

From hectares to tailor-made solutions

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How does the diverse and changing biophysical, climatic and human context of southern Australia influence prescribed burning effectiveness?

MEASURING EFFECTIVENESS

Despite increasing interest in the effectiveness of prescribed burning, a unified analysis is lacking.

This project takes a systematic approach to the question of prescribed burning effectiveness by integrating multiple methods and datasets (Figure 1).

Results will be presented in a *Prescribed Burning Atlas*, to be developed in consultation with end users to maximise utilisation.

Fire-related, biophysical & human datasets

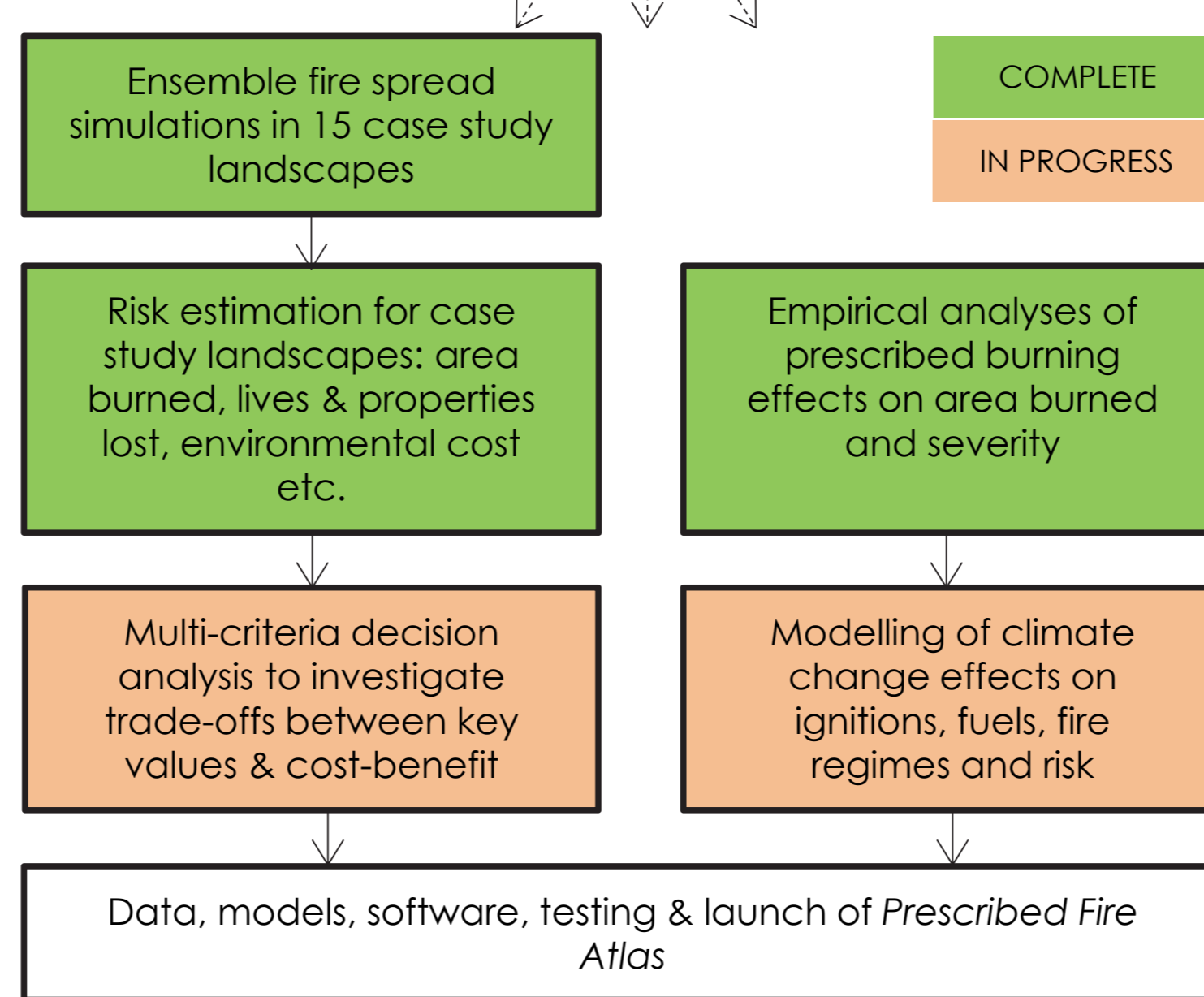


Figure 1. Project methodology

FINDINGS TO DATE

- 1) The response of risk to treatment is often non-linear.
- 2) The response of risk to treatment varies by metric
- 3) Normalising results to baseline risk (no treatment) allows comparison of relative effects between regions (Figure 2).

