

Australian Bushfire and Climate Plan

Final report of the National Bushfire and Climate Summit 2020



Emergency Leaders for Climate Action (ELCA) exists to catalyse all levels of government and community members to recognise increasing threats and to urgently act on climate change.

Informed by climate science and centuries of combined experience, ELCA is working to ensure that fire and emergency services and land managers are better equipped and resourced to protect Australian communities from increasingly frequent and damaging extreme weather events, but with the realisation that the scale of disasters under a changing climate will increasingly overwhelm response and recovery capabilities, as occurred in Black Summer 2019 - 2020.

We are actively shaping the national conversation about climate change and extreme weather, by drawing the media spotlight when and where it's needed, engaging with all state and federal bushfire inquiries and commissions and through convening and engaging with a broad range of people and organisations who may otherwise not have had a voice.

Over June and July 2020, ELCA brought together leading climate scientists, former and current emergency leaders, Indigenous fire practitioners, doctors, veterinarians, farmers, community leaders, social service providers, economists, mayors, bushfire survivors, and many other members of the community for the National Bushfire and Climate Summit 2020. This report documents key findings and recommendations.

Published by Emergency Leaders for Climate Action and the Climate Council of Australia Ltd.

ISBN: 978-1-922404-05-3 (print)
978-1-922404-04-6 (digital)

© Emergency Leaders for Climate Action and the Climate Council of Australia Ltd 2020.

This work is copyright of Emergency Leaders for Climate Action and the Climate Council of Australia Ltd. All material contained in this work is copyright of Emergency Leaders for Climate Action and the Climate Council of Australia Ltd except where a third party source is indicated.

Emergency Leaders for Climate Action and the Climate Council of Australia Ltd copyright material is licensed under the Creative Commons Attribution 3.0 Australia License. To view a copy of this license visit <http://creativecommons.org.au>.

You are free to copy, communicate and adapt the copyright material so long as you attribute Emergency Leaders for Climate Action and the Climate Council of Australia Ltd and the authors in the following manner: Australian Bushfire and Climate Plan: Final report of the National Bushfire and Climate Summit 2020.

Authors: Greg Mullins, Simon Bradshaw and Alix Pearce.



Cover image: "Belrose Hazard Reduction" by Flickr user NSW RFS Media Services licensed under CC BY-NCND 2.0.

This report is printed on 100% recycled paper.

Contents

Introduction	1
Priority recommendations	5
List of summit participants	9
A national response to the bushfire crisis fuelled by climate change	11
Part 1: Climate change and the changing nature of fires	12
Part 2: Landscape management in the age of climate change (<i>fuel management, cultural and prescribed burning</i>)	13
Part 3: Dealing with more dangerous fires under climate change	15
Part 4: National coordination	17
Part 5: Research, training, capacity building and community inclusion	19
The cost of bushfires fuelled by climate change	21
Part 1: Federal, state and territory funding for firefighting resources (<i>including forestry, national parks and fire services and disaster funding mechanisms</i>)	22
Part 2: The health costs of bushfires and climate change	25
Part 3: The insurance costs of bushfires and climate change	28
Part 4: Costs for bushfire affected communities and the organisations that support them	30
Case study: Mount Barney Lodge	33
Bushfires and climate change in NSW	35
Part 1: Physical and mental health impacts of bushfires	36
Part 2: Supporting communities to manage land and worsening fires, and to protect ecosystems and wildlife	38
Part 3: Community impact – economy, infrastructure and agriculture	40
Part 4: Achieving change through community action	42
Case study: Lake Conjola community-led recovery	45
Bushfires, climate change and the community sector	47
Image credits	55

Introduction

The severity and scale of Australian bushfires is escalating

Australia's Black Summer fires over 2019 and 2020 were unprecedented in scale and levels of destruction. Fuelled by climate change, the hottest and driest year ever recorded resulted in fires that burned through land two-and-a-half times the size of Tasmania (more than 17 million hectares), killed more than a billion animals, and affected nearly 80 percent of Australians. This included the tragic loss of over 450 lives from the fires and smoke, more than 3,000 homes were destroyed, and thousands of other buildings.

While unprecedented, this tragedy was not unforeseen, nor unexpected. For decades climate scientists have warned of an increase in climate-related disasters, including longer and more dangerous bushfire seasons, which have become directly observable over the last 20 years. Extremely hot, dry conditions, underpinned by years of reduced rainfall and a severe drought, set the scene for the Black Summer crisis.

Emergency Leaders for Climate Action (ELCA), a group of 33 former Australian fire and emergency service leaders, from every state and territory, warned of the unfolding conditions back in April 2019. They predicted a catastrophic fire season, urged stronger action on climate change, an increase in emergency

response capabilities, and more work to reduce bushfire risks. Sadly, those warnings fell on deaf ears and, as the world watched on in horror, those same warnings became a harsh reality.

It is clear the magnitude of the Black Summer crisis demands urgent, determined and evidence-based actions and investment. The most important action required is a concerted effort to deal with the key, driving force behind worsening extreme weather and disasters – global heating driven by the burning of coal, oil and gas.

Effective action first demands listening to the science and to the experiences of those on the frontlines of the climate crisis, including emergency responders and affected communities themselves. It also requires significant reflection, both on the events, their causes, the response, and a full investigation of how we can better prepare and respond in the future.

The National Bushfire and Climate Summit

The National Bushfire and Climate Summit brought together hundreds of participants from across the country, and the world, to share their experiences, and to formulate recommendations to address the worsening risk of devastating bushfires fuelled by climate change.

While unprecedented, this tragedy was not unforeseen. For decades climate scientists have warned of an increase in climate-related disasters, including longer and more dangerous bushfire seasons.

Organised by Emergency Leaders for Climate Action and the Climate Council, former and current emergency leaders came together with Indigenous fire practitioners, health professionals, farmers, community leaders, social service providers, economists, local mayors, climate scientists, bushfire survivors and many others to address this challenge. This report is the culmination of that effort.

In a series of online roundtables from June to July 2020, three central themes emerged. First, participants stressed the importance of urgent measures to tackle the underlying causes of our climate crisis, and to drive down emissions. They recognised that many communities and ecosystems were already being pushed beyond their ability to adapt, and that much more must be done to prevent more lives being lost, and more suffering being experienced by Australians and communities worldwide.

Second, experts across emergency services, land management and health services, all raised deep concerns that governments, especially the Federal Government, had and continue to underestimate or ignore the rapidly escalating threat of climate change. Consequently, our land management, fire and emergency services are under resourced, disaster recovery is under-resourced, and communities are underprepared for the worsening bushfire threat.

Third, participants recognised the inherent strength and resilience of local communities in responding to the challenges of climate change and worsening bushfires, and placed community leadership at the heart of many of their recommendations. However, there was recognition that communities cannot solve these challenges on their own and are often insufficiently resourced to deal with the new threat environment. Participants also recognised the vital role of First Nations people in partnering to better manage the Australian landscape, with a need for greater understanding, funding and support for Indigenous land and fire management.

It is fundamental to dealing with the long-term escalation of disaster risks that Australia must do better to reduce global greenhouse gas emissions by moving beyond fossil fuels. And, in order for this to happen, we need a strategic approach to bushfires that spans all areas of government and community, one that is driven by strong national leadership with clearly defined short, medium and long term goals.

Recommendations - The 3 Rs - Response, Readiness and Recovery

There is no doubt that bushfires in Australia have become more frequent, ferocious and unpredictable with major losses in 2001/02 in NSW, 2003 in the ACT, 2013 in Tasmania and NSW, 2018 in Queensland, 2009 Black Saturday Fires in Victoria and 2019/20 in Queensland, NSW, Victoria and South Australia. We are now in a new era of supercharged bushfire risk, forcing a fundamental rethink of how we prevent, prepare for, respond to, and recover from bushfires.

This Australian Bushfire and Climate Plan report provides a broad plan and practical ideas for governments, fire and land management agencies and communities to help us mitigate and adapt to worsening fire conditions. The 165 recommendations include many measures that can be implemented right now, to ensure communities are better protected.

Response

In many instances during the Black Summer, firefighters faced unprecedented conditions outside previous experience and training. Climate change is making fires harder to control once they start and, in turn, the focus of firefighting efforts must shift from containing fires to rapidly extinguishing them while they are still small. This is a major change in our approach and requires significant investment in early detection and rapidly deployable aerial and ground firefighting forces.

To match the escalating threat and cost of bushfires, Australia must upgrade its firefighting capabilities. This includes better resourcing for urban and rural fire services and land management agencies, and developing self-sufficient aerial firefighting capabilities rather than relying on the availability of medium and large aerial firefighting assets that are increasingly difficult to source due to overlapping northern and southern hemisphere fire seasons. The Federal Government should consider a scheme to pay or reimburse volunteers deployed for extended periods or suffering hardships or loss of income due to their firefighting commitments.

In addition, there must be a consistent national approach to sharing information and warnings on fires and other hazards including close-to-real-time information sharing via a standard national app. Further, the Australian Defence Force's vital support capabilities must be better utilised during emergencies including better coordination (without usurping the role of emergency management agencies) and specific capabilities tailored to local needs.

Readiness

The Black Summer showed that historical land management practices are now insufficient to deal with the escalating threats driven by climate change. The increasing intensity, scale and duration of bushfire seasons will increasingly overwhelm existing fire, emergency management and landscape management approaches.

Land management in this new era requires long-term, year-round and cross-tenure approaches at landscape scale that incorporate better resourcing of land management agencies, empowerment and support of Indigenous communities, all backed by a strong, user-driven national research capability. An Indigenous-led National Cultural Fire Strategy, as well as resourcing of year-round Indigenous-led cultural and fire management programs is critical, as well as better resourcing for hazard management programs by fire, emergency and land management agencies.

Firefighters and fire agencies, including forestry and national parks agencies, must be equipped to face an increasingly challenging threat environment. Among a range of recommendations to support volunteers

and protect firefighters' mental health, the report recommends the establishment of a new national fire and emergency academy to ensure firefighters have appropriate training, particularly at strategic leadership and command levels.

Building community resilience in communities vulnerable ahead of future fire seasons is essential. The report outlines a range of solutions including to:

- > Ensure the Federal Government works with insurance companies to develop a system to safely transition people out of high-risk properties and areas that are becoming uninsurable, to safer areas.
- > Continue Telehealth - where people can consult their doctor over the phone to allow patients in bushfire-affected communities to access remote healthcare.
- > Establish an independent insurance price monitoring scheme to increase the affordability and uptake of insurance and better protect Australians in disaster prone areas. Insurance is a key factor in community resilience.
- > Establish and fund permanent community resilience hubs in every vulnerable local government area. The hubs would provide accessible bushfire information and assist communities in developing disaster preparedness plans and to remain connected during and following a disaster. This is crucial as fire and emergency services facing increasing response workloads will be increasingly restrained in their ability to work in the community education/preparedness space.

Recovery

The sheer scale of damage to property, communities and the Australian environment during the Black Summer was unprecedented and has overwhelmed the essentially ad hoc recovery arrangements developed for a previous era. It is clear that we must accept the reality and prepare for more frequent and damaging fires into the future. To meet the increasing costs of climate-fuelled disasters, Australia must create a national climate disaster fund to raise money through a levy on fossil fuel producers, as current funding arrangements are administratively complex and demonstrably insufficient.

Communities will recover faster where they have been well prepared, therefore there is a significant focus in this report on community resilience and readiness, with community resilience hubs being a key strategic component. Community led approaches to disaster preparedness and disaster recovery, in which community members are actively involved in designing and implementing initiatives, can have higher rates of success and strong benefits for mental wellbeing.

Without action on climate change, any response to the bushfire crisis will be ineffective

An effective and equitable response to the bushfire crisis is only possible by tackling the key driving factor - the climate crisis. This must start with Australia phasing out the use of fossil fuels and the Federal Government joining the states and territories in committing to a net zero emissions policy. While it is clear we need stronger leadership from the Federal Government, any response must also be grounded in the experiences, leadership, needs and strengths of communities as has been done in this report.

We hope that the solutions outlined in Australian Bushfire and Climate Plan, developed by experts and communities from across Australia, will also be reflected in the final report of the Bushfire Royal Commission and acted upon by the Federal Government. We also welcome the Federal Government's \$88 million funding to expand research into bushfires and natural hazards.

