



BALSILLIE SCHOOL  
OF INTERNATIONAL AFFAIRS

# Turbulent Present, Uncertain Future

## 2017 Global Trends Report

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An Anthology of Briefing Notes by CIGI Graduate Fellows at the  
Balsillie School of International Affairs





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# Contents

<b>Introduction</b>	<b>1</b>
<b>Regional Security</b>	
<b>Land Reclamation in the South China Sea</b>	<b>5</b>
<i>Colin Chau, Terry D'Andrea and Lee-Shan Tse</i>	
<b>Strengthening Canada's Role in Arctic Governance</b>	<b>13</b>
<i>Nicole Georges and Jessica Powell</i>	
<b>Humanitarian Engagement, Climate and Disease</b>	
<b>The Climate Change, Migration and Security Nexus</b>	<b>21</b>
<i>Christina Botas, Carly Hayes and Josh Darby MacLellan</i>	
<b>Environmental Migration and Displacement: Strategizing at the Regional Level</b>	<b>27</b>
<i>Betina Borova and Michael Opatowski</i>	
<b>Tomorrow's Global Humanitarian Architecture</b>	<b>33</b>
<i>Rasha Abu-Meizer, Mohammed Uzair Belgami and Stacey Haugen</i>	
<b>The Changing Burden of Disease: Canada's Role in Bringing Non-communicable Disease to the Forefront</b>	<b>39</b>
<i>Bemnet Debebe, Ricarda Konwiarz and Tatiana Wugalter</i>	
<b>Transition, Innovation and Governance</b>	
<b>Repositioning Canada's Relations with Emerging Economies</b>	<b>47</b>
<i>Raluca Ardelean, Ryan Haughton and Matthew Henderson</i>	
<b>Is Global Energy Governance Ready for the BRICS?</b>	<b>55</b>
<i>Anastasia Ufimtseva</i>	
<b>Understanding State Capitalism in the Global Economy</b>	<b>63</b>
<i>Vic Li and Anton Malkin</i>	
<b>Leveraging Partnerships, Improving Performance: Natural Resource Governance and the Social License to Operate</b>	<b>69</b>
<i>Aviva Silburt</i>	
<b>Game-changing Technologies</b>	<b>77</b>
<i>Tyler Cesarone, Rupinder Mangat and Patrick Segsworth</i>	
<b>Inclusive Growth and International Development</b>	
<b>The Power of Remittances: Migration and Women's Economic Empowerment in Morocco</b>	<b>85</b>
<i>Harrison Ellis and Nikita Shah</i>	
<b>The Global Food Security Landscape: Interconnected Issues, Fragmented Governance</b>	<b>93</b>
<i>Heather Harkness, Jacob Hayes and Derek Orosz</i>	
<b>Youth Entrepreneurship and Inclusive Growth in Sub-Saharan Africa</b>	<b>101</b>
<i>Rebecca Bell, Aramide Odutayo and Sarah Yoder</i>	
<b>Leveraging Canadian Aid and Trade through Sub-Saharan Africa's Development Corridors</b>	<b>107</b>
<i>Charis Enns</i>	



# Introduction

Our mission at the Balsillie School of International Affairs (BSIA) is to provide a world-class graduate education to our students, as well as develop new solutions to humanity's critical problems, improve global governance now and in the future, and contribute to enhancing the quality of people's lives around the world. This is an ambitious mission, and one that we take very seriously. The Centre for International Governance Innovation (CIGI) Graduate Fellowship program — a professional development program that trains our graduate students to develop innovative policy solutions based on sound, empirical research and incisive analysis — is a key example of how we are pursuing our mission.

This anthology of briefing notes — *Turbulent Present, Uncertain Future: 2017 Global Trends Report* — stems from a “pilot experiment.” In July 2015, the Foreign Policy Bureau of the former Department of Foreign Affairs, Trade and Development, now Global Affairs Canada, approached CIGI and the BSIA to ask whether we could contribute to the foresight and research activities of the department. Specifically, we were asked to identify new and emerging trends that could significantly impact the world in five to 10 years' time, and to develop recommendations to adapt Canadian foreign policy to the changing and evolving nature of the global operating environment in the twenty-first century. We were thrilled with the invitation and accepted the challenge without hesitation.

The briefs in this collection — which were presented to officials in Ottawa in June 2016 — offer new policy insights from the next generation of innovative thinkers on matters of international affairs. The collection is intentionally organized into thematic groupings. In doing so, we are striving to think beyond silos, and to show connections and synergies between seemingly disparate and unrelated topics.

Section 1 focuses on “Regional Security.” China is a common denominator between the two briefs. The Asia Pacific and the Arctic are also areas where there is either a profound absence of regional governance or disputed governance, and international law is inconsistent. The briefs also touch on questions of Canada's response to climate change, and both ultimately deal with potential threats to global peace and the global economy.

Section 2, the doomsday section, looks at “Humanitarian Engagement, Climate and Disease.” These briefs all deal with issues in which the projected trends are going in the wrong direction. All have a common message about mitigating future damage, and advocate for greater international cooperation at a time when many states are becoming increasingly isolationist and nationalist. Action in the areas will also advance Canada's larger foreign policy objectives, specifically around climate change and the Sustainable Development Goals.

Section 3 — “Transition, Innovation and Governance” — is ultimately about responsible competitiveness in the global economy. In one way or another, the briefs deal with questions concerning how Canada can be competitive in a twenty-first-century economy while still fulfilling its human rights and environmental obligations.

Finally, section 4 — “Inclusive Growth and International Development” — addresses questions of effective and fiscally responsible international aid. The briefs also speak to Canada's new commitments to support women's empowerment and equality, and opportunities for youth.

Before concluding, some thanks are in order. We are so grateful to our colleagues at Global Affairs Canada — Timothy Hodges, Valerie LaTraverse, and Martin Roy — for initially proposing this collaboration, and for the faith they have had in the capacity of our students and the BSIA to deliver insightful policy briefs. From our

perspective, the experiment has been a resounding success. We look forward to the many opportunities to continue to collaborate with Global Affairs Canada in the years ahead.

This project would not have been possible without CIGI's generous support. CIGI has provided funding to our students since 2007, and in addition has made multiple in-kind contributions by making their experts available to our students. It is a remarkable investment for which we are tremendously grateful. I would like to take this opportunity to express my thanks to Rohinton Medhora and Aaron Shull, CIGI's president and chief of staff, respectively, for their continued support of the CIGI Graduate Fellowship program and the BSIA, as well as to the many other staff at CIGI, among them Carol Bonnett, Erik Davies, Vivian Moser, Melodie Wakefield, and Sean Zohar, who have played an instrumental role in the program's success.

I would also like to thank the many BSIA faculty, mentors and staff who worked with the students throughout the year. Simply put, the program could not happen without their dedication and hard work. We are very grateful for their willingness to invest their time and energy in making the program such a resounding success.

Last but not least, I would like to thank our graduate students for all of their hard work and their enthusiasm in undertaking the projects for this year's program.

John Ravenhill

Director, BSIA

# Regional Security

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# Land Reclamation in the South China Sea

Colin Chau, Terry D'Andrea and Lee-Shan Tse

## Introduction

Tensions in the SCS stem not only from the land reclamation activities themselves, but also from a series of territorial disputes involving the PRC, Vietnam and the Philippines. Each claimant state has sought to legitimize these claims by invoking state-specific historical lineages and legacies to the contested spaces. As well, materialist rationales are viewed as significant motivating factors driving these disputes. How these disagreements are settled will have far-reaching implications for policy realms including economics, military balances, diplomacy, domestic politics and international maritime law. Historically, the disputes have been characterized by cycles of confrontation and engagement. However, recently the respites between instances of tension and calm are becoming shorter. This hints at the potential for these disputes to both escalate and become intractable.

The 1994 United Nations Convention on the Law of the Sea allows states from their coastal baselines a 200 nautical-mile (nm) exclusive economic zone (EEZ), a 12nm territorial sea and a 500 metre safety zone. In instances where there is an extended continental shelf that is a natural prolongation of its land territory, the EEZ will also be extended. Where overlap may occur at the borders of adjacent states located on a contiguous continental shelf, these lines are measured following the equidistance principle. Artificial islands, regardless of geographical dimension, are strictly entitled to a 500 metre safety zone. Low-tide elevations are not entitled to a territorial sea, EEZ or continental shelf.<sup>1</sup>

Canada, as a signatory to a convention that has its own experience with competing claims with neighbouring states, would benefit from a thoughtful reflection on the position that it seeks to adopt as its own settlement efforts continue. An opportunity exists for Canada to insert itself into the SCS discourse with the goal of encouraging de-escalation, cooperation and goodwill.

## What Happened?

Land reclamation activities among the PRC, Vietnam and the Philippines have increased at different rates over the last number of years. As early starters in these endeavours, Vietnam and the Philippines accounted for a relatively large share of the land that had been reclaimed. However, recently accelerated reclamation efforts on the part of the PRC have produced artificial islands that significantly dwarf those produced by Vietnam and the Philippines. This assessment is not limited merely to the physical dimensions of the artificial islands, but also takes into account the sophistication of the features present on the artificial islands, including the installation of radar stations, landing strips capable of handling large military aircraft, surface-to-air missile batteries and scientific facilities.

Efforts to govern the various activities (such as fishing, hydrocarbon exploration and extraction, and military exercises) culminated in the signing of the 2002 Declaration on the Conduct of Parties in the South China Sea (DOC). The signing of the DOC between the Association of Southeast Asian Nations (ASEAN) states and the PRC, however, has not mitigated the tensions between the PRC on the one side and the Philippines and Vietnam on the other. Indeed, accusations of nefarious intentions and low-level confrontations continue to persist.

<sup>1</sup> See [www.un.org/depts/los/convention\\_agreements/convention\\_overview\\_convention.htm](http://www.un.org/depts/los/convention_agreements/convention_overview_convention.htm).

In 2009, Vietnam issued two submissions to the United Nations Commission on the Limits of the Continental Shelf (the first alone, and the second in conjunction with Malaysia) informing the international body of the existence of the disputes. The PRC rebuffed both submissions by claiming China possesses “indisputable sovereignty over the islands in the SCS and the adjacent waters, and enjoys sovereign rights and jurisdiction over the relevant waters, as well as the seabed and subsoil thereof” (Dupuy and Dupuy 2013: 124-125). Attached to the PRC’s *notes verbale* was a copy of the nine-dashed line map.<sup>2</sup> This marks the first time the map has been used in an official and/or formal capacity. The Philippines has also been involved in attempting to employ international institutions to assist in resolving the disputes. The first stems from the Philippines’ request to settle an April 2012 standoff between a Philippine warship and two Chinese vessels near the disputed Scarborough Shoal through submission to the International Tribunal of the Law of the Sea. This request was dismissed out of hand by the PRC and is no longer listed on the tribunal docket. However, the Philippines also launched an arbitration case to the Permanent Court of Arbitration in The Hague (PCOA) contesting the legality of the PRC’s nine-dash line claims in the SCS. On October 15, 2015, the PCOA ruled that it has jurisdiction over the case and a ruling remains pending. The PRC has stated it refuses to partake in the process or recognize the pending ruling once declared.

### Extent of All Parties’ Land Reclamation Activities

China: 2,900 acres

Vietnam: 80 acres

Philippines: 14 acres

Source: US Department of Defense (2015)

### Key Events

- **1995:** Mischief Reef is occupied by a Chinese-flagged ship after the Philippines publicly announces its claims; efforts at negotiations fail.
- **1999:** The Philippines runs the tank landing ship BRP *Sierra Madre* aground on Second Thomas Shoal, a low-tide elevation, where it shelters a small garrison.
- **April 8, 2012:** Philippines maritime surveillance detects eight Chinese fishing vessels near the Scarborough Shoal and claims they are in possession of an illegal catch. The crew is detained, causing China to protest that the crew had merely sought shelter from a storm.
- **February 19, 2013:** In a *notes verbale*, China rejects the Philippines’ Notification and Statement of Claim, and criticizes the Philippines for not holding to its stated 2002 DOC commitment for claimant states to settle disputes bilaterally.
- **March 10, 2013:** China consolidates its maritime law enforcement agencies (the coast guard, fisheries law enforcement and anti-smuggling authorities) under the supervision of the State Oceanic Administration.
- **March 20, 2013:** Vietnamese authorities claim a Chinese vessel fired on a Vietnamese fishing boat, setting its cabin on fire.
- **May 16, 2013:** China issues a fishing moratorium in the waters of the SCS until August 1, 2013.
- **July 28, 2013:** The Philippines announces a plan to move air force and naval bases to a former US base in Subic Bay, to have better access to disputed areas in the SCS.
- **September 14-15, 2013:** Beijing holds meetings in Suzhou with leaders of Southeast Asian nations to discuss a code of conduct for handling disputes in the SCS.
- **2014:** Chinese Fisheries Law Enforcement Command ships patrolling the Second Thomas Reef on the edge of the Philippines’ continental shelf deny passage to Philippine civilian supply ships destined for its soldiers garrisoned on the reef.

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2 According to Dupuy and Dupuy (2013), “China produced a map of the South China Sea, which had the peculiarity of showing a dashed line composed of nine segments encompassing virtually all islands in the South China Sea and most of its waters. As per China’s *notes verbales*, this “nine-dash”, or “U-shaped”, line was meant to illustrate the limits of its sovereignty in the South China Sea.”

- **August 1, 2014:** Japan's foreign minister pledges to give Hanoi six second-hand patrol craft.
- **January 22, 2014:** Beijing announces plans to start regular civilian patrols in the SCS with vessels based in the Paracel Islands.
- **May 12, 2014:** Nine Chinese fisherman are charged by Filipino authorities on Palawan Island for illegal fishing in the waters surrounding Half Moon Shoal.
- **May-July 2014:** China stations the Haiyang Shiyou 981 oil rig for surveying activity in the Gulf of Tonkin where the continental shelves of China and Vietnam overlap. The placement is 120nm off the Vietnamese coast, well within Vietnam's EEZ.
- **May 14, 2014:** Filipino officials say that China may be building an airstrip on the Johnson South Reef.
- **May 19, 2014:** Two Chinese ships prepare to evacuate Chinese workers from VunAng port in Vietnam after riots targeting Chinese firms and workers May 12-13 sparked by the moving of the Chinese oil rig into Vietnamese waters.
- **May 26, 2014:** Vietnamese authorities accuse a Chinese ship of sinking a Vietnamese fishing boat in the SCS 30km south of the Haiyang Shiyou 981 oil rig.
- **June 18, 2014:** A high-level bilateral meeting is held with Chinese representatives in Vietnam.
- **October 2, 2014:** The United States begins to partially ease bans on lethal arms sales to Vietnam.
- **March 3, 2015:** The Philippines shelves oil and gas exploration activities in Reed Bank, believed to hold oil and natural gas.
- **June–October 2015:** China moves its oil rig back into the Gulf of Tonkin, this time further from Vietnam's shores to conduct exploratory work.
- **August 5, 2015:** Chinese Foreign Minister Wang Yi tells a meeting of ASEAN foreign ministers that China has ceased island-building activities in the SCS and the two sides agree to accelerate consultations over a code of conduct for the sea.
- **September 2015:** China resumes land-reclamation operations at Subi Reef and Mischief Reef in the Spratly Archipelago.
- **October 15, 2015:** China, normally eschewing multilateral negotiations on the issue, hosts defense ministers from ASEAN states to discuss tensions in the SCS.
- **October 17, 2015:** China tells a gathering of Southeast Asian defense ministers that China's military will avoid the reckless use of force in the SCS, even in matters of sovereignty.
- **October 30, 2015:** The PCOA rules that it has the power to hear a case brought by the Philippines against China over disputed islands in the SCS.
- **October 2015:** A US destroyer begins what is now an ongoing operation of transiting within 12nm of artificial/reclaimed islands to enforce freedom of navigation in the region.
- **November 2, 2015:** The US Navy announces plans to conduct patrols within 12nm of Chinese-built artificial islands in contested waters of the SCS about twice a quarter.
- **November 17, 2015:** A White House statement announced a pledge of another US\$259 million in maritime security assistance over two years to the Philippines, Vietnam, Indonesia and Malaysia.
- **November 18, 2015:** The United States gives the Philippines another used Hamilton-class cutter from the US Coast Guard to patrol its EEZ.
- **November 22, 2015:** The heads of ASEAN member states sign an agreement to establish an integrated regional zone known as the ASEAN Economic Community by the end of the year, as well as an agreement with China to upgrade their free trade area launched in 2010.
- **January 2016:** In the first week of January, China lands three civilian aircraft on test flights to the new airport on Fiery Cross Reef. This is condemned by both Vietnam and the Philippines. In the same week, Vietnam deploys the first of its Kilo-class submarines in the SCS.

