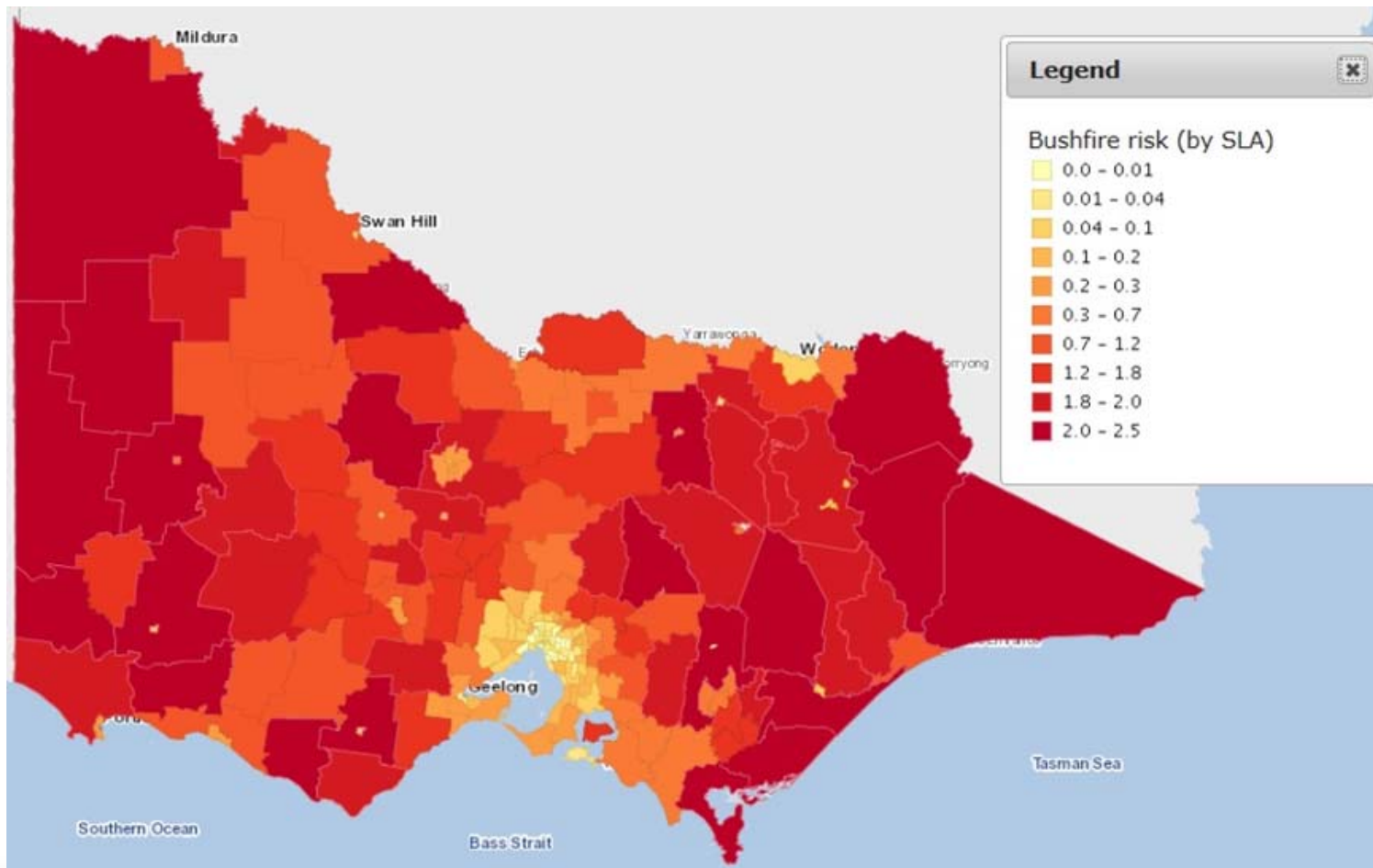
Hazards:

Fire, Flood, Severe storm (includes wind and hail), Heatwave.