Thank you

Emergency Leaders for Climate Action and the Climate Council thanks the many participants in the 2020 National Bushfire and Climate Summit for the insights and expertise they brought to the roundtables, including in many cases their very raw and painful experiences from the recent fire season, and for their resolve in dealing with this defining challenge of our age, climate change.



Image: 6 of the 33 members of ELCA.

Priority Recommendations

Tackling the climate crisis

1. **The Federal Government must address the root cause of the climate crisis and worsening bushfires** through a national commitment to net zero emissions, strengthening of Australia's 2030 emissions reduction targets, and the managed phase-out of all fossil fuels. (See recommendation 1, p. 12.)

Dealing with more dangerous fires due to climate change

2. Federal, State and Territory Governments should adequately resource emergency services so that they can prioritise the **early detection and extinguishing of fires**, including through an automated network of sensors, and the immediate deployment of aerial and ground firefighting crews on days of very high fire danger and above. (See recommendations 10-17, p. 15.)
3. **Increase Federal, State and Territory funding available for bushfire risk mitigation and firefighting.** This should be across all agencies and asset types, and include developing a self-sufficient Australian medium and large aerial firefighting capability. (See recommendations 49-56, p. 22.)
4. **Increase Federal, State and Territory funding for volunteer recruitment, training and retention programs**, recognising that volunteers face increasingly challenging scenarios that may require strong leadership and decision-making skills. (See recommendations 40, p. 19; 43, p. 19; 48, p. 20; 54, p. 22.)

5. The Federal Government, in partnership with relevant agencies, governments and emergency services, should coordinate the development of a **consistent national approach to sharing information and warnings** on fires and other hazards with the community, in as close to real time as possible, including a standard national app. (See recommendations 28-29, p. 17.)
6. **The Federal, State and Territory Governments should establish and fund permanent community resilience hubs** in every local government area in vulnerable parts of the country. These will enable easy access to information on bushfire risks and resilience strategies; assist communities in developing disaster preparedness and response plans; and help communities remain connected during and following a disaster. (See recommendation 105, p. 30.)
7. Ensure a new federal law that provides a **clear role and accountability for the Federal Government before, during and following a major disaster**, including triggers for when it is required to assist State and Territory governments. (See recommendations 34-36, p. 18.)
8. **The Federal Government should develop a National Security Strategy.** The National Security Strategy should provide a broader framing of security inclusive of food, water, health and economic security; and give appropriate priority to climate and other environmental risks. Defence should be enabled to contribute effectively to domestic disaster response, as appropriate, including through identifying gaps in current disaster response capabilities that could be filled and supported by Defence, undertaking exercises for domestic disaster response, and appointing permanent military liaison

officers to state level planning authorities. (See recommendations 18-23, p. 15-16.)

9. **The Federal Government should maintain and expand research into climate change and bushfires**, including our changing fire environment, effective landscape management, building and retrofitting options, and the performance of existing firefighting strategies and assets. This must include funding an appropriate national research body that incorporates end-user leadership. (See recommendations 2, p. 12; 9, p. 14; 37-38, p. 19; 62-64, p. 23; 75-78, p. 26; 103-104, p. 30; 156-160, p. 52.)

Managing the landscape in the age of climate change

10. The Federal, State and Territory Governments, in partnership with relevant agencies and local governments, should ensure a more **integrated and long-term approach to landscape management** and hazard reduction that includes substantial and long-term resourcing of forestry and national parks agencies; year-round Indigenous-led cultural and fire management programs; enables cross-tenure collaboration; supports community-led initiatives; uses common metrics; phases out native logging; and protects biodiversity and carbon sinks. (See recommendations 7, p. 13-14; 122, p. 38.)
11. The Federal Government should coordinate the development of an **Indigenous-led National Cultural Fire Strategy** focused on empowering and expanding Indigenous-led fire knowledge and practice and supporting Indigenous communities with climate change, bushfire and disaster resilience. (See recommendation 5, p. 13.)

Health and wellbeing in the age of climate change

12. The Federal Government should develop and implement a **national strategy on climate change, health and well-being**. This should focus on prevention and preparedness, recognising how climate change and bushfires affect the environmental determinants of health; encourage far stronger action to reduce greenhouse gas emissions and minimise global heating; ensure the resilience of our health systems to climate change; support Indigenous leadership and address the disproportionate effect of climate change and bushfires on First Nations people. (See recommendation 66, p. 25.)
13. Develop a **program for mental wellbeing in the face of climate change**, including greater mental health support for firefighters and other emergency responders; simplified access to appropriate mental health services for fire affected communities; encouraging community members to be actively involved in disaster recovery efforts; ensuring psychosocial recovery measures are put in place for up to five years following a disaster; supporting individuals and communities in understanding how climate change affects them, how they can prepare, and how to manage fear and anxiety. (See recommendations 71-74, p. 26; 116, p. 36.)

A resilient, sustainable and community-led recovery

14. The Federal, State and Territory Governments should **increase support to people and communities to build resilience**, prepare, respond and recover from bushfires. (See recommendations 136-143, p. 48-50.)

15. Ensure the principle of **building back better** is central to recovery efforts across Federal, State and Territory and local governments, including harnessing opportunities for local economic development and community resilience through renewable energy investments. (See recommendations 127-129, p. 40-41.)
16. Enable a **community-led approach to disaster risk reduction and disaster recovery efforts**, including through a strategic level plan for community engagement; encouraging community members to be actively involved in the design and implementation of programs; listening to local needs and recognising local strengths; identifying and empowering community leaders who can lead the recovery; and empowering communities through locally-specific, actionable, and easily accessible information. (See recommendations 120-121, p. 38.)
17. **Greater recognition of, engagement with, and support for the role of Community Sector Organisations**, especially local and place-based, in supporting people and communities to build resilience, prepare, respond and recover from disasters such as bushfires. (See recommendations 146-150, p. 50-51.)
18. **Streamline and integrate disaster recovery payment processes** so that help gets to people on the ground quickly. People should be able to access all levels of government assistance and other assistance through a single, simplified application. (See recommendation 113, p. 31.)
19. Take practical steps to **increase the affordability and uptake of insurance** for properties in disaster prone areas, recognising that this is a key factor in community resilience. This should include establishing an independent insurance price monitor, a national public information campaign, and conducting a comprehensive review of the impact of climate change on the provision of insurance. (See recommendations 96-102, p. 29; 161-165, p. 52-53.)
20. Establish a **national climate disaster fund**, dedicated to meeting the increasing cost of climate-fuelled disasters, **with money raised through a levy on fossil fuel producers**. (See recommendation 132, p. 41.)
21. Ensure **better coordination and resourcing of wildlife recovery efforts**, while recognising that ecosystems and wildlife are already being pushed beyond their ability to adapt, and that the immense scale of losses demands urgent action to reduce emissions. (See recommendation 123, p. 39.)
22. **Review and update Australian standards on building in bushfire prone areas (AS3959)**, including home sprinklers and bunkers and maximum fire danger indices, and **invest more in community fire refuges**. (See recommendation 24, p. 16.)



List of Summit Participants

Prof Nerilie Abram, ANU ARC Centre for Climate Extremes / Australian Meteorological and Oceanographic Society

Fiona Armstrong, Climate and Health Alliance

Anna Back, NCOSS

Nick Banks, Red Cross

Pablo Bateson, City of Ryde

Jenni Beetson-Mortim, Northern Rivers Community Gateway

Nigel Bell, Australian Institute of Architects

Nicholas Biddle, ANU Centre for Social Research and Methods / ANU Policy Experiments Lab

Cr Elly Bird, Lismore City Council

Dr Simon Bradshaw, Climate Council

Jo Brown, Glenelg Southern Grampians Primary Care Partnership

David Bryant, Brotherhood of St Lawrence

Mike Brown AM AFSM, Emergency Leaders for Climate Action (Former Chief Fire Officer, Tasmania Fire Service)

Jonty-Jack Bruce

Jim Casey, Australian Firefighters Climate Alliance

Denise Cauchi OAM, Doctors for the Environment Australia

Kellie Caught, ACOSS

Dr Kate Charlesworth, Climate Councillor

Andrew Coghlan, Red Cross

Wendy Cohen, Farmers for Climate Action

Bob Conroy, Emergency Leaders for Climate Action (Former Fire Manager, NSW National Parks and Wildlife Service)

Oliver Costello, Firesticks Alliance

Anne Crestani, Gateway Family Services

Kristyn Crossfield, Reveille

Helen David, Small Business Financial Counselling

Emma Dawson, Per Capita

Assoc Prof Peter Davies, Macquarie University

Jo Dodds, Bushfire Survivors for Climate Action

Dr Grahame Douglas, National Parks Association of NSW / Western Sydney University

Leighton Drury, Fire Brigade Employees Union

Gavin Dufty, St Vincent de Paul

Major General Peter Dunn AO (ret), Emergency Leaders for Climate Action (Former Commissioner, ACT Emergency Services Authority)

Cheryl Durrant, Climate Councillor

Cr Amanda Findley, Shoalhaven City Council

Dr Angela Frimberger

Joshua Gani, Salvation Army

Prof Lisa Gibbs, University of Melbourne

Brian Gilligan, Emergency Leaders for Climate Action (Former Director General, NSW Parks and Wildlife Service)

Andrew Gissing, Risk Frontiers

Dr Robert Glasser, ANU

Stuart Glover, Salvation Army

Dr Cassandra Goldie, ACOSS

Jenny Goldie, Climate Action Monaro

Darren Grover, WWF Australia

Dr Turlough Guerin, AG Institute Australia

Dr Michelle Hamrosi, Australian Parents for Climate Action

Dr Scott Hanson-Easey, University of Adelaide

Greg Hebble, Foodbank

Robert Henderson, former chief economist at NAB

Tina Hogarth-Clarke, Council of the Ageing Victoria

Peter Holding AFSM, Farmers for Climate Action / Climate Kelpie

Chiara Holgate, Australian Meteorological and Oceanographic Society

Prof Lesley Hughes, Climate Councillor

Dr Arnagretta Hunter, ANU Medical School

Lee Johnson AFSM, Emergency Leaders for Climate Action (Former Commissioner, Queensland Fire and Emergency Services; Board Member, Bushfire and Natural Hazards Cooperative Research Centre)

Cr Dominic King, Bellingen Shire Council

Emma King, VCOSS

Jenny Kitchin, Woden Community Services

Craig Lapsley PSM, Emergency Leaders for Climate Action (Former Emergency Management Commissioner, Victoria)

Amanda Lamont, Australasian Women in Emergencies Network

Ben Latham, VCOSS

Bronwyn Lay, Jesuit Social Services

Dr Kim Loo, Doctors for Environment Australia

Tracie Lund, Morwell Neighbourhood House

Madi Maclean, Blue Mountains Conservation Society

Karl Mallon, Climate Risk

Kathryn Maxwell, South Coast Health and Sustainability Alliance

Amanda McKenzie, Climate Council

Dr Kathryn McLachlan, Macquarie University

Kathy Mickan, SACOSS

Wendy Miller, QCOSS

John Mikelsons, ACOSS

Sam Mostyn, Climate Council Director

Greg Mullins AO, AFSM, Emergency Leaders for Climate Action (Former Commissioner, Fire and Rescue NSW)

Kris Newton, Mountains Community Resource Network

Alix Pearce, Climate Council

Mark Pearce, Volunteering Australia

Sarah Pennell, Foodbank

Ken Pimlott, former Fire Chief, California Department of Forestry and Fire Protection (CalFire)

Russell Rees AFSM, Emergency Leaders for Climate Action (Former Chief Fire Officer, Country Fire Authority Victoria)

Dr Martin Rice, Climate Council

Anthony Saunders, EnviroSure

Dr Samantha Lloyd, Queensland Fire and Biodiversity Consortium, Healthy Land and Water

Collin Sivalingum, Red Cross

Nicky Sloan, Community Industry Group

Jim Smith AFSM, Emergency Leaders for Climate Action (Former Deputy Commissioner, Fire and Rescue NSW)

Cr Carol Sparks, Glen Innes Severn Council

Prof Will Steffen, Climate Councillor

Victor Steffensen, Mulong

Damian Sullivan, Brotherhood of St Lawrence

Steve Sutton, Emergency Leaders for Climate Action (Former Chief Fire Control Officer, Bushfires NT)

Bridget Tehan, VCOSS

David Templeman, Emergency Leaders for Climate Action (Former Director General, Emergency Management Australia)

Adrian Terranova, Gippsland Disability Advocacy

Major Michael Thomas (ret), The Center for Climate and Security

Ken Thompson AFSM, Emergency Leaders for Climate Action (Former Deputy Commissioner, NSW Fire Brigades)

Vivien Thomson AFSM FARLF, Australian Firefighters Climate

Alliance

Dr Bob Vickers, Doctors for the Environment Australia

Assoc Prof Michelle Villeneuve, Centre for Disability Research and Policy, University of Sydney

Prof Iain Walker, ANU

Craig Welden, Queensland Fire and Biodiversity Consortium, Healthy Land and Water

(A number of additional participants were unable to be listed publicly.)

