



Climate change as an important component of national security

A paper based on a presentation which was to have been made to the Institute on 28 July 2020 by

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Herein, Professor Barrie updates his 2016 presentation to the Institute on the national security implications of climate change. He notes that, despite a 2017 Senate inquiry urging urgent action, the Commonwealth Government has not yet responded other than by acknowledging the issue in a 2016 Defence white paper and a 2020 strategic update. The latest scientific research indicates that, in the worst case, Earth may reach a climate tipping point within 18 months which would pose an existential threat to humankind. Short of an existential threat, no other country on the planet will be as affected by the consequences of climate change as Australia. Time is running out for Australia to act!

Key words: Australia; global warming; climate change; national security; 2017 Senate inquiry; 2016 and 2020 defence white papers.

A phenomenon noticeable throughout history regardless of place or period is the pursuit by governments of policies contrary to their own interests. Mankind, it seems, makes a poorer performance of government than of almost any other human activity. In this sphere, wisdom, which may be defined as the exercise of judgement acting on experience, commonsense and available information, is less operative and more frustrated than it should be. Why do holders of high office so often act contrary to the way reason points and enlightened self-interest suggests? Why does intelligent mental process seem so often not to function?

Barbara W. Tuchman (1984)

It delights me to have this opportunity to share with the RUSI NSW my views about climate change and national security. This is my second contribution on this topic. What I know now is that the only way to avoid a humanitarian calamity with serious national security consequences is to take urgent action. This involves us all.

When I spoke to the Institute in 2016 (Barrie 2016), I said that we lived in the middle of the critical decade (Climate Commission Secretariat 2011). I referred to two publications about climate change, security and the Australian Defence Force (ADF) (Barrie *et al.* 2015; Sturrock and Ferguson 2015). These publications addressed the inevitability of global warming through human activities, growth in global and regional populations, the potential impact of population density, threat multipliers that threaten security of all natures leading to challenges to concepts of national security, and the likelihood that we might face challenges to our security that we do not fully comprehend.

Changes Since 2016

Much has changed in the last four years. We have experienced fall-out from three-and-a-half years of Donald Trump's presidency in the United States. In Australia, there has been a change of prime minister and the surprising return of the coalition government in 2019.

On the national security front, the 2016 Defence White Paper (Defence 2016) included climate change as a national security threat; and in 2017, there was a Senate

inquiry into climate change and national security (Barrie 2018; Senate 2018).

This July, the government presented the 2020 Defence Strategic Update (Defence 2020) to respond to assessments about the greater potential for military miscalculations and state-on-state conflict. It noted that adjustments to judgements in the 2016 White Paper were necessary because of "accelerated drivers of change". Importantly, it stated:

- "The enormous economic impact of measures to contain the spread of the [COVID-19] virus will set back development. This economic shock could undermine political and social stability." (Defence 2020: 15)
- Threats to human security – such as pandemics, and growing water and food scarcity – are likely to result in greater political instability and friction within and between countries and reshape our security environment, including in the Indo-Pacific. These threats will be compounded by population growth, urbanisation and extreme weather events in which climate change plays a part. Within Australia, the intensity and frequency of disasters – such as the 2019-20 Black Summer bushfires – will test Australia's resilience. Disaster response and resilience measures demand a higher priority in defence planning (Defence 2020: 16).
- State fragility, exacerbated by governance and economic challenges, has the potential to facilitate threats to the region, including the spread of terrorism and activities that undermine stability and sovereignty. Increased state fragility could also

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potentially lead to the ADF being called on more often for evacuation, humanitarian assistance and disaster relief missions and potentially more demanding stabilisation operations. It may also increase threats to Australia's domestic security including through irregular maritime arrivals (Defence 2020: 16).

The gloomy picture I painted in 2016 has not improved. Barbara Tuchman's introductory observations about wisdom may yet be prescient! (Tuckman 1984)

National Security

Australia is a lucky country when thinking about national security. We live on an island continent. Our borders can be made intrinsically more secure than if we shared a land border.

We have a low population by global standards. In most of Australia there is a low population density except on the continent's east coast extending from Hervey Bay around to the Great Ocean Road where density matches that in many other countries.

We, too, are lucky because most people have economic opportunities that few others enjoy. We expect high standards of behaviour from our citizens, and we possess the ability to shape the future we want. We seem luckier than most countries in our region.

But our good luck also makes Australia an attractive country to unlucky people living elsewhere in poverty, in situations of high population density, and sometimes in war zones.

Signals of complacency

Despite this rosy picture people who experienced the Black Summer bushfires and smoke, and now the consequences of a global COVID-19 pandemic, might also question how lucky we are.

