UNDERSTANDING BUSHFIRE RISK IN THE BLUE MOUNTAINS, AUSTRALIA

- How do people understand & respond to the risk of fire?

- How is the fire risk message communicated?

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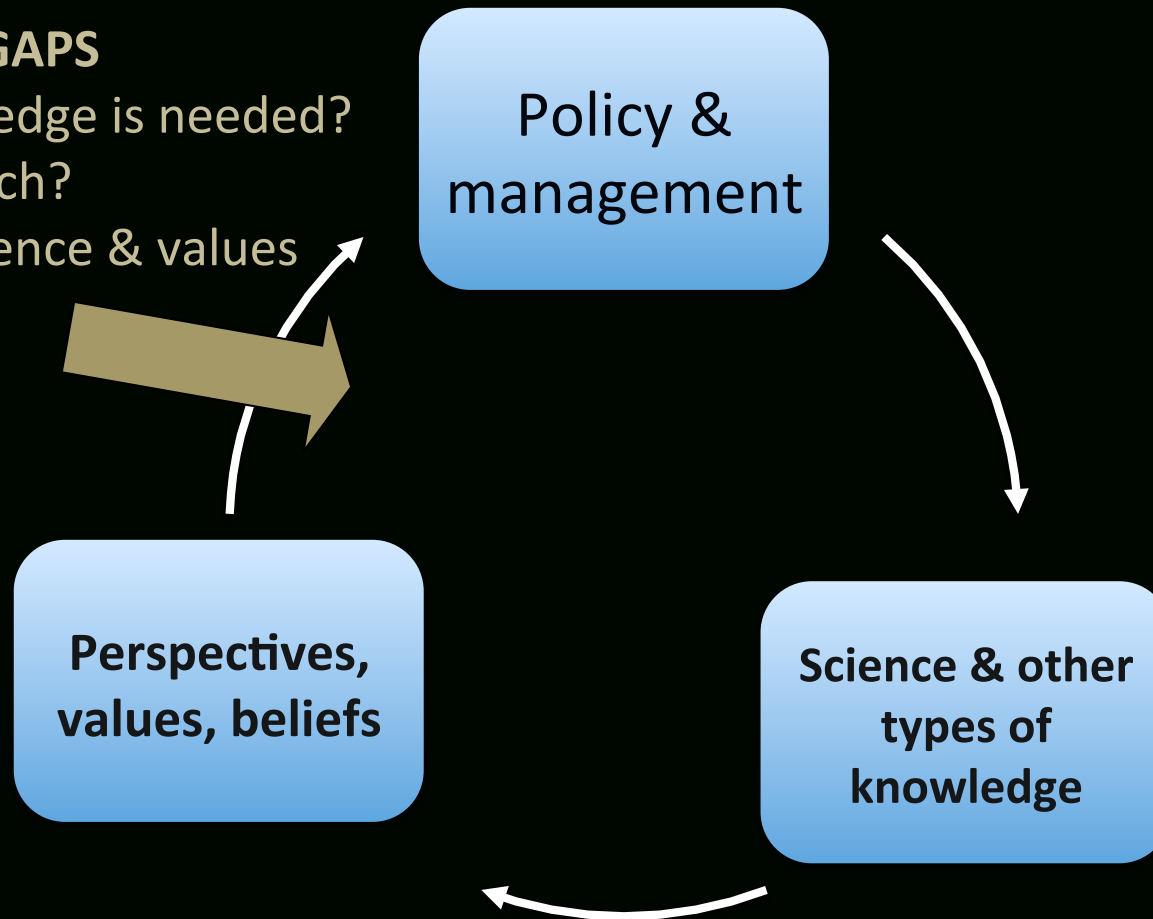
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BRIDGE THE GAPS
- What knowledge is needed?
- What research?
→ Uptake science & values into decisions

Policy & management

Perspectives, values, beliefs

Science & other types of knowledge

Australia – fire is fundamental to its nature

- Changing fire practices
- Fire management is one of the most important tasks in managing protected areas
- Serious ecological & social impacts of unmanaged fire
- Trend of increasing severe wildfire

Socio-ecological system

Natural system	Social system
episodic destruction & regrowth of biomass	stability of structures
unpredictability of fire & ecosystem dynamics	predictability of socioeconomic dynamics
Biomass that needs to burn	protection of human life

→ Unmanaged fire threatens both systems

→ Reconciling the two systems?