EXPERT ROUNDTABLE ONE, 10 JUNE 2020

A National Response to the Bushfire Crisis Fuelled by Climate Change

The Black Summer fires brought the terrifying reality of the climate crisis into stark relief, and showed we are unprepared for the challenges of today and tomorrow.

The summer of crisis exposed deficiencies in national leadership and coordination, the need for greater resourcing of bushfire risk mitigation and firefighting efforts, and above all the need for stronger action to tackle the climate crisis.

This first Expert Roundtable in the National Bushfire and Climate Summit 2020 explored the scale and nature of the challenge we now face and put forward recommendations for a comprehensive national response. The roundtable took stock of the latest science on the changing nature of fires, explored a wide range of training and resourcing needs, and looked at how to improve approaches to landscape management and firefighting.

Addressing greenhouse gas emissions from the burning of coal, oil and gas must be the highest priority.

RECOMMENDATIONS

Part 1: Climate change and the changing nature of fires

We are rapidly moving to a climate outside the range of human experience. This is driving an increase in the frequency and severity of extreme events and disasters including out-of-scale bushfires.

Addressing greenhouse gas emissions from the burning of coal, oil and gas must therefore be the highest priority because changes in our climate are increasing the bushfire threat and reducing the effectiveness of current hazard reduction strategies. We should:

1. Substantially strengthen efforts from all levels of government, the private sector and the community, towards curbing greenhouse gas emissions. This should include a national commitment to net zero emissions; strengthening near-term (2030) emissions reduction targets; accelerating the decarbonisation of all sectors of the economy; and an end to new fossil fuel developments and phase-out of existing projects over the next two decades.
2. Continue to support basic and applied research across the natural and social sciences on bushfires and climate change. (The roundtable noted the essential work of the Bushfire and Natural Hazards Cooperative Research Centre and the importance of maintaining a targeted national research capability with end-user input.)
3. Undertake a comprehensive assessment of the cost of bushfires and fire management, incorporating economic losses, costs to physical and mental health, damage to ecosystems, and the need to expand resources for fire services and land management agencies. (The roundtable noted that there is currently no single source for such information, and that a broad lens is necessary to understand the full cost of bushfires and the risks that Australia faces.) This assessment will be an important aid to public education and advocacy on the escalating danger of bushfires and towards stronger action on climate change.
4. Harness the influence of firefighters, health practitioners and other trusted voices on climate change and how it is affecting our communities.

RECOMMENDATIONS

Part 2: Landscape management in the age of climate change (*fuel management, cultural and prescribed burning*)

The increasing intensity, scale and duration of bushfire seasons will increasingly overwhelm existing fire and landscape management approaches. While tackling the root cause of climate change is the highest priority, we must also work to increase and enhance hazard reduction through a long-term, year-round and cross-tenure approach at landscape scale that supports existing agency efforts, Indigenous leadership, empowers communities, and is backed by a strong research capability. We should:

5. The Federal Government should ensure expansion of and investment in Indigenous fire management and existing fire and land management workforces and budgets (forest and national parks agencies) to:
 - a. Develop an Indigenous-led National Cultural Fire Strategy focused on empowering Indigenous-led fire knowledge and practice to support Indigenous Communities with climate change, bushfire and natural disaster resilience. This should occur alongside immediate and long-term resourcing of Indigenous-led cultural fire and land management programs delivered on private and public tenure at landscape scales all year round.
 - b. Include more Aboriginal knowledge-holders capable of leading and educating communities and agencies about cultural burning practices.
 - c. Build a year-round, full-time workforce who are specialists in risk reduction through landscape management measures, enabling more consideration of right fire, right time for that country. This could be based around existing agencies such as National Parks and Wildlife.
 - d. Educate fire and land management agency workforces around climate change impacts, new and emerging risks.
6. Increase hazard reduction. This requires a better, more integrated and strategic understanding of various landscape needs (including vegetation types, geography, weather and fire regimes), and a range of integrated (old and new) risk reduction options that recognise the worsening threat environment created by climate change. A range of strategies including but not limited to the following need to be reviewed and where appropriate, implemented and resourced:
 - a. Mechanical fuel reduction near assets (“fire breaks”).
 - b. Regular burning near communities to permanently modify fuel loads and types.
 - c. Strategic burns across known fire paths.
 - d. Resourcing of cultural burning where capacity exists or can be introduced into Indigenous communities.
 - e. Reduction in regulatory and administrative burden to manage fuels on privately owned land, particularly for cultural burning.
7. Develop an approach to planning based on:
 - a. Cross-tenure collaboration (i.e. spanning both public and private landholdings).
 - b. Cross-tenure integrated planning frameworks that are more flexible and responsive to system needs.

- c. Eliminating barriers to evidence-based landscape-scale fire management. At present this is hindered by agency, property or tenure-based zoning.
 - d. Development of risk reduction metrics for common adoption across state-based fire and land management agencies that incorporate identified and predicted changes in risk associated with climate change. (For example, areas previously at low risk, such as rainforests, are now at higher risk).
 - e. Longer timeframes over which a landscape is managed. Management objectives should be developed to encompass short, medium, and long-term objectives (looking forward for years and decades, not weeks and months).
 - f. Alignment of risk management of public and private land by empowering communities to engage and to provide input into plans.
 - g. Giving priority to annual pre-season preparedness programs to identify and, as far as possible, eliminate or manage risks, with particular priority given to fire risks on private land (usually the greatest source of radiant heat and embers closest to structures).
 - h. A national and common approach to identifying bushfire prone lands and bushfire management zones.
8. Focus on community engagement and empowerment, including:
- a. Research into community understanding, capacity and willingness to be involved in risk assessments and fire risk management so that investment can be well targeted.
 - b. Provision of data and information to potentially reset expectations about fire in the future, including survivability of people and assets.
 - c. Resourcing an expansion of activities by fire agencies to directly engage and educate local communities about their role in understanding and managing bushfire risk, and their shared responsibility to prepare and maintain their local environment.
- d. Focussing on reducing fire risk on private land through incentives, reduction of regulation of burning where appropriate, and, where necessary, enforcing fuel reduction requirements.
 - e. Research into existing successful community programs to identify opportunities for expansion.
9. Expand research into the range of techniques available and potentially available to aid in assessing and managing fire risk:
- a. There is a critical need, as climate change impacts worsen and accelerate, to have a focussed research capability that partners with front-line landscape management, fire and emergency service practitioners. Emergency Leaders for Climate Action and Climate Council welcomed the announcement on 23 July 2020 of new funding for the Bushfire and Natural Hazards Cooperative Research Centre, and its transition to a new research centre for natural hazard resilience and disaster risk reduction as a worthwhile starting point.
 - b. Increased funding for the Bureau of Meteorology and CSIRO to enable partnering with state and territory government agencies and Emergency Management Australia (or a new national coordination agency) while expanding predictive services as a basis for short, medium, and long-term planning.

RECOMMENDATIONS

Part 3: Dealing with more dangerous fires under climate change

Early detection, warning and intervention

Bushfire conditions are already more dangerous than in the past due to climate change. While recognising that all possible efforts must be taken to reduce the risk of worsening fires through reducing greenhouse gas emissions and through landscape management, the increasing frequency, number and intensity of bushfires demands that we adopt new and innovative ways of detecting and rapidly responding to bushfires, especially on days of severe, extreme and catastrophic fire danger. Federal, State and Territory Governments should adequately resource services so that they can:

10. Establish an automated network of sensors for early detection of fires, with particular focus on high risk areas, including: densely populated areas and peri-urban interface areas; critical infrastructure including electricity, water, telecommunication, access bridges and roads.
11. Integrate early detection system as a primary input to predictive modelling, operational intelligence, and decision-making systems. This can be coupled with real-time fire movement tracking, live localised weather information, landscape characteristics and other inputs to provide comprehensive information to assist firefighters and provide early and ongoing information to the community.
12. Integrate early detection notifications into community information and warning systems.
13. Provide adequate resourcing for the Bureau of Meteorology and Geoscience Australia to enhance detection and forecasting, including satellite detection of lightning strikes.
14. Provide additional support and funding for the enhancement of emergency communications, including but not limited to ABC Local Radio and Telstra.
15. Modify rapid response and initial attack procedures such that deployment of water bombing aircraft and ground firefighting crews are an immediate and automatic response to fires on days of very high, severe, extreme and catastrophic fire danger. This would replace the traditional method of first dispatching a local fire unit to investigate before calling in other resources, and will require additional and different types of water bombing aircraft located across the nation.
16. Establish a night vision water bombing aircraft capability of both rotary and fixed wing aircraft.
17. Undertake a review of existing fire services to determine if current arrangements and prevailing tactics are fit for purpose. This must be based on an understanding of the greater risks being faced now and in the future as a result of climate change, and factor in resourcing requirements and local considerations.

National Security and the role of Defence in responding to bushfires

The Australian Defence Force (ADF) has vital support capabilities that need to be utilised during emergencies, such as bushfires, in a more coordinated manner without usurping the role of state and territory emergency management agencies. These capabilities need to suit local needs and have a depth of experience together with a range of specific, tailored capabilities.

18. Government should develop a National Security Strategy. The National Security Strategy should provide a broader framing of security inclusive of food, water, health and economic security; and give appropriate priority to climate and other environmental risks. The National Security Strategy should identify current capability gaps and provide a clear basis for prioritising resources across all portfolio agencies with

security responsibilities under the expanded framing. In addition to Defence, Home Affairs, and other traditional security agencies this should include agencies with science, education, social, economic, health and agriculture responsibilities.

19. Consider making Humanitarian Assistance and Disaster Response (HADR) a greater focus for Defence Reserve Forces, including necessary training. Noting the finite capacity of Defence Reserve Forces and the need to avoid overstretching.
20. Ensure Defence has the ability to accurately forecast, capture and recover the fully burdened cost of HADR operations, and that Defence has a budget line for domestic HADR training and exercising.
21. Undertake major exercises for domestic disaster response, especially in the south and south east of Australia, to ensure that Defence is better integrated and prepared to work with all levels of emergency services.
22. Review the adequacy of Defence Assistance to the Civil Community (DACC) provisions with the aim of ensuring that local commanders have the required flexibility and authority to assign forces at local and state levels.
23. Appoint permanent military liaison officers to state level planning authorities.
25. Review and enhance guidelines for retrofitting buildings in bushfire areas. (The roundtable noted that existing housing stock provides particular challenges and that it is important to offer incentives.)

Upgrading standards and guidelines

It is critical that Australia's standards and planning regulations reflect the escalating bushfire threat driven by climate change.

24. Review and rewrite Australian standards on building in bushfire prone areas (AS3959), increasing maximum fire danger indices, and include home bushfire sprinklers and bunkers with a view to maximising public safety, ensuring the standards can be more easily used and applied, and ensuring the standards are widely adopted. Other approaches such as community fire refuges need to be investigated.

RECOMMENDATIONS

Part 4: National coordination

Common standards, systems and approaches

A national, community-centred approach that facilitates sharing of information and resources, enables agencies to work as one, and establishes efficient national systems, will be fundamental to our ability to better cope with current and future conditions. We should:

26. Develop a *national* Common Operating Picture (COP): a platform providing intelligence, situational awareness, predictive modelling, operational planning, and information on available resources to all emergency managers. This will enable greater collaboration and coordination across states and territories, and joined-up decision making at all levels, from the local to national.
27. The national COP should be part of an integrated national online system of resources that can be accessed by all planners and responders, including emergency services, councils, the private sector and non-government organisations to assist in the sharing of resources. The supporting data lake should have clear and simple user interfaces, and utilise machine learning and artificial intelligence. Permissions may be set to provide the appropriate level of access to different groups.
28. Develop a consistent national approach to sharing information with and collecting information from the community – in as close to real time as possible – on where fires have started and their likely behaviour and trajectory. This should include a standard national app, website, and social media channels. Information should be tailored and support community members to make informed decisions.
29. Establish standards for common terminology, symbology, data collection and publishing protocols for public-facing information.
30. Establish an overarching architecture for radio communications to provide transparency and interoperability over state and territory borders.
31. Review the Australian Government Disaster Response Plan 2017 (COMDISPLAN) with a view to enabling the Federal Government to allocate resources to states and territories earlier.
32. Undertake a national stocktake of equipment and contracts to establish a baseline of available resources, and with a view to standardising resources to aid sharing and compatibility between firefighting agencies.
33. Remove anomalies in how the Forest Fire Danger Index (FFDI) is applied across jurisdictions, and update the FFDI to factor in climate change. (The roundtable noted the development of a new fire danger rating system which may address some of these concerns.)

