

# Climate Security in the Asia Pacific

Simon Gonsalves, Graydon Fleming and So Youn (Annie) Kim

## Issue

The prosperity and stability of the Asia Pacific is predominantly threatened not by American or Chinese power, but by our era's greatest collective-action challenge: anthropogenic climate change.

## Background

The Asia Pacific is projected to be one of the most economically dynamic areas of the globe in the coming decades. Considering recent seismic shifts in its international relations and the wider global order, the Government of Canada (GoC) has made strengthening its economic and political relationships with important regional states one of its highest priorities. However, anthropogenic climate change threatens to destabilize the Asia Pacific. If expansive and robust measures are not taken in response to the rise in global temperature, states located in the Pacific Rim will suffer disproportionately. Regional insecurities will be significantly aggravated by increasingly inhospitable weather patterns. Environmental security should be a core element of Canadian foreign policy. This policy brief outlines the myriad threats that climate change poses to the Asia Pacific, articulates the salience of climate security theory, and discusses the benefits and opportunities for Canadian engagement in Asia-Pacific environmental security.

## Canadian Trade Reorientation

Global Affairs Canada (GAC) data estimates that one in every five Canadian jobs is linked to exports (GAC 2013).

However, deepening bilateral uncertainty, animosity and distrust between Canada and its top two singular trading partners, the United States and the People's Republic of China (PRC), have forced a GoC re-evaluation. The creation of a cabinet-level portfolio on International Trade Diversification demonstrates the gravity of the situation. GAC has stated the need to aggressively secure “more opportunities for Canadian exporters and investors to compete and succeed in fast-growing global markets” (GAC 2019). These states are disproportionately located in the Asia Pacific, a region projected to significantly expand in global economic influence (International Monetary Fund 2018). The Asia Pacific has a “growing role in the global economy and politics... (and is of) critical importance to a broad range of Canadian goals, including prosperity, development, sustainability, peace, and security” (GAC 2018).

## Impact of Climate Change on the Asia Pacific

Significant increases in global temperature, caused by anthropogenic forces, will force all countries to adapt and overcome to some degree. However, the issue of rising temperatures and climate disruption will inordinately affect many countries of the Western Pacific (Busby and Krishnan 2017). States within this geographic area have already been disproportionately affected (Eckstein, Hutfils and Wings 2018). The increased frequency and intensity of extreme weather events will dislocate the region's low-lying infrastructure and population (Francisco 2008). Other linked cascading impacts, such as increased food insecurity and inter/intranational migration, will further destabilize core Asia-Pacific countries. The future is grim if current projected emissions hold — let

alone accelerated worst-case scenarios. While no state will escape the consequences of a warming planet, the international distribution of climate disruption is far from equitable (Francesco and Werrell 2017). Some Asia-Pacific countries, such as the People's Republic of China, have the technical and financial resources to better adapt, contain, and recover from damages wrought by a changing climate. The Asia Pacific's poorer, less-developed states lack similar levels of resiliency (Joshua and Krishnan 2017).

### **Relationship between Climate Change and International Security**

As Canada seeks greater involvement in the Asia Pacific, uncontrolled climate change will complicate Canadian foreign policy. The level of knowledge concerning Canada's "indirect exposure to climate change elsewhere is still insignificant and fragmented," and East Asia remains understudied (Dalby et al. 2017). However, relationships between climate change, international tension and conflict are becoming increasingly clear. Changing climate conditions do not automatically result in heightened levels of conflict, and the non-linear nature of climate change make accurate long-term predictions challenging. Rather, climate interacts and converges with other existing risks and pressures across the globe. As climate disruption accelerates, future international armed conflicts will likely have salient climatic dimensions. Climate change is Asia Pacific's greatest threat multiplier and risk accelerator, creating new tensions and worsening existing dangers. Many states in the developing world, already under significant environmental and social stress, are particularly vulnerable to climate-intensified destabilization.

Thomas Homer-Dixon (1994), a distinguished environmental security scholar, identifies three conditions where environmental factors can drive violent conflict and international tension:

1. When there are decreases in the supply of controllable resources.
2. When environmental scarcity causes economic deprivation.
3. When large population movements caused by environmental stress exacerbate group identity conflicts.