- **January 2016:** Manila proposes joint naval patrols with the United States to begin within the year.
- **January 2016:** China begins civilian tests flights to Fiery Cross Reef.
- **January 16, 2016:** China moves an offshore oil rig back into the edge of the Gulf of Tonkin.
- **January 30, 2016:** US Navy guided-missile destroyer *USS Curtis Wilbur* sails within 12nm of Triton Island (claimed by China, Vietnam and Taiwan) in the Paracel Islands; this is condemned by China.
- **February 2016:** In a letter to the Senate Armed Services Committee, US National Intelligence Director James Clapper says China will be able to project substantial offensive military power from artificial islands in the SCS within months.
- **February 2016:** China expands island-building into the Paracel Islands, a disputed chain largely controlled by China, ahead of a US-ASEAN summit in California.
- **February 17, 2016:** Civilian satellite imagery shows the Chinese military have deployed two batteries of eight HQ-9 surface-to-air missile systems on Woody Island (200km range), where it also has 11 hangars for housing military jets.
- **March 9, 2016:** Philippines' President Benigno Aquino says the state will lease aircraft from Japan for SCS patrols and allocate US\$1.77 billion for air force and navy modernisation.
- **March 31, 2016:** Vietnam's coast guard detains a Chinese oil vessel containing 100,000 litres of diesel oil and its three crew members for encroaching in Vietnamese waters; the Vietnam claims the captain admits to entering to provide fuel for Chinese ships fishing illegally in the area.
- **April 3, 2016:** A Japanese submarine makes a port call at Subic Bay, Philippines for the first time in 15 years, in a show of growing military cooperation amid SCS tensions.
- **April 12, 2016:** Two Japanese Maritime Self-Defense Force guided-missile destroyers make a port call at Vietnam's Cam Ranh Bay in preparation for joint drills, the first of its kind.
- **April 13, 2016:** Defense officials from the Philippines and Vietnam meet to explore possible joint exercises and naval patrols in disputed waters of the SCS.
- **April 14, 2016:** The United States announces regular troop rotations in the Philippines at Clark Air Base and joint SCS patrols with its navy — the Enhanced Defence Cooperation Agreement.
- **April 18, 2016:** China publicizes the landing of a military aircraft at a new airport on the Fiery Cross Reef, a Chinese-built artificial island, in order to evacuate seriously ill workers.
- **April 18, 2016:** Jakarta announces maritime Trilateral Anti-Piracy Cooperation with Manila and Kuala Lumpur, setting the stage for further intraregional coordination.
- **May 5, 2016:** Indonesia, Malaysia and the Philippines begin planning joint anti-piracy operations.
- **May 5, 2016:** Japan and Vietnam agree to deepen maritime security cooperation; Vietnam also asks Japan to provide vessels to strengthen its coast guard.
- **May 10, 2016:** Shortly after a Chinese-advanced warship combat drill, a US Navy guided-missile destroyer carries out a freedom of navigation operation near Fiery Cross Reef in the Spratly Archipelago. The Pentagon issues a statement saying it is intended to “challenge excessive maritime claims of some claimants in the SCS” (comment by US State Department spokeswoman Elizabeth Kennedy Trudeau, May 2016).
- **May 23, 2016:** US President Barack Obama announces that the United States is fully lifting its ban on the sale of military equipment to Vietnam. Washington is keen to help develop Vietnam into a more robust check on China's maritime expansion, but this move will not drastically alter the security landscape in the region due to Vietnam's cost constraints, political divisions in Hanoi and the fact that other countries are already meeting most of Vietnam's military needs.
- **May 31, 2016:** China is reported to have been preparing an air defence identification zone in the SCS. This would likely include a plan on how to enforce it so that when it goes ahead it can be quickly

implemented. When China chooses to formally declare the zone would depend on the security situation in the region in regard to the US military presence and diplomatic relations with neighbours.

## The Current Issue

The failure of the 2002 DOC to reach its governing potential has deprived the region of an effective mechanism through which to mitigate the disputes. While the DOC was not a formal treaty, nor a formal code of conduct, it was highly regarded (mostly by the Southeast Asian parties) as a stepping stone toward the formulation of a more concrete, rules-based dispute resolution mechanism. The smaller states/claimants signalled their preference for the multilateral format but it was never embraced by Beijing, and its thoughts on the matter remain opaque, insisting it is willing to discuss the formulation of a formal code of conduct when conditions are “ripe” (US-China Economic and Security Review Commission 2013). Beijing did not specify precisely under which circumstances conditions would be “ripe” for negotiation or agreement. Lack of clarity in preferences is an issue that, unless rectified, will continue to plague effective resolution of the disputes and contribute to their seeming intractability.

Aside from the legalistic, it has become apparent that no side possesses a clear understanding of the constraints faced by one another in how the disputes are approached. Such constraints can stem from domestic pressures emanating from nationalistic, economic and militaristic demands. Further, legacies relating to distinct historical eras such as the “tribute system,” and the so-called “century of humiliation” draw upon important perceptions of identity that influence how decision-makers evaluate options.<sup>3</sup> Without an empathetic appreciation of one another’s contexts and circumstances, the disputes will continue to be characterized by the tenets of power politics and thus risk devolving further.

3 “Tribute system” (1386–1841) generally refers to the system under which China was clearly the regional hegemon and “whereby smaller states meekly deferred to China’s interests” (Kang 2010; Johnston 2003). “Century of humiliation” generally reflects the century following the 1842 Great Britain-China signing of the Treaty of Nanking ending the First Opium War, understood to have ushered in a “sequence of military and diplomatic humiliations perpetrated by Westerners and the Japanese” (McDevitt 2013, 180).

## Actions Moving Forward

Increased military-based activities made possible by the construction of artificial islands and in response to these islands has increased the likelihood of an accidental military encounter. The possibility that an unwanted military incident could occur is exacerbated by the absence of a meaningful set of protocols designed to govern such activities. From this perspective, it is imperative that the involved parties work to construct lines of efficient communication and an accompanying set of governing protocols.

## Be Present: Policy Recommendations for Canada

**Participate in trust- and confidence-building measures through empathic engagement and joint initiatives, including track-two meetings and emphasizing policy coordination in non-traditional security areas.** Without empathy and a meaningful dialogue about competing perceptions and worldviews, there is no firm foundation for trust. China in particular would see this as a shift in the discourse used by the previous Conservative government over the previous decade, reflecting the more pragmatic approach of the current government seeking to build its legacy as an impartial dialogue partner. Canada can share and acquire expertise in joint resource development and environmental stewardship. In addition to increasing state-state interaction, Canada’s military can gain professional experience in operating across platforms with foreign forces, which is indispensable in the event of increased tension or conflict, as well as dealing with mutual non-traditional security issues such as counter-terrorism, transnational crime, trade and investment, clean energy and disaster management.

**Maintain support for multilateral negotiating frameworks and encourage goodwill and cooperation in response to the Philippines/China ruling of the PCOA.** Canadian ambiguity on SCS issues have necessarily protected its economic interests, but Canada can more visibly pursue peaceful resolution and respect for mediation as a mechanism for settlement in the region. This benefits Canada by building the political capital and options necessary to insert itself as a more assertive regional partner in future interactions of any nature in the region, and to be remembered for it. Existing efforts include the ASEAN Regional Forum, the ASEAN

Post Ministerial Conference +1 dialogue sessions with Canada, the April 11, 2016 Group of Seven Foreign Ministers' Statement on Maritime Security, and the final communiqué of the 2016 Group of Seven Ise-Shima Summit in Japan.

**Encourage claimant states to be clear in their claims.**

The existing ambiguity may be an indication that party-states are still making calculations on what they desire their entitlements to be and their ability to enforce them. However, the increased military manoeuvres made possible by reclamation activities increases the likelihood of accidental military encounters. Canada can play a part in constructing lines of efficient communication and crafting a meaningful set of protocols (in the spirit of the DOC) designed to govern military and fishing conduct to avoid unwanted and dangerous incidents at sea.

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# Strengthening Canada's Role in Arctic Governance

Nicole Georges and Jessica Powell

## Introduction

Canada's Arctic is facing profound and unique changes — such as climate change and jurisdictional disputes — that affect natural resources and the overall well-being of Northern and indigenous communities and the nation as a whole. The Arctic is a uniquely challenging area where Canada should develop stronger governance mechanisms, without which Canada risks becoming increasingly vulnerable to international pressure and interests in the region. The current environment is ripe to face these challenges directly and define a stronger governance strategy within the Arctic.

## Natural Resource Extraction Outlook in the Arctic

Canada's Arctic is abundant in natural resources, which give Canada the opportunity for further economic development in Northern regions, as well as provide employment and infrastructure for Northern and Aboriginal communities. For example, in 2014, the mining and mineral processing sector alone contributed to 20 percent of Canada's GDP and supplied 380,000 jobs (Mining Association of Canada 2014, 6). Mineral extraction continues to be an important aspect of natural resource development in the Arctic, with the opening of Gacho Kue diamond mine — which will be the world's largest diamond mine — in the Northwest Territories in 2016.

While the international demand is increasing for minerals, the oil and gas sectors are currently experiencing market setbacks that have slowed development in recent years. However, the potential for increases in output of oil and gas within the next decade are vast. There exist ample untapped offshore reserves in which oil deposits are estimated in the billions of barrels and natural gas is occupying trillions of cubic feet (Nilsson and Filimonova 2013).

While these opportunities are essential for Canada's economy, these industries pose challenges to the Arctic environment and the health, food sources and livelihoods of Northern and indigenous communities.

## Environmental Degradation

While mineral and oil/gas exploration brings the prospect of development, it also heightens the possibility of widespread environmental damage through the risk of spills and contamination of land, water and wildlife (Inuit Circumpolar Council Canada [ICC] 2014). In 2012, the Parliament of Canada highlighted three environmental issues that threaten Canada's Arctic: climate change, biodiversity loss and the accumulation of toxic substances (Williams 2012). Natural resource extraction both causes these problems and increases the ecosystem's vulnerability to their effects. Major environmental impacts of extraction include: reduced water quality and damaged lakes and

streams; loss of fish habitats; loss of land-based habitat for species; and increased production of greenhouse gases. Thus, the sustainability of both the region and the industry relies on effective environmental regulation and policies.

### Climate Change

The United Nations Intergovernmental Panel on Climate Change (IPCC) has reported that there is unequivocal evidence the world's climate is warming. Arctic regions specifically are warming twice as fast as the rest of the planet due to "Arctic amplification"<sup>1</sup> resulting from positive feedback from melting ice (Joyce 2014). As such, Canada's Arctic is expected to undergo drastic changes to its climate, causing serious implications on Northern economic development. Climate change in the Arctic is causing increasing temperatures, the melting of sea ice and glaciers, the thawing of permafrost, ground instability and increases in extreme weather events.

Mining and oil/gas companies operating in the Arctic have already begun to witness some of these negative consequences of climate change on industry. For example, the thawing of permafrost is shortening ice road seasons and reducing the shipping periods during which companies can operate (Durden et al. 2014, 14). Rising ground temperatures will also increase the risk of contaminant transport, because noxious particles are released as melting persists. Furthermore, this melting is causing serious dangers to the act of shipping itself. In March 2016, a tanker shipping fuel into the Northwest Territory community of Deline plunged through 100 to 120 inches of ice. This serves as a reminder to extractive companies of the potential dangers they face shipping resources in a warming climate (Windeyer 2016). The industry's extractive infrastructure in Northern Canada was designed for an environment of snow and ice. But as this landscape slowly begins to melt away, serious consideration is needed regarding research, infrastructure development and geostrategy, especially as climate change fundamentally affects the most vulnerable populations, notably indigenous communities.

Melting sea ice has begun to open shipping routes in the Arctic, which will only continue in the future. In 2015, 440 ships travelled the Bering Strait, which is an increase from 250 in 2013 and 130 in 2009 (Kahn 2015). This opens up questions of safety, oversight and international marine traffic, necessitating the need for stronger governance in the region. Furthermore, climate change will affect all Arctic regions, stretching across eight different countries. Effort to mitigate climate change and adapt to its harsh realities will be needed on an international scale and may be best addressed through the Arctic Council.

### Indigenous Communities

There is recognition that natural resource extraction in the Arctic presents economic opportunities, but there are likewise very serious health and environmental risks associated with the development of the natural resource extractive industry in the region.

Many of the environmental effects that arise from resource development have a direct impact on the everyday life of indigenous communities living on the land. In the aftermath of the 2010 BP Deepwater Horizon Spill, emphasis on community engagement has increasingly become a top priority. In particular, Northern Inuit communities have actively sought higher standards for holding oil corporations accountable for their operations on Arctic lands (ICC 2014). And many Inuit communities rely on a company's "corporate safety culture" in order to assess and ensure that they are aligned with their community's own values (ibid.). While these principles are new to the oil and gas industry, they are vital to Inuit communities whose support for offshore drilling projects hinges on a comprehensive and advanced approach to safe resource extraction in the fragile terrain of the Arctic. Inuit support and confidence is also important for the National Energy Board's own safety culture regulations (ibid.).

Although the terms and conditions of mining agreements are made available to the local communities, the financial arrangements are not always publicly disclosed. Despite efforts to encourage transparency, Northern communities can still be left in the dark as to exactly how development funds are going to be redistributed to meet their concerns, such as with the Kivalliq Inuit Association following its 2006 agreement with the Toronto-based Agnico-Eagle Mines (Pauktuutit Inuit Women of Canada 2014). Although a "Community Economic Development Fund"

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1 Arctic Amplification refers to the reversed process of energy reflection. Typically, snow and ice cool the surface by reflecting the sun's energy back into the atmosphere. However, warmer air temperatures melt snow and ice, exposing darker regions. These darker regions now absorb more energy as opposed to reflecting it, commencing an irreversible melting and warming process.

was created in order to provide alternative sources of employment outside the mines, no application process to accede these funds was developed and as of 2014, funds have not been vested to the Qamani'tuaq community (ibid., ii).

Although shipping routes have not fully developed in the Canadian Arctic, the presence of ships has impacted the health of both communities and the fauna living in the region. Pollutants such as fuels left behind by shipping vessels remain in the water supplies of the region and contaminate the ecosystem on which many Indigenous communities rely (ICC 2014). As this waste is discharged from the vessels, it leaves the water grey and black, ultimately endangering the aquatic life of the region (ibid., 27). As it stands, much of the oil and gas development in the Arctic has involved exploratory missions, which require large vessels and heavy drilling equipment (ibid.). These activities increase the risk of spills and contamination.

### Health Impacts

Toxic chemicals threaten the well-being of indigenous and Northern populations whose traditional food sources become contaminated over time. Animals higher up on the food chain will have larger concentrations of toxins in their bodies as these species consume contaminated food sources such as plants, fish and other prey.

### Arctic Council

Six indigenous organizations are part of the Arctic Council as Permanent Participants, granted full consultation rights relating to the negotiations and decisions made by the council's member states (Arctic Council 2015.). Indigenous contributions to the decision-making process are vital and have played a significant role in influencing which international organizations should be admitted as permanent observer states to the council. For instance, the European Union continues to be blocked from gaining permanent observer status within the Arctic Council due to its continued ban on seal skin products. Canada has taken up this position within the council on behalf of its indigenous communities who rely on trade of seal skin products (CBC 2009). Canada has maintained its opposition to the European Union's entry since 2009 (ibid.).

## Geopolitical Considerations

### Canada's Role in the Arctic Council

Canada's past approach to the Arctic Council has been shaped by the external foreign policy disagreements it shares with other member states. Canada's chairmanship of the Arctic Council (2013–2015), in particular, saw tensions with Russia over disputes in Ukraine ultimately hinder dialogue between both countries and weaken efforts to structure agreements over this shared region. Canada's decision to skip an Arctic Council task force — discussing black carbon and methane in 2014 held in Russia as part of a “principled stand” — is an example of Canada allowing its Arctic strategy be determined by external affairs not directly tied to governance in the Arctic (Mackrael 2014). In May 2016, Foreign Affairs Minister Stéphane Dion acknowledged that the Arctic's unique geopolitical implications mean Canada cannot afford to alienate other member states in the Arctic Council over matters not directly tied to the region. As Dion explained, “We need to work with the Americans, we need to work with the Danes, we need to work with the Russians. That's a responsibility that all of these countries have for one of the most fragile ecosystems, which is the barometer of the planet” (quoted in Blanchfield 2016). It is a position shared by US Ambassador to Canada Bruce Heyman who recently expressed that the Arctic Council is a space “free from the influence of the challenges that we face globally” (quoted in Blanchfield 2016).

### Bilateral Partnerships over Natural Resource Extraction

Canada's strategy is contingent on the way other countries approach natural resource development and extraction in the Arctic. Specifically, natural resource development and extraction in the region is increasingly leading to bilateral partnerships between developing states and permanent member states of the Arctic Council, much of which falls beyond Canada's purview of influence. Global leaders such as Russia, China and the United States have fashioned their Arctic policies along economic and geopolitical national interests.

Increasing energy needs of developing countries such as China and Japan in recent years have pushed them to secure partnerships with member states of the Arctic

Council such as Iceland, Norway and Russia (Cima and Sticklor 2014). As countries such as China and India see northern states as opportunities to diversify their energy import supplies, Arctic countries present the options to move away from Middle Eastern natural resources and look to ensure energy security at home (ibid.). Significantly, China and India use their observer status on the Arctic Council as an opportunity to form close ties with Russian oil and gas interests (ibid.). This partnership became all the more important when Gazprom, Russia's energy firm, began extracting oil from the Pechora Sea in September 2013 (ibid.). This Russian investment is in direct contrast to Shell's withdrawal from offshore expedition in Alaska after drilling efforts failed to yield significant oil and gas deposits (McCalister 2015).

Over recent years, China has become one of the world's biggest mining investors in Greenland after it agreed to a free trade deal with Iceland (Blanchard 2016). This is important because in April 2016 China expressed that global warming presents its shipping companies opportunities to save time and money by crossing shorter shipping through the Northwest Passage seaways — much of which Canada claims as its own (ibid.).

Since the early 2000s, Russia's government policy toward the Arctic has shifted to a commitment to offshore hydrocarbon exploration (Nilsson and Filimonova 2013). The future of Russia's oil sector is directly tied to its ability to conduct swift and effective exploration missions in the region (Ernst & Young 2011). Similarly, in March 2016, the United States proposed new oil and gas drilling leases in the Beaufort Sea that will likely reawaken its long-standing border disputes with Canada (Windeyer 2016).

While many of these geopolitical developments lie beyond the reach of the Arctic Council, these growing partnerships will likely shape the dialogue and agenda of member states whose national interests are tied to external agreements. Moreover, many of these agreements will have a direct impact on Canada's Arctic, especially as ongoing debates over territory and jurisdiction remain unresolved.

### Further Considerations: Recent Policy Initiatives

Canada's budget projections for 2016 include the plan to invest \$19 million over five years toward developing a strategy for future Arctic natural resource development.

The project hopes to fill existing research gaps by gathering researchers and traditional knowledge to address the human and environmental risks future oil and gas extraction pose (Government of Canada 2016). Furthermore, in March 2016 Prime Minister Justin Trudeau announced a joint initiative between Canada and the United States to collaborate on energy development, environmental protection and Arctic leadership, while incorporating the rights of indigenous people in all climate change decision making (Parliament of Canada 2016).

Greater participation and involvement of indigenous communities is at the heart of whatever present and future natural resource development occurs in the Arctic. Canada's May 2016 decision to officially adopt the UN Declaration on the Rights of Indigenous Peoples places greater emphasis on cooperation and consideration of indigenous interests and visions for self-determination. This decision recognizes the standing and authority of indigenous governments' role in determining the future policies and goals for their communities (CBC 2016). Including indigenous voices to determine the scope of natural resource development in the Arctic is crucial.

Canada signed the Paris Agreement in December 2015, committing itself to reduce greenhouse gas emissions. Crucially, this comprehensive international negotiation fails to reference the Arctic altogether (Quinn 2015). This omission has not gone unnoticed by indigenous groups who feel excluded from negotiations and planning of an international climate change initiative. While Canada pledged funds to assist developing countries in their efforts, similar funds were not made available for Arctic communities at home (ibid.).

