

# Submission to the Royal Commission Inquiry into National Natural Disaster Arrangements



## Introduction

The Australian megafires of 2019-20 had a devastating impact on our people, our environment and our economy, and its effects will continue to be felt for some time. The scale of these bushfires was unprecedented, in Australia and the rest of the world.

As an independent and authoritative scientific adviser to the parliament and to the nation, the Academy draws on the scientific expertise of Australia's leading scientists—the Fellows of the Academy.

The scientific evidence base shows that as the world warms due to human induced climate change, we continue to experience an increase in the frequency and severity of extreme weather events.

As a nation, we must deal with extreme weather events more effectively than we currently do. As such events become more frequent and severe, we must adapt Australia and Australians accordingly, as well as strengthen mitigation efforts.

Bushfires, along with other weather and climate challenges, pose complex and wide-ranging problems. Population growth, climate change, temperature extremes, droughts, storms, wind and floods are intersecting and entangled. They must be addressed together.

The Academy's Fellows are contributing and will continue to contribute their scientific expertise to government and other decision makers in the interest of advancing our nation.

The Academy is resolute that the response to the bushfires must extend beyond the immediate and essential need to rebuild and recover. Everything, including urban planning; building standards; habitat restoration; biodiversity and species preservation; and land, water and wildlife management will need careful and measured consideration.

To this end, the Academy is preparing a series of expert briefs on bushfire recovery, looking at different aspects of the bushfire threat and how we can become more resilient. The briefs provide a scientific perspective on policy questions relating to the impact of the bushfires. We will present these briefs to the Royal Commission as soon as they are available, in the hope and expectation that they will prove useful to the Commission's investigation.

## The briefs

The briefs will cover the following topics:

- **Ecosystem services:** This brief will discuss the impact of the bushfires on the services that Australia's ecosystems provide – clean food and water; regulation of climate, water and diseases; primary production and soil formation; spiritual, educational, cultural and recreational values – and how these services can be safeguarded in the future.
- **Human health:** This brief, developed in conjunction with the Australian Academy of Health and Medical Research, will discuss the impact of the bushfires on human health, and how those impacts can be moderated.

- **Indigenous cultural burning:** This brief will discuss the intersection of Indigenous Australian cultural practices with fire management research, and how both knowledge systems can be integrated to provide insight into fire management practices.
- **Soil condition:** This brief will discuss the impact of the bushfires on soil condition, and the effects this will have on agriculture. It also discusses mechanisms for ensuring soil quality is retained.
- **Wildlife monitoring:** This brief will discuss the impacts of the bushfire on Australia's native wildlife, and how research into biodiversity can inform protective and resilience-building activities for Australian wilderness in the face of catastrophic events.

Further briefs will be developed on remote sensing and data availability, and on prescribed burning.

Additionally, the Academy's submission to the review of the *Environment Protection and Biodiversity Conservation Act 1999* may be relevant to the Commission's inquiry, particularly the paper *Resilience to Disaster*. This paper is attached; the full submission can be found at the Academy website.

It is important for the Commission – and all Australians – to have trustworthy information and answers about the impacts of the 2019-20 megafires. With much misinformation in the public domain about the cause and impacts of the bushfires, we urge Australians to continue to consult reputable sources of evidence-based information such as the Australian Academy of Science, CSIRO and the Bureau of Meteorology.

To discuss or clarify any aspect of this submission, to discuss the schedule for providing the briefs, or to arrange further consultations with the Academy and its Fellowship, please contact Dr Stuart Barrow at [stuart.barrow@science.org.au](mailto:stuart.barrow@science.org.au) or 02 6201 9464.