National leadership and enhancing cooperation between Federal, State and Territory Governments

There is a need for new legislation that provides a clear role, accountability and responsibility for the Federal Government to provide leadership and to partner with states and territories during the prevention, preparation, response, and recovery phases of a national disaster or emergency. The legislation should:

- 34.** Include clear triggers for when the Federal Government is required to assist in disaster preparedness and response, such as when a disaster has the potential or is impacting more than one state or territory.
- 35.** Support the establishment of a national disaster management agency, or enhancement of Emergency Management Australia, tasked with developing national disaster and emergency management policy and standards, helping to manage strategic national firefighting assets, helping to coordinate the sharing of resources between states and territories and internationally, and with the authority to coordinate and allocate appropriate Federal resources as required.
- 36.** Support the establishment of a national disaster resilience agency, tasked with advancing national disaster resilience, monitoring national hazard reduction metrics, climate change adaptation, and other mitigation, prevention and preparedness measures, and assisting with major recovery efforts.

RECOMMENDATIONS

Part 5: Research, training, capacity building and community inclusion

The worsening fire conditions driven by climate change place new demands on training and capacity building, requires new investment in research, and calls for innovative and inclusive partnerships from the local to the national level. We should:

37. Establish a national fire and emergency academy to ensure new knowledge and practices are uniformly taught, and to enhance the ability of fire and emergency services to share knowledge and work together as effectively as possible.
38. Establish a national fire data service to ensure standardised collection, management, curation and sharing of nationally relevant data. A review could determine essential data sets, identify users, and consider best practice systems and processes. (The roundtable noted the Bureau of Meteorology and Atlas of Living Australia as good examples.)
39. Work towards common language, understanding of roles and responsibilities, and alignment of cultures across the various agencies and organisations engaged in disaster response, including basing training on a common emergency management doctrine.
40. Recognise the increasing demands on volunteers, who are being deployed to fight fires for longer and in very different environments than that to which they are accustomed.
41. Recognise that significant effort and resources that could otherwise be put towards training are taken up in ensuring registered training organisation (RTO) compliance. This can be reduced by having a national standard for training developed by the Federal Government, with training then delivered by state and territory agencies.
42. Support private landholders in preparing for new and more challenging conditions, noting the need to balance a range of priorities including fire management, biodiversity protection, cultural values and agriculture. This includes building the skills and confidence to implement active fire management, including planned burning.
43. Provide opportunities for staff and volunteers of fire services and land management agencies, as well as private landholders, to develop their understanding of landscape-level fire management, cultural burning, fire ecology and climate change through courses, forums and training materials.
44. Increase the capacity of Defence and other actors to provide remote area internet capability when communications are disrupted by disasters. This should be led by the Australian Communications and Media Authority and the Department of Infrastructure, Transport, Regional Development and Communications.
45. Ensure community inclusion is a key principle guiding all measures to adapt to climate change and worsening bushfire conditions. Community members should be encouraged to be active participants in shaping and implementing bushfire management strategies, noting that this increases community resilience and supports mental health. Such initiatives must be adequately resourced. (The roundtable noted the valuable role of local governments in forming inclusive partnerships with communities.)
46. Through states and territories, pilot and fund community support officers in bushfire affected communities.

47. Encourage the formation and resourcing of more community fire units in the urban-bushland interface, and development of a suitable empowerment and equipment program for rural communities.
48. Consider new options to support volunteers, who face longer and more challenging deployments due to the impacts of climate change.

ENDORSED BY

Prof Nerilie Abram, ANU ARC Centre for Climate Extremes / Australian Meteorological and Oceanographic Society

Nigel Bell, Australian Institute of Architects

Dr Simon Bradshaw, Climate Council

Mike Brown AM AFSM, Emergency Leaders for Climate Action (Former Chief Fire Officer, Tasmania Fire Service)

Jim Casey, Australian Firefighters Climate Alliance

Dr Kate Charlesworth, Climate Councillor

Bob Conroy, Emergency Leaders for Climate Action (Former Fire Manager, NSW National Parks and Wildlife Service)

Oliver Costello, Firesticks Alliance

Jo Dodds, Bushfire Survivors for Climate Action

Major General Peter Dunn AO (ret), Emergency Leaders for Climate Action (Former Commissioner, ACT Emergency Services Authority)

Cheryl Durrant, Climate Councillor

Brian Gilligan, Emergency Leaders for Climate Action (Former Director General, NSW Parks and Wildlife Service)

Dr Robert Glasser, ANU

Darren Grover, WWF Australia

Lee Johnson AFSM, Emergency Leaders for Climate Action (Former Commissioner, Queensland Fire and Emergency Services; Board Member, Bushfire and Natural Hazards Cooperative Research Centre)

Craig Lapsley PSM, Emergency Leaders for Climate Action (Former Emergency Management Commissioner, Victoria)

Amanda Lamont, Australasian Women in Emergencies Network

Greg Mullins AO, AFSM, Emergency Leaders for Climate Action (Former Commissioner, Fire and Rescue NSW)

Dr Samantha Lloyd, Queensland Fire and Biodiversity Consortium, Healthy Land and Water

Alix Pearce, Climate Council

Russell Rees AFSM, Emergency Leaders for Climate Action (Former Chief Fire Officer, Country Fire Authority Victoria)

Dr Martin Rice, Climate Council

Victor Steffensen, Mulong

Steve Sutton, Emergency Leaders for Climate Action (Former Chief Fire Control Officer, Bushfires NT)

David Templeman, Emergency Leaders for Climate Action (Former Director General, Emergency Management Australia)

Major Michael Thomas (ret), The Center for Climate and Security

Ken Thompson AFSM, Emergency Leaders for Climate Action (Former Deputy Commissioner, NSW Fire Brigades)

Vivien Thomson AFSM FARLF, Australian Firefighters Climate Alliance

Craig Welden, Queensland Fire and Biodiversity Consortium, Healthy Land and Water

EXPERT ROUNDTABLE TWO, 3 JUNE 2020

The Cost of Bushfires Fuelled by Climate Change

The cost of bushfires fuelled by climate change is increasingly being measured in the loss of life and homes, decimation of critical ecosystems, and in the physical and mental wellbeing of all Australians.

While the climate crisis affects us all, its impacts are being borne disproportionately by First Nations people, regional and rural communities, people on low incomes, young people, and many other groups.

The second Expert Roundtable in the National Bushfire and Climate Summit 2020 took stock of the cost of the Black Summer fires and projections of future fire danger, and proposed a range of practical solutions including greater investment in bushfire risk mitigation, expanding firefighting capabilities, strategies for promoting health and wellbeing in the face of climate change, building community resilience, and ensuring affordable insurance. The solutions focus on leaving no one behind and paying particular attention to the most vulnerable members of our community.

The stress and trauma of recent unprecedented bushfires has in many places come on top of prolonged drought and other challenges, piling one disaster upon another.

RECOMMENDATIONS

Part 1: Federal, state and territory funding for firefighting resources *(including forestry, national parks and fire services and disaster funding mechanisms)*

Today's reality of escalating bushfire risk fuelled by climate change demands substantial additional investments in both bushfire risk mitigation and fire control capabilities. Resourcing should be based on a holistic view of managing fire that encompasses landscape management as well as firefighting, and breaks down silos between agencies. A joined-up approach from the national to the community level, and a rebalancing in the priority given to risk mitigation versus response, including greater emphasis on effective management of both public and private land, is essential.

Fundamentally, reducing the cost of bushfires, and providing any hope of being able to adapt to our changing climate, depends above all on stronger action to tackle the root cause of climate change by rapidly and deeply reducing greenhouse gas emissions.

Investing in bushfire risk mitigation and resilience

49. Ensure that more people are resourced at the local level for both bushfire risk mitigation and bushfire response, including more firefighters. This should be across all agencies and reduce the impost on volunteers.
50. Increase Federal, State and Territory funding for firefighting across all asset types and all areas (forests, grasslands and built environment).
51. Recognise that the increasing size, intensity and frequency of major bushfires has serious ecological impacts on flora and fauna and the ability of forests to draw down carbon dioxide. Governments need to urgently review and phase out the logging and clearing of native forests, in order to preserve increasingly threatened habitats, natural values, and vital carbon sinks.
52. Increase resources available to fire services and land management agencies to conduct bushfire risk mitigation and community education,

as well as specialised response capabilities including rapid detection, appropriate fast attack aircraft, and remote area fire crews available for immediate dispatch.

53. Ensure that increases to reserved areas by governments are accompanied by proportionate increases in resources for effective landscape management including fire mitigation.
54. Increase funding for volunteer recruitment, training (including volunteer leadership), and retention programs.

Expanding aerial firefighting capability

55. The Federal Government should:
 - a. Increase the funding available for more aircraft to enable rapid detection and rapid attack strategies. This should include rotary and fixed wing aircraft of small, medium and large size, including amphibious water-scooping aircraft.
 - b. Develop a self-sufficient aerial firefighting capability in Australia. This is important given the increasing overlap of fire seasons between the northern and southern hemispheres, restricting access to medium, large, and very large water bombing aircraft. This will help to develop innovative businesses and opportunities as additional benefits.
56. Funding for the training of local pilots to fly firefighting aircraft should be increased, to reduce reliance on assets and personnel from the northern hemisphere which may be increasingly unavailable.

Investing in Community Engagement Strategies

- 57. Recognise, as a guiding factor, that money spent on proactive mitigation programs prior to an event usually has a far greater positive impact than money spent on response after a major fire occurs, and can reduce impacts, pain and suffering in the community.
- 58. Pursue new practical strategies for greater community engagement on bushfire risk mitigation and bushfire response, such as the Hotspots program in NSW, community fire units, and the Queensland Fire and Biodiversity Consortium. Increased bushfire risk driven by climate change requires a whole of government, whole of community response, and emergency services are insufficiently resourced to deliver prevention, preparation and response services.
- 59. Increase funding to fire services and land management agencies for community engagement, as well as to non-government organisations, for example Indigenous corporations, that demonstrate effective engagement with communities on landscape management and other bushfire risk mitigation strategies.
- 60. Expand provision of information and training to communities on the requirements, costs and benefits of undertaking bushfire risk mitigation work.
- 61. Empower communities to better manage risks on private property through workshops in which community members work together to create collective management plans for their properties, enabling a group approach to on-ground actions such as prescribed burning, which can otherwise be daunting, and the fostering of positive relationships between private landowners and government agencies, rather than continuing to develop plans in isolation, or to have no plans.

Investing in research to better understand future risks and strategies for dealing with them

- 62. Ensure continuing national investment in research on our rapidly changing climate and fire threat environment.
- 63. Undertake an evaluation of the effectiveness of existing aerial firefighting strategies and assets used in Australia, compared to approaches used in Europe, the USA and Canada.
- 64. Ensure continued investment in the Centre of Excellence for Prescribed Burning.



RECOMMENDATIONS

Part 2: The health costs of bushfires and climate change

The climate crisis is also a public health crisis. A shift in the dominant mindset and approach towards climate change and health is urgently needed: from dealing mainly with the health impacts of climate disasters when they happen, to focussing on prevention, preparedness, and maximising the many opportunities for better health, wellbeing and community resilience through smart action on climate change.

