Submission to the inquiry into the implications of climate change for Australia's national security

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About the Climate and Health Alliance

The Climate and Health Alliance (CAHA) is a not-for-profit organisation that is a national alliance of organisations and people in the health sector working together to raise awareness about the health risks of climate change and the health benefits of emissions reductions.

CAHA's members recognise that health care stakeholders have a particular responsibility to the community in advocating for public policy that will promote and protect human health.

Membership of the Climate and Health Alliance includes a broad cross section of the health sector with 28 organisational members, representing hundreds of thousands of health care professionals from a range of disciplines, health care service providers, institutions, academics, researchers, and health consumers.

The Climate and Health Alliance, as it name suggests, is concerned with the health threats from climate change, and the organisation works to raise awareness of those risks and advocate for effective societal responses, including public policies, to reduce risks to health.

The Climate and Health Alliance has produced a number of reports and publications. It produced the Coal and Health in the Hunter: Lessons from One Valley for the World report in 2015; led the development of the multi-stakeholder Joint Position Statement and Background Paper on Health and Energy Choices in 2014; produced the joint report 'Our Uncashed Dividend' with The Climate Institute in 2012 on the health benefits of reducing greenhouse gas emissions; conducted a national Roundtable on the Health Implications of Energy Policy; prepared a Briefing Paper on the same topic; produced a film on the risks to health and climate from coal and gas, The Human Cost of Power; conducted a national Forum on Climate and Health: Research, Policy and Advocacy in 2013; jointly hosted a Public Seminar on Protecting Health from Climate Change in 2014; organised the 2015 Our Climate Our Health Seminar, featuring an innovative thought experiment: Imagining 2030 as a healthy low carbon world; and contributes to conferences, community dialogues, and forums, both nationally and internationally on these issues.

For more information about the membership and governance of the Climate and Health Alliance, please see Appendix A. For further information see www.caha.org.au

CAHA would like to address the terms of reference of the inquiry as follows:

(a) The threats and long-term risks posed by climate change to national security and international security, including those canvassed in the National Security Implications of Climate-Related Risks and a Changing Climate Report by the United States Department of Defense;

There is broad consensus that the social and human impacts of climate change render it a "risk multiplier" for conflict[1, 2]. Australia and its neighbours are at great risk of geopolitical instability given their acute vulnerability to the impacts of climate change. Climate change has impacts on health, agriculture, air quality, water supply, housing, and other societal sectors, and increases the likelihood of violence due by amplifying the impacts of already-existing causative factors [1, 3]. Climate change contributes to the risk of conflict both directly and indirectly, with disproportionate impacts in low and middle -income countries. Australia will be confronted with regional instability and by a great increase in the number of forced migrants seeking refuge.

Climate change poses threats to agricultural production, food prices and in turn the risk of violent conflict – thus undermining geopolitical and economic stability[1]. Limits to the availability, accessibility and quality of food have significant implications for health and social cohesion– and when combined with political instability and desperation among the population, spikes in commodity prices can result in deaths and nonfatal injuries[3]. Indeed the destabilising impact of rising food prices can be observed in the present destabilisation of the Middle East, where food insecurity has been causally linked to the "Arab Spring" and also to the current conflict in Syria [2, 4].

Climate change will put further pressure on water security by affecting the accessibility and availability of freshwater resources [5]. The increasing frequency and intensity of droughts is likely to contribute to instability, conflict and climate-induced migration within and between nations [6]. Decreased rainfall is associated with a rise in food prices, and aggravated competition for scarce natural resources can lead to the development of violent conflict [3].

Millions of people will be adversely affected by rising sea levels and increasingly frequent coastal flooding, with the majority of those affected in East, Southeast and South Asia –displacing entire communities from their homes and putting billions of dollars of assets at risk. A 0.5–2 m sea-level rise has been estimated to expose between 1.2 and 2.2 million people from the Caribbean, Indian Ocean and Pacific Ocean to inundation [6]. Over half of the urban population in Asia lives in low-lying coastal zones and flood plains that are highly exposed to the effects of climate change [6]. Sea-level rise will damage cropland, result in changed land-usage patterns due to increasing salinity, and thereby further contribute to shortages of food and freshwater. Sea-level rise is likely to cause major political, economic, and social

disruptions, sometimes associated with violence, as affected communities compete for control of land and other resources [3]. The impacts of sea-level rise on Pacific, Southeast and South Asian nations will have major implications for Australia by way of undermining regional geopolitical stability. It is to be noted that Australian Defence Force infrastructure is also at exposed to projected sea-level rise [6] .