### Policy Recommendations

**Canada must develop a holistic Arctic governance policy.** As Canada is increasingly vulnerable to the changes in the Arctic, the policy should be holistic in its considerations of development, the environment, indigenous communities and geopolitics. This approach should include considerations of the effects of climate change, as well as local indigenous knowledge pertaining to culture, traditional food sources, transportation routes and living off the land.

**Canada should cooperate more fully with Arctic countries through a multilateral agreement.** This would foster dialogue with Arctic countries and create concrete assurances. The agreement should also incorporate countries

with observer status on the Arctic Council, but whose influence in the region is increasing.

**Canada should stimulate growth in the Canadian technology sector by participating and funding entrepreneurial activity in sustainable development technology that can be used in the natural resource extractive industry.** Furthermore, the government should fund research into the impacts of climate change on Arctic regions, while integrating local and traditional knowledge.

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# Humanitarian Engagement, Climate and Disease

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# The Climate Change, Migration and Security Nexus

Christina Botas, Carly Hayes and Josh Darby MacLellan

## Background

### Climate Change

The earth's global average temperature is currently increasing at the most rapid rate recorded in history. Such human induced climate change is one of the most significant contributing factors to environmental disasters. The warming of global temperatures is causing the melting of ice sheets, resulting in higher sea levels that can lead to flooding, the destruction of agriculture and the contamination of fresh water supplies, among other impacts.

India is predicted to heat by 2°C over the next 30 years. A significant portion of the population is currently suffering from regular flooding along the coastal regions, crop salt poisoning and decreasing access to safe drinking water (World Bank 2013). Heat waves are predicted to make an increasing number of regions unlivable for humans, especially infants, elderly, individuals with existing illnesses and pregnant women. Increasing temperatures impact urban areas by causing pollutants to be released faster into the air, pushing pollution to levels that are dangerous for respiration.

Food security is threatened by drastic increases in global temperature, causing irregularities in rainfall and desertification. These environmental conditions have initiated droughts causing famine and malnutrition. Crop failures are the leading contributor to food insecurity and can be a driver of outward migration.

Displacement of people due to environmental factors also occurs through storms and wildfires. The recent wildfires in Fort McMurray, Alberta have turned thousands of Canadians into internally displaced persons. Hurricane Katrina, which hit New Orleans in 2005, also forced many American citizens to migrate out of the area.

### Migration Flows

Currently, the majority of environmental migration happens intra-state and in developing countries. Most environmental migrants who leave their country remain in the surrounding geographical region, as opposed to migrating internationally. As the Global South currently experiences the worst consequences of climate change, the majority of the environmental refugee flows will stay in regions that may not be equipped to address them. However, that does not mean that environmental migration is irrelevant to Canada. A significant proportion of the diasporas that form Canada's multicultural society have migrated from countries facing worsening climate change consequences. These environmental migrants will likely utilize their social and family networks if they are forced to pursue permanent resettlement. However, environmental migration is not limited to South-South and South-North patterns. There are an increasing number of examples in which residents of developed countries are being forced to move to another part of their country for environmental reasons. For instance, the US government has dedicated \$48 million to relocate an entire community from the Isle de Jean Charles, which has seen over

90 percent of its land mass consumed by rising sea levels (Davenport and Robertson 2015).

### **Connecting Security and Climate Change**

While the connection between climate change and conflict over increasingly scarce resources is often invoked to mobilize policy response to climate change, a direct causal link does not exist. A relationship between climate change and conflict is dependent on exogenous factors, including poor governance and socio-ethnic tensions (Geddes 2015). While climate change must still be addressed as an exacerbating factor of existing conflicts, there are larger numbers of individuals displaced primarily by forces of climate change or environmental disaster (International Organization for Migration [IOM] 2009). In regards to forced environmental migration (FEM), climate change and conflict should be decoupled in order to produce effective policy that is cognizant of the human security needs of forced environmental migrants. A policy framework guided by national security rhetoric may create disproportionately defensive infrastructure in receiving countries, which hinders migrant resettlement (see Feitelson, Tamimi and Rosenthal 2012; Gemenne 2014; Hartmann 2010; Selby 2012; Weinthal, Zawahri and Sowers 2015).

### **The Current Canadian Migration Structure**

Despite the establishment of a migration system that is open to accepting refugees in Canada, there is still a strong national security narrative in Canada's response to mass displacement. For instance, the whole-of-government approach to the Syrian refugee crisis is strongly focused on maximizing security for Canadian citizens, with little reference to any human security concerns of refugees themselves. This is exemplified in statements about "[ensuring] refugees are thoroughly screened to minimize risk to Canadians," and "[increasing] security at Canadian embassies and off-site [Immigration, Refugees, and Citizenship Canada] processing centres" (Government of Canada 2016a). This emphasis on security measures needs to be complemented with settlement efforts and the creation of a holistic government approach.

Under the current immigration system, asylum seekers are not granted refugee status or seen as a "person of similar circumstances [to refugees]" on the basis of environmental

reasons (Becklumb 2010). However, Canada does grant permanent resident status to individuals who do not meet the criteria of refugees under the Immigration and Refugee Protection Act or the 1951 Refugee Convention when it is justified to do so under humanitarian, compassionate or public policy considerations. While this framework has never been used to admit environmental migrants into Canada, the discretionary power in the immigration system could form the basis for precedent-setting and the development of new legislation to admit migrants escaping environmental degradation in their homelands.

### **Existing International Legal Frameworks**

#### **Classifications of Migration**

There has been contention at the international level regarding the creation of a formal classification for individuals displaced by environmental causes related to climate change. The term "environmental refugees" has garnered support after its use in a 1985 UN Environment Programme report, and has since been defined as "persons who can no longer gain a secure livelihood in their traditional homelands because of environmental factors" (Piguet 2008, 1-2) However, the 1951 Refugee Convention does not recognize environmental displacement as grounds to claim asylum or refugee status, as it is generally believed that climate change is not a form of persecution by a state agent (IOM 2014, 22-23). With this lack of cohesion in mind, this brief endorses the creation of a classification of FEM in order to adequately capture the forcible displacement of individuals from their homelands, which necessitates a policy response from receiving countries.

#### **Evolving International Legal Frameworks**

Despite an increase of international frameworks recognizing environmental migration, the issue has been largely neglected by both international institutions and states. The recent adoption of the Paris Agreement that concluded the twenty-first Conference of the Parties (COP21) acknowledges that climate change will continue to affect migration patterns (UN 2016). However, the United Nations and its operational agencies, such as the United Nations Framework Convention on Climate Change (UNFCCC) and United Nations High Commissioner for Refugees, do not recognize

climate change as grounds for asylum. As a result, an estimated 200 million displaced persons will not have legal protection under international law (Knefel 2015).

Organizations such as the Nansen Initiative, Green Climate Fund and the IOM have developed approaches to address FEM. These institutions recognize a legal gap regarding cross-border movements in the context of disasters and the effects of climate change. Environmental migrants are not refugees under international migration law, and human rights law does not address critical issues such as their admission, stay and basic rights (Nansen Initiative 2016). The situation is exacerbated by operational and institutional shortcomings, such as the lack of coherent responses and effective inter-state cooperation.

The Nansen Initiative advocates the Platform on Disaster Displacement to build consensus among stakeholders to initiate a standard of treatment of affected people and operationalize responses. It was recently announced that Canada will be on the steering committee of this initiative. Canada has pledged and contributed to the Green Climate Fund, which aims to support vulnerable countries in the shift to low emission levels and climate resilience. The organization, however, has not acknowledged the role the environment has on contributing to the displacement of individuals (Green Climate Fund 2016). The IOM recognizes the interrelation between climate change and migration. Its central objectives are to prevent FEM, but also to provide assistance and protection to affected populations and seek durable solutions (IOM 2015). The IOM has also explored the possibility of facilitated migration as an adaptation strategy to climate change. Canada must take a leading role in participating in international organizations and initiate an expansion of international legal frameworks to include forced environmental migrants.

## Building on Canada's Current Position

### Climate Change

Canada is committed to working with international partners toward the goal of a low-carbon, climate-resilient economy. The government has currently agreed to endow a \$2 billion Low Carbon Economy Trust to fund projects to reduce carbon emissions (Government of Canada 2016b). Canada has committed to supporting low-income and

climate-vulnerable countries to adapt to the adverse effects of climate change and is mobilizing investments that will achieve sustainable development in developing countries. The government is currently collaborating with provinces and territories by providing national leadership to take action on climate change and enforce the national target signed in the COP21 Paris Agreement (ibid.).

### Refugees and Forced Migration

The current refugee resettlement steps include identifying refugees, processing overseas, transportation to Canada, welcoming, settlement and community integration — processes that could be adapted to FEM (Government of Canada 2016a). Settlement and community integration involves providing immediate services and long-term support, such as orientation, access to health care, permanent housing, counselling, language services and schooling. Internationally, Canada has taken part in various projects, such as the Relocation and Support Program for displaced persons in Haiti. Currently, Global Affairs Canada has contributed over \$19 million to aid in reconstruction relief and rehabilitation to improve development and living conditions within the country (Global Affairs Canada 2016).

### Stakeholders and Innovative Partnerships

Potential partnerships should be mobilized with stakeholders at both the international and national levels for prevention and response strategies.

To prevent climate displacement at the international level, Canada should seek to:

- maintain its commitment of \$2.65 billion to adaptation and mitigation strategies by 2020;
- exercise leadership in the Platform on Disaster Displacement to establish a coordinated international framework for FEM and create an effective legal response; and
- uphold its responsibility as a major greenhouse gas emitter and maintain the human security of at-risk populations for climate displacement by complementing efforts by the UNFCCC on human mobility considerations, the Nansen Initiative, the Sendai Framework for Disaster Risk Reduction and the Agenda for Sustainable Development.

To respond to climate-related emergencies that may cause displacement, Canada should continue to mobilize its emergency response structure, in particular the Disaster Assistance Response Team (DART). DART is a “multidisciplinary military organization designed to deploy on short notice anywhere in the world in response to situations ranging from natural disasters to complex humanitarian emergencies. (Government of Canada 2016c)”. This mandate accurately captures the different manifestations of climate change (Government of Canada 2016c). DART has already been deployed in environmental disasters, such as Typhoon Haiyan in the Philippines, to conduct engineering activities and water purification in the immediate aftermath.

At the national levels of prevention and response, Canada should:

- develop a coordinated response at all levels of government to set and achieve emission reduction targets;
- leverage existing migrant networks to prepare for influxes of migrants from climate vulnerable areas, such as the Bengali Information and Employment Services organization, to facilitate employment and access to services for displaced persons; and
- increase financing and develop information-sharing agreements and memoranda of understanding with existing diaspora networks to increase readiness, reduce hardship of transition and provide a network of support.

## Policy Recommendations

In accordance with existing international agreements and national policies surrounding forced migration, climate change and global disasters, Global Affairs Canada should use this platform to put forth the following three categories of recommendations.

**Recognize forced environmental migrants.** Global Affairs Canada should utilize the current discretionary power under the Immigration and Refugee Protection Act in order to develop a new category of “person of similar circumstances” to provide protection to forced environmental migrants experiencing climate displacement in their homeland. Global Affairs Canada should host an inter-departmental meeting with ministerial participation

from departments including Environment and Climate Change Canada; Immigration, Refugees, and Citizenship Canada; and National Defense to establish a strategy for the recognition of forced environmental migrants. Building upon the domestic recognition of these migrants, Canada should spearhead the creation of a formalized legal definition in international climate change and migration community

**Canada must respond internationally.** It should mobilize available resources to respond to climate change and FEM by:

- seeking to expand the DART mandate, specifically for immediate adaptation strategies of infrastructure reinforcement and health provision that will allow affected populations to remain in their countries; and
- directing investments in research and technology, through channels such as the Green Climate Fund, to the development of innovations that could alleviate the pace and impact of climate change. This should include low-carbon renewable energy sources and early warning weather systems.

**Lead at home.** Given Canada’s new role on the Steering Committee of the Platform for Disaster Displacement, Global Affairs Canada should broker a cross-departmental strategy for the development of a formalized national response to FEM. Develop a de-securitized migration procedure that respects the human security of Canadian citizens, while focusing on protecting the fundamental rights and needs of forced environmental migrants, by:

- leveraging existing migrant networks to provide support and reduce harms related to transition; and
- providing comprehensive services for settlement, including language services, employment support and affordable housing.

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# Environmental Migration and Displacement: Strategizing at the Regional Level

Betina Borova and Michael Opatowski

## Introduction

Environmental migration and displacement (EMD)<sup>1</sup> is likely to increase in the coming decades as a result of the combined effects of climate change, accelerating population expansion and increased urbanization rates in areas of the globe that are already highly exposed to environmental hazards (Intergovernmental Panel on Climate Change 2014). According to the Internal Displacement Monitoring Centre (2016), since 2008, 25.4 million people on average have been displaced by natural disasters each year. These figures are not wholly representative of people who migrate in response to slow onset environmental changes such as droughts, desertification and sea level rise, nor do they record cross-border movements. Therefore, not only are the current figures much higher, but they are likely to increase over time.

## Background

It is best to conceptualize EMD on a continuum of influence whereby migration may range from being purely involuntary to voluntary. Environmental factors interact with a combination of other migration drivers

such as demographic pressures, political instability, social breakdowns, social networks and economic insecurity or opportunities (Hunter, Luna and Norton 2015). In the case of rapid onset events in areas that have poor governance and weak response mechanisms, EMD is likely to take the form of large movements of people out of affected areas at short notice, with little time to prepare, and taking actions to ensure their immediate survival (Martin 2013). While they may be eager to return to their affected communities to rebuild, a country's lack of adaptive capacity may contribute to situations of protracted displacement (Warner et al. 2013).

In terms of slow onset events such as droughts or sea level rise, EMD may take the form of anticipatory migration in which there is a gradual movement of people outside affected areas over a longer period of time. Households may decide to send one or a few members to other areas for employment to diversify sources for livelihood and receive remittances (IOM 2014). In these instances, other factors — such as gender, social networks, pre-existing labour migration patterns and financial resources — play a role in decisions about when, where and in what form migration occurs (Foresight 2011). While some households are better equipped to respond to livelihood change by diversifying income opportunities, for example by sending members abroad, there are those that are marginalized and constrained by limited resources, who become “trapped populations” unable to effectively react to change (Warner, Hoffmaister and Milan 2015).

1 EMD comes from the International Organization for Migration's (IOM's) definition for environmental migrants as “persons or groups of person who, for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their homes or choose to do so, either temporarily or permanently, and who move either within their country or abroad” (IOM 2014, 6).

EMD can take place across a wide range of spatial scales from the local to the global; therefore, responses require trans-jurisdictional coordination and planning between municipal, state/provincial and federal governments, as well as relevant international actors. Planning for and responding to internal and cross-border EMD can be scaled up from local to more senior government scales, and vice versa. Additionally, responses in one nation can have cascading effects in other countries. For instance, droughts in North America may influence global food prices for developing countries already coping with food insecurity. Equally, EMD patterns manifest in a variety of ways to sudden onset and/or progressive events and processes, calling for different policy-making responses. Government action usually involves short-term responses to crisis events, when what is needed is a long-term policy planning framework that enables proactive planning for EMD events, as well preparing for population changes that will emerge from long-term incremental and systematic environmental change. EMD is an area that requires greater policy coherence and coordination between multiple branches of government, including but not limited to development, humanitarian assistance, immigration and finance.

While the effects of EMD are predominantly experienced in the Global South — especially among those living in the poorest, more environmentally vulnerable regions — North America is also a source and destination for EMD, but with the majority of events being managed within the state. Internal population movements in Canada and the United States are largely in response to extreme weather events, floods, droughts and wildfires. Yet there have been instances of international environmental migration into Canada and the United States from Mexico, Central America and the Caribbean. For instance, drought-related decreases in crop yields in rural Mexico has increased migration to the United States (Feng, Krueger and Oppenheimer 2010). On a smaller yet growing scale, professionals from urban centres in Africa and Asia may be migrating to Canada as skilled workers with the capacity to escape acute water and air pollution (Veronis and McLeman 2014). However, there is presently little information about the degree to which EMD is shaping migration movements within or between Canada, the United States and other nations. Formal EMD policies or tracking mechanisms have not been developed by Canadian or US governments, so there exists a significant information gap about the extent to which environmental factors influence international migration flows to both countries.

## Responding to EMD

Policy makers, researchers, intergovernmental organizations and civil society groups have proposed different approaches to address EMD. One response to EMD by policy makers has been to frame it as a security issue. In these narratives, EMD is often portrayed as a mass migration, cross-border response to climate change that poses a risk to the stability of neighbouring countries (Ransan-Cooper et al. 2015). While this may be a persuasive framework to garner public and policy maker attention, it also runs the risk of provoking anti-immigrant sentiments and creating social problems.

Rather than seeing EMD solely as something that needs to be prevented, many researchers note that migration represents a risk management and adaptation strategy that people have used for millennia as a way to cope with environmental stresses (McLeman 2013). This lens can be used to view the policy demands of EMD differently; for example, the government of Kiribati has promoted the concept of “migration with dignity” as a long-term adaptation strategy to climate change. This approach advocates for citizens to migrate to other countries to acquire valuable skills and training and establish networks in order to be competitive in global labour markets (McNamara 2015). Therefore, policy-making discussions about building adaptive capacity and resilience ought to consider institutional, structural and administrative barriers to mobility at the domestic, regional and international scales in order to facilitate this particular adaptation response to the effects of climate change. At the same time, policy makers need to be attuned to some of the negative consequences that are associated with migration as an adaptation approach, especially in cases where climate EMD migrants face restrictive government policies or weak community integration practices in destination communities (Campbell 2014). Moreover, overwhelming dependence on the migration strategy alone may exacerbate “brain drain” or flight in source countries (Waldinger and Fankhauser 2015).

In areas that risk becoming uninhabitable planned relocation has been identified as a last-resort measure (United Nations High Commissioner for Refugees 2014). Some Arctic indigenous communities have chosen to relocate, and this represents a potential opportunity for bilateral discussions between Canada and the United States, where Arctic governance is a shared concern

(Bronen 2013). Recently, in a meeting between US Secretary of the Interior Sally Jewell and Federal Environment Minister Catherine McKenna, it was noted that certain indigenous communities in the Arctic may require government support to facilitate safe and orderly relocation (Milman 2016). However, this policy option is fraught with ethical issues around resource access, property rights and preservation of cultural practices (United Nations High Commissioner for Refugees 2014). To date, no guidance exists for governments to conduct planned relocation in a responsible way that sufficiently protects human rights either individually or in collaboration with international partners. Additional research is needed to contribute to the development of operational guidelines for government relocation plans to ensure inclusive community participation in the design, planning, implementation and evaluation of this policy option.

