

# **SUBMISSION ON FOREIGN POLICY WHITE PAPER**

February 2017



CCOF A COMMUNITY CLIMATE ACTION GROUP :: GLEN EIRA & MONASH, MELBOURNE

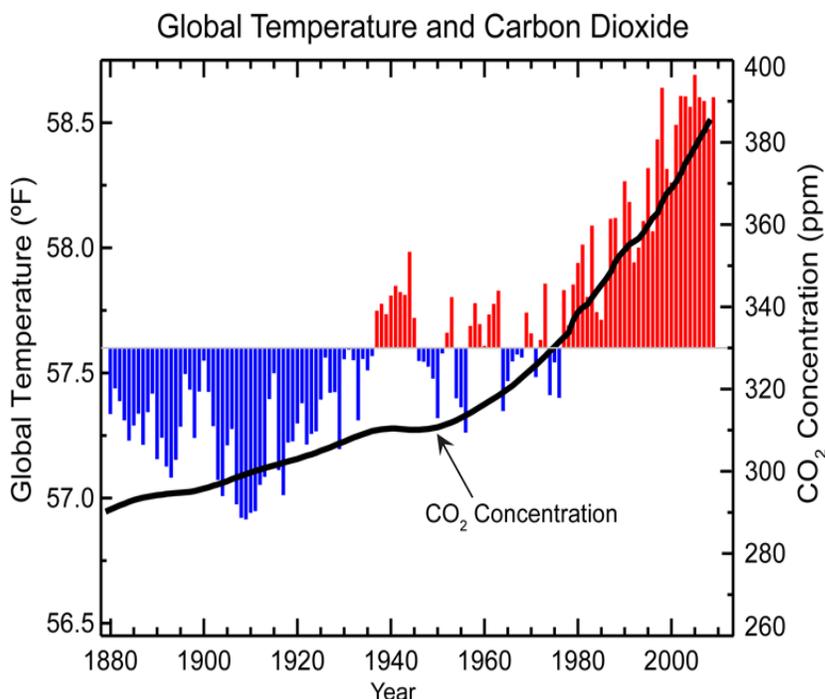
# Introduction

Climate Change Our Future (CCOF) welcomes the opportunity to contribute to the development of Australia's first foreign policy White Paper since 2003. CCOF is a group of concerned citizens from the Glen Eira and Monash local government areas in Melbourne. Our objectives include raising awareness of the risks posed by climate change, and advocating for measures that will help to preserve a safe climate.

As discussed in our submission, the effects of global climate change will permeate throughout many aspects of foreign policy in coming decades. In order to minimise the serious risks inherent in unmitigated global warming, effective and ambitious mitigation and adaptation must be at the core of Australian government foreign policy. Therefore, we urge the Australian government to ensure that the White Paper reflects the imperative of rapid decarbonisation.

## Global Trends

Due to human activities such as fossil fuel combustion and land clearing, concentrations of greenhouse gases in the atmosphere - like carbon dioxide and methane - are increasing. As a consequence average global temperatures are also rising<sup>1</sup>.



Source: National Oceanic and Atmospheric Administration (NOAA)

<sup>1</sup> 'Joint Statements on Climate Change from National Academies of Science Around the World', ScienceBlogs, 17 January 2017, <http://scienceblogs.com/significantfigures/index.php/2017/01/17/joint-statements-on-climate-change-from-national-academies-of-science-around-the-world/>

This global warming trend raises a number of important issues for Australia which are discussed below.