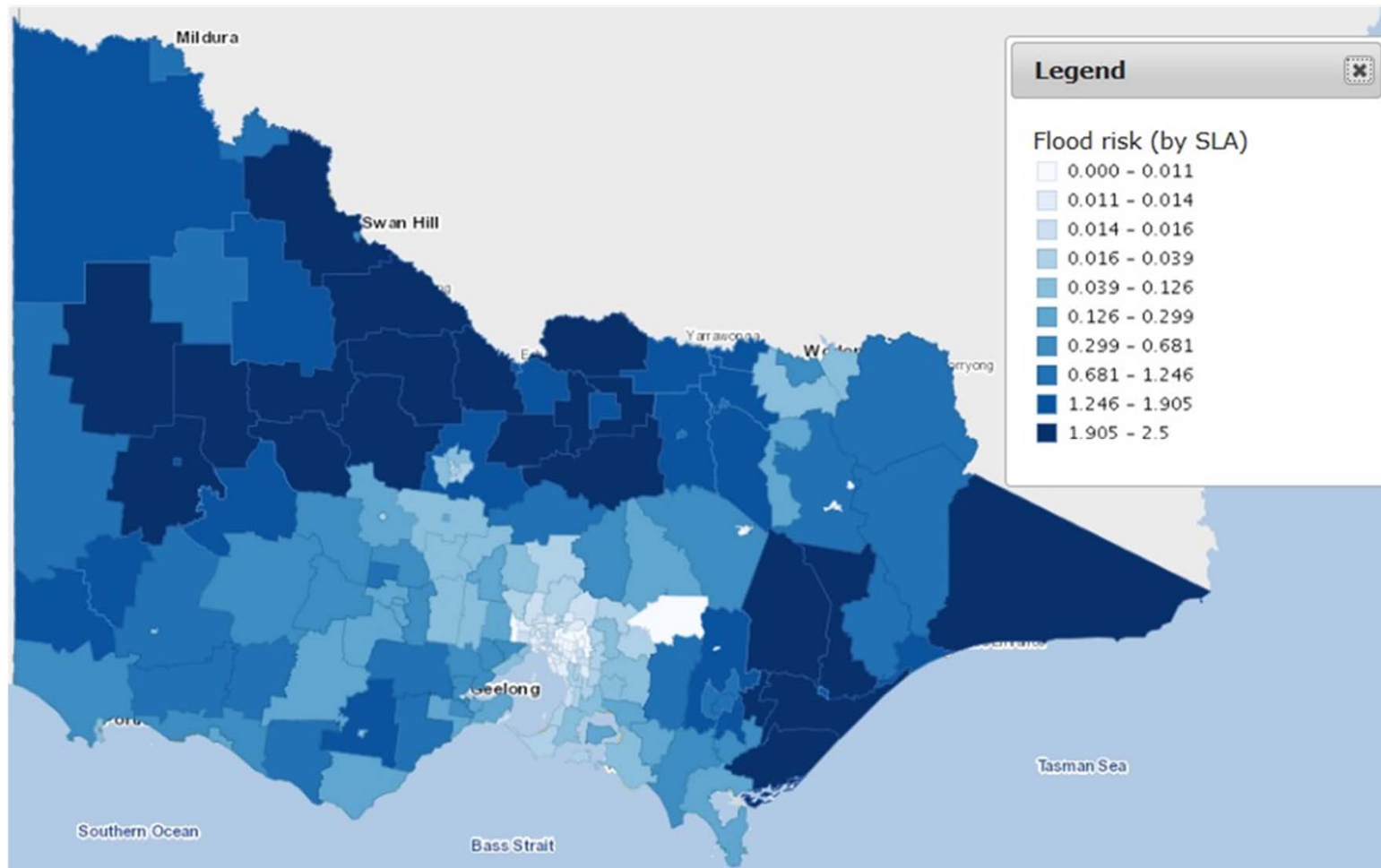
ECONOMIC GEOGRAPHY

| | Sensitivity | | | |
|------------|-------------|----------|----------|----------|
| Exposure | Negligible | Low | Moderate | High |
| Negligible | | | | Low |
| Low | | | Low | Moderate |
| Moderate | | Low | Moderate | High |
| High | Low | Moderate | High | High |

