

# Submission: Royal Commission into National Natural Disaster Arrangements (Bushfire Royal Commission)

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## About the Authors

This submission was researched and authored by UQ law students **Rose Foster**, **Priam Rangiah** and **Cara Scarpato** under the supervision of **Dr Justine Bell-James** and Pro Bono Centre Director **Monica Taylor**. The submission was prepared for and on behalf of the UQ Pro Bono Centre's **Climate Justice Initiative**. Student researchers and their supervisor undertook this task on a *pro bono* basis, without any academic credit or reward, as part of their contribution to service as future members of the legal profession.

## About the Climate Justice Initiative

Under its 2018-2021 Strategic Plan, the UQ Pro Bono Centre is committed to environmental sustainability through legal work (Goal 5.3). Under this strategic goal, the Centre has established a student-led Climate Justice Initiative. The Climate Justice Initiative is a group of senior law students who have a demonstrated commitment to environmental law and climate justice, and who wish to undertake pro bono legal research on climate justice matters. This includes research to support law reform, pro bono legal work and internal capacity building for the legal assistance sector.

The UQ Pro Bono Centre recognises the importance of young people using their emerging legal skills to advocate on climate change issues that will most acutely impact their generation.



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# 1. Introduction

This submission responds to issues (b) and (d) of the Terms of Reference. Australia needs new arrangements for improving resilience and adapting to changing climatic conditions. This submission stresses that the issue of climate change is a relevant matter to Australia's preparedness for, response to, resilience to, and recovery from natural disasters, in particular bushfires.

This submission proposes the following:

1. Australia's environment is acknowledged in the Commission's Inquiry. It is vital that the Commission acknowledge that climate change was a major contributing factor to the bushfires.
2. In line with the near-universal scientific consensus on protecting the environment from the threats it faces this century, changes are needed to Australia's legislative framework at both the State and Federal levels to prevent climate change.
3. To improve Australia's resilience and ability to adapt to changing climatic conditions, the most effective measures must be implemented to ensure that federal legislation such as the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) ('EPBC Act') provides for the protection of the environment whilst recognising climate change.<sup>1</sup>
4. When seasons begin to overlap, Australia may not always have available international assistance. The Australian Government must allocate their own domestic resources to environmental planning and must address climate feedback loops.

## 2. The Accelerator Effect of Climate Change

### 2.1 Environmental impact of 2019/2020 bushfires

The 2019/2020 bushfire season saw over 10 million hectares of land burn,<sup>2</sup> including through large parts of Australia's World Heritage Areas such as the Gondwana Rainforests and the Greater Blue Mountains area.<sup>3</sup> It is estimated that over one billion animals were killed,<sup>4</sup> and a number of protected threatened and migratory species' habitats were affected.<sup>5</sup> Thirty-four lives and thousands of homes were lost in the fires.<sup>6</sup> Hazardous air quality during the crisis was measured

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<sup>1</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth) s 3(1) ("EPBC Act").

<sup>2</sup> CSIRO, 'The 2019-20 bushfires: a CSIRO explainer' (Fact Sheet, February 2020) available at: <https://www.csiro.au/~media/Environment/BushfireFactsheet060220.pdf>, 1.

<sup>3</sup> Department of Agriculture, Water and the Environment, 'Wildlife and threatened species bushfire recovery research and resources', available at <https://www.environment.gov.au/biodiversity/bushfire-recovery/research-and-resources>.

<sup>4</sup> Climate Council, *Summer of Crisis* (Report, 11 March 2020) 11.

<sup>5</sup> Department of Agriculture, Water and the Environment, 'Wildlife and threatened species bushfire recovery research and resources', available at <https://www.environment.gov.au/biodiversity/bushfire-recovery/research-and-resources>.

<sup>6</sup> Graham Readfearn, 'Bushfire crisis conditions eight times more likely under 2C warming, analysis shows' (*The Guardian online*, 5 March 2020) available at <https://www.theguardian.com/australia-news/2020/mar/05/bushfire-crisis-conditions-eight-times-more-likely-under-2c-warming-analysis-shows>.

as worse than Beijing in certain parts of Australia,<sup>7</sup> posing risks to respiratory health.<sup>8</sup> Further, the fires are estimated to have cost the economy billions of dollars,<sup>9</sup> with hundreds of flights grounded, people unable to get to work, as well as the direct health costs.