Extreme weather events affect the well-being of individuals and societies through the large scale displacement of people, loss of livelihoods and destruction of food supplies, damage to critical infrastructure, such as water and power infrastructure, and through increases in physical and mental illness [6]. More than 90 per cent of the global population that is exposed to tropical cyclones resides in nearby-Asia, where rising sea levels will magnify the impact of storms [6]. Increasingly, climate change-related disasters necessitate the deployment of military forces to provide security, restore order and to provide humanitarian assistance and disaster relief[6] .

In addition to contributing to resource scarcity, climate change also increases the chances of conflict through a range of indirect causal pathways[1]. These include socioeconomic and political instability, disputes over political power and land ownership, poverty and socioeconomic disparities, high unemployment, increasingly authoritarian governments, violations of human rights and other manifestations of social injustice [3]. Many of the indirect casual pathways between climate change and conflict involve decreasing state capacity as a necessary step, rendering the risks of conflict from climate change greatest where governance and civil institutions are already weak[1]. Australian national security agencies are likely to be called to peacekeeping and peace enforcement operations, particularly in the south-west Pacific, should already unstable states be further weakened by the effects of climate change [7].

Australia's geographic proximity to a number of low and middle income countries is significant given the disproportionate impacts of climate change on our under-resourced neighbours. Low and middle income countries are often more exposed to high temperatures, rely more heavily on agriculture, extraction of natural resources, and other industrial sectors that are vulnerable to extreme weather variability; and have less systemic resilience than wealthier nations [3]. Within populations, risk factors for increased vulnerability to the violence of climate change include poverty, female gender, minority status, young or old age, and various diseases and disabilities [3]. Consequently, war and other forms of collective violence are more likely to adversely affect populations in low-income countries and, poorer people in mid- and high-income countries [8].

The human toll of climate-influenced violence is long-lived, with the psychological impacts of conflict, including post-traumatic stress disorder and depression, affecting fighters and civilians likely to continue for decades[1]. Conflict degrades ongoing social and physical conditions through daily stressors including community strife, malnutrition and overcrowding, stressors that can extend well beyond the period of violent conflict [1] . Conflict and

acts of terror often deliberately erode the social fabric and associated institutions which in peace times provide support to communities – therefore undermine a society's capacity to help people make sense of physical trauma and social loss [1].

The environmental effects of climate change are likely to produce *"environmental effects and exacerbate current vulnerabilities that make it difficult for people to survive where they are"* [9]. In response to the health and physical safety risks posed by climatic-environmental disasters, we are likely to see increasing numbers of individuals forced to consider migration as a survival strategy [10].

Given our geography, forced displacement of communities by climate change is of particular concern to Australia. Our close neighbours in the Pacific Islands are acutely vulnerable to rising sea levels and increasingly frequent extreme weather events – and Australia is a likely destination for numerous climate refugees[11]. Migration to countries other than Australia may increase resource scarcity, contribute to state fragility, and even exacerbate conflict in parts of the world where Australian strategic, economic, and development interests are significant [12]. Australia is likely to feel the ripple effects of political tensions and violent conflicts precipitated by mass movements of populations in the region [7].

Importantly, the large-scale displacement of climate refugees has dramatic impacts on health and well-being. Many of the places that will receive climate-change– affected migrants are in developing regions where public health resources are lacking or inadequate[10].

The health risks associated with forced displacement are due to a lack of basic necessities for good health, such as food, shelter, and water, as well as reduced access to health care and loss of social networks and assets [10]. Infectious disease as a significant cause of morbidity and mortality among refugee populations – as are food shortages, restricted access to food and under nutrition [10]. Of great concern are the mental health impacts of forced migration and is attributable in part to experiences of violence and trauma that preceded displacement [10].

(b) The role of both humanitarian and military response in addressing climate change and the means by which these responses are implemented;

Duties of the Australian Defence Force are understood to include:
- Protect and strengthen Australia;
- Ensure a safe and resilient population;
- Secure Australia's assets, infrastructure and institutions; and
- Promote a favourable international environment [13].

Each of these aforementioned responsibilities will be made more difficult in an increasingly precarious climate.