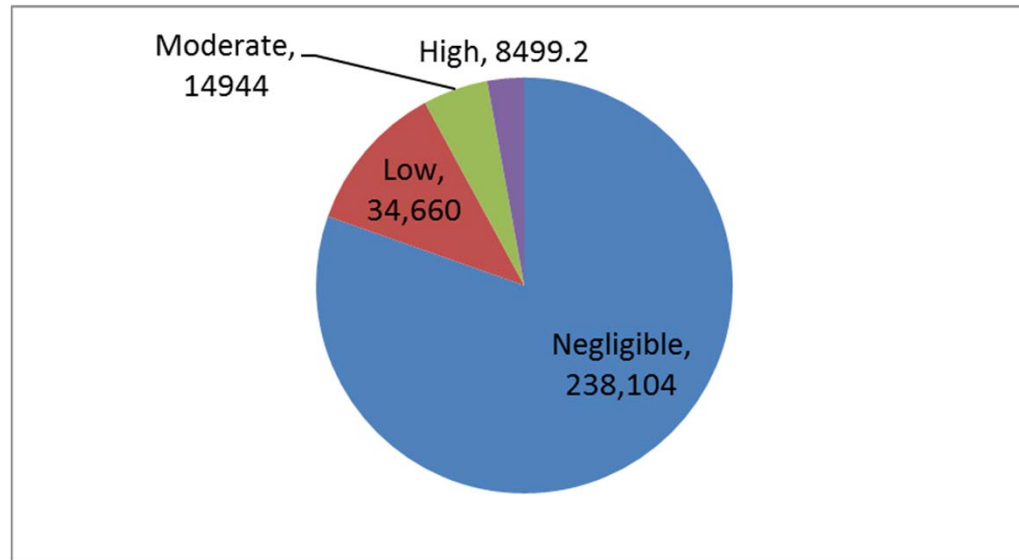
ECONOMIC VULNERABILITY TO BUSHFIRE BY SLA



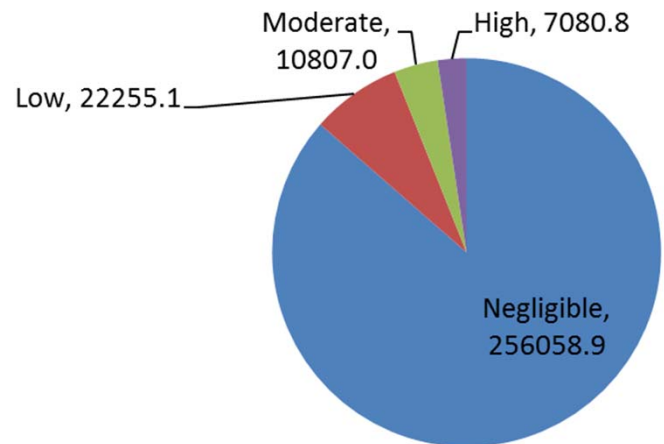
ECONOMIC VULNERABILITY TO RIVERINE FLOOD BY SLA



ECONOMIC VULNERABILITY FOR VICTORIA

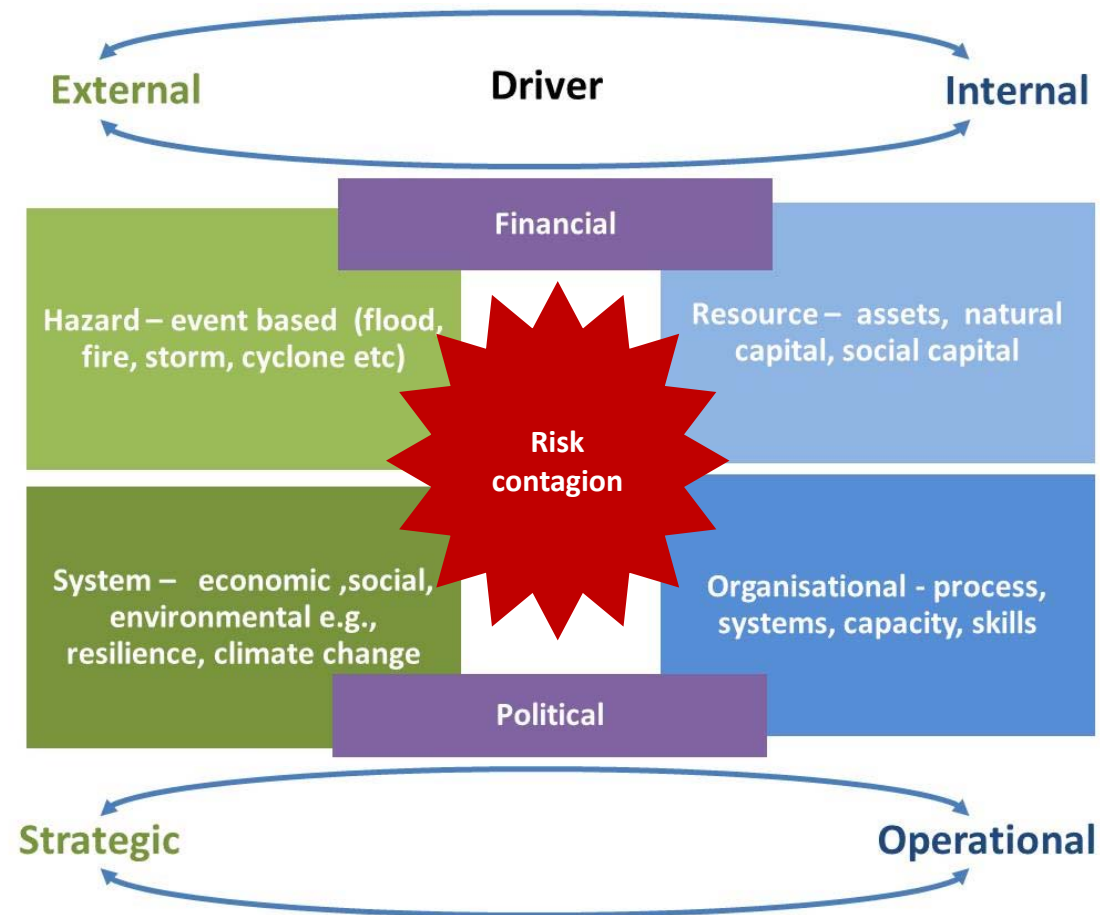


Fire



Flood

UNDERSTANDING THE SYSTEM OF RISK



DETERMINING RISK OWNERSHIP