## Economic issues

Unmitigated climate change would have numerous negative effects on the Australian economy. For example:

- Increasing frequency and intensity of drought impacting agricultural production<sup>2</sup>. For example, the value of agricultural production in the Murray-Darling Basin could be reduced by 49 to 72% by 2050<sup>3</sup>.
- Increasing frequency and intensity of bushfires. For example, the economic cost of bushfires in Victoria could more than double from \$180 million p.a. to over \$380 million p.a. by mid-century<sup>4</sup>.
- Bleaching of coral reefs<sup>5</sup>, such as the Great Barrier Reef which supports a \$6 billion p.a. tourism industry employing around 70,000 people in regional Queensland<sup>6</sup>.
- Contraction of the snow season and undermining the viability of snowsport industry in the high country of south-east NSW and north-east Victoria. For example, Australian resorts could lose up to 80 days of their 112 day ski season<sup>7</sup>.
- Rising sea levels threaten more than \$200 billion of coastal infrastructure based on 1.1 metre of sea level rise<sup>8</sup>, with substantially larger changes possible<sup>9 10</sup>.

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<sup>2</sup> Climate Council, 2017, 'Cranking Up The Intensity: Climate Change and Extreme Weather Events', <http://www.climatecouncil.org.au/uploads/1b331044fb03fd0997c4a4946705606b.pdf>

<sup>3</sup> Garnaut, R., 2008, *The Garnaut Climate Change Review: Final Report*. Cambridge University Press, Melbourne, VIC, Australia

<sup>4</sup> Climate Council, 2017, 'Climate Change and the Victorian Bushfire Threat: Update 2017', <http://www.climatecouncil.org.au/uploads/98c26db6af45080a32377f3ef4800102.pdf>

<sup>5</sup> Andrew King et al, 'Great Barrier Reef bleaching would be almost impossible without climate change', *The Conversation*, 29 April 2016, <http://theconversation.com/great-barrier-reef-bleaching-would-be-almost-impossible-without-climate-change-58408>

<sup>6</sup> Climate Council, 2016, 'Australia's Coral Reefs: Under Threat from Climate Change', <https://www.climatecouncil.org.au/reefreport>

<sup>7</sup> 'Climate change could shrink Australia's ski season by 80 days a year by 2050, CSIRO says', ABC News, 9 January 2017, <http://www.abc.net.au/news/2017-01-09/climate-change-could-shrink-australia-ski-season-csiro-says/8166372>

<sup>8</sup> Climate Council, 2014, 'Counting the Costs: Climate Change and Coastal Flooding', <http://www.climatecouncil.org.au/uploads/coastalflooding.pdf>

<sup>9</sup> Ian Johnston, 'Global warming could cause sea levels to rise higher than the height of a three-storey building, study suggests', *The Independent*, 19 January 2017, <http://www.independent.co.uk/environment/sea-level-rise-global-warming-climate-change-9-metres-study-science-a7536136.html>

<sup>10</sup> David Spratt, February 2017, 'Antarctic tipping points for a multi-metre sea level rise', Breakthrough - National Centre for Climate Restoration, Melbourne, [http://media.wix.com/ugd/148cb0\\_a06ec671eed14a6f8f37e2145175f63f.pdf](http://media.wix.com/ugd/148cb0_a06ec671eed14a6f8f37e2145175f63f.pdf)

- Increasing frequency and/or intensity of storms<sup>11</sup>, similar to Cyclone Yasi that resulted in insured losses of around \$1.5 billion and led to large increases in insurance premiums<sup>12</sup>.

## International development issues

Climate change is likely to impact the poorest and most vulnerable communities first and hardest. Ironically these are often the communities that have contributed least to global warming.

Inadequate action to reduce climate change could leave an extra 50 million people facing hunger by 2050<sup>13</sup>, thereby undoing decades of development. Rising sea levels also threaten the homes of over 1 billion people worldwide, including entire nations in the Pacific region.

The impacts of climate change on vulnerable communities will be widespread and devastating unless nations such as Australia increase their ambition in terms of both mitigation and adaptation.

The humanitarian implications of failure to act would be severe and should be sufficient to ensure action. However, failure to act would also come with serious implications for global security as discussed in the next section.

## Security issues

Climate change is recognised in the defence community as a “threat multiplier”<sup>14</sup> or “accelerant of instability”.<sup>15 16</sup> For example, the civil breakdown in Syria that opened opportunities for radical jihadists was fanned by the region’s worst drought in over 900 years<sup>17</sup>.