## International Agreements

International frameworks currently exist to address different aspects of EMD. Article 50 of the Paris Agreement on Climate Change, which was signed by Canada and the United States in April 2016, commits to establish a task force on how best to address climate change-induced displacement. To date, neither country has made any specific public statements regarding its position on Article 50. At this point, it remains unclear whether or how either country will involve researchers and civil society organizations in its deliberations on the matter. Details are also vague on whether financing by higher carbon-emitting countries will be used to fund planned relocations, introduce policies to limit EMD and otherwise control the use of migration as an adaptation strategy.

The 2015 Sendai Framework for Disaster Risk Reduction, signed by both Canada and the United States, represents another opportunity to address EMD, albeit at the national level. It specifically recognizes that disaster risk reduction should involve stakeholders at all levels, including migrants themselves, in the design and implementation of policies. It also encourages the adoption of policies to address disaster-induced mobility in order to strengthen resilience. While Canada has held six national round tables under the Sendai Framework, it is not clear how diasporas and migrant networks are involved in designing disaster response policies (i.e., community philanthropic actions), nor what insights about EMD have been gleaned from the round table process.

The 2015 Nansen Initiative on Disaster-Induced Cross-Border Displacement is an intergovernmental agreement that specifically addresses protection for people that are displaced across borders. While Canada was absent from previous discussion, Nansen is promising that Canada will be part of the steering committee for the post-Nansen platform as it represents an important site for consensus building on cross-border EMD.

## Prospects for Regional Cooperation

There are reasons for skepticism and optimism in terms of the potential for regional policy-making cooperation between the United States and Canada. In regards to skepticism, Canada and the United States do not share a strong history of cooperating on immigration policies, save for third-country agreements. Moreover, international EMD to North America exists in smaller volumes than internal EMD within each country. Therefore, fostering Canada-US coordination on EMD issues may not presently be an urgent concern. At the domestic policy level, government agencies in both countries often operate in policy-making silos. There is a risk that a coherent EMD policy within each government and between the two countries may be impeded by such stove piping. Furthermore, policy making on EMD in Canada and the United States has occurred in an ad hoc fashion in response to specific EMD events. Examples include the US provision of Temporary Protected Status permits for people unable to return to disaster-affected areas in Haiti and Central America (Argueta and Wasem 2016). Similarly, Canada instituted temporary immigration measures in response to the 2010 earthquake in Haiti (Omeziri and Gore 2014). No longer-term coordinated EMD policies currently exist in either country. Lastly, the framing of EMD and the need for definitional clarity also presents an obstacle to regional cooperation. Under the US immigration system, there is no cap on humanitarian entries, whereas there is a firm cap on economic migrants, who experience processing backlogs and long waiting times. Defining EMD under either category would have significant practical implications considering the emerging complexity of EMD processes.

At the same time, there are also reasons to be optimistic about the prospects of regional cooperation. First, Canada and the United States share key source countries of EMD. Yet, environmentally induced migration to the region may be much higher than currently registered, because China,

India and the Philippines experience the highest levels of disaster-related displacement on average, and also represent three of the main sources of most types of international migration to both Canada and the United States.<sup>2</sup> Second, the United States and Canada have historically relied on cooperation in response to emergencies and natural disasters (Public Safety Canada 2012). Therefore, there may be opportunities to incorporate EMD as part of existing bilateral disaster response agreements. Third, political will to cooperate on climate change-related issues is reflected in joint statements by US President Barack Obama and Prime Minister Justin Trudeau (*US-Canada Joint Statement* 2016). Fourth, the Arctic already represents an area of common concern for both countries, and could signal an opportunity for meaningful cooperation on EMD issues.

## Recommendations for Canada

**Build regional alliances regarding EMD.** Trilateral coordination between Canada, Mexico and the United States represents an entry point of mutual interest for all three countries to engage in regional discussions on EMD; it would be useful to suggest this coordination as an agenda item in future North American Leaders' Summits.

**Endorse and actively participate in international EMD agreements.** The 2016 Laurier/US Embassy Workshop on EMD,<sup>3</sup> on which this policy brief emerges from, contributed to the body of evidence on which the decision to join the steering committee on the Platform on Disaster Displacement<sup>4</sup> was based. As part of the steering committee for the post-Nansen platform, the Canadian government will have the opportunity to gain insights from high volume immigrant-sending countries to both the United States and Canada, and exchange policy ideas on effective ways to offer protection to people displaced across borders because of disasters and climate change.

**Address information gaps about North America-bound EMD through research and policy change.** Currently there is very little information about the extent to which environmental factors influence international migration to Canada. Operational guidelines could be developed to instruct immigration officers to ask questions about environmental influences during application and screening processes, and application forms could also ask such questions. As a way of kickstarting Canada-US policy-oriented research, it may be useful to create a pilot project that conducts an exploratory case study of a country experiencing EMD that is also an important source of migration to Canada and the United States. Such a study could focus on examining how institutions in all three countries interact to shape and respond to EMD and larger migration flows over time. Incorporating migrant communities and diaspora networks themselves in the research process would also open up opportunities to learn more about the largely unexplored conditions, structures and decision-making processes that help determine those who move versus those who stay in the face of environmental processes.

**Foster ongoing collaboration between researchers and policy makers.** While researchers from both Canadian and American universities are contributing a growing volume of research on EMD, the findings of which have direct implications for policy making in both countries, there are few established channels of communication between researchers and policy makers. The 2016 Laurier/US Embassy Workshop on EMD was an attempt to bridge the gap between researchers and policy makers in Canada and the United States. Promoting ongoing collaboration may benefit policy makers with valuable insights that can address pressing concerns related to EMD challenges.

**Promote resilience-building strategies to assist trapped populations.** While "migration as adaptation" is a useful strategy that can help households manage risk and environmental stress, policy makers ought to take into account trapped populations who cannot move due to migration or resource constraints. One opportunity to assist building resilience in affected areas could be for Canada to push for funding in the Paris Agreement to focus on the specific challenges felt by trapped individuals, households and communities. Another possibility could be the allocation of official development assistance and disaster risk reduction measures toward this objective.

2 For US statistics, see US Department of Homeland Security's (2014) *2013 Yearbook on Immigration Statistics*. For Canadian statistics on permanent residents, see Immigration, Refugee and Citizenship Canada's (2015) *Facts and Figures 2014*; for Canadian statistics on temporary migrants and refugees, see Immigration, Refugee and Citizenship Canada's (2014) *Facts and Figures 2013*.

3 See [www.laurierenvironmentalmigration.com/](http://www.laurierenvironmentalmigration.com/).

4 For a list of the founding members and more information, see the Platform on Disaster Displacement: <http://disasterdisplacement.org/about-us/our-architecture/>.

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# Tomorrow's Global Humanitarian Architecture

Rasha Abu-Meizer, Mohammed Uzair Belgami and Stacey Haugen

## The Twenty-first-century Context

The nature and frequency of conflict has substantially changed throughout the twenty-first century. Global political responses to contemporary refugee and migration crises have undermined the responsibility of states and international humanitarian law and failed to protect vulnerable populations. Recurrent and more frequent violations of international humanitarian law are being perpetrated with impunity.

The number of conflicts recorded worldwide is decreasing; however, their scale and longevity is increasing (Stoddard et al. 2015). The International Committee of the Red Cross (2015) notes that armed conflicts are becoming more complex due to the fragmentation of armed groups and asymmetric warfare. Conflicts are regionalized (the Middle East and North Africa) and long-lasting (Sudan and Central African Republic), while international or national conflict resolution systems are increasingly ineffective.

This has produced an unprecedented number of displaced people (UN Office for the Coordination of Humanitarian Affairs 2014). By the end of 2015, the United Nations High Commissioner for Refugees (UNHCR) expects more than 60 million people to have been internally displaced or to have become refugees (UN Refugee Agency 2015). At the same time, the political response to the growing global refugee migration crisis threatens to undermine international legal obligations of states and the protections afforded to refugees. For example, on March 20, 2016, the European Union signed a controversial deal

with Turkey aimed at stemming the flow of refugees to the continent. The deal has been criticized for violating the 1951 Geneva Convention on the Status of Refugees, as well as EU laws (Collet 2016). The agreement outlines that any “new illegal migrants” who have arrived in Greece after 20<sup>th</sup> March, 2016 will be sent back to Turkey (UNHCR 2016). In return, Turkey will receive over €3 billion in financial aid from the European Union, it will undergo a visa liberalization process for Turkish citizens travelling across the European Union, and Turkey’s EU accession talks will be resumed and accelerated (Collet 2016).

Violations of human rights and international humanitarian law continue unabated with impunity. The current Syrian conflict is a pertinent example of such violations. According to the UN Human Rights Council’s Independent International Commission of Inquiry on the Syrian Arab Republic, parties to the conflict have targeted medical facilities and personnel, used starvation as a method of warfare and denied civilians safe passage from besieged areas (UN Human Rights Council 2016). The UN Security Council Resolution 2286, adopted on May 3, 2016, has condemned the continuous targeting of medical facilities in conflict settings (UN Security Council 2016). With more than 2,400 targeted attacks over the past three years, some states and non-state actors demanded at the May meeting that these strikes be recognized as war crimes, rather than mere errors (ibid.). While four of five permanent members of the Security Council have been involved in such violations, the resolution demanded that all states must uphold human rights law and international humanitarian law.

Climate change and infectious diseases are also becoming major twenty-first-century phenomena causing great humanitarian need. In 2015, the earth's average temperature reached the highest level ever recorded (NASA 2016). Because of climate change, extreme weather events are increasing in frequency and severity, and are disproportionately affecting vulnerable populations (Office for the Coordination of Humanitarian Affairs 2014). Health crises, such as the threat of infectious diseases, continue to plague the most vulnerable populations. This is especially true in cities, nations and regions with already poor public health infrastructure, or where ongoing conflict undermines effective public health response capacity. For example, the 2014 Ebola epidemic in West Africa resulted in over 11,000 deaths and was a major global public health emergency (Centre for Disease Control and Prevention 2016a). The ongoing yellow fever epidemic in Angola is a contemporary but less extreme example (ibid., 2016b). In situations of conflict, epidemic disease is an ongoing challenge, as in the case of the current measles epidemic in Katanga, Democratic Republic of Congo. As of January 1, 2016, nearly 500 deaths have occurred among 40,000 people infected with measles (The Vaccine Confidence Project 2016).

The aforementioned humanitarian crises often overwhelm the capacity of local and national resources to adequately respond. In such situations, humanitarian assistance and protection can be provided by the international humanitarian system. This is a network of interconnected institutional and operational bodies, with the core actors including UN humanitarian agencies, the Red Cross and Red Crescent Movements, non-governmental organizations and intergovernmental organizations (Stoddard et al. 2015). Although the international humanitarian system is larger than ever in terms of financial and human resources, it is failing to meet the existing and growing global humanitarian needs (ibid.). Thus, the current system is neither appropriate nor effective.

### Structural and Operational Issues

Most recent estimates suggest that there are 4,480 humanitarian organizations operating across the world addressing humanitarian challenges (ibid.). The large number of actors has resulted in operational overlaps among agencies and mandate duplications (Knox Clarke and Obrecht 2015). The current system continues to be plagued by poor priority setting especially in situations of

political multipolarity and/or dissonance, inadequate usage of resources, lack of coordination and inefficient response (Stoddard et al. 2015). The gap between humanitarian needs and humanitarian responses is becoming increasingly prominent (ibid.). Numerous organizations focus their activities and initiatives on specific population groups, which has led to reduced coverage of vulnerable individuals.

Within the twenty-first-century context, there is an increased urgency for a more focused collaborative and complementary humanitarian system. The current system can be reformed to reduce deficiencies and become better equipped to meet the core humanitarian needs of affected people (Knox Clarke and Obrecht 2015). However, so severe and widespread are these failures that only a substantive operational reform through mandate review of the humanitarian architecture will suffice to address deficiencies in humanitarian response (ibid.). Outdated mandates of relevant UN agencies must be identified and reworked to reflect contemporary needs and priorities. A structural overhaul following a mandate review can largely improve humanitarian response and operations. This, of course, requires the support of member states and major donors. A strong political will to advocate for a mandate review of UN agencies is essential if it is to be implemented (ibid.). Despite ongoing skepticism regarding mandate reviews, it is a necessary step toward the creation of more focused, flexible and effective humanitarian system capable of delivering appropriate and efficient responses to crises (ibid.).

### Affected People and Local Response

The current humanitarian system does not place affected people at the centre of humanitarian action. Humanitarian responses are slow and often do not reach the most vulnerable. For many of those receiving assistance, it is inadequate or inappropriate. Humanitarian response and action often does not adequately protect people's safety and dignity. For example, while women and girls experience gender inequalities most acutely during a crisis, gender equality programming is still not widely implemented in the international system (World Humanitarian Summit Secretariat 2016).

Decision making usually reflects media attention or the political interests of, for example, donor states, instead of the needs of those affected. The current system remains

inaccessible to a wider array of local actors, and current approaches to financing are not centred around affected populations (ibid.).

Affected people and local organizations are not being sufficiently consulted and involved in the planning, implementation and evaluation of humanitarian response efforts (ibid.). Local individuals and organizations are often the first to react in times of crisis as they are the closest and most invested in their communities. Four out of five humanitarian organizations are local non-governmental organizations (Stoddard et al. 2015). However, they are frequently marginalized once national or international mechanisms are invoked, and responders arrive (World Humanitarian Summit Secretariat 2016). Efforts to coordinate and create decision-making platforms with local actors are insufficient, and local organizations often lack access to adequate and reliable funding (ibid.).

## Improving the Quantity and Quality of Humanitarian Finance

In terms of absolute financial resources, the international humanitarian system is larger than it has ever been. Yet it is dismally failing to meet growing global humanitarian needs. The increase in number of people targeted for assistance outstrips the growth in funding. Between 2012 and 2015, the average amount of aid contributed per recipient dropped by 26 percent (Stoddard et al. 2015). The UN Office for Coordination of Humanitarian Affairs anticipated a US\$10.2 billion — or 51 percent — funding gap between funding needs and pledges delivered for 2016, which is their largest financial deficit (High-Level Panel 2016).

The quality of funding also remains problematic. In 2013, 81 percent of donor-government funding provided to the main six UN agencies was earmarked, which goes against the principle of Flexible Funding of the Good Humanitarian Donorship initiative (Good Humanitarian Donorship 2016). This is a drastic increase compared to 15 percent a decade earlier (High-Level Panel on Humanitarian Financing Report to the United Nations Secretary-General 2016). At present, close to 90 percent of humanitarian funds are spent on medium- to long-term crises (World Humanitarian Summit Secretariat 2016). Most funding is allocated on an annual basis, which results in inefficient and unsure planning as the majority of crises are protracted well beyond one year. Yet, for instance,

the World Food Programme has estimated that multi-year financing would reduce its costs by approximately 30 percent through improved procurement possibilities (Cabot-Venton 2013). The tedious and customized reporting requirements set by various donor states especially impact local agencies as they lead to loss of time and resources. Donors agreeing to a set of minimum standardized reporting requirements that forefront local needs will save time and resources for organizations and increase comparability among partners (High-Level Panel 2016). Finally, it is imperative that the ethos behind current humanitarian funding be re-evaluated. It must arise from a sense of solidarity, not charity, and must be assessed obligations, not voluntary acts of generosity.

## The Politicization of Humanitarian Aid

The politicization of humanitarian aid, which is the pursuit of domestic and foreign policies of donor states by humanitarian means, continues to plague the functionality of today's humanitarian architecture (Saavedra and Knox-Clarke 2015). Voluntary contributions by governments are often highly politicized, and accompanied by political and economic conditions. Presenting aid as a government policy or as a negotiation tool imposes constraints on the way financial assistance is used (Bryce 2014). Aid to recipient countries is often contingent upon them adopting policies that correspond to donor governments' strategic interests and views on poverty reduction and economic liberalization. The aforementioned recent agreement between the European Union and Turkey is a case in point. Countries that do not abide by such conditions may be excluded or restricted to only certain forms of humanitarian assistance. This reality is also difficult to avoid for most humanitarian agencies relying on government funding (Oxfam 2011).

Aid serving political or economic interests runs counter to humanitarian principles in practice. The principle of impartiality highlights the necessity for humanitarian response to focus on need alone without implying any distinction between beneficiaries (Bryce 2014). Placing political conditions on the delivery of humanitarian aid risks painting some as more deserving than others. Under the principle of independence, all humanitarian action must be autonomous from political, economic or military objectives (Curtis 2001). This is contradicted by the growing coherence between political interests

and humanitarian aid, as many organizations remain dependent on financial assistance from donor governments (ibid.). The politicization of aid has further tainted the ability of humanitarian agencies to deliver assistance. Through their political connections with donor states, agencies can be perceived as political pawns, making them a target in conflict. Politicization of humanitarian aid can place danger upon those working in the field (Bryce 2014).

It is also of note that for mostly operational reasons, there is a growing conflation between the fields of development and humanitarianism. This discourse and practice is evident among many international organizations, and within Canadian policies. The aims and ethos of humanitarianism are very different from those of development. Development, although often presented as neutral, is a deeply political project and often serves as the pretext for various strategic interests. The political nature of development is not synonymous with the humanitarian principles of humanity, impartiality, independence and neutrality, and this is especially true in war or conflict settings. Although there exists a strong rationale and pragmatic need for cooperation between development and humanitarian agencies, the two must remain distinct.

### Policy Recommendations and Next Steps

Canada has recently reaffirmed its commitment to humanitarianism, as has been demonstrated by Minister Marie-Claude Bibeau's pledging of CDN\$600 million toward humanitarian aid at the recent World Humanitarian Summit. She also highlighted Canada's commitment to defending humanitarian principles and working with local partners in humanitarian response (Global Affairs Canada 2016). Furthermore, the recently launched International Assistance Envelope review emphasizes the will to strengthen and improve Canadian and international humanitarian response (Government of Canada 2016).

Before outlining our recommendations, a couple of points worthy of consideration are: Previous efforts to conduct mandate reviews and consolidations of relevant UN agencies have been unsuccessful and controversial. Also, both transformational and incremental changes are needed to address the deficiencies of the current humanitarian system. For example, a sole focus on humanitarian financial assistance will not suffice in addressing the range of issues identified here.