Our definition combined two definitions:

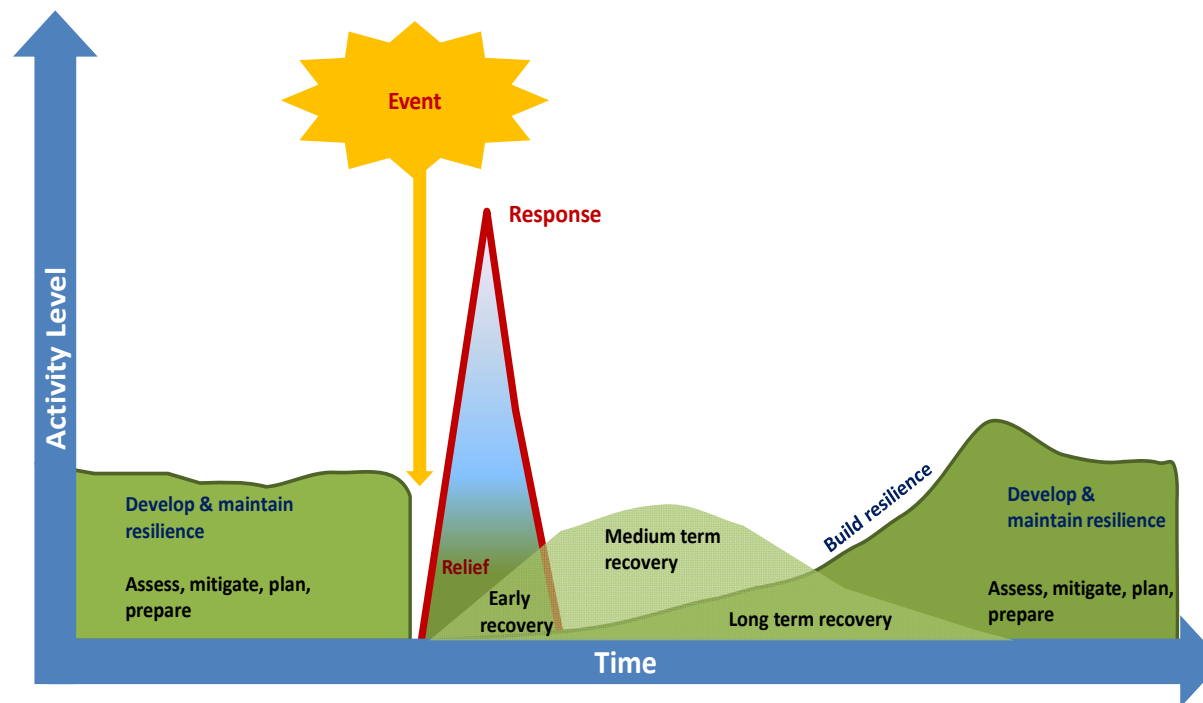
- Whoever **owns the assets** owns the risk (Productivity Commission 2014)
- Person or entity with the accountability and authority to **manage a risk** (ISO 31000)

This was assessed across: Short (2-12 months), (medium) 1-2 years, (long) 2+ years timeframes

using the **RAP** criteria:

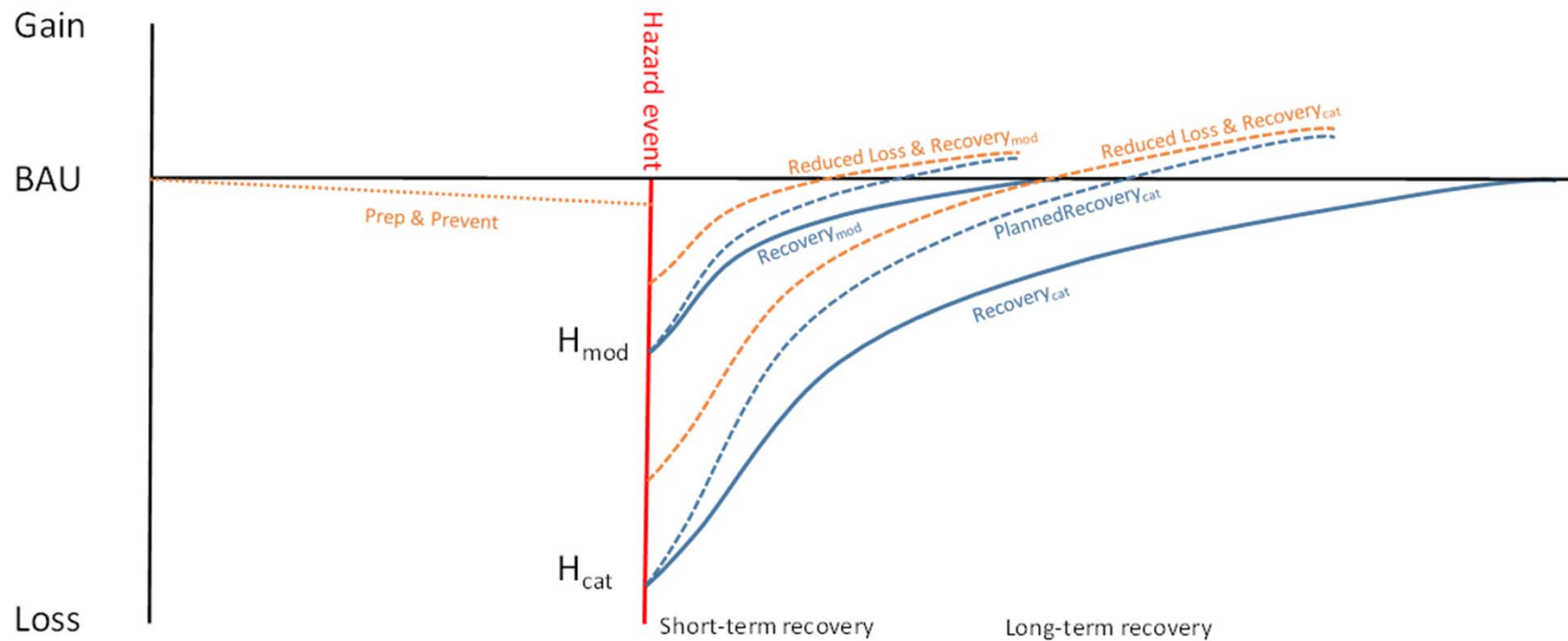
- Who is **responsible**?
- Who is **accountable**?
- Who **pays**?

STRATEGIC PLANNING TIMELINE



Activity based allocations natural hazard management, Young et al (2015)