The confluence of these factors can instigate and exasperate regional rivalries. The geopolitical situation in the Pacific Rim is already fraught with risk. Environmental

degradation, caused by structural land use changes and poor resource governance, are already increasing tensions in the Asia Pacific. Climate change will make fragile situations worse. Indeed, the situation in the South China Sea demonstrates how changes in environmental patterns, alongside climate change's role as a conflict amplifier, are further complicating an already fraught state of affairs and having real consequences for international relations. The rate of aquatic species depletion across the Asia Pacific is accelerating, due to excessive overfishing, alongside rising ocean temperature and acidification. Simultaneously, climate change is causing decreasing fish stocks to migrate further northward, as waters warm (Thomas 2017). As commercial fleets trail them into contentiously disputed waters, tensions flare between China and other South China Sea claimant states whose economies depend on their fishing sectors (Francesco and Werrell 2017).

The damages wrought by climate change will increase the probability of regional armed conflict. By intensifying resurgent nationalist sentiments and zero-sum mentalities, a less predictable and more inhospitable climate can prove dangerous alongside heightened concerns about national security. Heightened tensions between states pose challenges to essential mitigation of carbon emissions and climate adaptation policies. Facing rising uncertainty, countries might feel compelled to triage and concentrate national resources to fund security sectors and national defence. Amplified focus on conventional security will possibly prove fatal for the region's long-term environmental security, making the Asia Pacific less stable. Multifaceted technological development and societal reforms, critical to minimizing the longer-term impacts of climate change, would likely be de-prioritized. Incentives for states to invest and unilaterally deploy climate-engineering technologies, in attempt to regain control, could rise (Craik 2017). Climate change is a transnational phenomenon and combatting it, by necessity, requires close multi-level international cooperation. Interstate hostility, worsened by climatic conditions, is hardly conducive to successful collaborative climate initiatives.

### **Climate Change, Asian-Pacific Security, China and Canadian Prosperity**

Canada has numerous stakes and interests in the Asia Pacific, which include regional stability, deepened economic ties and building stronger partnerships and relationships. To advance its position in the region, the GoC needs to engage in promoting climate security.

Growing security pressures will hinder Asia-Pacific climate action, needed to ensure regional prosperity and security in the twenty-first century. Without effective multilateral institutions and initiatives geared towards environmental security, the region will be hamstrung by state/societal fragility, lowered economic potential and increased likelihood of interstate tension and regional conflict. Canada should work to advance Canadian/Asian Pacific climate security cooperation and take diplomatic initiative. Canadian foreign policy is traditionally focused on multilateralism, moral leadership and conflict mediation — traits advantageous to environmental security action, in both the diplomatic and policy realms.

China is a major player on the international stage and plays an even larger role in the climate security realm. The global mitigation effort will not hit necessary targets without massive PRC emission reductions, and the PRC could seriously hamstring adaption measures across much of continental Asia Pacific. As the world's largest emitter of greenhouse gases, the mainland Chinese are of fundamental importance in limiting climate change. Due to its technological progress in renewable technology and vast amounts of financial capital, Beijing has the potential of being a constructive actor in regional environmental security. The return of overt great power competition will undoubtedly generate pressure to bandwagon onto hawkish US positions towards China. Although recent events have demonstrated that the PRC is far from a dependable partner, collaborative climate action is not impossible. Working with American competitors on environmental security issues will likely not cause a US backlash, unlike other policy realms. Lastly, while many states in the Asia Pacific remain deeply skeptical of the PRC's intentions, others are hedging or reorienting towards Beijing as it asserts its growing power and influence in the region. If Canada wants to play a significant role in the diplomatic conversation on environmental security, the window may be quickly closing.

### Asia Pacific-Canadian Security Cooperation

Canadian diplomatic and economic interests are advanced through working with Asia-Pacific countries to reduce climate-related instabilities and help the Asia Pacific become more climate secure. As the GoC attempts to decarbonize the Canadian economy and prepare for a changing climate, it can support other countries to move in similar directions by leveraging Canada's strengths

in a mutually beneficial fashion on a multilateral and bilateral basis. Canada can utilize its enduring national reputation as a benevolent, morally conscious, non-interventionist “middle power” to act as a positive force in the Asia Pacific. Although the current administration in Washington is presently uninterested in the geopolitical and security implications of climate change in the Asia Pacific, there are many states that share Canada's interest in limiting climate change, strengthening the rules-based international order and promoting a progressive trade agenda. If sustained and comprehensive action is not taken, the probability of regional conflict in the Asia Pacific will be substantially increased (The Climate and Security Advisory Group 2016).

## Recommendations

By assisting states in driving positive action regarding climate change with an emphasis on climate security, GAC can further its core international priorities and advance a value-based foreign policy.