**In order to address the overlap, duplications and inefficiencies of humanitarian organizations, Canada should play a leadership role in initiating a mandate review of relevant UN agencies and institutions.** Canada should:

- begin the process of reaching out to like-minded states that are culturally and regionally representative to garner the essential political will to support the review process;
- request that the UN Secretary-General call for a review of appropriate UN agencies, institutions and initiatives;
- ensure the mandate review process focuses on humanitarian principles, current and projected humanitarian priorities, and aims to meet the core humanitarian needs of affected people; and
- propose a 24-month time period for setting terms of reference for the review and consolidation process.

**In an effort to place affected people at the centre of humanitarian action, Canada should ensure that local individuals and organizations are at the forefront of the planning, implementation and evaluation of humanitarian response.** Canada should:

- directly fund national and/or local organizations and develop appropriate accountability mechanisms to monitor and evaluate outcomes and use of funds;
- through the Canada Fund for Local Initiatives, Canada has begun establishing a growing network of local organizations for development purposes. Where possible, these direct local partnerships can be built upon for local humanitarian response;
- encourage appropriate partnerships between intergovernmental organizations and international non-governmental organizations and their national or local counterparts by ensuring such partnerships are a requirement of funding; and
- mandate and incentivize gender equality programming in humanitarian response.

**Canada should take efforts to improve the quantity and quality of its aid, and ensure it arises from and reflects a spirit of solidarity and obligation, rather than charity or generosity.** Canada should:

- create a national humanitarian fund, separate from official development assistance and development initiatives, which requires a self-imposed annual allocation from the Canadian budget. Canada can pioneer and encourage adoption of this fund by all donor states;
- remove earmarks for 30 percent of humanitarian funds by 2020, complying with the recommendations of the High-Level Panel on Humanitarian Finance 2016;
- provide multi-year funding in situations of prolonged crises, as opposed to annual allocations, in order to ensure maximum impact and save costs; and
- initiate dialogue among donors to reach a common minimum standard of reporting requirements, which highlight the needs and capacities of local agencies, rather than donor priorities.

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# The Changing Burden of Disease: Canada's Role in Bringing Non-communicable Disease to the Forefront

Bemnet Debebe, Ricarda Konwiarz and Tatiana Wugalter

## Background

Throughout the Global South, many countries are experiencing increased rates of non-communicable disease (NCD) alongside existing communicable, maternal, neonatal and nutritional health challenges. Globally, NCDs are estimated to kill 38 million people per year, making up 68 percent of deaths worldwide. Approximately 80 percent of NCD-related deaths occur in low- and middle-income countries (LMIC), increasingly affecting younger populations and those living in poverty (World Health Organization [WHO] 2015a; IHME 2015). In LMICs, a higher proportion of NCD-related deaths are estimated to be premature, occurring in people under the age of 70. This contrasts with higher income countries where premature deaths account for 28 percent of NCD-related deaths and emphasizes the large burden NCDs have on LMICs.

The chronic nature of NCDs contributes to long-term economic and health challenges for both affected individuals and health systems (World Economic Forum 2011). This threatens the gains made by global health efforts in other areas such as Canada's Muskoka Initiative, which focused on child and maternal health. While there have been global initiatives to assist LMICs in alleviating NCDs, these endeavours have generally been sporadic and uncoordinated. By expanding on the successes of its child and maternal health policy and more heavily integrating NCDs into its global health policy, Canada is well positioned to establish itself as a leader in these global efforts.

The main risk factors for NCDs have been increasing worldwide and are attributed within the Global South to fast-paced globalization, economic growth and urbanization (WHO 2015a). Diets high in saturated and trans fats, sugar and salt, excessive consumption of alcohol, tobacco use and physical inactivity compound with various social determinants of health to heighten the risk of NCDs. These risk factors contribute to increased rates of cardiovascular disease, cancer, diabetes, chronic respiratory illness, mental illness and others (Wagner and Brath 2012).

Due to the prevalence of communicable, maternal, neonatal and nutritional diseases in the Global South, many health systems in LMICs are built to address the acute challenges that these specific diseases bring. Thus, they do not have the political, structural or financial capacity to effectively tackle the chronic nature of NCDs. Furthermore, NCDs require comprehensive and multi-sectoral prevention initiatives, as well as monitoring that spans the lifecourse and holistic treatment approaches (WHO 2010; Samb et al. 2010). Faced with an increasing double burden of disease, ill-equipped health systems and limited financial capacity, LMICs can benefit from innovative NCD solutions developed through partnerships with global health leaders like Canada.

The Muskoka Initiative partner countries (Afghanistan, Bangladesh, Ethiopia, Haiti, Malawi, Mali, Mozambique, Nigeria, South Sudan and Tanzania) provide an ideal

starting place to pilot new Canadian-led NCD policies. For the purposes of this brief, Tanzania will be used as a case study to demonstrate how NCD projects can take shape in a localized context. Since 2009, Tanzania has been a “country of focus” for Canada’s development programming. Canada supports Tanzania’s development priorities and is one of its largest bilateral donors in the health sector, particularly in areas related to maternal and child health (Government of Canada 2015). By broadening this health focus and specifically including efforts to address NCDs, Canada can support Tanzania in holistically addressing its growing double burden of disease.

### **Integrating NCDs into Existing Global Health Policy Framework**

The child and maternal health policy partnerships and projects have features that support the scale-up of NCD interventions. Traditionally global health has taken a compartmentalized approach and often neglected the threat of NCDs. Canada must holistically address the multiple burden of disease and incorporate NCDs into its existing global health policies. Integrating NCDs into the Muskoka Initiative presents an effective and potentially low-cost opportunity. Canada’s interventions must recognize two key aspects of the growing NCD burden: the need to prevent premature deaths attributable to NCDs; and the importance of strengthening health systems to diagnose, treat and care for NCDs.

### **Preventative Measures through Existing Health Policies**

Preventive interventions address the risk factors associated with NCDs. Tackling risk factors require long-term behavioural changes as well as recognition of the social determinants of health contributing to NCDs. While NCD prevention should address all ages, youth are prime targets as they are vulnerable to NCD risk factors and begin to form unhealthy habits in adolescence. In tandem with Canada’s existing maternal health policies, mothers can also be used as important points of contact for future NCD strategies. Mothers typically play a significant role in the caregiving and education of children, thereby influencing the behaviours of future generations. Many operating Muskoka Initiative projects stand to benefit from NCD prevention measures, such as incorporating contextualized NCD education into pre-existing maternal

and child health infrastructures. This could be done through marketing materials such as pamphlets, posters and social media campaigns targeting cellphone users.

### **Strengthen Health System by Training Healthcare Personnel**

Complementary to NCD prevention, the capacities of health systems to address NCDs within existing child and maternal health policies must be strengthened. Generally, in the Global South, health personnel lack essential knowledge of NCDs. They also possess inadequate equipment and medicines to provide sufficient and appropriate diagnostic, treatment and care services for patients with NCDs. However, healthcare workers in LMICs have shown the desire to provide NCD treatment and care. They expect that such services could be provided if mechanisms for training, support and supervision were in place (Peck et al. 2014). These realities must be taken into consideration when improving the presence of NCDs within the Muskoka Initiative.

Previous child and maternal health focused projects included the training of health personnel. This provides a model for the integration of NCDs into training programs that focus on primary healthcare workers. Experts suggest that NCDs can be effectively addressed by primary care in particular because of its accessibility, continuity, the coverage of various health needs it provides, and the involvement of families and communities (Galambos and Sturchio 2013; WHO 1978). Training should consider where cost-effective NCD interventions may be integrated into the maternal and child health services supported by the Muskoka Initiative. An example of this can be found in the inclusion of cervical cancer screening during prenatal examinations (Singhrao, Huchko and Yamey 2013).

### **Host a New Conference on NCD-related Deaths**

NCDs, while underrepresented, are not entirely absent from the international agenda. Numerous high-level meetings at both the WHO and the United Nations have discussed the rising burden of NCDs in the Global South. In addition, many countries have included NCDs into their global health initiatives. However, international leadership concerning NCDs has not yet materialized. While the WHO has brought attention to the subject,

resource constraints limit its ability to mobilize action. Although healthcare is a complex and interconnected system of federal, provincial and municipal entities, Canada has seen many successes in its attempt to ensure healthcare access to all Canadians. The system has been crafted to support both chronic and acute illness in a relatively effective manner. Although it faces difficulties in integrating its health system to include mental health components, Canada possesses a comparative advantage in not only the management of NCDs domestically, but also the ability to assemble key actors in fighting against the growing burden.

As exemplified through the Muskoka Initiative, Canada brought Group of Eight and non-Group of Eight member states together to discuss the significant gaps that were present in child and maternal health worldwide. The product of this effort was the mobilization of USD \$7.3 billion and the preservation of the lives of both women and children in the Global South. Convening a new conference on the topic of NCDs would legitimize the international focus on the rising premature deaths attributable to NCDs and provide an opportunity to create a strategized and coordinated global response. The conference would include states, civil society organizations and global health leaders.

The synchronization efforts seen in other areas of global health with organizations — such as The Global Fund to Fight AIDS, Tuberculosis and Malaria — offer distinct examples of coordination and international cooperation to tackle illness. A conference would allow for state and non-state actors involved in global health to convene and discuss possible approaches in managing NCDs. Organizations such as NCD Alliance and the United Nations Interagency Task Force on the Prevention and Control of NCDs can greatly benefit from an opportunity to lobby and work with national governments in their efforts to curb the growing number of premature deaths attributable to NCDs.

While the Muskoka Initiative was an important first step, Canada has an opportunity to move forward and ensure the current health needs of the Global South are addressed, while the future of the global health landscape is still taken into account. The recent announcement of an increase in the Canadian commitment to the Global Fund, although praiseworthy, demonstrates an overshadowing of NCDs by communicable illness (Mas

2016). By modifying its focus to include NCDs, Canada's global health policies will more accurately reflect the changing burden of disease. They will also better achieve the UN Sustainable Development Goals, which consist of comprehensive targets addressing the changing global burden of disease. Specifically, Goal 3.4 seeks to reduce “one third of premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being” by the year 2030 (UN 2015). The broad nature of the goals encourages states to acknowledge the multiple burden of disease and approach health holistically. Convening a conference on the subject of NCDs would solidify Canada's commitment to tackling NCDs while consolidating international action on this growing health burden.

### Establish a Canadian-led NCD Global Health Initiative

Canada is well-positioned to bring heightened attention to NCDs in its global health policies. Global Affairs Canada should expand on the Muskoka Initiative by establishing a complementary global health initiative focused specifically on NCDs. The NCD initiative could spearhead new projects that support partner countries in preventing, diagnosing, treating and gathering data on NCDs, particularly in areas where gaps exist or external supports are needed. While continuing to work with Muskoka Initiative partner countries, the NCD initiative would ensure that NCDs are integrated into existing primary healthcare systems rather than forming separate programming. There are numerous models that provide evidence-based suggestions for achieving these outcomes (Rabkin and El-Sadr 2011; Galambos and Sturchio 2014).

As with the Muskoka Initiative, strong partnerships will play a significant role in the coordination and implementation of the NCD initiative. It would strengthen and build off the Muskoka Initiative's established local partnerships. It could also form new partnerships with non-governmental organizations, academic institutions, government agencies and health centres working to address NCDs in partner countries. These multisectoral partnerships would reinforce the importance of a holistic approach to health. Through the development of robust local partnerships, the NCD initiative would promote culturally relevant programming that recognizes the unique social, political and economic contexts of NCDs in partner countries and communities.

The initiative would work toward achieving the goals set forth in international documents — such as the WHO Framework Convention on Tobacco Control, Sustainable Development Goals and NCD Global Monitoring Framework — while making use of the WHO’s “best buys” for cost-effective and sustainable NCD initiatives in LMICs (WHO 2013; World Economic Forum 2011). It would also encourage Canada to take on a consultative role in supporting LMICs to adopt legal regulations that discourage unhealthy behaviours, such as tobacco use and the consumption of alcohol and foods high in sugar.

### Tanzania Case Study

Tanzania provides an example of how Canadian-led NCD initiatives may look in a local, project-based context. Home to many medical, non-governmental and academic organizations that have established relationships with Canada, Tanzania has many of the foundations necessary to catalyze an NCD-focused initiative (Global Affairs Canada n.d.). It also has many local and national organizations dedicated to NCDs, such as the Tanzania NCD Alliance, which includes numerous organizations devoted to specific NCDs (WHO 2014). Moreover, Tanzania has demonstrated political will in tackling NCDs. It established an NCD Division within the Ministry of Health and Social Welfare, and enacted national strategies related to NCDs, cancer, cervical cancer, mental health and nutrition (Ministry of Health and Social Welfare 2008; NCD Synergies 2015; WHO 2014). Tanzania is a signatory to the WHO Framework Convention for Tobacco Control and has thus far introduced advertising bans on tobacco (WHO 2015b.)

Tanzania has a young population, with 34.7% of its population between the ages of 15–35 (UNA Tanzania 2014). Focusing NCD prevention efforts on young people can encourage a future generation of healthier Tanzanians less encumbered by the growing burden of NCDs (Naik and Kaneda 2015). As a component of the proposed Canadian NCD initiative, a localized NCD prevention project could ensure youth are involved in decision-making processes related to health by working with Tanzania’s National Council of Youth, as well as local community-based organizations that work directly with youth (Restless Development 2011). It could promote a multi-pronged prevention approach, which integrates prevention education into school curricula as noted in Tanzania’s National NCD Strategy, makes use of existing community

communication networks, supports youth organizations and allows youth to form contextually relevant NCD campaigns targeted toward other youth (Ministry of Health and Social Welfare 2008). Such a project would mimic the successful community awareness programs undertaken during the Muskoka Initiative and could be adapted to other partner countries, suiting the unique needs of their local contexts (Global Affairs Canada n.d.). While this Tanzania-specific example focuses on NCD prevention, other projects could target additional aspects of NCDs such as diagnostics, monitoring, treatment, care or data gathering.

Identifying key populations in need of NCD interventions within the Global South can yield significant benefits for the future of global health. Tanzania provides an example of how health systems can be modified to address the current and future needs of a population. While the multiple burdens of disease are ever present, the holistic nature of health systems must be the goal for governments hoping to make a positive impact on the global health landscape. Canada has an opportunity to once again change the conversation of global health and focus attention on one of the most neglected, yet predominant, factors leading to death and disability in the Global South. Canada possesses a comparative advantage in the management of NCDs domestically and has the potential to be a leader on the international stage.

### Policy Recommendations

Recommendations to the Global Health Policy and Research division of Global Affairs Canada are as follows.

**Integrate NCD interventions into existing Muskoka Initiative projects.** Interventions should acknowledge the importance of preventing premature deaths attributable to NCDs and the need to strengthen health systems to holistically tackle NCDs.

**Organize an international high-level conference on NCDs.** This would bring together various NCD stakeholders from the public, private and non-governmental sectors, as well as establish Canada as a global leader in NCD.

**Establish a Canadian-led global health initiative focused on NCD prevention.** This would complement the Muskoka Initiative and build on its successes.

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# Transition, Innovation and Governance

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# Repositioning Canada's Relations with Emerging Economies

Raluca Ardelean, Ryan Haughton and Matthew Henderson

## Introduction

### **An Economic Opportunity for Canada**

For Sub-Saharan Africa and Canada, 2016 could represent a significant turning point. Over the last two decades, economic capacity and potential has grown exponentially throughout Africa, providing Canada with the opportunity to reposition its relationships from aid to trade and investment. In an increasingly globalized world, the movement of capital, goods and services has made the international economic arena interconnected. As such, the diversification of economic activity is a necessary policy direction moving beyond 2016. The continent of Africa is diverse with 54 countries, thousands of ethnic groups and a wide array of commercial sectors. Similarly, prospective economic strategies and recommendations are widely applicable to other emerging regions such as South America, the Middle East and East Asia.

In order to illustrate concrete examples of the recommended approach, this brief focuses on the Economic Community of West African States (ECOWAS), a regional group of 15 countries that can provide Canada with new trade and investment opportunities. ECOWAS has a population of over 335 million people, which represents one-third of Sub-Saharan Africa (World Bank 2014a). The group has a GDP of US\$735 billion, in part from industries such as transportation, telecommunications, energy, agriculture and natural resources (ECOWAS 2015). West Africa achieved six percent growth in 2014, despite its battle with the Ebola virus, and is pursuing reforms that make it easier

to do business within the region (African Development Bank, Organisation for Economic Co-operation and Development [OECD] Development Centre, and United Nations Development Programme 2015). Beginning trade negotiations with a regional group such as ECOWAS would contribute to the diversification of the Canadian economy and act in accordance with ECOWAS' goal of economic integration and engagement with the international community (ECOWAS 2015).

ECOWAS includes several countries with substantial economic, social and political advancements, including Nigeria. The country has the largest population on the continent and the seventh-largest in the world (World Bank 2014b). It has surpassed South Africa as the largest economy on the continent while being a member of economic groups such as MINT (Mexico, Indonesia, Nigeria and Turkey) and the Next Eleven (ibid.). Nigeria's economic growth of 6.3 percent in 2014 came mainly from non-oil sectors, illustrating the diversification of its economy (African Development Bank 2015). Other countries will continue to identify Nigeria and ECOWAS as areas of prospective commercial engagement. Canada should be a leader in establishing a successful economic partnership agreement with ECOWAS and other African countries that is mutually beneficial.

### **Canada's Existing Economic Relationship with Sub-Saharan Africa**

Historically, Canada has seen Africa primarily as a destination for aid. Although this pattern has changed in recent years, more can be done to expedite the transition

from aid to trade and investment. This could help both sides diversify their trade. For example, nearly 75 percent of Canada's imports from Sub-Saharan Africa are oil and petroleum products (Medhora and Samy 2013). Wheat makes up approximately 20 percent of Canadian exports to the continent, with no other product having more than 10 percent of the total share (*ibid.*). The absence of a free trade agreement is a barrier to diversifying and strengthening economic relationships between Canada and Africa.

Despite low levels of trade, the Government of Canada has recently made inroads with the growing number of Foreign Investment Promotion and Protection Agreements (FIPAs), realizing the significant economic potential that exists (*ibid.*). There are also several non-governmental organizations (NGOs), such as the Trade Facilitation Office of Canada, which offer support to businesses of various sizes that wish to expand their links with least developed country partners. Even so, there is little investment from Canadian companies on the continent of Africa outside of the mining sector.

