Black Summer research report increases understanding of bushfires

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Science is shaping how Australia can better prepare for bushfire seasons with the release of comprehensive research based on the major issues of the 2019–20 summer fire season.

The wide-ranging research program was undertaken by Natural Hazards Research Australia and the Bushfire and Natural Hazards Cooperative Research Centre in the years since the 2019–20 fire season. The program drew on the expertise of Australia's fire and climate scientists, human geographers, land managers and public health and recovery experts from 28 research institutions, indigenous organisations and fire and land management agencies.

The report, Understanding the Black Summer bushfires through research, summarises the research findings from 23 projects. The report presents an integrated view of the way forward from the fires, including exploring why the 2019–20 fire season was so devastating, what new capabilities can be implemented and how Australia can best learn from its worst fire season on record. Some projects focused on what could be learnt at a national level, while others analysed specific fire behaviour or technology in Queensland, New South Wales, Victoria, South Australia and Western Australia.

Insights from the research provide Natural Hazards Research Australia partners in government, fire and emergency management agencies and community organisations with an up-to-date scientific basis for decisions on how best to allocate resources, manage the environment and help communities prepare, respond and recover.

CEO of Natural Hazards Research Australia, Andrew Gissing, said the research was based on the issues of the 2019–20 fire season, but the findings can be applied to bushfire management, safety and community resilience for all natural hazards around Australia.

'This is vital new Australian science about how to keep our landscapes and people safe from bushfire. Our fire seasons are getting longer, and dangerous bushfire days are becoming more frequent. We need to be smarter and use this new scientific knowledge and research to improve the ways we live with fire.

'The 2019–20 bushfires were long and challenging. This research has improved our understanding of how the extremely dry conditions and record-breaking temperatures impacted our weather in ways that previously were not as well-understood.

'This research will guide how bushfire risk can be managed through better science, policy and practices. The strength of the science is its multi-disciplinary approach that will lead to action through better bushfire modelling, better warnings, better land management including enabling cultural fire and better recovery after a disaster for those affected will come from this research,' he said.

Findings within the report were shared in a webinar series featuring research leaders from the program.

The research from Understanding the Black Summer bushfires through research and webinar recordings are available at www.naturalhazards.com.au/black-summer.