On the home front, a changing climate places increasing pressure on the Australian Defence Force to assist in responding to domestic emergencies related to weather events. The ADF has a critical role in providing personnel and equipment to support the civilian community in responding to extreme weather events [6].

Australia's proximity and relative prosperity in the Asia-Pacific region render it obliged to assist with disaster response when extreme events threatens our neighbours [2]. The ADF is likely to be called on with increasing frequency to provide regional partners with humanitarian assistance and disaster relief [6]. Further, the ADF may have a significant role to play in providing capacity and resilience building across the Asia-Pacific [6].

It is imperative that policy shaping Australia's humanitarian and military response to climate change explicitly addresses health and equity, and is informed by Australia' s obligations under the 2015 UNFCCC Paris Agreement to apply a "health lens" to climate policies[14, 15]. This requires that all policies:
- *protect the health of all Australians, with particular care taken to protect the most vulnerable individuals and communities;*
- *avoid disproportionate impacts on vulnerable people, low income households and the organisations that support them; and*
- *assist the successful transition of communities that are especially vulnerable to economic shocks, economic and industry changes or physical risks as a result of climate change or climate policy.*

Measures designed to mitigate climate change and its adverse effects can have unintended consequences that adversely affect social justice and environmental justice. Thus humanitarian and military responses to climate change and its mitigation must be guided by a sincere effort not to further compromise the wellbeing of the communities in which our national security organisations are working.

Importantly, humanitarian and military responses to climate change must take into account the health and well-being of those who are forcibly displaced by an increasingly volatile climate. Historically, a small proportion of those seeking refuge or asylum in Australia have become part of a resettlement scheme. It is important to acknowledge the adverse social outcomes to which refugees or asylum seekers who are resettled are acutely vulnerable. These include joblessness, homelessness, social marginalization, heightened food insecurity, loss of access to common property resources, and community disarticulation [10].

(c) The capacity and preparedness of Australia's relevant national security agencies to respond to climate change risks in our region;

A general paucity of formal recognition of the link between national security interest and climate change leaves the health and well-being of Australians at

risk. The association between conflict and security aspects of climate change has been largely ignored by public discourse in Australia [16]. Many defence officials and experts acknowledge that Australia has not integrated climate security considerations into broader national security and defence strategic frameworks [2]. Such inertia leaves Australian defence forces, our humanitarian workforce and our community more broadly uniformed and unprepared about the risks and uncertainty that climate change brings.

On an international level, Australian national security agencies must be prepared to deal with the resource scarcity, forced migration and geopolitical instability that climate change will catalyse in the Asia-Pacific region [2]. Australia must be prepared for more humanitarian deployments and involvement in regional stabilization missions. The ADF and associated agencies must work with developing neighbors to proactively adapt to the changing climate.

On the domestic front, the ADF must be prepared for an increased frequency and severity of extreme weather in Australia requiring more frequent disaster relief. There is the potential for the ADF to be required in multiple, concurrent disaster settings in different locations across the country [2].

Of note, the Department of Health is vastly underprepared to deal with an increasingly hostile climate – as evidenced by recent responses to the 2011 Queensland floods, and the 2016 Melbourne Asthma storm. As health risks increase, so does the pressure on health systems and emergency responses, which can delay the effective delivery of health care. The magnitude of the threat posed to the community by climate change is greatly increased by non-climatic factors such as the effectiveness of emergency management to the quality of health infrastructure and the vulnerability of individuals and communities [6]. Significant investment is required to strengthen the resilience of health systems and disaster warning systems [6] .

As articulated in the Climate and Health Alliance's Framework for a National Strategy for Climate, Health and Well-Being for Australia, it is imperative that we have climate resilient health and emergency services that are adequately prepared for and able to respond to climate- related health threats, including those posed by extreme weather events [17]. A climate-resilient health sector, able to maintain a high standard of safe, quality care, with an appropriately skilled workforce able to meet the healthcare needs of the community in a changing climate requires that the following steps be taken:

- Expand investment in early warning systems to effectively identify potential climate-related threats to health, such as extreme weather events, to enable rapid response to mitigate the impacts on Australian communities
- Expand investment in vulnerability mapping programs to identify and map vulnerable populations and infrastructure to inform climate adaptation strategies and emergency response plans
- Incorporate climate-health risks in national health performance standards (for example add climate change to the risks requiring

management in Standard 1 of the National Safety and Quality Health Standards (NSQHS)

