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

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In writing this submission I am drawing on 18 years of social science research investigating the impacts of climate change on food security, migration, water security, and peace in the Asia-Pacific region. I have been chief investigator on 8 major field-based research projects and I have supervised several Postgraduate research projects on these topics. I am author of some of the most highly cited scholarly works on climate change and security, and on this basis have given invited seminars and papers in Belin, The Hague, Hong Kong, Jakarta, Jerusalem, Manila, Oslo, Paris, Singapore, Suva, Taipei, and Washington. I was: Lead Author of the chapter on Human Security in the most recent assessment report from the Intergovernmental Panel on Climate Change (2015); Co-Chair of the Council for Security Cooperation in the Asia Pacific's Study Group on the security implications of climate change (2009); and Chair of the Small Island States working group of the first Planetary Security conference organised by the Netherlands Ministry of Foreign Affairs (2015). In 2014 I was awarded the *Al-Moumin Award for Research on Environmental Peacebuilding*, from the United States Environmental Law Institute, American University and the United Nations Environment Programme.

Responses to topics of inquiry

1. 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 consensus among scholars and security policy actors, including in NATO member counties, that:

1. Climate change is very unlikely to cause armed conflict between countries.
2. Climate change is not a primary cause of armed conflict.
3. Climate change can increase the risk of armed conflict within some already conflict prone countries due to its potential to simultaneously undermine both livelihoods (and thereby increasing the opportunities for recruitment into militant groups), and State capacity to maintain adequate peace and justice initiatives (for example social protection and policing).
4. Climate change poses significant risks to human security, particularly among populations whose livelihoods depend on climate sensitive natural resources.

5. Climate change poses risks to critical infrastructure in all countries, including defence-related infrastructure.

This is the state of knowledge as reflected in the scholarly literature, the Fifth Assessment Report of the IPCC, and the 2015 US DoD report to Congress.

2. The role of both humanitarian and military response in addressing climate change, and the means by which these responses are implemented.

It is notable that annual Australian ODA directed towards humanitarian and disaster response in Papua New Guinea and Pacific Island Countries more than quadrupled between 2005 and 2014. Climate change will increase the need for such humanitarian assistance, including in Fiji, Indonesia, Papua New Guinea, The Philippines, Solomon Islands, Timor-Leste and Vanuatu.

There may soon be critical capability gaps in Australia's disaster response institutions arising from simultaneous domestic and regional emergencies, for example major bushfires in Southern Australia coinciding with catastrophic cyclone events in Melanesia during increasingly intense El Nino events. So, given existing capabilities, and in the absence of better disaster mitigation and adaptation practices in Australia and the region, Australian governments may soon have to choose between the disaster response and recovery needs of domestic constituents and those of its international partners, with losses to either legitimacy at home, or reputation abroad. Foresight exercises and scenario planning for such contingencies may better reveal the kinds of investments and strategies needed to avoid such unfortunate trade-offs.

A key concern of Small Island Development States in our region is that the will and capacity of donors to provide international disaster relief may wane in a future where there are increasingly extreme and possibly frequent disasters due to climate change. For this reason there is strong interest in the development of a regional disaster insurance mechanism, similar to the Caribbean Catastrophe Risk Insurance Facility. This would be an excellent initiative for Australia support, and it would be very much in our national interest.

3. The capacity and preparedness of Australia's relevant national security agencies to respond to climate change risks in our region.

The security implications of climate change will emerge through social responses to changing environmental conditions (or in anticipation of them). There is no systematic monitoring of changes in social conditions from which to learn about and respond to emerging security crises. There is therefore a need for regular collection and analysis of basic data across countries of concern. Basic data that could be collected might for example be about: diarrhoea, ciguatera poisoning, malaria and dengue fever; rural-urban migration; crimes against property; legal disputes over access to land and marine areas; catches of tuna and key reef species; prices and harvests of key locally produced staples; and soil moisture and water storage levels.