## 2.2 Link between climate change and bushfires

There is clear scientific consensus concerning anthropogenic climate change caused by the release of greenhouse gasses.<sup>10</sup> Since the 19th Century, Australia's climate system has warmed by just over 1°C.<sup>11</sup>

The 2019/2020 bushfires demonstrate that the threat posed by climate change is no longer an abstract prediction. Many of the 'worst-case scenario climate change predictions made over 30 years ago have now been realised'.<sup>12</sup> This season saw Ross Garnaut's 2008 prediction that longer and more intense fire seasons would be observable by 2020 come to fruition.<sup>13</sup>

The Climate Council observed that the 2019/2020 fire conditions were aggravated by climate change.<sup>14</sup> Climate change has caused increases in both the severity of extreme fire weather, and the length of the fire season 'across large parts of Australia'.<sup>15</sup> The link between climate change and bushfires is indirect;<sup>16</sup> the increase in global temperature has resulted in changes in rainfall patterns, leading to mass aridification in some parts of Australia.<sup>17</sup> In turn, this has increased the

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<sup>7</sup> Leonie Mellor and Rebeka Powell, 'Queensland fire emergency leaves Brisbane's air quality worse than Beijing' (*ABC News Online*, 12 November 2019) available at: <https://www.abc.net.au/news/2019-11-11/queensland-fires-see-brisbane-air-quality-worse-than-beijing/11691860>; Michael McGowan, 'Sydney's air 11 times worse than 'hazardous' levels as Australia's bushfires rage' (*The Guardian Online*, 10 December 2019) available at <https://www.theguardian.com/australia-news/2019/dec/10/sydneys-air-11-times-worse-than-hazardous-levels-as-australias-bushfires-rage>.

<sup>8</sup> UN Environment Programme, 'Ten Impacts of the Australian Bushfires' (22 January 2020).

<sup>9</sup> Nassim Khadem, 'Ross Garnaut's climate change prediction is coming true and it's going to cost Australia billions, experts warn' (*ABC News Online*, 8 January 2020) available at <https://www.abc.net.au/news/2020-01-08/economic-bushfires-billions-ross-garnaut-climate-change/11848388>; Climate Council, *Summer of Crisis* (Report, 11 March 2020) III.

<sup>10</sup> The Intergovernmental Panel on Climate Change, *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)] (IPCC, Geneva, Switzerland) 2, 4.

<sup>11</sup> The Bureau of Meteorology and CSIRO, *State of the Climate Report* (2018), Commonwealth of Australia, 4.

<sup>12</sup> Great Barrier Reef Marine Park Authority, *Great Barrier Reef Outlook Report 2019* (Australian Government, 2019) 161.

<sup>13</sup> Ross Garnaut, *Garnaut Climate Change Review: Final Report* (Cambridge University Press, 2008) 118.

<sup>14</sup> Climate Council, *"This is Not Normal": Climate change and escalating bushfire risk* (Briefing Paper, 12 November 2019) 1.

<sup>15</sup> The Bureau of Meteorology and CSIRO, *State of the Climate Report* (2018), Commonwealth of Australia, 5.

<sup>16</sup> CSIRO, 'The 2019-20 Bushfires: A CSIRO Explainer' (February 2020) available at <https://www.csiro.au/~media/Environment/BushfireFactsheet060220.pdf>, 2.

<sup>17</sup> The Bureau of Meteorology and CSIRO, *State of the Climate Report* (2018), Commonwealth of Australia, 2; Climate Council, *"This is Not Normal": Climate change and escalating bushfire risk* (Briefing Paper, 12 November 2019) 2; CSIRO, 'The 2019-20 Bushfires: A CSIRO Explainer' (Fact Sheet, February 2020) available at <https://www.csiro.au/~media/Environment/BushfireFactsheet060220.pdf>, 1.

severity and duration of extreme fire weather,<sup>18</sup> as well as the likelihood of small, accidental or deliberate ignitions rapidly spreading to become catastrophic bushfires.<sup>19</sup>

## 2.3 Why this season was different & projected future bushfire patterns

This season demonstrates that climate change has caused more dangerous bushfire conditions, lengthening fire seasons, meaning resource sharing arrangements are less viable and opportunities for fuel reduction burning are fewer.<sup>20</sup> For example, while New South Wales' statutory 'Bushfire Danger Period' begins in October, in 2019 it in fact commenced in many regions as early as August.<sup>21</sup> Hot and dry conditions throughout much of Australia were 'exacerbated by climate change' and 'primed conditions for dangerous bushfires'.<sup>22</sup>