Policy trends – recent developments in disaster management in Australia

- 2009 'Black Saturday' fires in sth east Australia
    - 173 deaths
    - "worst natural disaster in Australia's recorded history"
    - → Policy trigger - a game changer in terms of fire mgmt & response in Australia
    - → National Strategy for Disaster Resilience 2011
        - → Collective responsibility for resilience (e.g. empowering communities through knowledge of risk)
    - → **Policy of shared responsibility**
        - → achieving increased disaster resilience no longer solely the domain of emergency mgmt agencies
            - → now a shared responsibility across society
            - → conceptual shift from the 'professionalisation of responsibility' within emergency management agencies to active community engagement & empowerment to investigate their own risks & develop their own solutions (resilient communities)

World Heritage status for 2 natural criteria:

- Representation of *Eucalypt sp.*
- A living laboratory for the study of evolution

→ Fire as key determinant of eucalypt diversity

The situation in the Blue Mountains

➢ Wildland-Urban Interface:
  ➢ Urban corridor (80,000 people) bisects the protected area
  ➢ Settlements on top of ridges

➢ Eucalypt-dominated forest – fire prone - key World Heritage value

➢ Diverse communities (urban, multi-cultural, new immigrants)
  ➢ Fire-naïve cultures

➢ Loss of traditional knowledge

➢ Changed fire regimes

➢ Climate change

Fire mgmt goals (Blue Mountains)

Bushfire Risk Management Plan 2010	OEH/NPWS 2012-2021
reduce the number of human-induced bushfire ignitions	protect life, property & community assets
manage fuel	cooperative & coordinated fire mgmt
reduce the community's vulnerability	manage fire regimes for biodiversity values
contain fires	protect Aboriginal sites & places
conserve and protect the World Heritage values	assist other agencies, landholders & Aboriginal communities to develop fire management practices that conserve biodiversity & cultural heritage

→ policies emphasize fuel reduction (alignment between agencies)

→ a command and control approach that prioritises protection of human life & property?

→ how do we build shared responsibility? Is there adequate focus on building community resilience & building fire-adapted communities that live within a complex socio-ecological system?

Wildfire suppression policy - to reduce risk of uncontrollable wildfire & protect human life & property

contemporary thinking in community engagement

- Inadequacy of simple passive dissemination of information
- Localized approaches
- Shared narratives (about past bushfire experiences)
- Value of local knowledge over fire agency knowledge (that can be generic)
- How risk is perceived
- Risk communication strategies need to be framed to reinforce values of self-responsibility and risk acceptance
- How do people interpret information and what motivates personal action? - values & beliefs
- Co-construction (shared understanding) of risk

- How effective is community engagement in the Blue Mountains?

- Local measures of success?
  - Number of Bushfire Survival Plans filled out
    - not a good measure

Blue Mtns fire Oct 2013

- 200 homes lost, another 200 damaged
- $70million loss to local tourism industry in the 15 weeks after the fire
- $30million combat cost (Rural Fire Service)

Class action response to 2013 fire:

- Residents sue energy company after accusing them of negligence
  - Class action launched in NSW Supreme Court for $200 million in damages
  - About 150 people have joined the case so far
  - Case will allege the energy company failed to cut trees which sparked the blaze
  - Lawyer: *"residents have suffered losses that are not their fault. They are losses that would not have occurred had the right procedures been followed.... There is **no reason why these residents should just accept that this fire occurred**"*

The dominant narrative

- changing it from fear & blame (relating to a sense of separation from the natural environment)

    to one that

- *"constructs bushfire as part of nature and life"* ... and based upon *"bushfire as a socio-ecological phenomenon"*   *(T. O'Gorman 2014 unpublished)*

