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Economics of Bushfire-Risk Mitigation

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Poster presented at the 64th AARES Annual Conference, Perth, Western Australia
12-14 February 2020.

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Economics of Bushfire-Risk Mitigation

David Pannell, Veronique Florec and Fiona Dempster



Question

How do various options for bushfire-risk mitigation perform economically?



Background

Wildfires in Australia regularly cause major losses of life, property, water resources, wildlife and habitat.

Various mitigation options exist and are applied to varying degrees across Australia, including: prescribed burning, land-use planning, retrofitting houses to reduce their flammability, and fire breaks.

We have undertaken economic analyses of these options for diverse case studies in four Australian states and New Zealand.

Fire economics is about trade-offs between various costs (of risk mitigation, fire suppression, and losses due to fire).



Key messages

Prescribed burning (PB) is often worth doing but it is not a panacea.

The big costs are from catastrophic fires, but PB makes little difference to them.

Even so, the main benefits of PB can be from small effects on catastrophic fires.

The optimal area of prescribed burning is not clear-cut but around 5% per year is indicated in several of our case studies.

Fire risk is highly sensitive to weather so climate change is relevant.

Land-use planning to keep assets out of the highest risk areas has been under-emphasised in the current debate.

Retrofitting has costs well in excess of benefits in two case studies.

