

MANAGING WILDFIRE RISK IN AUSTRALIA

Avoiding wildfire disasters and respecting fire's role in nature

- Wildfire disasters are being avoided in Australia because many groups of people are coordinating actions and working towards a common goal.
- Government, communities and businesses are investing in wildfire risk reduction.
- Good data helps people take specific actions to prevent and minimise fires and save lives.
- Wildfire risk reduction demonstrates life-saving and socio-economic benefits.

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Aftermath of wildfires in Australia, and work to avoid wildfire disasters (Images collage: various)



Brief general context:

- Fire has been part of Australia's natural cycle and landscape for thousands of years.
- When Europeans arrived over 200 years ago and began to shape and develop the land, they did not appreciate how the consequences of their actions would exacerbate wildfire.
- Wildfires in Australia in recent decades have cost lives, ruined livelihoods, devastated huge flora and fauna, affected air quality, and released greenhouse gases into the atmosphere. The economic costs of wildfires in recent years have been in the billions of dollars.
- Learnings from past wildfire events are being heeded. Wildfire disasters are being avoided, and lives and biodiversity are being protected.

The right mindset:

- The commitment of many groups of people to work together is creating beneficial outcomes.
- A revised simpler fire ratings system helps instil a mindset of "being ready to act".

The right investment / funding:

- Federal and state governments are investing A\$200m a year from 2022 to 2027.
- Rural Fire Services and private forestry businesses are investing in wildfire management.
- Local authorities are also committing funds, and local communities are finding ways to invest in specific resources to enable them to address the threat of wildfire.
- Technology investment to predict, spot, analyse and manage wildfires is important.

Good governance:

- Federal and state governments are acting on recommendations by experts and committees.
- Integrated governance, from state to local levels, is crucial to coordinating action.
- Integrated land management by state governments and private sector foresters adds value.
- Energy businesses monitor and maintain their infrastructure (transmission lines etc.).
- Indigenous knowledge and expertise is integrated into land management processes.

Good data:

- Data and mapping of local fuel loads and sources is continually developed and improved.
- Data for modelling is improving the ability to predict how fires can start and spread, and how to take action to stop them becoming disasters including “What if?” running simulations.
- Tools to support fire modelling are widely used and are also being improved.
- Earth observations monitor ground and weather conditions, and support fire alerts.

Meaningful inclusion:

- Government at all levels focuses on clear engagement with the public.
- Local community groups are engaged and supported to help prevent wildfire disasters.

Meaningful targets:

- The outcomes of investment to protect lives and biodiversity are assessed.
- The economic benefits of good home fire protection by homeowners in at risk areas (which can be more than offset against the rise in property values) are communicated.

Examples of action to avoid disasters:

- A business + science team is assessing drone use to spot fires early and alert authorities.
- Online mapping tools and warning systems are providing effective early warnings.
- AI is being investigated to support the prevention of wildfire disasters and early warnings.
- Planning and zoning for the wildland-urban interface is improving.
- Regulations for house construction are improving (but are not retrospective to existing houses).
- Insurers are supporting and funding research and development to fire-resistant housing.
- A house in Rosedale (South Coast NSW), built to a high fire standard at approx. 25% extra cost, survived an intense wildfire on 31 Dec 2019. Other houses on the street did not.
- Bushfire plans by communities are in place and are regularly reviewed for improvement.
- During the 2023-24 summer season, integrated and coordinated action has prevented wildfire disasters. Preventative measures reduced the risk, and tackling ignitions early in an integrated way with hard work by local firefighters and good engagement with the public has been crucial.

Example considerations that may help any geography / country to reduce wildfire risks:

- Embed counterfactual analysis and thinking into learning from events and near misses.
- Describe the benefits of wildfire prevention and containment in a compelling visual way.
- Understand how soil management can help to reduce wildfire risk.
- Consider the applicability of [the UNDRR Wildfire Resilience Scorecard](#) for communities.

Further reading:

- Managing Wildfire Risk in Australia – Case Study Background Paper ([contact author](#)).
- The Disasters Avoided website – [case study on wildfire and climate change](#).
- The Disasters Avoided website – [interview with Ruth Ryan](#).
- Impact of Australia's catastrophic 2019/20 bushfire season on communities and environment ([Journal of Safety Science and Resilience](#)).
- Measuring the economic impact of early bushfire detection ([ANU](#)).