



bushfire&natural
HAZARDSCRC

DECISION SUPPORT SYSTEM FOR ASSESSMENT OF POLICY & PLANNING INVESTMENT OPTIONS FOR OPTIMAL NATURAL HAZARD MITIGATION

Holger Maier

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An Australian Government Initiative



PRESENTATION OUTLINE

- 1) Project Team
- 2) Problem Statement
- 3) Objectives
- 4) Major Outcomes

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PROJECT TEAM - RESEARCHERS

- 1) Prof Holger Maier (U of A – Project Leader)
- 2) A/Prof Hedwig van Delden (U of A / RIKS)
- 3) Dr Aaron Zecchin (U of A)
- 4) Prof Graeme Dandy (U of A)
- 5) Dr Ariella Helfgott (U of A)
- 6) Jeff Newman (U of A)

- 7) Graeme Riddell (U of A – PhD Student)
- 8) Charles Newland (U of A – PhD Student)

PROJECT TEAM – END-USERS

- 1) Ed Pikusa (SA Fire and Emergency Services Commission)
- 2) Alen Slijepcevic (Country Fire Authority, VIC)
- 3) Samantha Ward (Commonwealth Attorney-General's Department)
- 4) Sandra Wight (State Fire Management Council, TAS)
- 5) Stuart Midgley (NSW Rural Fire Service)
- 6) David Launder (Metropolitan Fire Service, SA)

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WE ALL KNOW MITIGATION IS COST EFFECTIVE ...

'It is generally accepted in the emergency management community that.

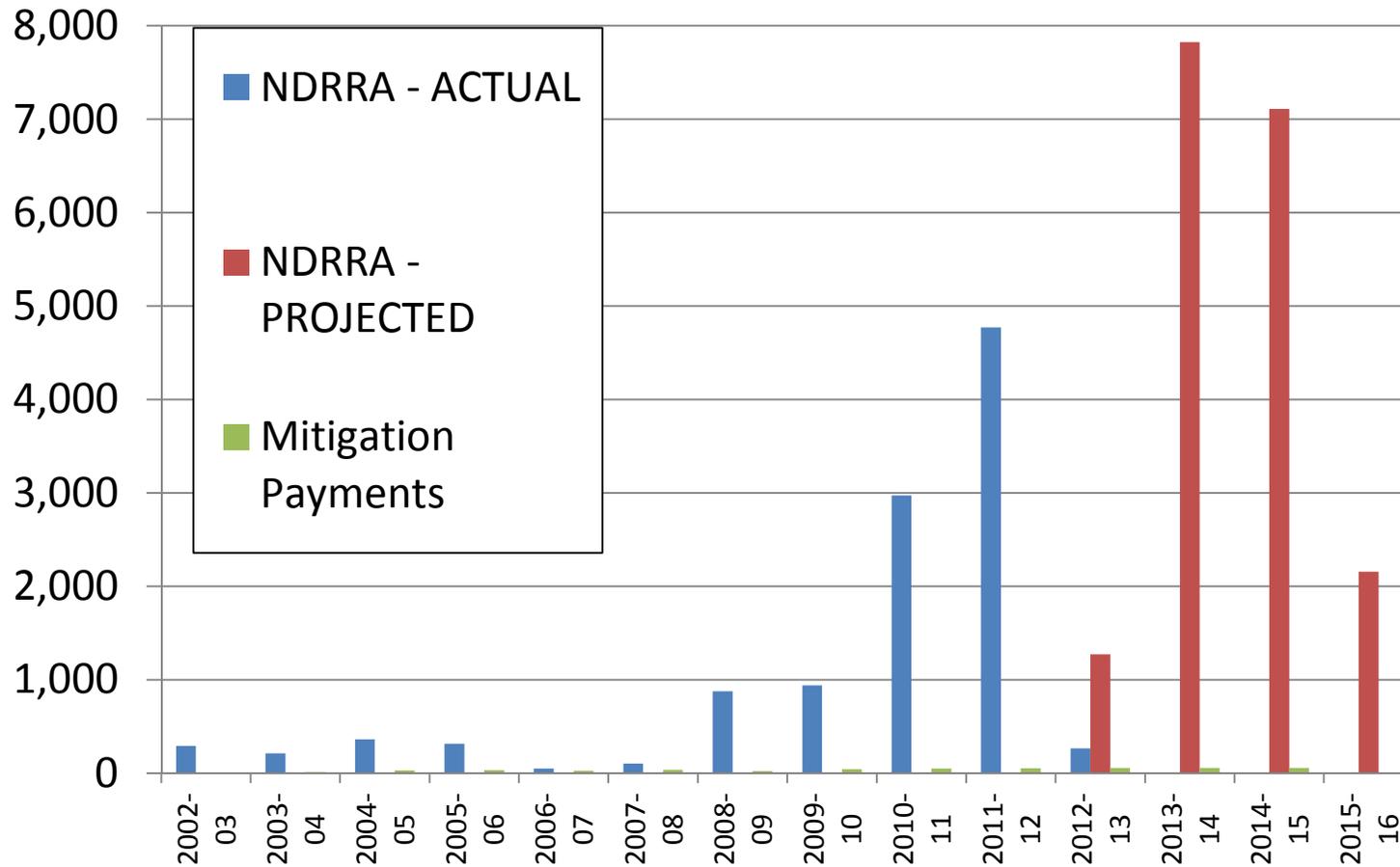
one dollar spent on mitigation can save at least two dollars in recovery costs