Moving forward, an economic plan should be implemented that prioritizes a more active role for Canadian trade and investment within Africa. Canada can differentiate itself through its emphasis on sustainability, innovation and a commitment to mutual benefits. Canada has the capacity, expertise and knowledge to be a leader in the engagement of economic relationships with emerging markets in Africa and beyond.

### **China and the European Union: Existing Economic Relationships with Africa**

In order to adequately formulate a strategy and direction for Canada, the activities of China and the European Union need to be considered. The continent of Africa, in particular the sub-Saharan region, has been one of the largest recipients of official development assistance as well as aid from other non-OECD countries. China's growing presence in Sub-Saharan Africa has garnered increasing attention from academics, policy makers and the media. Much of the scholarly work concerning this deepening relationship sees the Chinese state as perpetrators of neocolonialism (Balasubramanyam 2015; Hadland 2012; Sharma 2013; Okolo and Akwu 2016) and participants of the "new scramble" for African resources (Burgess and Beilstein 2013; Klare and Volman 2006; Ofodile 2008). In addition, concerns of corporate social responsibility (CSR)

have been a substantial criticism of Chinese engagement, specifically pertaining to natural resources and African employment (Cheng and Liang 2011). Despite this discourse, African governments have valued Chinese investment and its willingness to engage with African states without imposing conditions on their investments. China's rapidly growing economy and urbanizing landscape, coupled with a lack of natural resources of its own, has made its relationship with African countries more important than ever.

The region has also proven to be of great value to the European Union, as evident by the establishment of the Cotonou Agreement in 2000 (Hinkle and Schiff 2004) and its engagement with various regional economic agreements. Cameroon (Central Africa), Mauritius, Seychelles, Zimbabwe and Madagascar (Eastern and Southern Africa) have signed an interim economic partnership agreement with the European Union in 2009 (European Commission 2016). Moreover, the European Union is Sub-Saharan Africa's largest trading partner, with annual exports to West Africa worth approximately €31 billion (CDN\$45.5 billion) (Hinkle and Schiff 2004).

Both China and the European Union have established strong relations with countries across the continent, highlighting the changing landscape of trade and development assistance in Africa. China's objectives in securing natural resources for its own development are apparent, but do not necessarily drive its interactions with all African countries. For example, Senegal has limited natural resources, but has experienced a growing influx of capital from China. The volume of economic exchange between Senegal and China has grown from US\$23 million in 1994 to US\$441 million in 2009 (Gehrold and Tietze 2011). Foreign direct investment (FDI) grew from 2.62 percent of China's total FDI in 2003 to 9.82 percent in 2008 (*ibid.*). The newly established diplomatic ties between the two countries, combined with the lack of abundant natural resources within Senegal, illustrates the willingness of China to engage within the continent even if resource benefits are not explicitly observed.

China has also provided an alternative channel for development assistance without imposing the same conditionalities as Global North countries (Lee 2006). This is best represented by Angola ending negotiations with the International Monetary Fund as a result of a US\$2 billion soft loan package financed by China (Woods

2008). Nigeria has further been a source of increased focus from China. FDI inflows to Nigeria increased tenfold from US\$0.55 million in 1999 to US\$5.5 million in 2006 (Oyeranti et al. 2010). The oil and gas sector alone has received 75 percent of China's FDI inflow (Izuchukwu and Ofori 2014).

The European Union has also shown its interest in West Africa with the establishment of an economic partnership agreement (EPA) with ECOWAS that concluded in 2014 after 10 years of negotiations (European Commission 2015). This partnership was created with the intention of using trade to boost economic development in West Africa, improve opportunities for trade in goods, enhance aid for trade and support regional integration (ibid.). It is currently the only economic partnership agreement between ECOWAS and any other non-African state or organization. The only other agreement similar to this EPA is the Cotonou Agreement. As such, there is room for Sub-Saharan African countries to further engage with the international community and Canada could be an ideal partner.

### Trends in Trade and Investment

The overarching trends in global trade and investment are important to consider regarding prospective policy options for Canada's economic growth and financial security. The share of North-North trade has weakened and is expected to account for less than half of global trade within the next decade (Euler Hermes 2013). There has been an intensification of North-South trade, but none of Canada's current top 10 trading partners are from the continent of Africa. In fact, less than one percent of Canada's exports go to Africa, while Canadian imports from Africa are about three percent of its total, according to Industry Canada (Medhora and Samy 2013). Finally, South-South trade is strongly intensifying and has grown by an average of 19 percent over the past decade (World Bank 2013). Similar trends exist for investment, with South-South FDI dramatically increasing due to Chinese and Indian involvement in African resource extraction as well as other sectors such as infrastructure and telecommunications.

FDI inflows to Sub-Saharan Africa have increased from US\$1.2 billion in 1990 to US\$40.9 billion in 2011, as exports of goods and services as a percentage of GDP have increased by seven percentage points during this same period (Medhora and Samy 2013). Despite such improvements, Africa's total share of world trade and FDI

still remains very small, even with intra-regional trade increasing. Canada's FDI to Africa is only approximately 0.5 percent of the total stock of investments abroad (ibid.). Furthermore, when compared to other developing regions in the world, FDI in Africa remains highly concentrated in the mining and extractive industries. Its impact on development has been problematic in that it does not lead to significant job creation, export diversification or technology transfer (ibid.). Opportunities exist for the Canadian government to become more proactive and engage with the African private sector through trade and investment relationships beyond mining.

The *Economist* did a study in 2015 and found that global FDI to Africa was approximately US\$55 billion, with approximately \$US33 billion of the inflows of capital focused on resource-rich countries. However, the amount of investment in technology, retail and business services has also increased by 17 percent between 2007 and 2013 (*The Economist* 2015). Therefore, there is room to diversify and invest in both resource-rich as well as less resource-rich economies."

Given these trends, there is substantial opportunity for the diversification of Canadian financial activity to new and emerging markets. Traditionally, Canada has seen Africa primarily as a destination for aid. However, in the same way Canada is currently negotiating trade and investment agreements with the European Union, the same could be done with ECOWAS and other regional groups.

### Factors for Consideration

Canadian actors should go into Africa with an understanding of the region's challenges and plans to address them. Global Affairs Canada should take the lead in preparing Canadian traders and investors for these possible externalities and ensure robust and appropriate regulatory structures are in place. This can be done by taking the following aspects into consideration:

- Weak institutions and corruption in Africa: the wave of democratization from the mid-1980s has profoundly transformed the African continent in the last three decades. According to Freedom House (2016), almost 60 percent of countries in Sub-Saharan Africa are now classified as "free" or "partly free" (Medhora and Samy 2013). The number of civil wars has declined by half of what existed in the early 1990s (ibid). However, Africa has historically had

weak governance institutions and a system riddled with corruption. Strengthening Africa’s institutional capacity remains a challenge, but partnerships with the United Nations, NGOs and national anti-corruption agencies can help mitigate this issue.

- Africa’s physical and financial security: many countries in Sub-Saharan Africa are engaged in domestic conflicts and in some cases are home to rebel insurgent groups. Canadian investors need to be confident that they will see returns on their investments. The proximity of current conflicts and areas under the control of insurgency groups affecting trade and investment need to be considered. In the case of Nigeria, the country has been able to prosper despite the presence of Boko Haram, which operates

in the northern region of the country several miles away from Abuja and Lagos. Similarly, the financial security of receiving countries is an important determinant of trade and investment strategies. Partnership agreements should be established with countries that have received an investment grade rating from a reliable credit rating agency. Figure 1 shows the credit ratings for 21 African countries in 2013, the majority receiving a stable outlook from various agencies. Furthermore, delegations of Canadian business people and investors can be brought to future areas of investment to help reduce fears.

- Other actors engaging within the region: the economic activities of other international players (such

**Figure 1: Credit Rating by Country and Agency**

Country	S&P Rating	S&P Outlook	Moody’s rating	Moody’s Outlook	Fitch Rating	Fitch Outlook
Egypt	B-	NEG	B3	RUR	B	NEG
Cameroon	B	STA			B	STA
Rwanda	B	STA			B	STA
Mozambique	B+	STA			B	POS
Uganda	B+	NEG			B	STA
Seychelles					B	POS
Ghana	B	STA	B1	STA	B+	NEG
Kenya	B+	STA	B1	STA	B+	STA
Zambia	B+	STA	B1	STA	B+	NEG
Cape Verde	B+	STA			B+	STA
Angola	BB-	STA	Ba3	POS	BB-	POS
Nigeria	BB-	STA	Ba3	STA	BB-	STA
Gabon	BB-	NEG			BB-	STA
South Africa	BBB	NEG	Baa1	NEG	BBB	STA
Botswana	A-	STA	A2	STA		
Papua New Guinea	B+	STA	B1	STA		
Senegal	B+	NEG	B1	STA		
Mauritius			Baa1	STA		
Namibia			Baa3	STA		
Benin	B	NEG				
Burkina Faso	B	STA				

NEG = negative, POS = positive, STA = stable, RUR = rating under review

Source: Authors. Based on data from *The Guardian* (2013).

as China and the European Union) are important to assess before adopting policy strategies. It is also important to consider concerns of CSR by other countries. Canada can successfully differentiate itself from other actors by engaging in strong social protection policies including CSR.

- Canada's priority markets: seven of the 14 countries identified by Global Affairs Canada as priority markets in Africa are part of ECOWAS — Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali, Nigeria and Senegal (Global Affairs Canada: "Priority Markets" 2015). Engaging with this regional group would therefore coincide with the existing goals of the Canadian government. Priority markets are selected by criteria such as prospective regional trading blocs and free trade agreement partners, core hubs in global value chains, and potential sources of capital, technology and talent (ibid.).

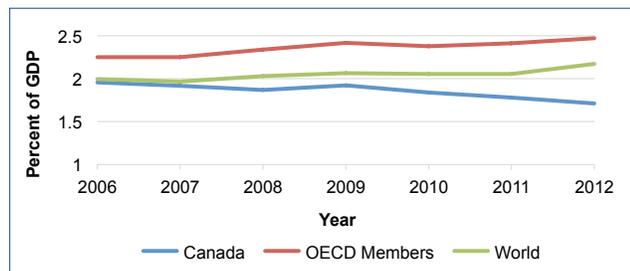
## Policy Recommendations

**Canada should negotiate EPAs with regional organizations.** It is important that Canada work to establish economic partnership agreements with ECOWAS and other regional organizations, as the development of economic agreements is often a lengthy process, and additionally there are actors already active in the region. In order to differentiate itself from China and other trading partners it is recommended that Canada assist in public consultations and discourage environmental degradation, while including clauses that promote civil society engagement and CSR. By incorporating these components, Canada will support greater regional integration in addition to facilitating trade and investment, which are objectives in line with the ECOWAS mandate. Global Affairs Canada should establish an agreement that calls for the liberalization of 75 percent of trade over 25 years for West African countries. This length of time, longer than what the European Union proposed (Bagooro 2014), will not only provide ECOWAS countries a better opportunity to grow while protecting domestic markets, but will also allow Canada to be in a position of favourable trade at a time when the region is said to be most profitable. It is strongly recommended that Canada target the service industry as West African trade in services is expanding, covering transportation and logistics, travel, and business services.

**Draft FIPAs with African countries.** Over the last several years, Canada has signed several FIPAs with African countries. This trend should continue, specifically with the six remaining countries of ECOWAS and other economies that have gone through sustained growth and offer prospective investment opportunities.

**Partner with private and charitable Canadian organizations to invest in human capital.** The Liberal Government has recently partnered with Digital Opportunity Trust and committed CDN\$15 million over four years to assist young women and men in Africa develop job and entrepreneurial skills, including the use of technology (Government of Canada 2015). Similar partnerships should be pursued by Global Affairs Canada to ensure that beyond commercial interests, the increase in human capital is an important component of Canadian foreign policy.

**Pursue targeted allocation in research and development (R&D).** Expenditure in R&D are key indicators of government and private sector efforts to promote science and technology and to create goods and services that will be attractive to international markets (Government of Canada 2013). In 2012, Canada's gross domestic expenditure on R&D as a percentage of GDP was 1.7 percent, while the United States spent 2.8 percent (World Bank 2013). As Figure 2 illustrates, Canada is not only below OECD and world averages, but has a declining trend in R&D investment (ibid.). This must be reversed, as R&D will continue to be an important component of the knowledge-based economy. Increasing investments in R&D by Global Affairs Canada is also important to ensure that Canada continues to produce technologically innovative products and services to export to other countries, while facilitating an innovative domestic economy that other countries will seek to invest in. Programs that could be recipients of this targeted expenditure are the Canadian International Innovation Program, Global Opportunities for Associations and Going Global-Innovation for Researchers (Global Affairs Canada 2016).

**Figure 2: Research and Development Expenditure (% of GDP)**

Source: Authors. Based on data from the World Bank (2013).

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# Is Global Energy Governance Ready for the BRICS?

Anastasia Ufimtseva

## Global Energy Governance

Global energy governance (GEG) was designed by states to regulate energy-related issues at a global scale through cooperation and coordination within international organizations (IOs). These IOs were established to enable joint governance of the global commons as globalization altered unilateral governance of the global issues impossible. GEG is formed by a web of multiple IOs that vary on the basis of size and mandate. While there are multiple IOs addressing energy problems, there is no unilateral “World Energy Organization” with a coordinated approach to energy problems (van de Graaf 2013, 5). In an absence of a global agency, existence of multiple IOs may be problematic as it may generate institutional fragmentation that may produce competitive and counterproductive governance arrangements (Lesage, van de Graaf and Westphal 2010). Considering that states created IOs to promote cooperation and coordination, institutional fragmentation may run counter to their interests. Furthermore, the majority of GEG organizations emerged during particular periods in history and were designed to regulate specific problems at a specific time. When these organizations were created, their designers, often advanced industrialized economies, ensured that these organizations would promote the designers’ interests at the expense of other actors in the system. Given that these IOs are dominated by the specific countries and are designed to further their interests, they may not be responsive to BRICS’ (Brazil, Russia, India, China and South Africa’s) demands, as BRICS are underrepresented in several organizations.

The system of global governance is not static and evolves with the rise of new actors and powers that are willing to challenge the dominant structures. A shift in the economic and political power from the advanced industrialized economies to the emerging ones has arguably altered structures of some IOs in a manner that reflects the new distribution of power. For example, voting structures were reformed in the global financial governance organizations, such as the International Monetary Fund (IMF) and the World Bank. In the GEG, change will depend on the size and the mandate of the IOs. Universal organizations with broad (i.e., energy part of the larger plans) and specific (i.e., focused solely on energy) energy mandates will not feel pressured to alter their governance arrangements to respond to BRICS’ interests, as BRICS are well represented in these organizations.

To illustrate, the BRICS are present in universal organizations with the broad energy mandate, such as UN agencies, and those with the specific mandate, such as the International Energy Forum. Since BRICS are well integrated within these organizations they have little incentive to pressure for reform. However, change is more likely to occur in the IOs that have energy-specific mandates and not those that have universal membership. Thus, the IOs that will be most impacted by the changes in the GEG will be the energy clubs, such as the Organization of Petroleum Exporters and the International Energy Agency (IEA). These clubs are exclusive and do not represent the interests of the BRICS members as the latter are not members of either of these two organizations (see Table 1).

**Table 1: Key GEG Organizations, the Role Played by the BRICS Countries, and Their Mandate**

International Organization	Mandate	Membership / BRICS	Energy Mandate (year founded)
United Nations International Atomic Energy Agency (IAEA)	Specific	Multilateral / all BRICS	Promotes peaceful use of nuclear energy (1957)
United Nations Framework Convention on Climate Change (UNFCCC)	Specific	Multilateral / all BRICS	Strives to “stabilize greenhouse gas concentrations” to prevent climate change (1994)
World Bank	Comprehensive	Multilateral / all BRICS	Provides lending to the energy projects, develops initiatives to support sustainable energy development, and monitors energy projects (1944)
International Energy Forum (IEF)	Specific	Multilateral	Forum that facilitates global meeting of the energy ministers (1991)
International Renewable Agency (IRENA)	Specific	Multilateral / Brazil absent	Promotes adoption and sustainable use of the renewable agency (2009)
Group of Eight (G8) + Outreach Five (O5)	Comprehensive	Plurilateral / G8 – only Russia present (suspended in 2014) / O5 – all except Russia	Intergovernmental political forum that addresses pressing energy issues during periods of energy instability (1975)
Group of Twenty (G20)	Comprehensive	Plurilateral / all BRICS	Intergovernmental political forum that addresses pressing energy issues during periods of energy instability (1999)
Nuclear Energy Agency (NEA)	Specific	Plurilateral / only Russia present	The mandate of this organization is to cooperatively, promote safe development of nuclear energy (1958)
Organization of the Petroleum Exporting Countries (OPEC)	Specific	Plurilateral / None	Plurilateral energy club that oversees the interests of the oil producing countries, including price and demand stability (1960)
International Energy Agency (IEA)	Specific	Plurilateral / none (but in 2015 China has gained Association Status), IEA tries to build close relations with all BRICS	Plurilateral energy club of oil consuming countries established in response to OPEC and OAPEC to coordinate interests of energy importing countries, including price and supply stability (1974)
Gas Exporting Countries Forum (GECF)	Specific	Only Russia	The forum is designed to promote cooperation among producers and consumers, to provide learning, and to create a stable and transparent energy market (2001)

Sources: International organizations websites: Lesage, van de Graaf, and Westphal 2010.

In the majority of these organizations collaboration problems lead to rivalry among and within the clubs; yet there is a potential to reach a commonality of interests. Canadian diplomats may play a key role in promoting cooperation in the universal organizations, which can facilitate cooperation among the individual clubs. Climate change is one issue-area in GEG that may prompt countries to seek closer collaboration among existing GEG organizations and new BRICS-led IOs, like the New Development Bank.

## BRICS and Alternative Institutions to Govern Energy

States are prone to create novel governance arrangements and institutions when the existing governance framework ceases to meet their needs. In this case, the exclusive nature of the plurilateral organizations may provide an impetus to create novel organizations and arrangements for the states that are excluded from the decision making in the existing organizations. Thus, BRICS may create an independent organization to oversee energy governance and to meet their demands. In the past, BRICS countries have worked together to create alternative governance structures, designed to counterbalance a Western-dominated governance framework (Lesage, van de Graaf and Westphal 2010, 81). BRICS members have created parallel governance organizations. The BRICS forum is in itself an alternative to the Group of Seven/Group of Eight fora (Heilmann, Huotari and Buckow 2014). Other examples include the BRICS' New Development Bank (NDB), which mirrors the World Bank, and the BRICS Contingent Reserve Arrangement, which mirrors the IMF. It is quite possible that these five countries are ready to alter the "rules of the game" that do not fit their agenda in the energy sector (Lesage, van de Graaf and Westphal 2010, 26-27; Goldthau and Witte 2010; van de Graaf 2008). This may produce competitive tendencies in global governance.