I am most concerned about the high-level complacency that resulted in a lack of preparedness to deal with the bushfires and the pandemic. Complacency had an impact on the ability of our first responders fighting the bushfires and probably the extent of the fire losses nationwide. Then it affected our health systems racing to catch up to deal with the global pandemic. This complacency is a weak signal that points towards a national security concern.

If we failed manifestly to prepare adequately for these predicted contingencies what other less obvious contingencies have we failed to prepare for? Are there vulnerabilities in our national security posture, and weaknesses in our ability to respond to them, that might threaten Australia?

These questions need examination in the context of the predicted consequences of global warming.

A time of reckoning

Evidence from increasingly severe droughts, record-breaking heatwaves and new high-temperature records shows that time is running out for Australia to act on climate change, notwithstanding the sentiments in the recent Strategic Update. It is with climate action, not just the pandemic, that science matters.

Emeritus Professor Will Steffen, a global expert on the consequences of climate change on the Earth system, joined by 15 co-authors, has written an essay about the implications of the "Great Acceleration" that began in the 1950s (Steffen *et al.* 2018). The essay leads to the assessment that, by the end of next year, we must have taken drastic action to limit fossil fuel consumption to reduce the risk of a "hothouse Earth" or face the increasing possibility of the Earth system reaching a tipping point of no return. If this were to occur, global warming would become self-sustaining no matter what we do – a climate Armageddon. There is speculation that this tipping point might occur at a global surface temperature increase since the start of the industrial age (~1750) of just 2°C.

The findings in the essay are based on significant "accelerated drivers of change". Yet, current patterns of human behaviour have continued largely unaltered over the last two decades. Except during the period of the COVID-19 global pandemic, greenhouse gas emissions have continued to rise inexorably, as has the average global temperature. World population also is growing sufficiently to offset meagre efforts to reduce greenhouse gas emissions.

Based on this kind of work, there have been persistent calls from eminent scientists for significant reductions in global dependence on fossil fuels. These calls for action, however, go unanswered by most of our political leaders.

The Senate Inquiry

In May 2018, the report of the Senate Foreign Affairs, Defence and Trade References Committee into the "Implications of Climate Change for Australia's National Security" (Senate 2018) covered a range of climate change consequences and made 11 recommendations about actions to be taken to enhance Australia's national security posture. Over two years later, the Commonwealth Government has yet to respond to it.

The report noted expert advice that climate change is "a current and existential national security risk", one that "threatens the premature extinction of Earth-originating intelligent life or the permanent and drastic destruction of its potential for desirable future development".

I had made a submission to the Inquiry that outlined my national security concerns in the following way (Barrie 2018):

"There are two critical existential threats to human life on planet earth. The first threat is Armageddon created by nuclear war. The challenge of preventing nuclear war has shaped international affairs since 1945 with limited success, given current signs that we are failing in the effort to prevent the spread of nuclear weapons and manifestly failed to eliminate them. In the context of nuclear war our future will be determined by a few people; those who hold the keys to executing the launch of nuclear weapons either by accident or by intent. Most of us will play no role in this event even though it will almost certainly impact on us all. The planet will still exist, but most life on earth will be extinguished.

The second threat to human life on the planet is generated by global warming through the direct and indirect consequences for a changing earth environment. Human beings are the most predatory species that has ever existed on this planet. Furthermore, the population of the planet, which stands at about 7.5 billion people today, has yet to peak at a possible 10 billion people.

Scientists and other experts have been building scenarios about future life on earth which lay out some of the problems we may have to confront if we cannot hold down average global warming temperature increases to small increments. Scientists have also been telling us for at least the last 30 years that actions to curb the exploitation of planetary resources by human beings are critical to minimising global temperature increases because of uncertainties about our prospects, and that time to resolve the issues for the better keeps getting shorter.

There are two major differences in these existential threats. On one hand, with nuclear war the time taken to create Armageddon will be very short, and impossible to deal with once the process begins. On the other hand, with global warming, climate change, and other environmental consequences, the time taken to eliminate all human life on earth might take decades, and it will likely be very ugly, and involve indeterminate processes for all of us.

The huge volume of evidence assembled by the scientific community has given us overwhelming reasons to take decisive action to change our ways to prevent this future. These are the kinds of perspectives that laid the foundation for an important book written by Martin Rees, in the early part of this century (Rees 2004)². In his perspectives on the enormous opportunities and risks for fundamental change now taking place, Rees has postulated that there is an estimated probability of one in two that no human beings will exist on planet Earth in the year 2100.

For this reason, and drawing on my own experience over nearly 42 years of service with the Navy, I believe urgent action is needed to head off the potentially disastrous consequences of failing to take decisive action to deal with the earth environment, if the unacceptable probability is that the legacy we will leave to our children, and their children, is their extinction.