The rural and remote communities most impacted by bushfires and climate change are often already disadvantaged from a health perspective, with less access to healthcare and higher prevalence of underlying health conditions. The stress and trauma of recent unprecedented bushfires has in many places come on top of prolonged drought and other challenges, piling one disaster upon another. To address these compounding disasters, we require:

A national, proactive approach to tackling the climate and health crisis

- 65. Develop and implement a *national* climate change, health and well-being strategy that is based on science, spans the whole of government, and is developed collaboratively with input from all jurisdictions (national, state and local), relevant ministries, and the community. The strategy must aim to minimise future harms through swift and coordinated action addressing the root causes of the climate crisis, while preparing for the impacts that can no longer be avoided. The impact of this strategy must be regularly monitored, and the strategy further enhanced as needed. (The roundtable noted that important lessons could be taken from Australia's response to the COVID-19 pandemic, which saw decisions based on science and a willingness to work together across jurisdictions.)
- 66. The national strategy on climate change and health and well-being must be a central plank of an overarching national climate change response. This should be based on a thorough understanding of the social and environmental determinants of health and the long-term health costs of climate change. It should aim to boost community resilience to climate-related disasters, and to improve disaster response.
- 67. To ensure our health systems are climate resilient, we must incorporate climate-related health risks into national health performance standards, including an addition to the National Safety and Quality Health Service (NSQHS) Standards, designed to minimise the health impacts of climate change and ensure the continued delivery of safe quality care. This should include mandatory risk assessments and planning for surges in service demand, destruction of infrastructure and equipment, interruptions to workforce availability and supply chains.
- 68. Ensure better national coordination of health services and their integration with emergency services, informed by climate and meteorological data and information. This should include measures to ensure improved health response coordination between states and territories and overcoming metropolitan/regional divides. The involvement of primary healthcare professionals (both GPs and nurses) in disaster response and recovery planning through representation on state and territory disaster management committees and the Australian Health Protection Principal Committee (AHPPC) is vital.
- 69. Recognise the vulnerability of infants during emergencies, including exposure to environmental hazards and risks of feeding being compromised, and ensure special consideration for infants and support for their parent(s)/caregivers during emergency planning.

70. Recognise and build upon the work of Climate and Health Alliance, Doctors for the Environment, Beyond Blue and other organisations in addressing the impacts of climate change on physical and mental health.

Promoting mental health and wellbeing

71. Invest in measures to enhance social resilience and positive mental health in all communities to help cope with the long emergency of climate change. Denial of climate science, and inaction by decision-makers, is leading to increases in climate related anxiety and depression, so bolstering community resilience to maintain and build positive mental health across the whole community will limit negative impacts on productivity and avoid escalation into more complex negative health and social outcomes.
72. Ensure simplified and effective access to appropriate mental health support to all those affected by bushfires and other climate-related disasters, including through:
- a. Ensuring mental health screening and referral to individual, social and community level support services is available within affected communities for managing trauma, anger and the impact of major life stresses including loss of income, change in accommodation and change in relationships.
 - b. Ensuring support is extended to those not living in affected communities, such as people who were directly impacted by a disaster but had to relocate away from the community due to loss of a home.
 - c. Helping individuals and communities to navigate existing services, and to participate in the development of new services as needs change.
 - d. Offering greater mental health support to firefighters and other emergency responders, recognising that current arrangements are being overwhelmed.

73. Provide training to recovery service providers in recognising and addressing key risk factors for poor mental health outcomes including living in a heavily impacted community, fear of dying at the time of the disaster, loss of someone close (including friends and community members), separation from family members at the time of the disaster, intense anger, living alone, and experience of major life stressors after the disaster.
74. Ensure psychosocial recovery measures are put in place for up to five years post-disaster.

Research, monitoring and learning

75. Recognise the disproportionate impact of climate change and bushfires on First Nations people.
76. Acknowledge and draw on the knowledge, strengths and resilience of First Nations people, and ensure this is a key input to all strategies for addressing climate change and health.
77. Expand investment in research into the impacts of bushfires and climate change on physical and mental health and solutions to these challenges, including but not limited to:
- a. The full range of health impacts and their interaction with underlying conditions.
 - b. The economic costs, recognising that long-term stress and social impacts on communities can far exceed immediate costs.
 - c. The impacts, both physical and mental, upon firefighters.
78. Expand investment in vulnerability mapping programs to identify vulnerable populations and infrastructure to inform climate change adaptation strategies, disaster risk reduction, and emergency response plans.

- 79. Nominate an existing agency to oversee implementation and monitoring of the National Climate, Health and Wellbeing Strategy and task it to: provide comprehensive measurement and reporting on the environmental determinants of health (clean air, clean water, nutritious food, safe climate), alongside vulnerability mapping, in order to anticipate and prepare for new risks. This will require adequate funding and resourcing, and ongoing formal partnerships between the Bureau of Meteorology, Department of Health, and other relevant agencies.
- 80. Expand investment in early warning systems to identify potential climate related threats to health, including extreme weather events such as heatwaves, to enable rapid response to minimise the impact on communities. This must be accompanied by enhanced systems of public health advice (see recommendations 85-86 below.)

Creative approaches to community resilience

- 81. Encourage participatory and inclusive approaches to community resilience. Community-led approaches to disaster preparedness and disaster recovery, in which community members are actively involved in designing and implementing initiatives, can have strong benefits for individuals' mental health and community resilience.
- 82. Encourage investment in community groups, recognising that strong relationships within the community, and maintaining social connections following a disaster, are key factors in resilience at the individual and community level.
- 83. Prioritise restoration of community parks and recreation facilities as an important post-disaster support to mental health and wellbeing.
- 84. Recognise the disproportionate impact of climate change upon particular parts of the country, including the risk of some areas of Australia becoming uninhabitable if we do not deeply and rapidly reduce greenhouse gas emissions, and the profound effect this will have on all members of the community, but particularly vulnerable groups, in those areas.

Public information and advocacy

- 85. Ensure clear and consistent public health guidelines for days of heavy bushfire and prescribed burning smoke, including for outdoor workers, communities, and older and leakier homes.
- 86. Equip healthcare staff to provide patients and the community with appropriate advice on climate-related health risks.
- 87. Make health and wellbeing a key lens through which we understand and communicate climate change and the imperative for stronger action. This can help decision makers and the public to a deeper understanding of today's policy choices, and to imagine the vibrant and healthy futures we can build through action on climate change. Public education campaigns on health and the climate crisis can help build a compelling narrative for action, an acceptance of the scale and pace of required emissions reductions, and a foundation of support for necessary policy and practice changes.

RECOMMENDATIONS

Part 3: The insurance costs of bushfires and climate change

The global insurance sector has been reacting to climate risk for decades. The insurance community across Australia has a responsibility to take precautionary action to protect communities from climate-fuelled disasters, including worsening bushfires. Insurance is a key factor in community resilience.

Enhancing data and information

- 88.** The Federal Government should:
- a.** Commission national studies that map extreme weather risks including severe storms, flood and fire, including through compiling existing data. The resulting maps should be publicly available, and sufficiently granular to allow for analysis by address.
 - b.** Develop and maintain a national property register that details the building standards that properties are built to. The register should be updated to reflect any upgrades and changes.
 - c.** In partnership with other agencies and organisations as appropriate, implement a national public information campaign designed to help community members understand their insurance policies and risks. (The roundtable noted that this would be very challenging without the disclosure reforms in recommendation 94, below. Further, that there are limitations to the effectiveness of such a campaign, in particular its ability to reach some of the most vulnerable communities. The roundtable also encourages the Government to consult with the Insurance Council of Australia's Climate Change Action Committee.)

- 89.** Establishment of a permanent independent insurance price monitor within the Australian Competition and Consumer Commission, or as a standalone entity based on NSW Emergency Services Levy Insurance Monitor.
- 90.** To identify and respond to areas of under- and non-insurance, there is also the need for a program to analyse and publish rates of fire coverage opt-outs, premium increases, lapsed policies and non-payment of premiums, cash settlement. This program could be managed by the independent insurance price monitor, in recommendation 89. (The roundtable noted that much of this information was collected by the Insurance Council of Australia following the 2019-2020 bushfires but that privacy issues have prevented the sharing of granular information.)

Coordination and Collaboration

- 91.** The mandate of the proposed national disaster resilience agency, which would drive and monitor the effectiveness all aspects of disaster preparedness and recovery (see recommendation 36 from Expert Roundtable 1), should include:
 - a.** the impact of any mitigation work on the price and availability of insurance,
 - b.** the design, application and funding of any subsidies,
 - c.** the resulting take-up of suitable and affordable insurance cover.

Regulation

- 92. A transition system, developed by the government and insurance companies, for people in high risk properties and/or in high risk locations so that these individuals have adequate cover during transition to a safer property. This may include subsidies and buy-outs, and must be carefully designed so that it does not encourage further development in high-risk areas.
- 93. Ensure risks are disclosed to renters and businesses looking to rent in high risk locations.
- 94. Progress the Federal Treasury’s review of Disclosure in General Insurance, including modernising the ‘standard cover’ regime and standardising key terms in policies to make home building insurance comparable, predictable and suitable.
- 95. Standard policy terms must be adequate for all rebuilds to new standards (i.e. must provide for full reinstatement or an option to relocate), must ensure policy is fit for purpose over the life of the building, and must consider risks from climate change.

Pricing, Affordability and Underinsurance

- 96. Establish an independent expert panel to review insurance affordability in Australia, having regard to the rising levels of financial difficulty and the worsening impacts of climate change. This must build on existing knowledge and the outcomes of past reviews, but with a broader focus on the impact of climate change risks across Australia.
- 97. The independent expert panel should work with the insurance industry as well as Federal, State and Territory Governments and consumer groups to complete a comprehensive review of the impact of climate change on the provision of insurance and to map possible solutions to the challenge presented by insuring properties in high risk areas.

- 98. Explore barriers to total replacement building insurance policies, and address these to make this type of insurance more attractive and widely available. This will help to address issues that arise after properties are damaged in a bushfire.
- 99. Develop a standard for sum insured calculators. This must incorporate modelling of climate risk, and include costs such as debris removal, demolition, and other services. This will help reduce underinsurance, ensure calculators have a transparent basis for their calculations, and ensure that inputs are available to consumers in the event of dispute. (The roundtable noted that such transparency is particularly important to assist individuals living in areas of high climate risk.)
- 100. Support systems of value capture (the recovery of some or all the value that public infrastructure generates for private landowners) so that councils or other actors that reduce insurance cover through municipal action can recover the investment.
- 101. Mortgage lenders must require, as part of the serviceability test, an insurance cost projection for the life of the mortgage, with climate change risk included (notwithstanding inevitable uncertainties over a 30-year period). Mortgage lenders can also offer incentives to ensure the properties remain insured, such as a discount off your next mortgage payment if you provide a certificate of currency, and regularly check in with their clients about their insurance coverage.
- 102. Ensure that insurance pricing is a fair and transparent reflection of the resilience of the property, so that people who build/invest in resilience measures are rewarded with lower insurance premiums.

RECOMMENDATIONS

Part 4: Costs for bushfire affected communities and the organisations that support them

A very large number of Australians are directly exposed to escalating bushfire risks. Outdated planning regimes have allowed building in areas of very high risk, and retrofitting for greater safety or retreating to areas of lower risks can be challenging and costly.

The costs of bushfires are borne disproportionately by regional and rural communities and will deepen inequalities and entrench poverty. Volunteers face exhaustion and employment risks through longer deployments and more challenging conditions.

First and foremost, with climate change leading to ever greater fire dangers, reducing the cost upon vulnerable communities means stronger national action to curb greenhouse gas emissions. At the same time, a raft of adaptation and resilience-building measures from community resilience hubs to supporting people with retrofitting their homes are essential to addressing mounting risks and vulnerabilities.

Understanding what works

- 103. Fund research into the relative benefits and cost effectiveness of different building and retrofitting options and other strategies for preparing properties, particularly AS3959.
- 104. Establish an appropriate national body to house this research and translate it into accessible guidance.

Building the resilience of our homes and communities

- 105. The Federal, State and Territory Governments should establish and fund community resilience hubs for every local government area in vulnerable parts of the country. Having been established in advance of disasters, such hubs will have already developed a community-led

plan for reducing disaster risks and responding to disasters when they occur. Building trusting relationships prior to a disaster is critical, as help will be required from trusted sources for a long period. These community resilience hubs should receive an ongoing level of base funding, with additional funding available when needed to respond to a situation. The hubs will provide:

- a. A permanent and trusted facilitator who can link everyone together.
 - b. Information on escalating bushfire and other natural disaster risks, climate change, and resilience strategies.
 - c. A connection to relevant community and governments services, and between community and government services.
 - d. Long-term support for communities before, during and after a disaster.
- 106. Support people to improve the safety of their homes and reduce their insurance premiums through affordable retrofitting and other measures.
 - a. Establish incentives for making houses safe and more resilient, including subsidies and rebates.
 - b. Build greater awareness nationwide of retrofitting options.
 - 107. Provide stronger guidance, and if necessary, regulation, on areas where people should not build due to risk.
 - 108. Recognise and support the *Regional Horizons* vision, developed by Farmers for Climate Action, for a resilient and prosperous future for regional and rural Australia.