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<sup>11</sup> Climate Council, 2016, ‘Super-Charged Storms in Australia: The Influence Of Climate Change’, <https://www.climatecouncil.org.au/uploads/3ca765b1c65cb52aa74eec2ce3161618.pdf>

<sup>12</sup> Worthington AC (2015) Natural Disasters and National Natural Disaster Insurance: An Australian Perspective. Accessed at: <http://australiancentre.com.au/sites/default/files/NewsDocs/Final%20Report%20Natural%20Disasters%20and%20National%20Natural%20Disaster%20Insurance%20An%20Australian%20Perspective.pdf>

<sup>13</sup> <https://www.oxfam.org.au/what-we-do/food-and-climate/this-is-climate-in-action/>

<sup>14</sup> Jon Powers, ‘Climate Change Is the ‘Mother of All Risks’ to National Security’, *Time*, Nov 06, 2015, <http://time.com/4101903/climate-change-national-security/>

<sup>15</sup> [http://www.aph.gov.au/About\\_Parliament/Parliamentary\\_Departments/Parliamentary\\_Library/Browse\\_by\\_Topic/ClimateChangeold/effects/security/security](http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/Browse_by_Topic/ClimateChangeold/effects/security/security)

<sup>16</sup> Jonathan Tirone, ‘Fears grow that climate conflicts could lead to war’, 20 February 2017, <https://www.bloomberg.com/news/articles/2017-02-19/war-is-the-climate-risk-that-europe-s-leaders-are-talking-about>

<sup>17</sup> Colin P. Kelley, Shahrzad Mohtadi, Mark A. Cane, Richard Seager, and Yochanan Kushnir, Climate change in the Fertile Crescent and implications of the recent Syrian drought

Unmitigated climate change would worsen water stress in many parts of the world, heightening tensions where water resources flow between different countries. Food security would also be undermined, potentially causing famine and mass migrations to ill-equipped host nations and subsequent friction between displaced people and hosts. These conditions may foster conflict and radicalisation that destabilises nations and regions<sup>18 19</sup>.

Officials and ministerial staff involved in the preparation of the White Paper may gain a useful perspective on the security implications of unmitigated climate change from the documentary film 'The Age of Consequences'.<sup>20</sup>

## Australia's interests and priorities

Given the economic, social and security risks posed by unmitigated climate change, it is clearly in Australia's interest to pursue and promote rapid decarbonisation to limit warming and the associated effects outlined above. As noted by UNFCCC Executive Secretary Patricia Espinosa in the context of international security, "climate action reduces risk and increases stability".<sup>21</sup>

Sustainable poverty alleviation is also key to promoting global stability. Increasing resilience can help to minimise the forced movement of populations due to food deficits or conflict that would increase in severity and frequency with climate change.

## Advancing Australia's interests and relations with international partners

To advance Australia's interests in the face of the threat of climate change, the Australian government should adopt the following foreign policy priorities:

- Advocate and adopt mitigation measures that are consistent with keeping the average global temperature below 1.5° above pre-industrial, based on the latest and best science on tipping points and positive feedback loops<sup>22 23</sup>, and a long-term goal of reducing GHG concentrations to pre-industrial levels.

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PNAS 2015 112 (11) 3241-3246; published ahead of print March 2, 2015, doi:10.1073/pnas.1421533112.

<sup>18</sup> <http://newsroom.unfccc.int/unfccc-newsroom/patricia-espinosa-the-climate-change-story-is-a-security-story/>

<sup>19</sup> <https://www.bloomberg.com/news/articles/2017-02-19/war-is-the-climate-risk-that-europe-s-leaders-are-talking-about>

<sup>20</sup> <http://theageofconsequences.com/>

<sup>21</sup> <http://newsroom.unfccc.int/unfccc-newsroom/patricia-espinosa-the-climate-change-story-is-a-security-story/>

<sup>22</sup> Cai, Y, Lenton, TM, & Lontzek, TS 2016, 'Risk of multiple interacting tipping points should encourage rapid CO<sub>2</sub> emission reduction', *Nature Climate Change*, vol. 6, no. 5, p. 520.