The 2019/2020 season showed the 'increased ... likelihood of 'compound events', where multiple extremes coincide or occur in close succession, resulting in greater impacts'.<sup>23</sup> One of these compound situations is the potential for worsened conditions combining with fire-generated thunderstorms,<sup>24</sup> resulting in 'very unpredictable' bushfire behaviour.<sup>25</sup> This phenomenon was observed on multiple occasions over the 2019/2020 season and there are concerns that such events will become more common as a result of climate change.<sup>26</sup>

This season unfortunately highlighted the catastrophic consequences of these worsening conditions in Australia as a result of climate change. These effects are expected to worsen in the coming years, particularly in southern and eastern Australia.<sup>27</sup>

## 2.4 Why it is important that we recognise how climate change accelerates natural disasters

Looking forward, it is essential that the 2019/2020 fire season is analysed to enable the government to effectively plan for the future. One essential aspect of this is recognising climate change's contributory effect to the severity of the bushfires. This recognition is crucial as part of the long-term planning for Australia's preparedness for and response to natural disasters. As the science demonstrates that climate change has caused worsened bushfire conditions in Australia, it

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<sup>18</sup> The Bureau of Meteorology and CSIRO, *State of the Climate Report* (2018), Commonwealth of Australia, 2.

<sup>19</sup> University of Melbourne Sustainable Society Institute, *Bushfires and Climate Change* (11 February 2020) available at <https://sustainable.unimelb.edu.au/news/the-bushfires-and-climate-change>.

<sup>20</sup> Climate Council, *"This is Not Normal": Climate change and escalating bushfire risk* (Briefing Paper, 12 November 2019) 1.

<sup>21</sup> Climate Council, *Summer of Crisis* (Report, 11 March 2020) 6.

<sup>22</sup> Climate Council, *Summer of Crisis* (Report, 11 March 2020) 3.

<sup>23</sup> Climate Council, *Summer of Crisis* (Report, 11 March 2020) 2.

<sup>24</sup> BBC News, 'Australia Fires: A Visual Guide to the Bushfire Crisis' (31 January 2018), citing Bureau of Meteorology, 'When Bushfires make their own Weather' (8 January 2018), available at: <http://media.bom.gov.au/social/blog/1618/when-bushfires-make-their-own-weather/>; Climate Council, *Summer of Crisis* (Report, 11 March 2020) 7.

<sup>25</sup> Climate Council, *Summer of Crisis* (Report, 11 March 2020) 7.

<sup>26</sup> Graham Readfearn, 'Scientists fear surge in supersized bushfires that create their own violent thunderstorms' (*The Guardian Online*, 20 December 2019), available at: [theguardian.com/environment/2019/dec/20/scientists-fear-surge-in-supersized-bushfires-that-create-their-own-violent-thunderstorms](http://theguardian.com/environment/2019/dec/20/scientists-fear-surge-in-supersized-bushfires-that-create-their-own-violent-thunderstorms).

<sup>27</sup> The Bureau of Meteorology and CSIRO, *State of the Climate Report* (2018), Commonwealth of Australia, 22.

is necessary to take swift and effective action to curb emissions, because the long-term outlook under climate change depends upon the actions taken now to reduce emissions.<sup>28</sup> As the Climate Council warned in the wake of the 2019/2020 season, '[f]urther denial and delay in taking action on emissions guarantees a worsening of disasters into the future',<sup>29</sup> particularly in a fire-vulnerable country such as Australia.