- Develop a new NSQHS Standard for minimising the health risks of climate change to the health of patients and to the delivery of safe, quality care. This should include performing organisation-wide risk assessments and planning for risks such as surges in service demand, destruction of infrastructure and equipment, and interruptions to workforce availability, access and supply chain
- Expand the Global Green and Healthy Hospitals initiative
- Integrate sustainable and resilient design solutions for health infrastructure that ensures continuity of health service delivery
- Introduce mandatory standards and obligations for health facility design, construction and on- going management of both new and existing facilities, which prioritise building resilience to direct and indirect climate risks
- Invest in secure technological innovations and knowledge management systems for health services to withstand power interruption in the event of emergencies or disasters, including extreme weather events
- Build resilience of the interdependent agencies and critical infrastructure to avoid disruptions to health services
- Mandate climate risk management in health care sector governance standards to ensure strategic and operational planning in the sector recognises and responds to climate change risks to infrastructure, service provision, the health workforce, and supply chains

(d) The role of Australia's overseas development assistance in climate change mitigation and adaptation more broadly;

As a political and economic leader in the Pacific region, Australia has a responsibility to assist those neighbours who have contributed little to the causes of climate change, but are among the most vulnerable to its effects [18]. Climate change stands to undermine progress towards development in many countries in our region [19].   In particular, our Pacific Island neighbors are extremely vulnerable to the impacts of a changing climate [11]. Australia has formally committed to assisting Pacific Islanders to realize their stated desire of staying in their countries by responding to the challenge of climate change – and should strive to honour that commitment.

Pacific Island countries face immense challenges in implementing plans for adaptation. Challenges include the scarce resources available to health sectors that are typically already under significant strain. Pacific Island nations are likely to be beset with shortfalls in data, challenges to information systems, human resources, technical capacity, infrastructure, and difficulties with obtaining finance [11].

Supporting adaptation to environmental change in affected countries may reduce the scale of any national security threat to Australia [6]. Australian support for climate change adaptation should be guided by the principle that

developing countries lead their own adaptation process. Australia can increase investment in adaptation and disaster preparedness, support resilience building and climate proofing of infrastructure [19]. CAHA notes Australia's current position as the chair of the Green Climate Fund, and would like to echo calls from other NGOs that the Green Climate Fund must deliver for vulnerable communities, by improving access to relevant financial support [20].

Given the extent of climatic change to date, however, and the likely continuation changes to the climate, it is most likely that there will be significant numbers of Pacific Islanders forced to embark on journeys of migration [11]. Australian support to Pacific Island nations may include support for relocation if it becomes necessary [18].

Australia's development assistance must be informed by the notion of "health in all policies". Given the global nature of climate change, Australia's national security activities must be conducted in a manner cognisant of the interconnected nature of the burden of climate-related ill health. Assistance granted for adaptation or mitigation must be informed by the health and well-being needs of the communities in which we are involved. This requires consideration of the health infrastructure, population and community health workforce, emergency and disaster preparedness, and safety and quality of care in any area where we aspire to provide humanitarian assistance.

(e) The role of climate mitigation policies in reducing national security risks;

Without sufficient mitigation, climate change will inevitably lead to increased conflict and mass migration [1]. Thus the Federal Government must be proactive in its interactions with international institutions and communities to ensure that Australia is participating in dialogues related to global efforts to tackle climate change. Australia is bound to action by numerous international obligations, and must be vigilant in ensuring other nations fulfil their similar commitments.

CAHA reiterates its multiple previous recommendations of the following domestic emissions reduction trajectory to ensure Australia meets its international obligations and contributes to improved health and well-being of our communities, while reducing risks to national security:
- A minimum target of 20% of 2000 levels by 2020;
- A minimum of 40% of 2000 levels by 2025;
- A minimum of 60% by 2000 levels by 2030;
- A minimum of 80% of 2000 levels by 2035;
- Full decarbonisations by 2040; and
- Negative net emissions by 2050.

These targets are closely aligned with, but building on the recommendations of recommendations of the Climate Change Authority, and consistent with the short terms targets of The Climate Institute [21, 22].

 CAHA would like to highlight that current Australian and international carbon reduction commitments are inadequate to limit global warming to a safe level, and that both national security and the wellbeing of the community are presently at risk. Australia has both the technological and economic tools required to both reduce our emissions in line with preventing 2 degrees of warming and to concurrently provide significant improvements to health and wellbeing [23-26].

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