



8th International Wildland Fire Conference

Global Wildland Fire Network – Statement of the Australasian Region

16 May 2023

Introductory remarks

Australasia's climate and vegetation is extremely diverse. Australia is predominantly a continental climate with much of its flora and fauna having evolved to not only survive fire but also depending on it for their persistence. New Zealand in comparison is predominately a maritime climate with much of its native ecosystems being vulnerable to fire. Both regularly receive periods of extreme fire risk, predominantly during a loosely defined fire season that largely aligns with the drier, hotter months of the year. Increasingly the start and end of the season is changing with extreme fire risk conditions occurring outside what would have once been considered the traditional fire season.

The diverse nature of the regions' climate and landscapes affects the distribution of bushfire risk by driving patterns in vegetation composition, function, and structure and consequently the flammability, arrangement, and accumulation rates of fuels. As a result, variation in fuel management programs is required across the different geographic areas to provide for the changes in wildfire risk and different land management objectives.

Similarly early detection and responding to wildfires where direct management intervention is required and where the respective jurisdiction has the capacity to do so is critical to limiting the size, intensity, and impact of wildfires.

Australasia is jointly represented at the 8th International Wildland Fire Conference by members of the Forest Fire Management Group (FFMG) and the Australasian Fire Authorities Council (AFAC).

FFMG is a committee of Australian and New Zealand land management agencies with responsibility for forest fire management, plus representatives from research and education organisations and the forest industry. FFMG reports to the Forestry and Forest Products Committee (FFPC) which is comprised of the heads of Australian Commonwealth, State, Territories and New Zealand government forestry agencies.

AFAC is an independent, member-based organisation dedicated to achieving connected and capable emergency management in Australia and New Zealand. The AFAC National Council comprises member organisations spanning fire, emergency service and land management organisations, who lead a paid and volunteer workforce of more than 288,000 people, supporting communities to be safer and more resilient.

AFAC delivers services to, and on behalf of, emergency management organisations in Australia and New Zealand. AFAC also works in partnership with the Commonwealth Government and other domestic and international organisations supporting response, risk reduction and community resilience.

Specific landscape fire problems of the region

- Climate change affecting wildfire risk with much of the region experiencing a drying and warming climate meaning a longer, more extreme wildfire season and changing windows of opportunity to undertake fuel mitigation through prescribed burning.
- A decline in the rural population and changes in land management and forestry industries, leading to a decrease in the development of fire management expertise.
- Attrition of personnel experienced in land, forestry, fuel, and wildfire management from Government agencies at a rate that has exceeded the capacity to develop commensurate



competency in their successors. These factors have resulted in a general reduction in land and fire management knowledge across the sector and within these agencies.

- Population growth leading to the expansion of urban areas and a rapid increase in the interface between built and natural environments, leading to an increased wildfire risk.
- An increase in the utilisation of natural areas and their surrounds by people and industries has also increased wildfire exposure while limiting opportunities to maintain historical fuel load management practices or creating additional burdens in doing so.
- An increasing opposition to prescribed burning from some groups in society, particularly associated with smoke and perceived ecological impacts.
- Increasingly emergency agencies are competing with a growing number of agencies vying for the public's time to educate and to prepare them for different risks. As people have less time available and facing various competing pressures it is often harder to gain the cut through required to get the public to prepare for fire until it is too late.
- Increasing diversity within our agencies continues to be a challenge. Which in many cases are still male dominated environments,

Main advances achieved since the last International Wildland Fire Conference: Action taken between the 7th and 8th Conferences

- The development of the AFAC National Resource Sharing Centre that coordinates and facilitates international and interstate deployments through its established partnerships and national arrangements, authorised by the Commissioners and Chief Officers Strategic Committee (CCOSC). AFAC NRSC supports CCOSC as an enabler of national and international capacity for fire and emergency services.
- The rollout and implementation of a new nationally consistent Australian Fire Danger Rating System (AFDRS). The new AFDRS calculates, forecasts and reports fire danger using up to date fuel state data, spatial and satellite data, weather data, science, and technology. It incorporates a wider range of fire behaviour models to better represent the variety of Australian vegetation and fuel types.
- The publication of the document *Turning the Goals of the National Bushfire Management Policy Statement into Objectives and Key Performance Indicators* that was jointly developed by Forestry Australia and FFMG with the aim of systematically analysing Australia's fire management progress towards meeting the national goals.
- The creation of Natural Hazards Research Australia as Australia's national centre for natural hazard resilience and disaster risk reduction. The Centre was funded for 10 years by the Australian Government on 1 July 2021 as a collaborative research organisation, to address the major challenges arising from natural hazards, including bushfires, floods, cyclones, heatwaves, storms, and other hazards. The aim is to deliver usable research and knowledge that creates safer and more resilient communities.
- At a national and regional scale continuing to enhance and recognise the importance of Indigenous people as a partner, and their land fire management practices as a means of generating hazard reduction and environmental benefits, whilst also improving the resilience and safety of communities.
- From the 2020 Ohau wildfire that destroyed 48 homes, the largest structure loss due to a single fire in recent New Zealand history the Wildfire Safer Housing Guide has been developed for New Zealand.
- Fire and Emergency NZ in its commitment to working with Māori as tangata whenua "people of the land" has established a new Kaupapa Māori directorate within the organisation. The directorate focuses on providing support to aid the organisation in meeting our treaty obligations.
- Completion (in Sep. 2021) of the Scion-led 5-year MBIE-funded 'Preparing New Zealand for extreme fire' research programme, including: experimental burns in crop stubble and gorse to test the new convective fire spread theory; development of real-time fire and smoke spread prediction tools; an online prescribed burn training package for farmers; new sensors for detecting and monitoring fire spread, and heat from smouldering hotspots and spontaneous combustion; and templates for targeted community/asset protection plans that utilise indigenous knowledge.



8TH
INTERNATIONAL
WILDLAND FIRE
CONFERENCE

GOVERNANCE PRINCIPLES:
Towards an International
Framework
www.wildfire2023.pt

Porto-Portugal
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- Commencement (in Oct. 2021) of a new 5-year MBIE-funded research programme, 'Extreme wildfire: Our new reality - are we ready?' to extend the previous programme to: (i) conduct experimental burns to investigate triggers for extreme fire behaviour (including crown fires, fire whirls and mass fire); (ii) develop a coupled fire-atmosphere model for predicting rural-urban interface fires; (iii) understand barriers to wildfire risk planning and preparedness; (iv) understand the risk of wildfires to indigenous forests; and (v) develop 'smart firefighting' tools to support wildfire response. This research is again led by Scion, with collaboration from the Canterbury, Massey & Lincoln Universities, U.S. Forest Service, San Jose State University, RMIT, University of NSW and CSIRO.

Conclusions and recommendations

We strongly support maintaining and strengthening the ongoing relationship that exists between AFAC, FFMG and the North American Forest Commission – Fire Management Working Group, FAO Committee on Forestry, and other international partners to assist in enhanced knowledge sharing, facilitating international deployments and developing adaptive management solutions for the fire management issues that are faced by the global wildland fire community.