Figures from overseas experience, particularly in the UK, have indicated that, **as much as eight recovery dollars may be saved for every one mitigation dollar spent.'**

Robert McLelland

Commonwealth Attorney General 25 March 2011

MITIGATION VS RELIEF SPENDING



Relief/Recovery: \$27,364m in 13 years

Mitigation: \$480m in 13 years

Large number
of options

Competing
objectives

Community
expectation



Risk and
uncertainty

Insufficient
data /
information

Lack of
measurable
criteria

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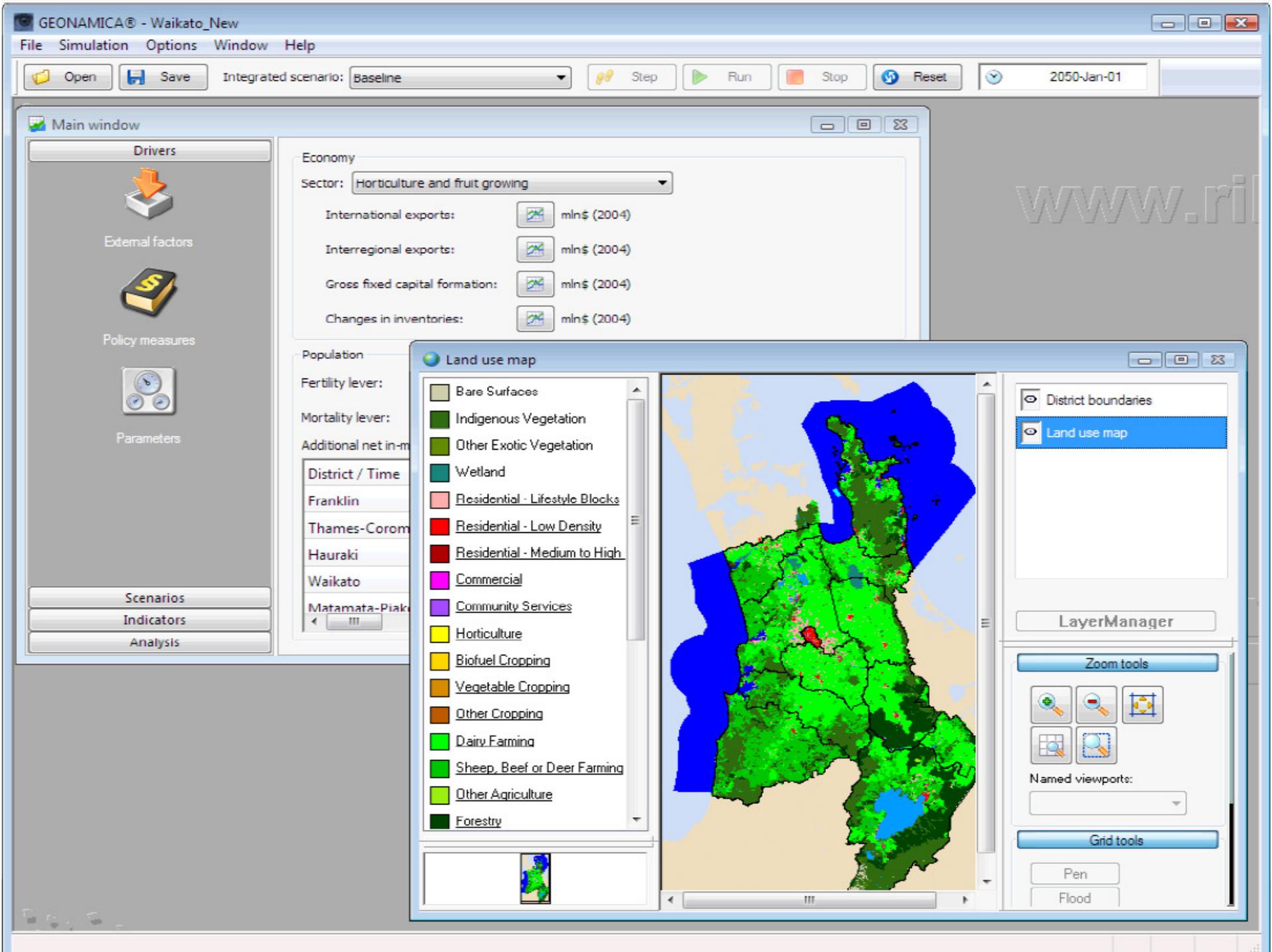
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OBJECTIVES

- 1) To develop a **systematic and transparent approach** to sifting through, evaluating and ranking disaster and natural hazard mitigation options using analytical processes and tools.
- 2) To develop **prototype decision support software tools** that implement the above approach for three end-user defined case studies.



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MAJOR OUTCOMES (1)

- 1) Utilisation of a **systematic** and **transparent** approach to evaluating disaster and natural hazard mitigation options (e.g. infrastructure, land use, policy).
- 2) The ability to make **more strategic** and **less responsive** decisions in relation to mitigating the impact of disasters and natural hazards as a result of the availability of better information.

MAJOR OUTCOMES (2)

- 3) The availability of **prototype decision support software tools** for **three** end-user defined **case studies** to enable recommended options to be identified by sifting through and evaluating and ranking a large number of options).
- 4) A better understanding of the **trade-offs between economic, environmental and/or social objectives** for different mitigation options for three end-user defined case studies.

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