The project focus is currently multi-criteria decision analysis and climate change effects. Development of data, models and software for the Prescribed Burning Atlas has begun.

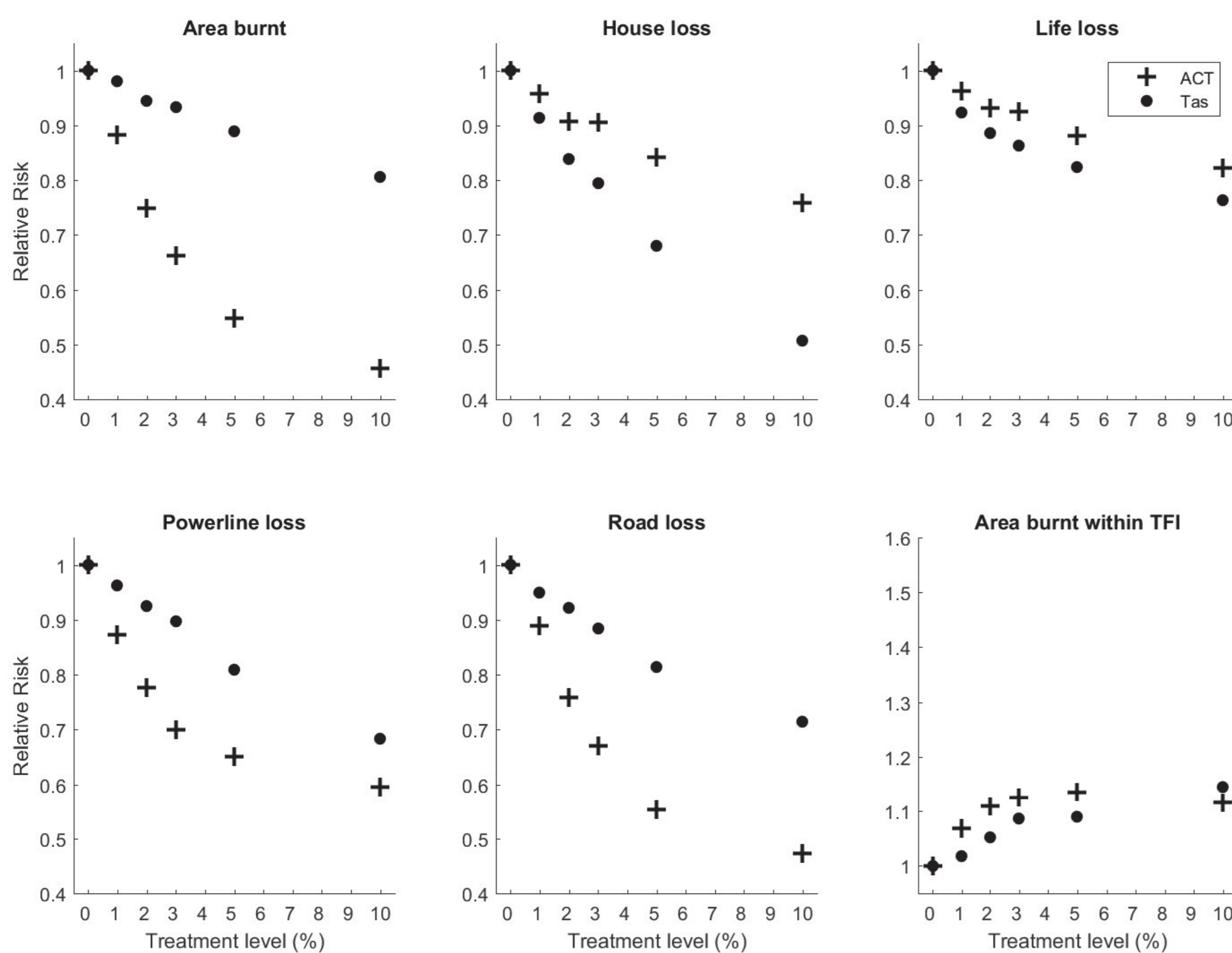


Figure 2. Normalised risk response to different rates of prescribed burning in ACT and Tasmania case study landscapes for area burnt, house loss, life loss, road loss, powerline loss and area burnt within tolerable fire interval (TFI).

END USER STATEMENT

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One of the main challenges of using prescribed burning as a risk reduction tool is to decide where and how these fires will be introduced so the best cost-benefit for it can be achieved. This project is demonstrating that there are considerable variations in the rate of risk reduction achieved by prescribed burning to a variety of values in different areas. These results will allow managers to gauge their trade-offs and choose which tactics can be used for the best management options.