As BRICS' economic and political power grows, their role in the global governance is projected to expand and will be greatest when the countries act as a group (Kornegay and Bohler-Muller 2009). The BRICS grouping "represents the power shift in international politics...a propellant of reform, a platform from which emerging countries can express a coordinated voice on global governance" (ibid., 44). In the energy sector, a BRICS forum can become a strong force advocating for change. BRICS

member countries are currently among the largest energy consumers and producers that are an essential part of any global, coordinated and cooperative management of the energy sector given that the BRICS are the largest producers and consumers of energy. Scholars analyzing BRICS current behaviour propose that cooperation among these countries has targeted the existing structures set up by the advanced industrialized states to coordinate energy matters (van de Graaf 2008, 41). While there have been some changes in the structure of the GEG, they have been relatively minor, such as the IEA's effort to forge closer relationships with India and China. It is plausible that advanced industrialized economies may be reluctant to change existing governance structures that protect their interests and thus may be more interested in maintaining a status quo within the existing IOs (Lesage and van de Graaf 2015; Talus 2014). If the key energy governing organizations remain exclusive and inaccessible to the BRICS countries, they may lose their relevance and authority (Talus 2014).

Multiple BRICS-led organizations have emerged since the mid-2000s, suggesting BRICS are active in institutional development. In the energy sector, BRICS countries have begun to acknowledge that the existing GEG organizations are incomplete, fragmented and should be reformed. In their official meetings, starting with the Yekaterinburg BRIC summit in 2009, energy governance became one of the central issues discussed at the BRICS' forum. During this summit, BRICS agreed to promote cooperation and coordination in the energy sector in order to promote "stability and sustainability" through diversification, energy security, energy efficiency and investment in energy infrastructure (BRICS Information Centre 2009, clause 8, 9). In 2010, the BRIC meeting focused on energy efficiency and on sustainable energy development (BRICS Information Centre 2010, clause 19, 20). BRICS member countries sought cooperation in the areas of "training, research and development, consultancy services and technology transfer" (ibid., clause 21). In 2011, BRICS stressed the need for cooperative promotion of the renewable energy to battle climate change and declared their support for nuclear energy as an alternative energy source (BRICS Information Centre 2011, clause 18, 19). During these meetings, BRICS identified mutual interests and areas for future collaboration.

In a subsequent New Delhi summit in 2012, BRICS reaffirmed their commitment to the renewable technology

### Box 1: Definitions

An SOE: “any corporate entity recognised by national law as an enterprise, and in which the state exercises ownership, should be considered as an SOE” (Organisation for Economic Co-operation and Development 2005).

An SWF: “a state-owned investment fund or entity that is commonly established from balance of payments surpluses, official foreign currency operations, the proceeds of privatizations, governmental transfer payments, fiscal surpluses, and/or receipts resulting from resource exports.” SOEs, foreign exchange reserve accounts in central banks and traditional government-employee pension funds do not fall under this category (Sovereign Wealth Fund Institute 2016; see Figure 3).

An SPF: “entities that acquire patents from third parties to achieve a variety of national economic benefits, ranging from direct monetization through licensing or litigation to defensive strategies that protect vulnerable sectors” (Clarke 2014).

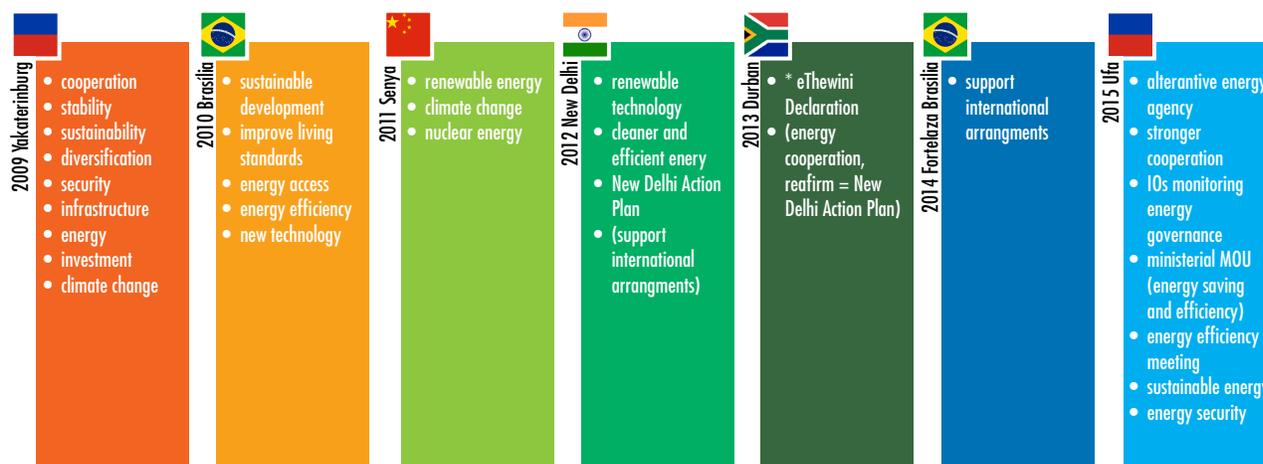
and declared their support for cleaner and more efficient energy sources (BRICS Information Centre 2012, clause 39). A first progressive BRICS agreement on the multi-lateral energy cooperation, a Delhi Action Plan, was one of the progressive outcomes of this meeting. The plan stipulates that energy will be one of the new areas for inter-BRICS cooperation (ibid.). This plan was reaffirmed at the 2013 Durban summit under the eThekweni Declaration. In a subsequent summit in 2014 a limited progress on energy issues emerged. During this summit, the BRICS reaffirmed their interest to support existing institutional arrangements governing energy issues (BRICS Information Centre 2014, clause 53). The most progressive shift in inter-BRICS energy collaboration was formulated in the latest summit in Ufa in 2015. In the Ufa Declaration, the BRICS expressed their interest in creating an alternative framework for a stronger “intra-BRICS” cooperation in the energy sector (BRICS Information Centre 2015, clause 69). The BRICS called for the development of “relevant agencies to consider the possibilities of energy cooperation within BRICS” and highlighted the need for “monitoring global trends in the energy sector” (ibid.; see Figure 1).

Starting in 2015, BRICS representatives became more proactive in the energy sphere of governance. BRICS energy ministers held their first official meeting on November 20, 2015. During this meeting the ministers signed a Memorandum of Mutual Understanding in Energy Saving and Energy Efficiency and created a working group to support energy sustainability and security. For example, the NDB is currently supporting sustainable energy by providing funding for the projects that develop energy infrastructure in BRICS countries.

Thus, emerging powers are rapidly developing competitive governance arrangements that may challenge the role of established powers such as Canada.

## Promoting Sustainable Development of the Energy Sector through BRICS

The NDB is one of the key mechanisms that supports energy goals of the BRICS countries, and it is an important source of funding for renewable energy projects. The bank extended US\$811 million in loans to India, Brazil, China and South Africa to support their renewable energy capacity. The bank provided US\$300 million to the Brazil's Banco Nacional de Desenvolvimento Economico e Social to support renewable energy projects. Another US\$81 million was provided to Shanghai Lingang Hongbo New Energy Development Co. to promote rooftop solar panel projects. India was given US\$250 million to provide funds for the projects designed to boost its renewable energy capacity. Lastly, South African electrical utility company, Eskom, was given US\$180 million to alleviate energy poverty and to promote renewable electricity projects. Thus, the NDB is one of the key institutions through which these countries are able to attain their energy goals. It provides an alternative governance mechanism that sidesteps Western-dominated governance institutions and promises non-conditional relations that promote interests of the BRICS countries. Non-conditionality stands in contrast with the traditional conditionality attached to similar projects by the World Bank and the IMF. While conditionality is often tied to arguments about social license to operate, governments of

**Figure 1: BRICS Perspective on Energy Issues**

Source: Author. Based on BRIC and BRICS Summit Reports.

the developing countries are choosing non-conditional ties offered by the BRICS.

## Current GEG Institutional Landscape and Canada's Role

The current GEG institutional landscape remains fragmented and overlapped with multiple IOs seeking similar goals, but speaking past each other. A change in IOs is dependent on particular trends in each historic period. Thus, the rise of BRICS-led IOs is a response to the new trends and problems in GEG. These changes place pressure on universal organizations to adapt to the new conditions and resolve novel problems. If these universal bodies are unable to absorb global shocks, they create an incentive for the formation of new plurilateral clubs designed to steer GEG in a desired direction. These strategies signal the viability of institutional innovation during the periods of crisis. Such innovation may be beneficial if all key actors are included; however, when innovation leads to an emergence of exclusive IOs it may increase uncertainty in the future GEG arrangements.

Advanced industrialized economies, such as Canada, should promote institutional convergence and collaboration instead of following a status quo that maintains inefficient institutional arrangements unable to address current problems. Inter-institutional collaboration will be essential if states seek to mitigate climate change. Renewable energy and energy efficiency programs may serve as the cornerstones for collaboration

across the existing and emerging IOs. Canada can attain competitiveness in the twenty-first century by promoting its competitive energy markets and facilitating collaboration across GEG IOs. Now is the appropriate time to act on climate change, as the Paris Agreement was recently concluded and the BRICS are seeking to form organizations that promote renewable energy.

Canada may play a prominent role in supporting GEG IO's efforts to combat climate change. This fits well with one of Canada's international priorities, which aims to "[e]nhance Canada's leadership on clean energy and international efforts to combat climate change and mitigate its impact on most vulnerable" (Global Affairs Canada 2016). Along with the other advanced industrialized countries, Canada is committed to provide monetary support to developing countries' efforts to tackle climate change. For example, Canada can increase its leadership in the sphere of renewable energy through collaboration with a variety of agencies, such as the NDB. The exclusive nature of the plurilateral clubs may act as a constraint to Canadian efforts to participate in the BRICS bodies and to affect policy decisions. Yet, ties should be forged to ensure constructive engagement across energy institutions and to cement Canadian leadership on the energy issues. There is an opportunity for future collaboration among the BRICS energy organizations and Canadian energy players, including public and private stakeholders.

## Policy Recommendations

**Global energy fora should pursue consultative and cooperative initiatives in the energy sector to ensure that the emerging powers are not alienated by the existing GEG system.** As the experience of the global financial governance shows, membership in an IO should reflect increasing power of the emerging economies. IEA and other organizations should continue to pursue reforms of their membership structures, or devise alternative mechanisms to redistribute power in the negotiations to ensure they remain representative of the global power dynamics and, thus, legitimate. Therefore, the existing GEG organizations that have not incorporated BRICS have to reform their institutional structures to allow for greater representation of the emerging economies. These reforms will promote cooperation and assist with energy-related knowledge dissemination.

**Canada and other established powers should maintain close relations with the BRICS countries on the matters of energy governance.** As an energy producer, Canada should monitor novel developments in the institutional landscape governing global energy markets. If “diffusion of energy [international governmental organizations] is a function of competition over the oil and gas market,” then Canada should monitor BRICS proposals for the development of a new energy governance organization (Baccini, Lenzi and Thurner 2013, 7). If BRICS are successful in forming a joint agency, Canada will have to face costs associated with being excluded from decision making in this new governance body. Leonardo Baccini, Veronica Lenzi and Paul W. Thurner (2013) find that energy producers that are excluded from the organization are not able to influence energy policy, and have little impact over pricing and quota decisions. Canada needs to develop a cooperative strategy to ensure that the BRICS energy organization will incorporate Canadian interests in the energy sector.

**Canada and other advanced industrialized countries will benefit from forging partnerships with the BRICS nations in the areas of clean energy and energy efficiency.** As a leading nation in green and alternative energy, Canada is in a good position to share its technology with the BRICS nations to promote the agenda agreed upon during the UN Climate Change Conference in Paris. Cooperation in this area is essential for addressing climate change. Canadian business must forge economic

partnership with the BRICS countries in order to remain competitive and to benefit from the innovation that is funded by the NDB. This recommendation fits well with the Global Affairs Canada’s (2016) priorities to “contribute to inclusive Canadian and global prosperity with an emphasis on expanding and deepening trade and investment relations with large, fast-growing markets.” Thus, the government should strive to foster stronger relations with the BRICS businesses operating in the energy sector.

**Canadian financial and developmental agencies should establish closer relations with the NDB, which is expected to support future infrastructure and energy projects in the BRICS countries.** The NDB is a lynchpin of the renewable energy strategy adopted by the BRICS and will play a key role in facilitating future energy projects in BRICS countries. Canadian integration within this institution will provide Canada with a voice in resource management and in the coordination of the projects.

## Acknowledgements

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## About the Author

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# Understanding State Capitalism in the Global Economy

Vic Li and Anton Malkin

## Issue

State capitalism is emerging as a distinct but overlapping economic policy paradigm to market liberalism (Anglo-American capitalism), but is not yet well understood by researchers or policy makers. Early research insights indicate that it has implications for Canadian businesses operating abroad, and for Canadian regulators overseeing large-scale purchases of Canadian natural resource assets, intellectual property and financial assets. It is recommended that Global Affairs Canada reconsider the benefits of free trade and dedicate capacity to provide better support for Canadian exporters and Canadian businesses abroad in navigating regulatory requirements and improving competitiveness.

## Key Preliminary Findings

State capitalist policies are those that pursue strategic or geopolitical goals through which the state becomes a dominant market player. It is distinct from, but overlaps with, Anglo-American capitalism, and has important implications for the future of global trade, investment and finance. State capitalism manifests in four ways:

- the rise in importance of state-owned enterprises (SOEs) in global trade and natural resource extraction;
- the rise of sovereign wealth funds (SWFs) in domestic economic management and in global capital markets;

- the rise of Sovereign Patent Funds (SPFs) and other means of supporting innovation and protecting intellectual property that originates within a country's borders; and
- the close linkages between government and private business.

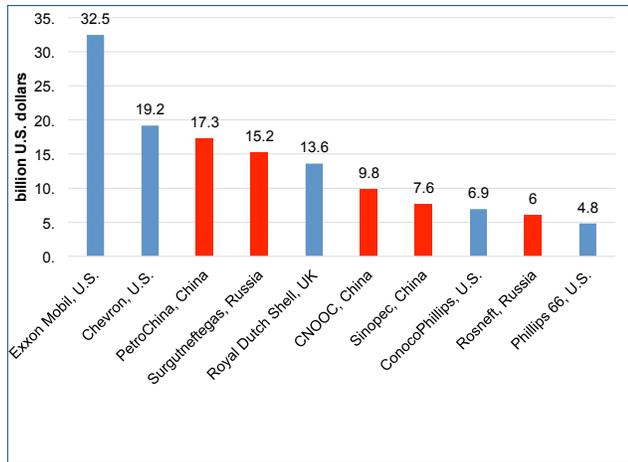
### Box 1: Definitions

An SOE: “any corporate entity recognised by national law as an enterprise, and in which the state exercises ownership, should be considered as an SOE” (Organisation for Economic Co-operation and Development 2005).

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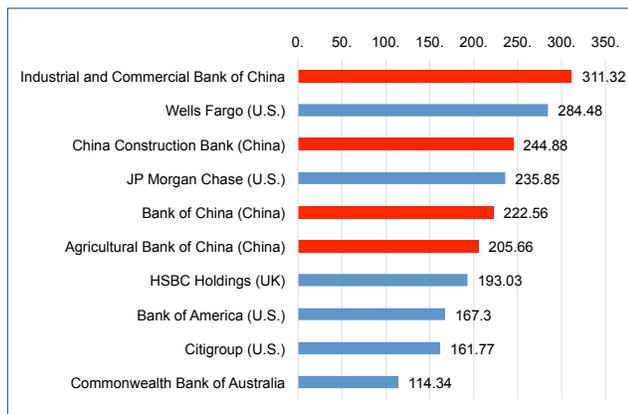
An SPF: “entities that acquire patents from third parties to achieve a variety of national economic benefits, ranging from direct monetization through licensing or litigation to defensive strategies that protect vulnerable sectors” (Clarke 2014).

**Figure 1: Global Ranking of Oil and Gas Companies (based on 2015 net income data)**



Data source: Statista.com (2016).

**Figure 2: Leading Banks Globally by Market Capitalization, as of April 2015 (in US\$ billions)**



Data source: Statista.com (2016).

The importance of SOEs in the global economy is due largely to their internationalization: they have always been present in the global economy, but are increasingly *sophisticated* and *globalized* market participants. Efficiency and profitability of SOEs is growing, and increasingly catching up to that of private enterprise. While we typically associate state capitalist economies with post-communist transition economies such as Russia and China (Figures 1 and 2 illustrate why the spotlight is often on these two countries), the practice of state capitalism is more varied than popular conceptions would suggest. It includes a variety of countries (such as Brazil and the Arab

**Box 2: SWFs — Attaining financial stability, managing resource revenues and increasing government revenues**

Despite their small number and (often) secretive operations, SWFs have grown significantly since the global financial crisis of 2008. Their assets under management are estimated by some sources (Sovereign Wealth Fund Institute 2014) to be nearly USD\$7 Trillion — double that of 2008 estimates. New SWFs are emerging, such as the Ireland Strategic Investment Fund, and others are in the planning stages, such as the recently proposed Hong Kong Future Fund. Even the most free-market-oriented national and subnational governments utilize SWFs.

Despite falling oil revenues (many SWF capital is drawn from national oil revenues), SWF assets under management continue to grow. SWFs can be found in many subnational jurisdictions, such as in the case of the Alberta Heritage Savings Trust Fund, and some countries (such as China; see Figure 3) have more than one national SWF.

Gulf monarchies), with different levels of state ownership, widely divergent political systems and economies at very different stages of socioeconomic development. What unites them is neither culture, nor political orientation (the practice cannot be classified as either left or right on the economic spectrum), but their governments’ direct involvement in their countries’ economies. In short, their governments seek to influence market outcomes through direct participation in the market.

SOEs are also increasingly competing with private enterprises domestically and investing actively abroad, giving policy makers additional options to manipulate market outcomes, even when their hands are ostensibly tied by free trade agreements (FTAs) and bilateral investment treaties.