- Support adoption of a fair global framework on border adjustments to incentivise participation and compliance with the UNFCCC goal of limiting warming to less than 1.5°.
- Ensure Australia is attuned to the potential to act as a renewable energy superpower on the doorstep of southeast asia<sup>24 25</sup> and exploit its [latent] research capacity in renewable energy.
- Recognise that economic fundamentals, driven by global technological advances in renewables and storage<sup>26 27 28 29 30 31</sup>, are against fossil fuels (even without consideration of the enormous external or social costs of GHG emissions outlined above<sup>32</sup>), and that it is therefore not in Australia's interest to shackle our future to the fortunes of this sunset industry.

*“The reason solar-power generation will increasingly dominate: It’s a technology, not a fuel. As such, efficiency increases and prices fall as time goes on. What’s more, the price of batteries to store solar power when the sun isn’t shining is falling in a similarly stunning arc.”<sup>33</sup>*

*“The key point in this analysis is that solar is a technology, and it’s past and future cost dynamics will look like technology – becoming ever cheaper. Fossil fuels are commodities – finite and expensive to locate, extract, refine and ship – and fossil fuels have had and will have cost dynamics to match: very volatile.”<sup>34</sup>*

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<sup>23</sup> Economic impacts of carbon dioxide and methane released from thawing permafrost, Chris Hope & Kevin Schaefer, *Nature Climate Change*, 6, 56–59 (2016), doi:10.1038/nclimate2807

<sup>24</sup> <http://reneweconomy.com.au/how-australia-can-become-a-renewable-energy-superpower-35215/>

<sup>25</sup> <http://www.smh.com.au/business/comment-and-analysis/australia-positioned-to-be-renewable-energy-superpower-20170216-guf55r.html>

<sup>26</sup> ‘State of Solar 2016: Globally and in Australia’, Climate Council, February 2017, <http://www.climatecouncil.org.au/solar-report>

<sup>27</sup> <http://www.anu.edu.au/news/all-news/hydro-storage-can-secure-100-renewable-electricity>

<sup>28</sup> <http://reneweconomy.com.au/spinning-carbon-capture-storage-cheaper-renewables-61232/>

<sup>29</sup> <https://medium.com/natural-resources-defense-council/trump-cant-stop-this-global-renewable-energy-booms-a8db3416ada6#.3wmcma6a5>

<sup>30</sup> <http://reneweconomy.com.au/coal-hit-as-chinas-energy-transition-gathers-pace-18419/>

<sup>31</sup> <http://www.abc.net.au/news/2017-03-02/china-coal-cuts-and-renewables-transform-climate-change-leader/8316660>

<sup>32</sup> van den Bergh, JM, & Botzen, WW 2014, ‘A lower bound to the social cost of CO<sub>2</sub> emissions’, *Nature Climate Change*, vol. 4, no. 4, pp. 253-258. Available from: 10.1038/nclimate2135. [14 February 2017].

<sup>33</sup> <https://www.bloomberg.com/news/articles/2016-04-06/wind-and-solar-are-crushing-fossil-fuels>

<sup>34</sup> [http://greenalphaadvisors.com/wp-content/uploads/2015/02/The-Economic-Case-for-Divesting-from-Fossil-Fuels\\_2015.pdf](http://greenalphaadvisors.com/wp-content/uploads/2015/02/The-Economic-Case-for-Divesting-from-Fossil-Fuels_2015.pdf)

## Mitigating security risks

In addition to general goal of minimising climate change, global and regional stability will be strengthened by ensuring a generous development aid budget that can promote participatory, climate-friendly development programs supporting both mitigation and adaptation, and thus minimise the social conditions that feed conflict and radicalisation.