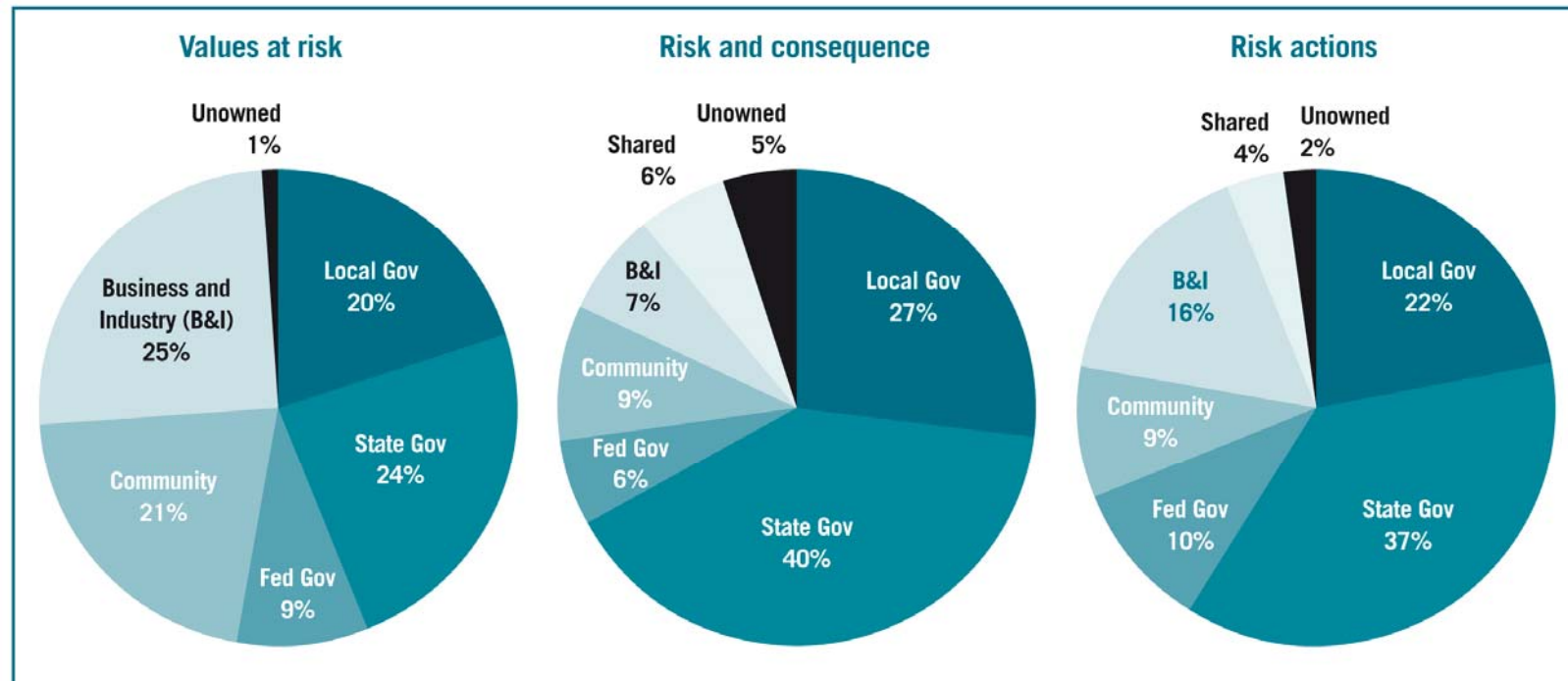
ECONOMIC FRAMEWORK FOR STRATEGIC PLANNING



WHAT WE FOUND

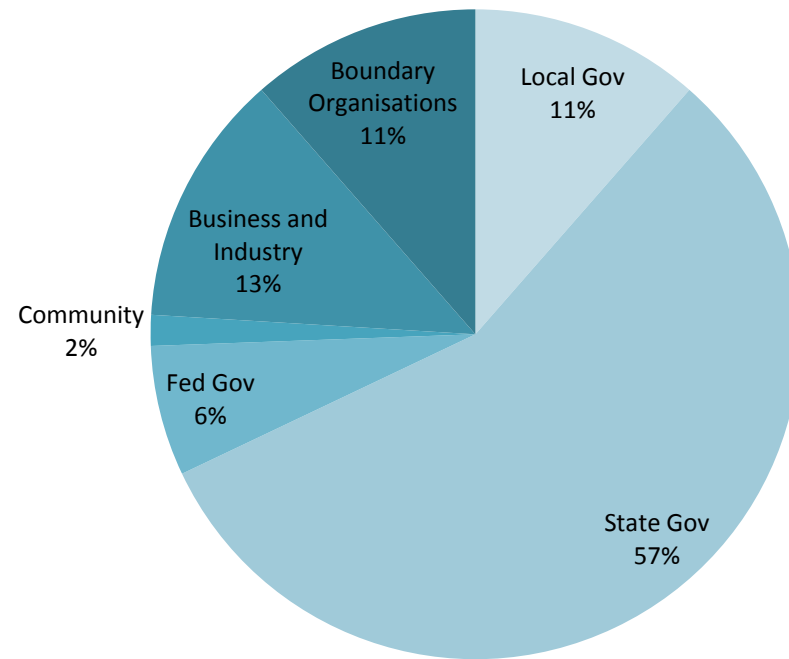


WHAT WE FOUND



WHAT WE HAVE FOUND

State Emergency Management Plans



RISK OWNERSHIP FRAMEWORK

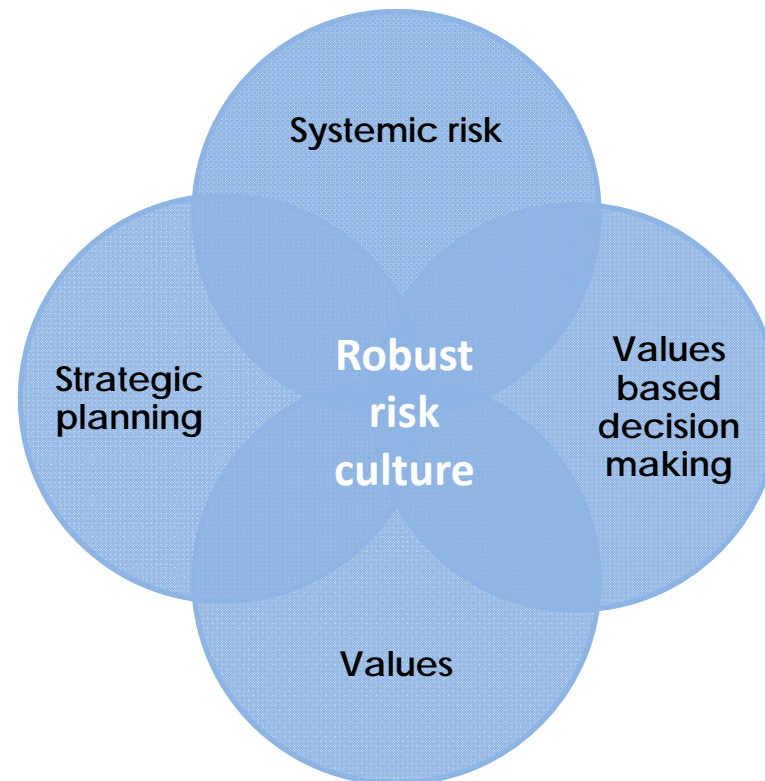


KEY FINDINGS

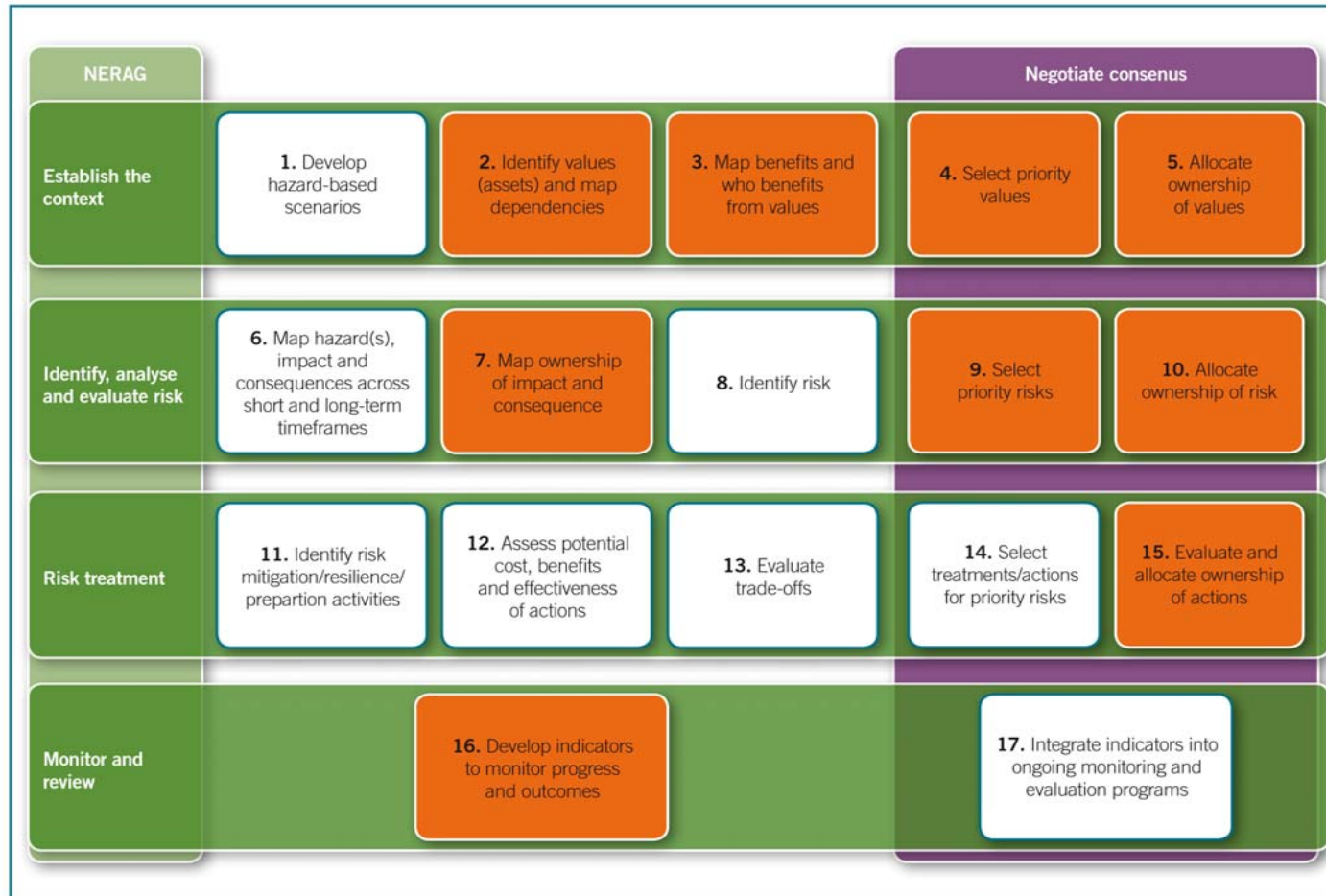
- **Risk ownership is a negotiated process** so how you undertake that process is crucial.
- **Skills, capacity and tools development** are needed to support better strategic planning and evaluation of values (particularly intangibles) and allocation and uptake of risk ownership.
- Effective risk ownership, requires understanding of **who** the owner is, **what** the allocation is for, **how** it is allocated, and **if** the associated responsibilities can be fulfilled.