1. **Explore Internal GAC Restructuring.** Canadian foreign policy priorities will affect, and be affected by, the security risks of a changing climate. However, in order to fully commit to addressing climate change as a strategic priority, GAC must fully integrate and coordinate attention to the issue across its operations, departments and offices. By prioritizing reducing climate change-related security risks through further elevating, institutionalizing and integrating climate-change and security concerns, Canada can better formulate and advance its policies. An official task force on the Asia-Pacific climate/security nexus could be another effective approach.
2. **Develop a National Strategy for Climate Engineering Research and Governance.** Facing increasingly inhospitable climate patterns, capable states will be incentivized to adopt geo-engineering technology as a stopgap measure to mitigate adverse climate changes. Though precise definition is contentiously debated, geoengineering (GE) is “the deliberate large-scale intervention in the Earth's climate system in order to moderate global warming” (Shepard 2013). Within international law, no clear contemporary guidelines for appropriate conduct exist. As technological ability advances from the hypothetical to the feasible, tensions between

have and have-not states could result in conflict in the foreseeable future. Canadian leadership in constructing a rules-based framework could help to successfully address the challenges of GE. However, effective global GE governance requires greater knowledge of relevant technologies and their potential impacts. The risks and externalities of GE need to be studied. Despite the increased salience of climate engineering, the issue has largely been absent from the Canadian public policy agenda. A national strategy for GE research ought to be developed, alongside dedicated funding.

3. **Promote Bilateral and Multilateral Climate Change/Security Working Groups.** Canada can demonstrate climate security leadership through engagement with the Asia Pacific on a multilateral and bilateral basis. International working groups on climate change and its regional security implications are critically important. Promoting and organizing track one, track one-and-a-half, and track two collaboration between Canadian and Asian-Pacific subject matter experts will forge a stronger consensus on the security ramifications of climate change and improve coordination and understanding between decision makers. The seemingly inactive Canada-China Climate Change Working Group should be revived. Long-running Chinese issues with the management of its own environment, as well as its military power, make environmental security dialogue even more critical.
4. **Increase the Canadian Climate Fund for the Private Sector in Asia III.** As the GoC attempts to shift the Canadian economy in a carbon neutral direction, it can assist Asia-Pacific states to do the same by increasing the financing and scope of the third round of Canada's Climate Fund for the Private Sector in Asia. Canadian public and private financing, as well as leveraging Canada's technological and knowledge-based firms, can help the Asia Pacific develop in a sustainable fashion, reducing short-term financial pressures and increasing the region's environmental security. As the region is still highly vulnerable to near-term climatic shocks and stressors, Canada can help build best practices concerning climate change adaptation and resilience into regional infrastructure.

5. **Support Joint Naval Disaster Response Exercises.** The Royal Canadian Navy (RCN) has been expanding its operations across the Pacific Rim and is prioritizing relationship building with its Asian-Pacific counterparts. The delivery of humanitarian assistance is squarely within the RCN's mandate, and the RCN has substantial and recent experience in international disaster response missions. Through supporting and participating in joint exercises practicing humanitarian assistance missions, the RCN could pass its valuable experience onto Asian-Pacific partners. These multilateral exercises will advance emerging defence relationships in a non-threatening manner, while assisting regional states to better prepare for extreme weather intensified by climate change.

## About the Authors

**Simon Gonsalves** is a student in Wilfrid Laurier University's Master of International Public Policy program, based at the BSIA. Simon has served in the Royal Canadian Naval Reserve since 2012.

**Graydon Fleming** is a student in University of Waterloo's Master of Arts in Global Governance program, based at the BSIA.

**So Youn (Annie) Kim** is a student in the joint-Wilfrid Laurier University/University of Waterloo Global Governance Ph.D. program in University of Waterloo, based at the BSIA.

## Acknowledgements

The authors would like to thank Kimie Hara for her guidance and mentorship as a supervisor throughout the development of this policy brief. They would also like to thank Suniya Gill and Annie Kim for their support of the project. Special thanks go to the BSIA and GAC for their knowledgeable feedback and support over the course of this project.