Supporting volunteers

- 109. Ensure better accounting of the time provided by volunteers, as a first concrete measure towards greater recognition of and respect for volunteer efforts.
- 110. Expand training, in particular those at the top of the organisation, including volunteer incident controllers and officers, who require strong leadership and decision-making skills to cope with increasingly challenging scenarios.
- 111. Further explore the question of remuneration for volunteers who are deployed for extended periods and suffer hardship and / or loss of income.

Simplifying access to support

- 112. Expand the capacity and opening hours of mobile recovery centres and outreach clinics.
- 113. Streamline and integrate government payment processes so that help gets to people on the ground quickly. People should be able to access all levels of government assistance and other assistance through a single application. Administrators should exercise leniency and flexibility, minimise bureaucratic hurdles, and be aware that people may be unable to provide requested documentation if their property has been destroyed or they have been evacuated.



ENDORSED BY

Fiona Armstrong, Climate and Health Alliance

Nigel Bell, Australian Institute of Architects

Nicholas Biddle, ANU Centre for Social Research and Methods / ANU Policy Experiments Lab

Dr Simon Bradshaw, Climate Council

Mike Brown AM AFSM, Emergency Leaders for Climate Action (Former Chief Fire Officer, Tasmania Fire Service)

Denise Cauchi OAM, Doctors for the Environment Australia

Wendy Cohen, Farmers for Climate Action

Helen David, Small Business Financial Counselling

Emma Dawson, Per Capita

Major General Peter Dunn AO (ret), Emergency Leaders for Climate Action (Former Commissioner, ACT Emergency Services Authority)

Linda Fienberg

Robert Henderson, former chief economist at NAB

Peter Holding AFSM, Farmers for Climate Action / Climate Kelpie

Dr Arnagretta Hunter, ANU Medical School

Lee Johnson AFSM, Emergency Leaders for Climate Action (Former Commissioner, Queensland Fire and Emergency Services; Board Member, Bushfire and Natural Hazards Cooperative Research Centre)

Karl Mallon, Climate Risk

Amanda McKenzie, Climate Council

Sam Mostyn, Climate Council Director

Greg Mullins AO, AFSM, Emergency Leaders for Climate Action (Former Commissioner, Fire and Rescue NSW)

Alix Pearce, Climate Council

Dr Martin Rice, Climate Council

Anthony Saunders, EnviroSure

Jim Smith AFSM, Emergency Leaders for Climate Action (Former Deputy Commissioner, Fire and Rescue NSW)

Ken Thompson AFSM, Emergency Leaders for Climate Action (Former Deputy Commissioner, NSW Fire Brigades)

David Templeman, Emergency Leaders for Climate Action (Former Director General, Emergency Management Australia)

CASE STUDY

Mount Barney Lodge

For two generations, the Larkin family has owned and operated Mt Barney Lodge, an ecotourism retreat situated at the base of Mount Barney within the Scenic Rim on the Gold Coast, where nearby attractions include mountain ranges, beautiful rainforests, hidden waterfalls and hiking trails.

Despite its tourism drawcards, climate change has posed a continuous threat to the future of the lodge and the Larkins' livelihood.

Climate impacts in the region range from bushfires to flooding, with tourism businesses including the Larkins having to close on several occasions in the past five years due to extreme weather events.

In September 2019, unprecedented fire conditions swept through the Scenic Rim, sparking a fire in the mountain ranges. Lodge co-owner Innes Larkin had never seen such intense fires before, nor experienced the level of concern shown by QPWS, RFS and Police.

As the fire raged on, thousands of hectares of World Heritage Listed forest was destroyed and large numbers of Queensland native wildlife, including koalas, were killed. The Larkins evacuated their guests, and Innes stayed behind to defend their property.

The resulting loss of tourism income to the area was huge, only to be compounded by post-bushfire flooding, as well as the COVID-19 pandemic.

The family had released "Barney Bonds" so that people could come back after the fires; but the COVID-19 lockdown, just days before they were due to reopen, hampered that and caused severe stress about the future of the business.

JobKeeper has been a "lifesaver" for the Larkins, and the Lodge has welcomed record visitor numbers since the lockdown lifted in early June. Innes Larkin chalks this down to more people seeking out the healing influence of nature after a long period of isolation.

The compounding disasters of the bushfires and COVID-19 have spurred the Larkin family to call for stronger climate action—they are lobbying their local council to declare a climate emergency, and starting conversations with guests about the importance of nature conservation.

The Larkin family has been resilient through multiple shocks, but are conscious that Queensland's bushfire season is fast approaching again.

The family is anxiously watching for rain to keep the World Heritage forests' moisture levels up. A reminder that even when COVID-19 passes, the need to urgently tackle climate change remains.



COMMUNITY ROUNDTABLE, 7 JULY 2020

Bushfires and Climate Change in NSW

An effective and equitable response to the climate change and bushfire crisis must be grounded in the experiences, leadership, needs and strengths of communities.

This roundtable, the first of two planned Community Roundtables in the National Bushfire and Climate Summit 2020, brought together community leaders, bushfire survivors, scientists and many others to talk through the challenges that communities are still facing as they rebuild following the Black Summer fires, the lessons they have learned, and practical solutions for building community resilience. (A similar roundtable planned for Victoria was postponed due to the COVID-19 crisis.)

The roundtable heard confronting stories of trauma and loss from the Black Summer fires, as well as inspiring examples of community-led recoveries. Participants made many recommendations for how governments and other agencies can better support communities before, during and after a disaster, as well as on the role of communities in driving stronger action on climate change from the local to the national level.

These realities demand that we reorient ourselves towards prevention and preparedness, and recognise the needs and strengths of our most vulnerable.

RECOMMENDATIONS

Part 1: Physical and mental health impacts of bushfires

The climate crisis is the number one long-term threat to public health for communities in Australia and worldwide. While no one is immune to the health impacts of bushfires and climate change, the impacts are borne disproportionately by a number of especially vulnerable groups, who may also have less ability to access healthcare.

In addition to a large number of growing threats to physical health, bushfires and climate change also pose significant and growing challenges to mental health and wellbeing. The Black Summer fires brought not just days but weeks and months of constant stress and fear onto many communities, and came on top of a crippling drought – epitomising the increasing severity, duration and compounding nature of climate-related hazards.

These realities demand that we reorient ourselves towards prevention and preparedness, recognise the needs of our most vulnerable, increase the availability of information on air quality and other environmental determinants of health, and support innovative, community-led approaches to promoting wellbeing and building resilience to the escalating health hazards from bushfires and climate change.

- 114.** All levels of Government should assist communities in improving health and wellbeing by shifting their focus towards prevention and preparedness, rather than merely reacting to harms when they occur. This must be based on recognition of how human health is dependent on a healthy environment, and a clear understanding of community needs. It should integrate bottom-up (local community-led) and top-down approaches to enhancing individual and community resilience and wellbeing.
- 115.** Ensure readily available, real-time and nationally consistent information and alerts on air quality, fires and other hazards. This should be integrated with other information services, including those of the Bureau of Meteorology, in order to provide dynamic and comprehensive information to

guide both communities and agencies in disaster preparedness and response. This must be able to factor in compounding/cascading events, and must be accompanied by public education on the increasing health risks associated with climate change.

- 116.** Develop a program to promote mental wellbeing in the face of climate change. This program should:
- a.** Support individuals and communities in understanding how climate change affects them, how they can prepare, and how to manage fear and anxiety.
 - b.** Provide tools and a safe space for emergency responders and community members to talk about mental health.
 - c.** Support community resilience hubs, where individuals can access appropriate support. (See recommendation 105 from Expert Roundtable 2).
 - d.** Offer education on what to do during an emergency, recognising the common tendency to believe that the dangers will not affect you, or the reluctance to move if responsible for animals.
 - e.** Offer mental health support to firefighters, including volunteers, recognising the increasing mental and emotional toil of bushfires fuelled by climate change.

- 117. Support long-term, adequately resourced, inclusive and community-driven programs for wellbeing that:
 - a. Focus on promoting mental health before, during and after an event.
 - b. Ensure adequate facilities and services.
 - c. Support relationship building through social activities.
 - d. Engage community members in landscape management, disaster recovery, and other community projects, noting the demonstrable benefits of involvement in such shared activities for the mental and physical health of individuals and communities.

- 118. Provide sustained and adequately resourced mental health services to small, remote communities. This must be based on an understanding of the new threats and circumstances being experienced due to climate change, including the impact that loss of large areas of bushland and wildlife is having on mental health. It must recognise that many communities, and the vulnerable groups within them, are already facing a mental health crisis.

- 119. Fund more bushfire and heatwave refuges in areas facing high risk of bushfires, including suitable places for the elderly.

RECOMMENDATIONS

Part 2: Supporting communities to manage land and worsening fires, and to protect ecosystems and wildlife

The growing intensity and scale of bushfires and other climate-fuelled disasters are already overwhelming existing land management and wildlife recovery efforts. The first priority is therefore to ensure all possible efforts to tackle the root causes of the climate crisis in order to minimise future harms.

This must be accompanied by efforts to more effectively manage land and protect ecosystems and wildlife, in particular through greater government support to community initiatives, and through fostering the understanding that our own safety and wellbeing is dependent on the health of our ecosystems.

- 120.** Develop a strategic level plan for community engagement in land management, risk reduction and resilience building. This will ensure an overall vision at the Federal, State and Territory Government level, identification of gaps, and the integration of a range of new and existing initiatives into a coherent and comprehensive plan that meets the needs of communities and maximises their capabilities. This strategic level plan should:
- a. Be adequately funded and resourced.
 - b. Be driven by and enacted by communities.
 - c. Include metrics for its implementation at the district level.
 - d. Support communities in developing land management and risk reduction plans. This may include supporting communities with overcoming divisions and building consensus around desired approaches.
 - e. Support new and existing programs, as appropriate, including community fire units.
- 121.** Empower communities through locally-specific, actionable, and easily accessible information about climate change, bushfire risks, and strategies for risk reduction and resilience. This begins with listening to local needs, recognising local strengths and capacities, and providing an accessible pathway for engagement. It requires a paradigm shift from top-down approaches towards locally-specific, community-led approaches. It may involve trialling a range of models of engagement within communities, understanding what works, and then scaling up accordingly.
- 122.** The Federal, State and Territory Governments, in partnership with relevant agenda and local governments should ensure a new holistic vision for landscape management, based on a better understanding of our connection to nature and dependence upon healthy ecosystems, and which:
- a. Addresses logging of native forest.
 - b. Listens to Traditional Owners and supports Indigenous-led land management. (This should include, but not be limited to, increasing the number of Indigenous land and water rangers, recognising the opportunities for good jobs on Country.)
 - c. Protects unburned areas and recognises their role in the recovery of ecosystems and wildlife.
 - d. Protects ecosystems and wildlife in the face of future fire dangers.
 - e. Embraces the opportunities of regenerative agriculture.
 - f. Pays particular attention to risk management at the rural-urban interface.

123. Ensure better coordination and resourcing of wildlife recovery efforts, noting the additional benefits for individual and community wellbeing that can come through being involved in this work. The coordination function could be taken on by an existing organisation with the necessary authority and legitimacy. However, while such efforts are essential, we must also recognise that ecosystems and wildlife are already being pushed beyond their ability to adapt, and recognise the sheer number of animals killed by the Black Summer fires. No amount of remedial work can come close to dealing with the scale of recent losses, and therefore we must focus above all on strengthening national and international efforts to reduce greenhouse gas emissions and prevent ever more dangerous levels of climate change.
124. Develop a greater understanding of the scale and nature of the workforce required to implement effective land management and risk reduction work, and develop a framework for this workforce that brings together paid workers and volunteers, enabling all to work together as effectively as possible. (The roundtable noted that there is already a significant number of people with the skills to do such work, some of whom may be looking for jobs in the wake of the COVID-19 crisis.)