The quote from Barbara Tuchman heading up this submission is a short reminder about the responsibilities and accountabilities of our political leaders. I believe most governments on the planet today are failing their people by not taking decisive action to mitigate climate change and environmental consequences that result from global warming, and fostering

every means of adapting to the circumstances we face using all the resources available. Even after the COP21 Paris Agreement³ I think our current posture is a manifest failure of leadership. I would like to believe that at some point in the future those who have failed to secure a bright future as a legacy for our successors will be held to account.”

Recommendations for national security agencies and government

The Senate committee made 11 recommendations for action by national security agencies and the government (Senate 2018). They included: the development of a Climate Security White Paper and a National Climate, Health and Well-Being Plan; the release of an unclassified document by Defence outlining what is being done to identify climate risks to its estate; consideration of appointing a dedicated climate security leadership position in the Home Affairs portfolio to co-ordinate climate resilience issues; and the creation in Defence of a dedicated senior leadership position to assist in planning and managing the delivery of humanitarian assistance and disaster relief at home and abroad. In addition, Defence should establish emissions reduction targets across stationary and operational energy use and report annually on them. None of these issues were addressed in the recent Defence Strategic Update (Defence 2020).

Coalition Senators recorded concerns in the report. They drew attention to specific submissions from Defence and Foreign Affairs that attempted to show how well the government had been doing on climate change. “Coalition Senators believe the Government and stakeholder departments have sufficient strategies in place to ensure Australia's response to the implications of climate change on national security is well understood and consistent across the whole of government”. They also did not support the recommendation on Defence emissions reduction targets because it fell outside the spirit of the inquiry.

The Senate committee also admitted to shortfalls in its report due to a lack of information. For example, it observed that “Climate change is also adversely affecting other aspects of Australia's national security, including the economy, infrastructure, and community health and well-being”, but the “committee did not receive substantial evidence on these matters...”. There also is no recommendation in the report about limiting the consumption of fossil fuels.

Insufficient impact

The findings in the inquiry report are concerning. The recommendations lack timetables for action, and a sense of urgency. They do not stack up well against recent experience. The Commonwealth Government has yet to table a response to the report. Senator Lambie could start on her “emergency services conscripts” by pushing for a Government response to a report in which she and some current government ministers participated!

I think our experience of climate change already presents us with significant challenges to governance, our institutions, and the fabric of our societies. We know over

²A supporting video can be seen at...

<https://youtube.com/watch?v=JPMoV7J67ro>

³The 21st Conference of the Parties (COP21) to the 1992 United Nations Framework Convention on Climate Change (UNFCCC), a meeting at which world leaders negotiated an international agreement to limit greenhouse gas emissions and hold planetary warming below 2°C of preindustrial levels.

the next 30 years, as a 25 per cent growth in world population occurs, the impact of global warming on climate change and our current problems will almost certainly get worse, not better. This surely dictates significant action.

The idea of a Climate Change Security White Paper that clearly spells out where our ministers stand on climate change issues would be welcome. It could dispel the concerns of many Australians about the way ahead. At least, it would give us something to work with!

Conclusion

Professor Steffen has said that dealing with climate change is not a scientific problem. It is rather a socio-political problem; it is for communities and their governments to manage. This is where things look ugly. I agree. Perhaps we should learn lessons from the way in which science is driving our response to the COVID-19 pandemic.

Steffen's perspective is that we have just 15 months to reduce fossil fuel consumption significantly – not just in Australia, but world-wide. We should not underestimate the magnitude of the problem. Even if we had already started reaching for acceptable reduction targets, it would still present a huge problem. My take on our federal government's perspective is that Australia is waiting for other countries to provide a lead.

So, while this look at the implications of climate change on Australia's national security may look all right from a government and bureaucratic perspective, in my view it presents breath-taking complacency. It smacks of reckless negligence, because no other country on the planet will be as affected by the consequences of climate change as Australia. Our national security will be imperilled by it.

By 2050, a world destabilised due to the pressures created by climate change consequences would likely have experienced mass migrations of unimaginable scale. Even if only 5 per cent of the 5 billion people in our region feel compelled to find new places to live because of serious water and commensurate food shortages, as well as weather and sea-related natural disasters, that could mean 300 million people on the move. The Government has tilted at this issue in the Defence Strategic Update (Defence 2020) but has not taken its potential security impacts seriously.

Australia, with its low population density, might be an attractive place to head for since most other countries in our region would be much more densely populated. In such a contingency, the national security effort of our 40 million people will be overwhelmed by the scale of the national security problem.

There is no place for complacency about climate change in our national security thinking.

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