### 3. Amending Legal Frameworks to Reduce the Severity of Natural Disasters

#### 3.1 Inadequacies of the existing legal framework

The *Environment Protection and Biodiversity Conservation Act 1999* (Cth) is the Federal Government's primary environmental legislation.<sup>30</sup> A key object of the EPBC Act is to protect 'matters of national environmental significance'.<sup>31</sup> The Act provides that approvals must be sought for projects that have or are likely to have a 'significant impact' on a matter of national environmental significance.<sup>32</sup> The matters of national environmental significance include Australia's nineteen World Heritage sites, seven of which were directly impacted by the 2019/2020 bushfires.<sup>33</sup> Tragically, over 50% of the Gondwana Rainforests, 80% of the Greater Blue Mountain Area and 99% of the Old Great North Road (one of the Australian Convict Sites) were burned.<sup>34</sup>

The EPBC Act's objects also include promoting the conservation of biodiversity,<sup>35</sup> which was devastated by the 2019/2020 fires which killed millions of threatened or endangered animals and decimated the habitats of many more.<sup>36</sup> In fact, Queensland, New South Wales and the Australian Capital Territory lost 12% of their Koala populations.<sup>37</sup>

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<sup>28</sup> There are significant differences in the severity of impacts between 1.5°C and 2°C of warming. See Intergovernmental Panel on Climate Change, 'Summary for Policymakers' in *Global Warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* (2018); Bureau of Meteorology and CSIRO, *State of the Climate Report* (2018), Commonwealth of Australia, 22.

<sup>29</sup> Climate Council, *Summer of Crisis* (Report, 11 March 2020) 23.

<sup>30</sup> Department of Agriculture, Water and the Environment, 'Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)' <https://www.environment.gov.au/epbc>.

<sup>31</sup> *EPBC Act 1999* (Cth) s 3(1).

<sup>32</sup> *EPBC Act 1999* (Cth) pt 3.

<sup>33</sup> Department of Agriculture, Water and the Environment, 'Wildlife and Threatened Species Bushfire Recovery Research and Resources' (Impact of Bushfires on World Heritage Areas), Australian Government, available at: <http://environment.gov.au/biodiversity/bushfire-recovery/research-and-resources> (accessed 26 February 2020); Department of Agriculture, Water and the Environment, 'Australia's World Heritage List', Australian Government, available at: <https://www.environment.gov.au/heritage/places/world-heritage-list> (accessed 26 February 2020).

<sup>34</sup> Department of Agriculture, Water and the Environment, 'Australia's World Heritage List', Australian Government, available at: <https://www.environment.gov.au/heritage/places/world-heritage-list> (accessed 26 February 2020).

<sup>35</sup> *EPBC Act 1999* (Cth) s 3(1).

<sup>36</sup> Department of Agriculture, Water and the Environment, 'Wildlife and Threatened Species Bushfire Recovery Research and Resources' (Impact of Bushfires on World Heritage Areas), Australian Government, available at: <http://environment.gov.au/biodiversity/bushfire-recovery/research-and-resources> (accessed 26 February 2020).

<sup>37</sup> *Ibid.*



As outlined above, the 2019/2020 bushfires were exacerbated by climate change, meaning that climate change was a major cause of the damage to World Heritage sites and loss of biodiversity. However, in its current form, the EPBC Act does not address climate change as a standalone issue. By failing to address climate change, the Act fails to provide for the protection of the environment, biodiversity or matters of national environmental significance,<sup>38</sup> and so fails to meet its own objectives. To guard against the advent of future natural disasters even more severe than the 2019/2020 bushfires, Australia requires a national legislative framework that acknowledges and effectively addresses the threat of climate change.

### 3.2 Suggested amendments to the EPBC Act

The Commission should make a recommendation that the EPBC Act, as Australia's major piece of Federal environmental legislation, should be amended to incorporate climate change into the assessment procedure under the Act. The recommendations should address the following:

1. Amendment of the Act's objects (**s 3**), to include acknowledgement of the need to proactively limit its impacts on Australia's natural environment;
2. Amendment of the definition of 'impact' (**s 527E**), to explicitly include cumulative downstream emissions;
3. Amendment of the list of the Minister's mandatory considerations in deciding whether or not to approve an action (**s 136**), to include a project's cumulative contribution to global greenhouse gas emissions; and
4. Additionally, amendment of the Act to insert a new provision prohibiting the approval of new coal mines or activities involving extraction and/or export of coal for use in energy production.

The effect of these amendments would be to bring the act in line with its objectives of protecting the environment, biodiversity and World Heritage sites,<sup>39</sup> recognising that climate change is the major threat to Australia's environment. Implementing a prohibition on new coal mines also acknowledges the clear link between greenhouse gas emissions, climate change and increasingly severe weather events.<sup>40</sup> It is essential that Australia curbs its domestic greenhouse gas emissions and phases out fossil fuel exports, in order to lead by example and make a demonstrable contribution to mitigating climate change.