## Works Cited

- Busby, Joshua and Nisha Krishnan. 2017. "Widening the Scope to Asia: Climate Change and Security." *The Centre for Climate and Security*. [https://climateandsecurity.files.wordpress.com/2015/11/ccs\\_us\\_asia\\_pacific-rebalance\\_national-security-and-climate-change.pdf](https://climateandsecurity.files.wordpress.com/2015/11/ccs_us_asia_pacific-rebalance_national-security-and-climate-change.pdf).
- "Canada's State of Trade: Trade and Investment." 2013. *Global Affairs Canada*. [https://www.international.gc.ca/economist-economiste/performance/state-point/state\\_2012\\_point/2012\\_7.aspx?lang=eng#footnote1](https://www.international.gc.ca/economist-economiste/performance/state-point/state_2012_point/2012_7.aspx?lang=eng#footnote1).
- Craik, N. 2017. "The Case for a Climate Geoengineering Strategy." *Policy Options*. December 6. <https://policyoptions.irpp.org/magazines/december-2017/the-case-for-a-climate-geoengineering-strategy/>.
- Dalby, Simon, Clay Dasilva, Daniel Scott, and Alex Suen. 2017. "Canada in a Climate Disrupted World." *Geography and Environmental Studies Faculty Publications*. [https://scholars.wlu.ca/cgi/viewcontent.cgi?article=1028&context=geog\\_faculty](https://scholars.wlu.ca/cgi/viewcontent.cgi?article=1028&context=geog_faculty).
- "Diversifying Canada's trade and investment opportunities." 2019. *Government of Canada*, <https://www.international.gc.ca/gac-amc/campaign-campagne/trade-diversification-commerce/index.aspx?lang=eng>.
- Eckstein, David, Marie-Lena Hutfils and Maik Winges. 2018. "Global Climate Risk Index 2019: Who Suffers Most from Extreme Weather Events?" *GermanWatch*. December. [https://www.germanwatch.org/sites/germanwatch.org/files/Global%20Climate%20Risk%20Index%202019\\_2.pdf](https://www.germanwatch.org/sites/germanwatch.org/files/Global%20Climate%20Risk%20Index%202019_2.pdf).
- Francesco, Femia and Caitlin Werrell. 2017. "The U.S. Asia-Pacific Rebalance, National Security, and Climate Change." *The Centre for Climate and Security*. [https://climateandsecurity.files.wordpress.com/2017/02/asia\\_pacific\\_femia\\_werrell\\_chp1.pdf](https://climateandsecurity.files.wordpress.com/2017/02/asia_pacific_femia_werrell_chp1.pdf).
- Francisco, Herminia. 2008. "The Environment, Climate Change, and Natural Resources in Southeast Asia: Issues and Challenges." *ASEAN Economic Bulletin* 25, No. 1: 66–95.
- Global Affairs Canada. 2013. "Canada's State of Trade: Trade and Investment Update 2012." [https://www.international.gc.ca/economist-economiste/performance/state-point/state\\_2012\\_point/2012\\_7.aspx?lang=eng](https://www.international.gc.ca/economist-economiste/performance/state-point/state_2012_point/2012_7.aspx?lang=eng).
- Homer-Dixon, Thomas. 1994. "Environmental Scarcities and Violent Conflict: Evidence from Cases." *International Security* 19, No. 1: 5–40.
- International Monetary Fund. 2018. "Regional Economic Outlook: Asia Pacific." <https://www.imf.org/en/Publications/REO/APAC/Issues/2018/04/16/areo0509#Infographic>.
- Royal Society. 2013. "Geoengineering the Climate: An Overview and Update." [https://royalsociety.org/~media/Royal\\_Society\\_Content/policy/publications/2009/8693.pdf](https://royalsociety.org/~media/Royal_Society_Content/policy/publications/2009/8693.pdf).
- The Climate and Security Advisory Group. 2016. "Defense Foreign Policy Briefing Book for a New Administration." The Centre for Climate and Security. September 14. [https://climateandsecurity.files.wordpress.com/2016/09/climate-and-security-advisory-group\\_briefing-book-for-a-new-administration\\_2016\\_091.pdf](https://climateandsecurity.files.wordpress.com/2016/09/climate-and-security-advisory-group_briefing-book-for-a-new-administration_2016_091.pdf).
- Thomas, Michael. 2017. "Fish, Food Security and Future Conflict Epicenters." The Centre for Climate and Security. [https://climateandsecurity.files.wordpress.com/2017/06/epicenters-of-climate-and-security\\_the-new-geostrategic-landscape-of-the-anthropocene\\_2017\\_06\\_091.pdf](https://climateandsecurity.files.wordpress.com/2017/06/epicenters-of-climate-and-security_the-new-geostrategic-landscape-of-the-anthropocene_2017_06_091.pdf).