RECOMMENDATIONS

Part 3: Community impact – economy, infrastructure and agriculture

The Black Summer fires have taken an immense toll on the livelihoods, infrastructure and economies of local communities. While communities have shown immense strength and resolve during and after disasters, they must receive adequate support from all levels of government if they are to recover and thrive in the face of growing threats due to climate change.

The period of recovery must be seen as an opportunity to build back better. The needs and strengths of communities must be at the heart of these efforts, with all support geared towards empowering communities to lead the recovery on their terms and in ways that capitalise on their inherent strengths, and to build their community to be stronger, more prosperous, and more resilient to future challenge.

Supporting a community-led recovery

- 125.** Federal, State and Territory Governments should provide funding and support that empowers communities themselves to adapt to climate change, build resilience, and reduce emissions over the coming decade. During the immediate recovery period, governments need to identify, engage and support community leaders who can lead the recovery. They must provide adequate funding to local governments to clean up in the aftermath of disasters. This includes financial support for local councils and frontline organisations to better engage with communities and empower them to develop local resilience strategies that fit with their local context and harness their strengths (such as a detailed plan for the City of Ryde, soon to be adopted).

Boosting health services

(See also Part 1: Physical and mental health impacts of bushfires)

- 126.** Increase access to healthcare services in bushfire affected communities, based on a clear understanding of community needs, and through building the size of the workforce, including non-hospital-based workers, that can be mobilised to address disasters. This can include incentives for healthcare workers to work in regional areas, and removing any barriers currently inhibiting them from doing so; more effectively mobilising general practitioners (GPs) by working through the Royal Australian College of General Practitioners to identify which GPs are available in the local area; and providing GPs with training in disaster response. The government should also maintain rebates for telehealth, to allow patients in bushfire affected areas to access remote healthcare.

Building back better

- 127.** The principle of building back better needs to be central to all funding and community education during recovery. The aim should not be to return the economy, infrastructure and environment to its old state, but to a better, cleaner and more resilient state. Regulations need to support this aspiration, for example through appropriate building standards, and through factoring in climate projections. It must also be recognised that many of those living in precarious circumstances, such as under very high bushfire risk, are doing so as they are unable to afford alternatives, and that we must therefore work to ensure that appropriate resilience measures are accessible and affordable to all.

128. Investing in renewable energy should be at the heart of building back better. Federal, State and Territory Governments should invest in renewable energy, including supporting local community-owned and decentralised energy schemes, as a way of creating new jobs and prosperity in bushfire affected regions, and must cease all funding and support for fossil fuels. Supporting renewable energy also helps set Australia on the path to net zero emissions, thereby helping reduce the risk of future economic and environmental shocks.

129. Undertake a review of the resilience of local critical physical and social infrastructure, and where necessary provide funding to ensure it can be upgraded to ensure continuous operation during and after a disaster. Decentralised infrastructure – such as solar and battery systems, and micro-grids – is important to disaster resilience.

Dealing with the costs of disaster recovery

130. The Federal Government should develop a rebate scheme that supports bushfire affected communities, including farmers, with overcoming challenges and costs during disasters, such as a lack of drinkable water and power. Rebate schemes for solar and battery systems would also help people develop energy self-sufficiency and greater resilience to disasters in future.

131. State and Territory Governments should increase funding and support to protect national parks, including the species they harbour, from future fire dangers and assist with their recovery. This should be accompanied by clear information on how community members can assist bushfire affected wildlife.

132. The Federal Government should establish a national climate disaster fund. This fund would be dedicated to meeting the increasing cost of climate-fuelled disasters, would be independently administered, and money would be raised through a levy on fossil fuel producers.



RECOMMENDATIONS

Part 4: Achieving change through community action

Actions by the community and their local councils are at the heart of responding to the climate crisis, building the clean economies of the future, and developing greater resilience to worsening fire danger and other climate impacts.

Local initiatives such as community-owned renewable energy schemes and disaster risk reduction efforts can provide concrete solutions to climate change while also bringing many other benefits to communities. Furthermore, through bringing community members together, strengthening relationships, and establishing common interests, they can help to transform politics from the bottom up, thereby helping overcome persistent political barriers to climate action.

However, while taking hope from the generational change that is occurring and through positive examples of community action, roundtable participants expressed immense frustration at the state of climate politics nationally and the woeful lack of action, even in the face of the catastrophic Black Summer fires. They attributed this to the corrosive influence of vested interests. Communities cannot do it alone. Dealing with the challenges of climate change and worsening bushfires requires all levels of government to work together, including properly resourcing action at the community level.

To better harness the power of community action towards building resilience and achieving net zero emissions, and to force governments to take stronger action on climate change to protect local communities:

- 133.** Take practical steps to address the disproportionate influence of fossil fuel interests within Australian politics, recognising that these vested interests have held back action on climate change, risking a future of increasing dangers and hardships for all Australians. Such steps could include, but are not limited to, ensuring greater transparency of and limitations upon campaign funding and other political donations, and establishing a national anti-corruption commission. These measures will
- serve to strengthen Australian democracy, and are essential to addressing the climate crisis.
- 134.** The NSW Government should support and encourage local councils to create climate action plans that are designed to achieve net zero emissions and to build community resilience to the impacts of climate change. The NSW Government must provide appropriate resources to local councils to develop these plans. The plans should:
 - a.** Assess greenhouse gas emissions from local council operations and across the local government area, and identify a path to net zero emissions.
 - b.** Empower and incentivise communities to build energy security, affordability and self-sufficiency through community-owned clean energy projects including microgrids. Such schemes not only play an important part in decarbonising Australia's electricity production, but bring additional benefits to communities including cost savings and ownership of a productive asset, and can be an important factor in overall community resilience.
 - c.** Empower local community members to work together more broadly towards a shared vision of community resilience and responding to the climate crisis. This may include community-based and council-led adaptation plans and disaster risk reduction.
 - d.** Facilitate the education of local community members on their role in addressing climate change, both in terms of mitigation (reducing emissions) and adaptation (adjusting to climate impacts).
 - e.** Engage the younger generation and support their leadership.

135. Community leaders should be resourced to help build local community resilience, including disaster preparedness and response, through empowering the local community to be actively involved in decision making, and by drawing on local values and strengths. Support for these local 'champions' should include:
- a. Toolkits that provide guidance and support for starting local initiatives.
 - b. Matched funding by the Federal or State and Territory Governments.

ENDORSED BY

Pablo Bateson, City of Ryde

Cr Elly Bird, Lismore City Council

Dr Simon Bradshaw, Climate Council

Jonty-Jack Bruce

Assoc Prof Peter Davies, Macquarie University

Jo Dodds, Bushfire Survivors for Climate Action

Dr Grahame Douglas, National Parks Association of NSW / Western Sydney University

Leighton Drury, Fire Brigade Employees Union

Major General Peter Dunn AO (ret), Emergency Leaders for Climate Action (Former Commissioner, ACT Emergency Services Authority)

Cr Amanda Findley, Shoalhaven City Council

Dr Angela Frimberger

Jenny Goldie, Climate Action Monaro

Brian Gilligan, Emergency Leaders for Climate Action (Former Director General, NSW Parks and Wildlife Service)

Dr Turlough Guerin, AG Institute Australia

Dr Michelle Hamrosi, Australian Parents for Climate Action

Peter Holding AFSM, Farmers for Climate Action / Climate Kelpie

Chiara Holgate, Australian Meteorological and Oceanographic Society

Dr Arnagretta Hunter, ANU Medical School

Cr Dominic King, Bellingen Shire Council

Dr Kim Loo, Doctors for Environment Australia

Madi Maclean, Blue Mountains Conservation Society

Kathryn Maxwell, South Coast Health and Sustainability Alliance

Dr Kathryn McLachlan, Macquarie University

Greg Mullins AO, AFSM, Emergency Leaders for Climate Action (Former Commissioner, Fire and Rescue NSW)

Alix Pearce, Climate Council

Dr Martin Rice, Climate Council

Jim Smith AFSM, Emergency Leaders for Climate Action (Former Deputy Commissioner, Fire and Rescue NSW)

Cr Carol Sparks, Glen Innes Severn Council

Prof Will Steffen, Climate Councillor

Vivien Thomson AFSM FARLF, Australian Firefighters Climate Alliance

Dr Bob Vickers, Doctors for the Environment Australia

Prof Iain Walker, ANU

CASE STUDY

Lake Conjola community-led recovery

The New Year's Eve fires on the New South Wales South Coast tore through dozens of towns, including the community of Lake Conjola, where more than 130 homes were destroyed, and three people died.

Lake Conjola's recovery has been community-led, and to a large extent, community-funded. The Conjola Community Recovery Association was set up after the fires and initially helmed by ELCA's Peter Dunn.

Cut off from outside help by closed roads, power losses and problems with telecommunications, the community banded together to pick up the pieces in the aftermath of the disaster. Immediate priorities included restoring essential services like power and connectivity; arranging mental health support for traumatised locals; and beginning the clean-up process.

It has been challenging to access government funding for rebuilding, but the Conjola community has raised about \$350,000 to fund its own recovery.

The association's next priorities include improving the area's infrastructure and amenities, including building bicycle paths to connect villages in the area to one another; working with Traditional Owners to restore the Lake Conjola ecosystem which has been damaged by the fires; organising temporary housing in town for locals who lost their homes; and for the first time in the town's history, developing evacuation plans to prepare for worsening bushfires in the future.

Since the Black Summer, the Conjola community has also had to overcome severe flooding and the COVID-19 pandemic. But the connections forged in the aftermath of the fires have brought the community closer together, ensuring that even the most vulnerable members are looked after during the stressful and isolating lockdown period.

With recovery experts from Government and non-governmental organisations commencing work in the town, the Conjola Community Recovery Effort is starting to transition from a volunteer-led recovery model to a professional model.

The community has come out of an incredibly difficult seven months more resilient and connected than ever.

The full recovery process will likely take up to three years. In that time, Conjola locals and community leaders alike continue to advocate for strong climate action and a swift transition to a net zero emissions economy.



COMMUNITY SECTOR ROUNDTABLE,
IN COLLABORATION WITH ACOSS, 20 JULY 2020

Bushfires, Climate Change and the Community Sector

Community Sector Organisations (CSOs) play a crucial role in supporting people on low incomes or experiencing disadvantage before, during and in the long recovery phase following bushfires and other disasters. However, CSOs may face many challenges in being able to meet these needs effectively, particularly as they become greater due to climate change.

This final roundtable in the National Bushfire and Climate Summit 2020 was hosted by the Australian Council of Social Service (ACOSS) and the Victorian Council of Social Service (VCOSS). It brought together people from CSOs large and small, along with other experts from across Australia, to share experience and insights on what is needed to better support the community sector in the context of bushfires fuelled by climate change, and in particular to support people on low incomes or experiencing disadvantage before, during and after a bushfire crisis.

All Government initiatives must empower communities to build their resilience and lead recovery efforts.

RECOMMENDATIONS

The needs and strengths of communities are at the heart of bushfire preparedness, response and recovery. All government initiatives must empower communities to build their resilience and lead recovery efforts on their terms. The need for genuine community partnership, including with Aboriginal and Torres Strait Islander peoples, communities and organisations (as outlined in the Closing the Gap Partnership Agreement), is essential across all recommendations for improving the nation's future preparedness, responsiveness and recovery efforts.

Governments must do more to reduce emissions in line with the Paris Agreement

- 136.** Greater Government action to address the climate crisis and reduce emissions to net zero before 2050.

Governments must increase support to people and communities to build resilience, prepare, respond and recover from bushfires

- 137.** Reduce poverty and disadvantage to ensure people and communities have the resources to prepare for, respond to, and recover from disasters, including:
- a.** Adequate social security, which will require a permanent increase to income support payments.
 - b.** Access to employment opportunities for at risk groups and regions, including Aboriginal and Torres Strait Islander communities.
 - c.** Access to affordable essential services.
 - d.** Access to affordable, adequate, secure and sustainable housing.
- e.** Access to clean energy.
 - f.** Access to transport.
 - g.** Access to appropriate information and knowledge resources and communications technology.
- 138.** Provide adequate support during disasters such as bushfires, including:
- a.** Increasing the Australian Government Disaster Recovery Payment from \$1,000 to \$3,000, and from \$800 per child to \$1,000 per child.
 - b.** Increasing amount and length of disaster recovery allowances.
 - c.** Commonwealth Rent Assistance should be made available for people eligible for Disaster Recovery Allowances who are renting privately.
 - d.** Covering funeral costs for people who have lost their lives in a natural disaster.
 - e.** Working with essential service providers, including energy, water, and telecommunications, to provide relief to customers during disasters and the immediate aftermath to, in addition to hardship programs, implement a temporary suspension of billing, moratorium on disconnections in affected areas, and moratorium on debt collection in affected areas.

