

# Future Bushfire Scenarios and Economics

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## The problem

Understanding of bushfire impact on human communities, the environment and the economy is limited and, in some cases, anecdotal at best (although see Wettenhall 1975, Healey 1985, Bennetton & Cashin 1997 for preliminary economic analyses).

Understanding of this under future alternate scenarios of climate/global change are largely lacking because the scenario and economic modelling have been undertaken independently.

Thus policy and decision-making is not fully informed (See Dovers *et al.* 2004).

The challenge is to do rigorous work in a new area, involving a synthesis of scenarios and economics, that will contribute enhanced solutions to fire, which is “multi-stakeholder, multi-scale, multi-variable problem” (Gill 2005).



## Expected outcomes

- Better insight into a range of alternate future fire scenarios
- Insights into key examples of likely economic consequences
- Facilitation of significantly improved decision making/policy among a range of stakeholders and within specific ‘industries’ (e.g. insurance, water)
- Enhanced mutual understanding between fire modelling groups, and between science, economics and policy communities
- Peer-reviewed, published science on the interaction between fire scenarios and economic consequences

## Proposed research

### Future Scenarios

#### Questions

- What are the key variables of future bushfire scenarios relevant to projects, including economics, in the Bushfire CRC?
- What critical, evidence-based knowledge is available to parameterise a range of alternate future scenarios of bushfire in Australia
- What are the likely future scenarios of bushfire in selected areas of Australia?
- How will these future scenarios impact on bushfire-related dynamics, including economics?

#### Approach

- Workshop with selected key research leaders
- Knowledge review (literature, state/federal agencies)
- Synthesis of new scenarios based on requirements of researchers and knowledge available
- Application of future bushfire scenarios to selected economic, and other, analyses

### Economics

#### Questions

- What are appropriate economic methods for understanding bushfire costs & benefits across a range of values?
- What are key examples of economic costs and benefits (from whose point of view) associated with major bushfire events in Australia?
- What are key examples of the preliminary projected economic costs and benefits associated with future bushfires in Australia, based on future scenarios developed by this project?

#### Approach

- Knowledge review and economist workshop
- Selected economic analyses informed by milestone question 1. Aiming for robust/simple models capable of flexible interface with the fire scenarios, and accessibility and transparency
- Selected economic analysis driven by future scenarios of bushfire in selected regions of Australia



## References

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