Risk perception

- is an outcome of the socio-ecological system - which in the Blue Mtns can be characterised as a fire-dependent natural system infiltrated by rural and urban residents who view fire as an undesirable threat

- how communities understand wildfire & accept risk reflects how they relate to the natural environment ... seeing fire as a threat or as a natural part of the landscape

➢ Risk perception is key to what influences a person's behaviour (fire preparedness & response)
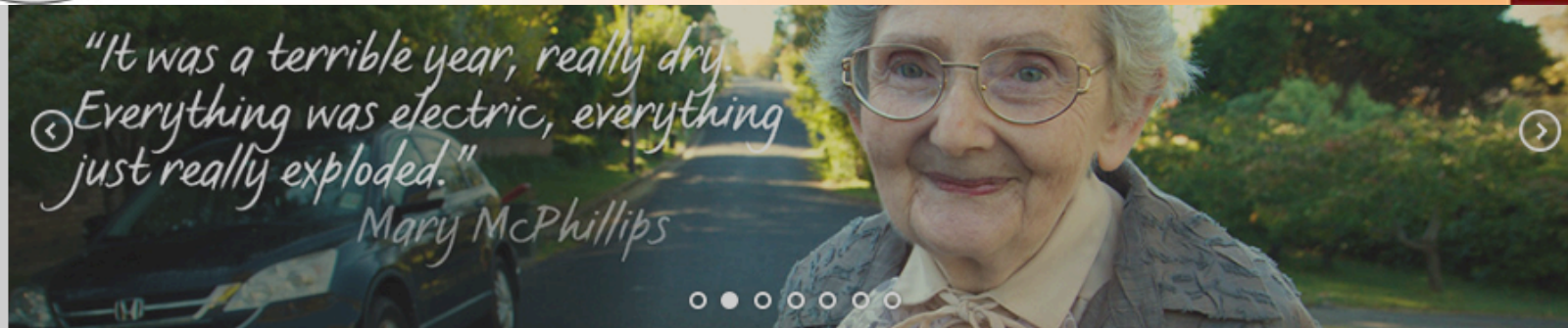
Challenges to understanding fire as natural & inevitable (& thus changing risk perception)

- spatial & temporal lags in wildfire effects (lack of immediacy) - damaging wildlife is typically a rare event

- most people living in the Blue Mountains will typically not experience a dangerous fire
  – yet they need to be prepared

- a transient population & a high level of immigrants to the region

The Story of the 1957 Leura Fires
A lesson in time

FIRE Stories

"It was a terrible year, really dry. Everything was electric, everything just really exploded."
Mary McPhillips

Fire Stories: A Lesson in Time examines the 1957 Leura Fires that destroyed over 170 homes and left the town devastated. Through interviews of survivors and witnesses, the stories from the '57 fires come alive. Fire Stories shows the difference between community preparedness today and from 55 years ago.

Fire Stories - a lesson in time

John Gabriel
Brigade President & Founding Member
Wentworth Falls Rural Fire Service

1957 fires burnt over 170 homes
- Film of archival footage
- Personal written narratives
www.fire.bmwhi.org.au

community engagement that raises risk awareness
- enhancing learning and social memory to improve adaptation & resilience

In sum…

If hazardous wildfires are inevitable (like climate change) & if mitigation is not possible (beyond 'command & control') …

then we must pay our attention to the **capacity to cope** with the inevitability of fire

- **Risk perception:** Better communication that works with internalising risk awareness is at the heart of 'dealing with' disasters (e.g. 'Fire Stories'?)

- **Re-framing: Change the dominant narrative** from one of fear & blame (which relates to our sense of separation from the natural environment) … to viewing fire as a natural & inevitable hazard
  - If the community accept fire in this way, then policy can adapt to better meet the needs of local socio-ecological systems

- **Goals:** Fire management goals to bring more explicit focus on *'building fire-adapted communities that live within a complex socio-ecological system'*