- 139.** Improve access to support payments and services during recovery by:
- a.** Streamlining the processes into one point of access.
 - b.** Coordinating available support to reduce confusion and duplication.
 - c.** Expanding mobile recovery centres and after-hours outreach clinics in regional and rural areas.
 - d.** Allowing for data and information sharing (with consent) to ensure trauma is not exacerbated by forcing victims to repeat their stories.
 - e.** Ensuring information is accessible to address all needs, in a culturally appropriate form, and including language needs, disability, and to those who can't access technology.
- 140.** Develop Government Emergency Response Protocols that outline immediate actions in the event of an emergency, including:
- a.** Waiving mutual obligation requirements for income support payments.
 - b.** Suspending income management of welfare payments.
 - c.** Relief from Community Development Program (CDP) responsibilities during and directly after disasters.
 - d.** Expediting payments.
- 141.** Additional funding to meet increased demand for social support services during and post disaster that is tailored and responsive to community needs, including:
- a.** Increased funding for emergency and food relief.
 - b.** Funding and resources for legal services and financial counselling.
- c.** Adequate and culturally appropriate mental health support, available to disaster affected communities in the short, medium and long term.
 - d.** Increased local specialist domestic and family violence services (including elder abuse), particularly in the short to long-term recovery period after a disaster.
 - e.** Increased availability of social, community and Aboriginal housing in affected areas.
- 142.** Support Community Sector Organisations (CSOs) to respond to natural disasters by:
- a.** Providing flexibility in government grant agreements for local CSOs to expedite emergency grant arrangements to meet community needs.
 - b.** Providing a Contingency Flexible Fund for local CSOs.
 - c.** Enabling local CSOs to manage surge capacity to meet the increased demand for services during and in the aftermath of the disaster.
 - d.** Ensuring immediate financial compensation for CSOs affected by intensive unprecedented response and recovery efforts.
 - e.** Ensuring CSOs are not penalised for failing to meet contractual obligations due to their participation in disaster response and recovery efforts.
 - f.** Supporting ACOSS and the COSS network to create a one stop national online resource for how to get help and how to help in the disaster crisis.
- 143.** Funding to support Aboriginal and Torres Strait Islander peoples and communities, including:
- a.** Aboriginal and Torres Strait Islander Land Councils, to invest in infrastructure on lands managed by Aboriginal and Torres Strait Islander people, such as access to water sources, fire trucks, roads, fire trails, and community training, to improve resilience to bushfires.

- b. Aboriginal and Torres Strait Islander communities to develop strategies to prepare for, respond and recover from natural disasters such as bushfires, that build on traditional and local knowledge.

Australia must shift to a whole-of-community, all-hazards, nationwide approach to better build resilience, plan, respond and recover from emergencies

- 144. Establish a formal disaster management mechanism that has a whole-of-community approach to and responsibility for planning, resilience, response and recovery. This should include Federal, State and Territory and local governments, Aboriginal and Torres Strait Islander Land Councils and community leaders, businesses, the community sector, and members of the community (see also recommendation 147).
- 145. Fund local councils to form local community resilience committees to promote collaboration and joint planning between government, Community Sector Organisations (CSOs), community groups and local businesses. These committees could be subcommittees of relevant Federal, State and Territory emergency management committees (see also recommendations 147 and 148).

Greater recognition of the role of Community Sector Organisations (CSOs), especially local and place-based, in supporting people and communities to build resilience, prepare, respond and recover from disasters such as bushfires

- 146. Governments and emergency management services should formally recognise the critical role of CSOs in helping people and communities build resilience, prepare, respond and recover from emergencies, and adequately fund the role to be able to meet the ongoing needs of people and communities as the scale and intensity of disasters increase due to climate change.

- 147. Formally identify, consult with and incorporate CSOs - including Aboriginal and Torres Strait Islander organisations (especially community-controlled organisations), multicultural organisations, small/local CSOs, and those supporting people with disability, children and youth, and the elderly - in emergency management governance arrangement at Federal, State and Territory and local level to improve preparedness, response and recovery.

- 148. Create and fund local community disaster management hubs that are community-led and engaged in building resilience and assisting in emergency management planning, response and recovery. These should:
 - a. Serve as a lasting and trusted facilitator who can link communities together.
 - b. Provide information on escalating disaster risks, climate change and resilience strategies.
 - c. Serve as a connector between community and government services.
 - d. Be resourced with ongoing funding.
 - e. Lead resilience building, response and recovery programs.
 - f. Access local leadership, knowledge and expertise.
 - g. Develop partnerships with local CSOs and emergency management agencies.
 - h. Support collaborations, networks and leadership.
 - i. Support people experiencing disadvantage before, during and after disasters.
 - j. Publish emergency preparation plans and help members of the community to establish their own disaster preparation plans.
 - k. Embed an autonomous local community liaison role within bushfire affected and vulnerable communities.

149. Fund and support CSOs to build their capability and capacity to ensure they and their clients are more resilient to and can better respond and recover from disasters such as bushfires. Including to:
- a. Implement disaster management and business continuity plans within the organisation.
 - b. Train and support staff and volunteers to implement disaster management and business continuity plans.
 - c. Ensure that frontline responders and CSOs have access to key support services, such as vicarious trauma training and psychological support, for staff and volunteers. This should be provided on an ongoing basis.
 - d. Grow the diversity of volunteers to reflect community needs and invest in CSOs to help manage the many spontaneous volunteers, who commonly offer support during bushfires and other disasters.
 - e. Build the resilience and preparedness of their clients and undertake community resilience activities to boost preparation for disasters and reduce vulnerability. This could include strengthening social networks and connectedness within the community.
150. Government funds to support the COSS network and peak bodies to strengthen the resilience of CSOs:
- a. Train and support CSOs to develop and implement disaster management and business continuity plans.
 - b. Establish knowledge sharing hubs between CSOs that support collaborations, networks and leadership.
 - c. Access and referrals to build capability and capacity of staff and volunteers, including trauma informed services.
 - d. Advocacy and communications with governments.

Upskill the staff and volunteers of Community Service Organisations (CSOs) and raise awareness of the role they play in emergency management

- 151. Emergency management organisations should work with CSO peak bodies to develop culturally appropriate training strategies to upskill the staff and volunteers of CSOs in (a) disaster management roles and (b) how to work disaster resilience and preparedness consistently into their regular operations/management/strategies. This could include a toolkit for CSOs to provide guidance on roles and better practice.
- 152. Provide appropriate training for volunteers that could lead to formal recognition such as a less intensive version of the Certificate IV in Emergency Response Coordination.
- 153. Governments should work with CSO peak bodies and emergency management organisations to engage universities and training providers to incorporate emergency management and community-led preparedness and recovery content in relevant degree and training programs.
- 154. State and Territories should implement initiatives to raise the awareness of the role of local CSOs in disaster management, including:
 - a. Expanding emergency management training to include an overview of the role of CSOs in supporting people and communities to prepare, respond and recover from disasters.
 - b. Understanding of the role of CSOs within emergency management training.
 - c. Inclusion of CSOs in policy development and emergency management forums.
 - d. Specific communications outlining the role and value of including CSOs in disaster management.
 - e. Involving senior leadership as champions.
- 155. Education for other stakeholders, emergency services, business, and the broader community about the value of CSOs in delivering disaster management services.

Fund Research to better support Community Sector Organisations (CSOs), communities and community members to build resilience, prepare, respond and recover from disasters such as bushfires

- 156. Analyse and evaluate the contribution made by CSOs to emergency management work. This research will measure and demonstrate the work and value (including monetary value and return on investment) provided by CSOs during disasters. The research findings should also be translated and accessible to community workers.
- 157. Support the development of an online tool that includes a social vulnerability index (such as the Australian Natural Disaster Resilience Index) and online mapping feature to help identify where communities may need additional support to build resilience, prepare, respond and recover from disasters. The tool should be used in the development of local climate change resilience and emergency management plans to better address the needs of people and communities more vulnerable to disasters.
- 158. Fund research to better understand the impacts of disasters on Aboriginal and Torres Strait Islander peoples and facilitate their involvement in recovery.
- 159. Undertake research to better understand and articulate recovery needs of communities and community members.
- 160. Funded bushfire research should also involve the practices of Aboriginal and Torres Strait Islander peoples in preparing for, responding to and recovering from bushfire and other disaster events, including landscape management.

Improve access to affordable insurance

- 161. Establish a review on insurance affordability in Australia, with regard to worsening impacts of climate change and rising levels of financial difficulty. The review should consider options for ensuring insurance coverage for people on low incomes.

- 162. The Government and industry should work together to increase the affordability and accessibility of insurance products for people living on low incomes. A range of low-cost products, payment options and mechanisms should be made available to make premiums easier to manage, including:
 - a. Increasing the number of targeted low cost products through more insurance companies. For example, Good Shepherd Microfinance, in partnership with Suncorp/AAI, currently offers premiums of as little as \$4 per week for eligible people.
 - b. Providing options for small amounts of cover.
 - c. Improving promotion of existing products targeted to people on low incomes.
 - d. Developing new products such as renters insurance.
 - e. Considering exempting people on low incomes from insurance stamp duties.
 - f. Offering fortnightly or weekly payment options.
 - g. Offering Centrepay payment options.
 - h. Providing information in plain english as well as in other languages.
 - i. Offering free and impartial advice about insurance.
 - j. Partnering with Community Sector Organisations (CSOs) to develop trust and deliver appropriate products.

- 163. Governments and the insurance industry should ensure expedited processing of all insurance claims following an emergency or disaster, and financial counselling and legal support should be available to people to support them through the insurance claims process.

164. Make home insurance suitable and fair, including through the Federal Government expediting claims handling reforms from the Banking Royal Commission, mandating standardized terms and modernising the standard cover regime. Insurers should expedite the removal of unfair contract terms in insurance contracts.

165. To encourage understanding and uptake of insurance, and to meet the particular needs of people living on low incomes, the insurance industry should:

- a.** Encourage and promote targeted financial resilience programs.
- b.** Adopt financial inclusion policies, including hardship programs.

ENDORSED BY

ACOSS

ACTCOSS

NCOSS

NTCOSS

QCOSS

SACOSS

TASCOSS

VCOSS

WACOSS

National Aboriginal Community Controlled Health Organisation (NACCHO)

NSW Aboriginal Land Council

Brotherhood of St Laurence

Salvation Army

Foodbank

Community Industry Group

Volunteering Australia

COTA Victoria

Northern Rivers Community Gateway

Woden Community Service

Southern Grampians Glenelg Primary Care Partnership

Gateway Family Services

Morwell Neighbourhood House

Gippsland Disability Advocacy

Mountains Community Resource Network

David Templeman, former Director General of Emergency Management Australia and current President, Public Health Association of Australia (PHAA)

Dr Scott Hanson-Easey, School of Public Health, The University of Adelaide

Prof Lisa Gibbs, Director Child & Community Wellbeing Unit; and Academic Lead for Community Resilience at the Centre for Disaster Management and Public Safety, University of Melbourne

Assoc Prof Michelle Villeneuve, Centre for Disability Research and Policy, University of Sydney

Emergency Leaders for Climate Action

Image Credits

Cover image: "Belrose Hazard Reduction" by Flickr user NSW RFS Media Services licensed under CC BY-NCND 2.0.

Page 8: "Tragic Loss" by Flickr user Neil Creek licensed under CC BY-NC-ND 2.0.

Page 24: NSW Rural Fire Service crews fight the Gospers Mountain Fire as it impacts a structure at Bilpin, Saturday, December 21, 2019. AAP Image/Dan Himbrechts.

Page 31: Photo by Holger Link on Unsplash.

Page 34: Mount Barney Lodge.

Page 41: "Bushfire" by Flickr user Martin Snicer licensed under CC BY-ND 2.0.

Page 46: Major General Peter Dunn AO (ret).



emergencyleadersforclimateaction.org.au



climatecouncil.org.au