4. The role of Australia's overseas development assistance in climate change mitigation and adaptation more broadly.

Climate change seems likely to undermine progress towards development in many countries in Australia's region. For example, climate change is expected to cause annual losses equivalent to 6.7% of GDP by the end of the decade in Indonesia and the Philippines. In Papua New Guinea and the Solomon Islands total population is set to double in the next 40 years, creating an additional 4 million (mostly young) people living in the coastal zone, where climate change will increase flooding, vector borne diseases such as malaria and dengue fever, and damages from increasingly intense storms.

These trends will challenge Australia's aid and disaster response capacities. In 2013-14, 6% of Australia's $5 billion of aid was spent on climate change and related activities (including on: clean energy, climate change adaptation, and water infrastructure, sanitation and management). This share of allocations to climate change is arguably low relative to other sectors, and given the co-benefits of spending on climate change for other development goals.

A failure to meet demands for increased support for climate change mitigation and adaptation will increase opportunities for countries that seek political influence and access to markets in our region: China, for example, can demonstrate significant capabilities in planning urban development, and its state-owned hydropower firms are aggressively seek new markets.

The nature and volume of Australian ODA is insufficient given the risks climate change poses to our security interests. Key strategies that could be implemented to improve adaptation practices in our region include:

- a program on urban resilience that focuses on the planning of existing and emerging cities and towns in order to accommodate growth and minimise the impacts of climate change;
- a system of sustainability extension officers to regularly visit and be advise remote and disadvantaged communities on sustainable development practices, policies and opportunities for support;
- micro-grants available to communities and households to help them adapt to climate change;
- an adaptive capacity enhancement program targeted at providing access to basic services in remote and disadvantaged communities including: renewable energy; water and sanitation services; and primary health care;
- innovative use of regional labour mobility schemes to boost skills development and remittances in vulnerable island communities;
- establish an adaptation trust fund, spending the interest and given demand the principle, with initial allocations to be topped up if success is demonstrable.

It is also important to appreciate that other Australian government departments do already play key roles in enhancing Australia's climate security, including for example Emergency Management Australia and the Preparedness unit within the Vice Chief of Defence Force Group. A whole of government response would improve the range and effectiveness of Australia's efforts to enhance climate security, and to this end there is value in an inter-agency working group that meets regularly, and is comprised of members from relevant divisions within the Attorney General's Department, the Department of Defence, the department of Environment and Energy, the Department of Foreign Affairs and Trade, the Department of Immigration and Border Protection, and the Department of Prime Minister and Cabinet.

5. The role of climate mitigation policies in reducing national security risks; and any other related matters.

Reducing greenhouse gas emissions reduces the risk of insecurity arising from climate change. Research on the social outcomes of economic and political and environmental changes shows that the speed of change is a key factor in the extent to which poverty and insecurity results. When change is rapid existing institutions fail to adjust, so that the regular processes and practices that sustain people's livelihoods and that govern society in an orderly manner break down. When change is more gradual people and institutions adjust in a more orderly way. This is as true for Australian rice growers under the Basin Plan as it is for manufacturing during the collapse of the Soviet Union or the stability of public administration in Libya after the Arab Spring. Therefore, because reducing greenhouse gas emissions results in a slower rate of climate change, it provides more time for people and institutions to adapt in a more orderly and peaceful way.

Summary of recommendations for the Australian government

Commission a strategic analysis of the risks of climate change to Australia's national interest, similar to those conducted by UK Government's Foresight projects.

Support for the design and funding of a regional disaster insurance mechanism, similar to the Caribbean Catastrophe Risk Insurance Facility.

Develop a system for monitoring of changes in social conditions from which to learn about and manage emerging security crises.

Significantly greater investment in adaptation in our region including, for example: a program on urban resilience; a system of sustainability extension officers; an adaptation micro-grants scheme; an adaptive capacity enhancement program that addresses deficits in the provision of basin needs; innovative regional labour mobility schemes; and an adaptation trust fund.

Institutionalise an inter-agency working group on climate change and Australia's national interest.

Become a world and regional leader in climate change adaptation and mitigation.

The Inquiry might be interested in the following NCCARF's Policy Information Brief on Adapting Australia's trade and aid policies to climate change: https://www.nccarf.edu.au/sites/default/files/attached_files/TradeAid_PIB_WEB.pdf