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<sup>38</sup> *EPBC Act 1999* (Cth) s 3(1).

<sup>39</sup> *EPBC Act 1999* (Cth) s 3(1).

<sup>40</sup> Climate Council, *Summer of Crisis* (Report, 11 March 2020) 23.



## 4. Recommendation: Acknowledgement of Impact of Climate Change on Bushfires

Urgent action is required to combat the threat climate change poses to society, the economy and human livelihood generally.<sup>41</sup> The disastrous economic consequences of the bushfires on their own provide powerful evidence of the need to urgently act to mitigate climate change.<sup>42</sup>

### 4.1 Why acknowledge climate change

The EPBC Act does not include a climate change trigger. However, multiple national and international bodies have recognised climate change as the main contributing factor to the 2019/2020 bushfires.

At a domestic level, the Australian Government's own Department of Foreign Affairs and Trade acknowledged the effects of climate change online.<sup>43</sup> It was stated that Australia's Paris Agreement targets would be met through a 'comprehensive policy suite to reduce emissions, encourage technological innovation and expand our clean energy sector'.<sup>44</sup> However, the Australian Government's national environment laws do not mention climate change at all. This calls into question the capacity of our national environment laws to mitigate further major disasters and protect areas of national environmental significance.<sup>45</sup>

At an international level, the United Nations Environment Programme released a statement about the deeply concerning climate feedback loops and recognises that climate change will increase the likelihood and intensity of extreme and tragic weather events.<sup>46</sup> Further, the 2019 report from the Intergovernmental Panel on Climate Change found that global warming, changing precipitation patterns and greater frequency of extreme events is all due to climate change.<sup>47</sup>

Recognition of climate change's role in accelerating natural disasters is an essential step in ensuring that the Government implements effective mitigation and adaptation strategies. As the Royal Commission is tasked with investigating 'Australia's arrangements for improving resilience and adapting to changing climatic conditions', it is essential that the Commission make a clear acknowledgment of climate change's impact on the 2019/2020 fire season and the likely continuing impact climate change will have on Australia's fire seasons in the future.

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<sup>41</sup> The Intergovernmental Panel on Climate Change, *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)] (IPCC, Geneva, Switzerland) 2, 4.

<sup>42</sup> Ben Butler, 'Economic Impact of Australia's Bushfires Set to Exceed \$4.4bn Cost of Black Saturday' (*The Guardian Online*, 8 January 2020), available at: <https://www.theguardian.com/australia-news/2020/jan/08/economic-impact-of-australias-bushfires-set-to-exceed-44bn-cost-of-black-saturday>.

<sup>43</sup> Department of Foreign Affairs and Trade, *Climate Change* (Web Page, 2020), available at: <https://www.dfat.gov.au/international-relations/themes/climate-change/Pages/climate-change>.

<sup>44</sup> Department of Foreign Affairs and Trade, *Climate Change* (Web Page, 2020), available at: <https://www.dfat.gov.au/international-relations/themes/climate-change/Pages/climate-change>.

<sup>45</sup> Samantha Hepburn, 'Why Aren't Australia's Environmental Laws Preventing Widespread Land Clearing?' (*The Conversation*, 8 March 2018), available at: <https://theconversation.com/why-arent-australias-environment-laws-preventing-widespread-land-clearing-92924>.

<sup>46</sup> United Nations Environment Programme, *Ten Impacts of the Australian Bushfires* (Web Page, 22 January 2020) <<https://www.unenvironment.org/news-and-stories/story/ten-impacts-australian-bushfires>>.

<sup>47</sup> IPCC, *Climate Change and Land* (Special Report, January 2020) 17.

## **4.2 What the Commission should acknowledge**

Ultimately, climate change is the most pressing issue of our time. It necessitates strong leadership at a national level. The proposed recommendations respond to the urgency of the threat and demonstrate Australia's commitment to a sustainable future. Therefore, the Royal Commission should make the following findings:

1. That climate change was a major contributing factor to the bushfires;
2. Changes are needed to Australia's legislative framework at both the State and Federal levels to prevent climate change and improve Australia's resilience and adapt to changing climatic conditions;
3. The EPBC Act must provide for the protection of the environment whilst recognising climate change; and
4. The Australian Government must allocate their own domestic resources to environmental planning and must address climate feedback loops.



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