STEP 1: CREATE UNDERSTANDING

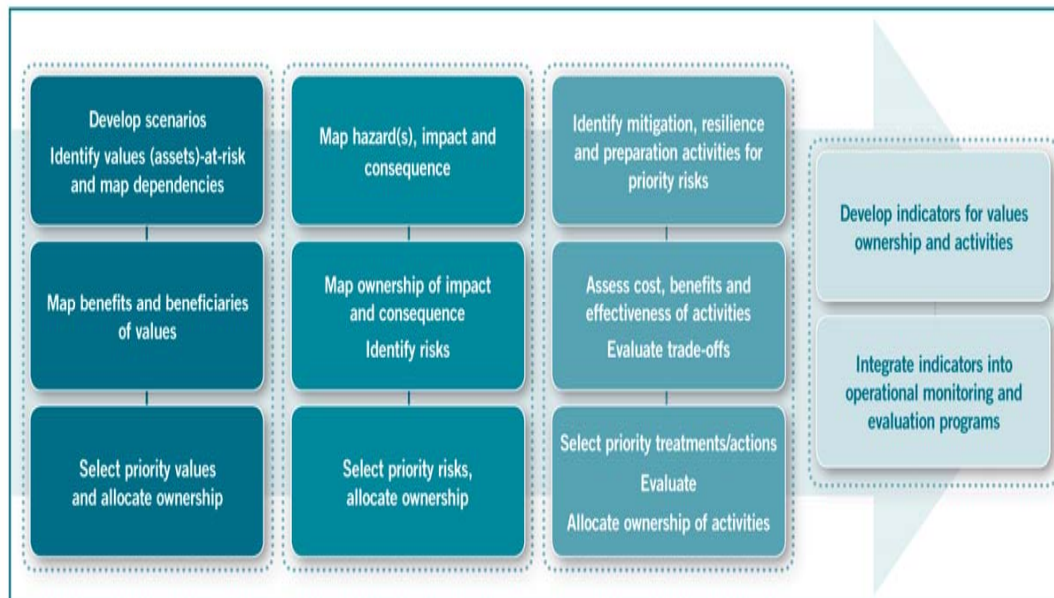
Key concepts and knowledge areas needed to support risk ownership and strategic decision making.



INTEGRATING IT INTO THE NERAG



STEP 2: PROCESS COMPONENTS



A values based decision making process that links ownership of values to ownership of risk.

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RISK OWNERSHIP FRAMEWORK

RISK OWNERSHIP FRAMEWORK FOR EMERGENCY MANAGEMENT POLICY AND PRACTICE

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VICTORIA INSTITUTE OF STRATEGIC ECONOMIC STUDIES

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WHERE TO NEXT?

On-ground testing of the Risk Ownership Framework

Training and outreach component of the Framework funded by the CRC

Continuing development of the vulnerability mapping and analysis with Vic DELWP

THANK YOU

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