At the same time, state capitalism is not a “threat” to market liberalism in the same way that Soviet Communism was. Many countries, including advanced industrialized, free-market-oriented economies, rely on various “state capitalist” practices. The most prominent

example is Singapore, where a small number of SOEs and the government’s SWF ensure the government’s consistent presence and influence in the economy, despite the country’s openness to trade, foreign direct investment (FDI) and financial capital. France, too can be considered an example of an advanced, industrialized economy with state capitalist practices. State capitalism is also a phenomenon with an ambiguous future: it is not clear if the practice is sustainable (note France’s persistent economic growth woes and Saudi Arabia’s recent move away from its economic model), but there is no clear sign that policy makers in many countries are giving up any time soon. China, Russia and Singapore remain committed practitioners, and countries such as Japan and South Korea are showing signs of rekindling the activist economic that they abandoned in the 1990s (see Box 3).

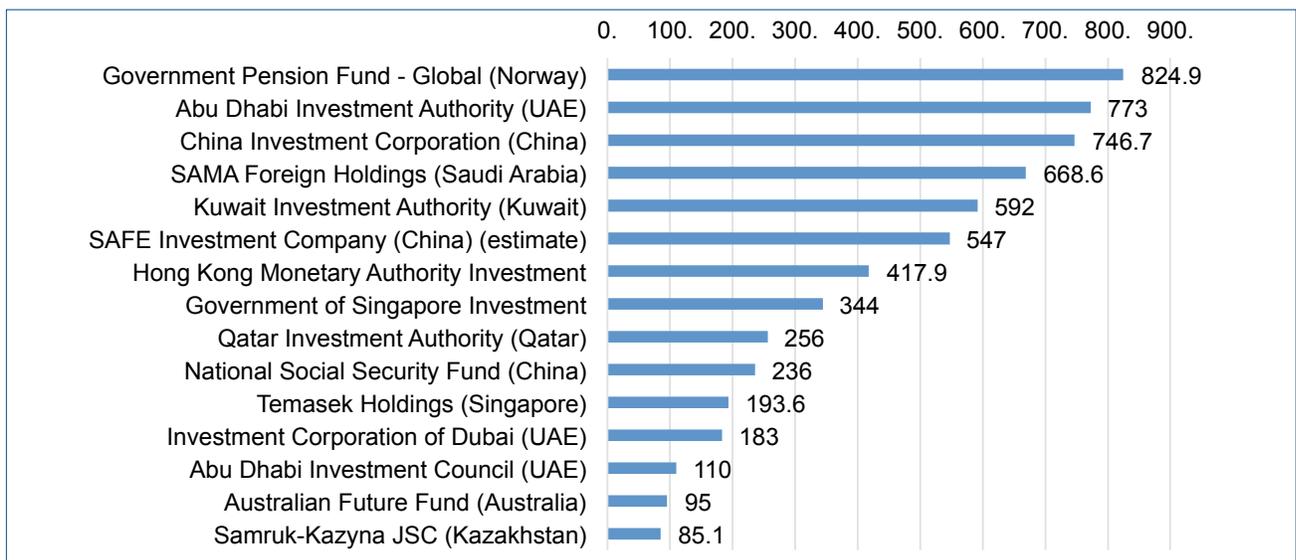
State capitalism also creates persistent and unresolved principal agency problems. For one, it is not clear whether return on investment and corporate revenues on the one hand, or political or geostrategic objectives on the other hand, are ultimately more important for the agents (SOEs, SWFs and SPFs) of state capitalism. For instance, if a Chinese SOE invests in the Canadian oil sands, is it driven by profit or political objectives? Contrary to popular belief, there is no clear empirical answer to this question. Moreover, state capitalist SOEs typically operate under an evolving but ambiguous corporate governance model.

**Box 3: SPFs for intellectual property**

In the wake of the Nortel bankruptcy and Blackberry’s decline in the smartphone market, policy makers have already become aware of the issue of the outflow of important, frequently public-funded, intellectual property assets. However, a number of questions remain. How does Canada define strategic IPR assets? Does it need an IPR strategy? What countries does it learn from if it wants to develop strategic IPR policy or to create an SPF of its own? A number of countries provide potential ways forward, including:

- Japan, IP Bridge: public-private partnership that buys patents from existing companies to subsidize access to intellectual property for Japanese firms
- France, France Brevets: partnership between the central government and the state-owned investment bank, with a focus on return on investment
- South Korea, Intellectual Discovery: public fund that aims to protect licensing rights of Korean IPR holders

**Figure 3: Leading Global SWFs by Assets under Management, as of January 11, 2016 (in US\$ billions)**



Data source: Statista.com (2016).

Specifically, how do policy makers reconcile executive board responsibility to private and public shareholders? Satisfactory answers to these questions have not been forthcoming — especially in the Chinese case.

State capitalism is not limited to state-owned enterprises: the government's share of output in the economy need not be high, and many governments committed to Anglo-American-style capitalism are experimenting with state capitalism. Hong Kong, for example, has an active SWF via the Hong Kong Monetary Authority that manages assets totalling more than US\$417 billion (see Figure 3). SPFs have also been set up by countries such as France and Japan to help private small- and medium-sized enterprises, multinational corporations and start-ups protect or acquire intellectual property right (IPR) assets. SOEs are also increasingly present on international stock exchanges, and are involved more in portfolio investments, corporate takeovers and other types of FDI. Chinese companies have raised billions of US dollars on the New York, London, Singapore (and, to a lesser extent, Toronto) stock exchanges. Despite incorporating in Anglo-American capitalist financial centres, the Chinese government maintains direct control over these firms — i.e., it remains a majority shareholder in these firms.

### Policy Implications

Globalization and free trade do not make markets politically neutral. In order for Canadian exporters to benefit from emerging trade opportunities (via the Trans-Pacific Partnership and other FTAs), Global Affairs Canada must build capacity to identify the ways in which state capitalist practices in other countries might put Canadian firms at a disadvantage on the global stage.

### Policy Recommendations

**Global Affairs Canada should reconsider the benefits from free trade.** It should educate the Canadian government on ways in which its target markets' governments' state capitalist practices might dampen the benefits of FTAs for Canadian exporters, and investigate whether or not this might be due to insufficient government support for Canadian business; however, it should not presume that a lack of state capitalism on Canada's part is necessarily the culprit.

**Canadian embassies should engage in political risk research.** Embassies can create an online portal that helps Canadian businesses understand how host governments' policies impact their competitive environment, and how government-business relations in host countries might put Canadian businesses at a competitive disadvantage.

**Global Affairs Canada should collaborate with Industry Canada within Innovation, Science and Economic Development Canada.** They should carefully examine SPFs and SWFs in advanced industrialized countries. A variety of countries, both rich and emerging, and on different sides of the state-market capitalism spectrum, are looking beyond traditional policy tools in directly managing economic diversification, intellectual property assets and financial stability. Should Canada do the same?

### Acknowledgements

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# Leveraging Partnerships, Improving Performance: Natural Resource Governance and the Social License to Operate

Aviva Silburt

## Introduction

Communities and stakeholders increasingly consider compliance with conventional government regulations and impact assessment processes to be insufficient as a means of meeting societal expectations regarding the governance of natural resource extraction (Knox 2010; Prno 2013). The “social license to operate” (SLO) concept has emerged as an additional requirement for companies to become and remain acceptable to communities and stakeholders, which has created a new role for companies in providing services and other benefits to the communities where they operate (Prno and Slocombe 2013). The current lack of regulation over this new area — both domestically and abroad — threatens to undermine national and foreign policy priorities related to sustainable development, peace and security. At the same time, these new roles and requirements create an opportunity for innovative partnerships between the private sector, governments and local communities.

It is recommended that Canada take leadership to advance international SLO standardization; strengthen standards for Canadian companies abroad; and cultivate partnerships with Canadian companies, foreign governments and local communities to ensure that private sector activities abroad align with Canadian foreign policy priorities.

## Background

### Legal versus Social License

Natural resource extraction around the world is conventionally governed by government-permitting processes (so-called “legal license”), while national (host-state) governments<sup>1</sup> grant permission to undertake development projects. These processes typically consider social, economic and environmental effects and other risks associated with proposed development activities. While almost all countries around the world have adopted such processes, the degree of enforcement, stringency, accessibility and effectiveness of these processes in mitigating adverse effects varies depending on the capacity and willingness of host-state governments (Morgan 2012).

In the late 1990s, Canadian mining company Placer Dome coined the term “social license to operate,” recognizing the need to address growing concerns among community and other stakeholders about the adverse impacts of resource extraction, inadequate benefits for local communities and the failure of host-state governments to mitigate such issues (Prno 2013). This phenomenon has been driven by advances in communications technology,

<sup>1</sup> In international contexts, it is necessary to distinguish between “home” and “host” state governments: “host-state” refers to the government in the jurisdiction where resource extraction takes place; “home-state” refers to the jurisdiction where a company is incorporated.

non-governmental organization activism and other developments have empowered stakeholders to demand greater benefits and participation in resource extraction activities, and have increased their capacity to pose real threats for companies through pressure tactics and protest activities (Boutilier 2014; Davis and Franks 2014; Hanna et al. 2016; Knox 2010). Companies increasingly recognize the risks and costs linked to community grievances and conflict, and are increasingly seeking to obtain and maintain ongoing community acceptance for their projects *in addition to and independent of legal government requirements* (author's emphasis added) (Prno and Slocombe 2013). SLO is now acknowledged by companies across industries.

### Defining the SLO

SLO is not an *actual* license. There is no universal definition for SLO or clear standards about what it involves (Hall et al. 2015). While the concept has been linked with sustainable development, corporate social responsibility (CSR), business and human rights, and the right to free, prior and informed consent (Knox 2010), the concept must be understood as distinct. A common element in discourse on SLO is community acceptance, which suggests that SLO is fundamentally about governance: creating and sustaining a meaningful relationship between a company and the community within which it operates, as well as accommodating and managing their specific demands and expectations at any given point in time. In this regard, SLO involves both procedural and substantive aspects. The first pertain to procedural fairness and the quality and quantity of interaction and information exchanged between a company and its stakeholders. Substantive elements pertain to the magnitude and distribution of adverse impacts, as well as positive benefits associated with a given project. The overall quality of SLO can be understood along a continuum from rejection to acceptance, approval and identification or co-ownership (Koivurova et al. 2015; Moffat and Zhang 2014; Boutilier and Thomson 2011). The lack of common understanding about the meaning and criteria surrounding SLO has generated disagreement and conflict among companies and stakeholders regarding whether or not SLO is in place (Bice 2014).

### Relevance for Governments

While many scholars and activists view the emergence of SLO as a positive development in resource governance because of its potential to empower communities and

ameliorate power imbalances between communities and companies in the context of resource development, its emergence presents a number of challenges for home- and host-state governments, three of which are outlined below.

First, the emergence of SLO reflects a failure on the part of host-state governments to properly mitigate the adverse impacts of development projects, equitably distribute the benefits, and adequately engage communities and other relevant stakeholders in decision making regarding development projects and their ongoing management. In Norway, for example, stakeholders consider SLO to be unnecessary because of the high regulatory standards in place. Compliance with the law is considered to be sufficient to meet societal expectations regarding resource development (Koivurova et al. 2015). In many developing countries, where citizens cannot count on the state to enforce environmental standards and where natural resource extractive activities are increasingly taking place, local communities have begun pressuring companies directly (Costanza 2016). The additional requirements of communities regarding resource development projects reflect the failure of host-state governments to provide an acceptable resource governance framework and/or operating environment vis-à-vis mitigating adverse effects, realizing positive benefits and engaging community stakeholders.

Second, SLO represents a gap in host-state governments' ability to determine the fate of development projects. SLO is about relationships between companies and stakeholders, and does not necessarily involve governments (either home- or host-state). While host-state governments have authority to issue *legal* licenses, the ultimate fate of a project is increasingly determined by stakeholders and their ability to force companies to meet their demands (Prno and Slocombe 2013).

The fact that SLO relationships do not involve governments means that government influence over their procedural and substantive content is limited. The manner by which SLO is negotiated and maintained is ad hoc, unpredictable, subject to different interpretations and depends on the capacity of stakeholders to organize themselves, articulate their concerns and interests, and demonstrate that they have real power to impact operations and should thus be taken seriously (Boutilier 2014; Wilson 2016). There is no guarantee that a particular outcome will emerge or remain in place, creating considerable challenges for communities, companies and governments.

While SLO potentially empowers communities with greater influence in resource development, scholars have raised concerns that communities are inadequately equipped to negotiate against large companies, are often taken advantage of, and their capacity to enforce SLO commitments and hold companies accountable is limited — even in best case scenarios, such as Impact and Benefit Agreements between Canadian Aboriginal communities and companies (Fidler and Hitch 2007). While most companies acknowledge and accept the additional requirements related to gaining and maintaining SLO, the additional time, money, effort and uncertainty involved in company-community SLO relationships have increased the difficulty of resource development activities (Davis and Franks 2014). In recent years, SLO-related challenges have ranked among the top challenges mining companies face (Deloitte 2015). Governments' absence from SLO relationships limits their ability to facilitate negotiations or help ensure a fair and equitable deal for communities.

Third, the absence of both home- and host-state governments from SLO relationships undermines their ability to manage other domestic and foreign policy priorities, such as maintaining a stable business operating environment, peace and security, and, ultimately, supporting (sustainable) economic development. The tactics used by stakeholders to draw attention to their concerns and pressure companies to address them are often highly disruptive and costly for all parties involved. Despite the fact that more and more companies are adopting CSR practices — and the fact that CSR practices themselves are, in general, progressively improving — the emergence of the SLO and increasing empowerment of communities has resulted in a six-fold increase in company-community conflict incidents reported in the media between 2002 and 2013 (Davis and Franks 2014; Hodge 2014; International Council on Mining and Metals 2015). Conflicts were motivated primarily by concerns and grievances related to environmental impacts and the distribution of economic benefits.

Incidents such as protests, road blocks and media attention affect the viability of the immediate project and send a signal to others. Such incidents influence other stakeholders' willingness to work with a particular company or their desire for a particular development project to proceed in their proximity (Lacey and Lamont 2013). Stakeholders also learn from the successes and failures of other protest strategies (Hanna et al. 2016).

Businesses, investors, banks, insurance providers and other economic actors increasingly regard conflict, instability, and other social and environmental risks as relevant risks in business planning and decision making (Davis and Franks 2014; Equator Principles 2014; Hall et al. 2015; International Finance Corporation 2015; Morgan 2012). SLO increases the exposure of national economies to social risks, undermining the stability and viability of the business operating environment within whole regions or for whole industries. Despite measures undertaken by governments both to encourage resource development domestically and to support companies in resource extraction abroad, their failure to address community concerns and SLO demands and their absence from SLO relationships limits their ability to mitigate these risks and maintain peace and security and a stable business environment (Kneen 2016; Moore 2015).

In addition, mounting evidence suggests that the benefits and services provided by companies may actually be undermining development outcomes. Poverty and vulnerability have increased on average, and communities have become increasingly dependent on the company for services and funding (Garvin et al. 2009; Lawson and Bentil 2014). Despite beliefs that natural resource extraction contributes to economic growth, they appear paradoxically to impede progress.

The operations of Canadian companies abroad have direct implications for Canadian foreign policy priorities. Mining, oil and gas are priority sectors, as articulated in the 2013 Global Markets Action Plan. Over half of global mining companies are headquartered in Canada (approximately 1,500), which operate in more than 100 countries around the world (Government of Canada 2014). A significant concentration of natural resource extraction activities by Canadian companies are located in Africa and Latin America, many of which are also recipients of Canadian development or humanitarian assistance, and are considered fragile and conflict-affected states. The increased prevalence of company conflict and vulnerability of communities undermine the effectiveness of Canadian international development assistance and efforts to promote peace and security.

The current voluntary approach to CSR and general lack of regulation of companies operating abroad has meant that a number of companies continue to disregard communities, and the efforts of companies that do engage in CSR fall

short of the measures necessary to address community concerns (Kneen 2016). The poor social and environmental performance of companies, and the complicity and/or lack of intervention of both home- and host-state governments, has contributed to an overall poor image that undermines future business opportunities for companies, whole industries and even whole countries (Davis and Franks 2014), which the Government of Canada has acknowledged regarding Canadian companies abroad (McCarthy 2014). The activities of companies may also impact other diplomatic and political interests (Mining Watch Canada 2013).

### Current Status

Countries around the world — the United States, the United Kingdom and the European Union — are increasingly adopting higher standards and stricter requirements for responsible corporate conduct, largely through requirements for transparency and reporting (Securities and Exchange Commission 2012; Government of the United Kingdom 2016; European Parliament 2014). China is also increasingly embracing CSR norms, driven largely by the central government, and is expected to introduce more stringent requirements (CSR Asia 2014). However, to date, no country has introduced explicit SLO legal or regulatory provisions for resource development activities either domestically or internationally.

Canadian companies are encouraged to adopt voluntary CSR practices; however, the Government of Canada has thus far been unwilling to regulate the activities of Canadian companies abroad (Bennett 2016; United Nations Human Rights Committee 2015). The government's involvement in the activities of companies abroad is limited to providing advice and services (for example, Trade Commissioners or the Office of the Extractive Sector CSR Counsellor), including informal conflict resolution (such as the National Contact Point for the Organisation for Economic Co-operation and Development Guidelines for Multinational Enterprises).

CSR standards for Canadian companies operating abroad have been articulated and enforced primarily by non-government entities, such as the Mining Association of Canada (membership is conditional on compliance with its Towards Sustainable Mining initiative), lending institutions (i.e., those that subscribe to the Equator Principles), or human rights organizations (such as Mining

Watch Canada and Amnesty International). Canadian courts can hear civil cases against Canadian corporations operating abroad, and a number of precedent-setting cases against Canadian corporations are currently before the courts (Bennett 2016; Carteri, Sandhu and Wisner 2015). The fragmented and inconsistently enforced framework undermines advantages for companies to voluntarily adopt CSR, and incentivizes non-compliance.

Recent developments suggest that the Government of Canada appears willing to take on a stronger enforcement role, with the introduction of legislative measures requiring extractive companies to report annually on payments over \$100,000 (Natural Resources Canada 2016), and the enhanced CSR Strategy's introduction of "consequences" (i.e., withdrawal of government support) for companies unwilling to participate in informal dispute resolution (Government of Canada 2014; McCarthy 2014). To date, no consequences have been imposed for poor CSR.

### Recommendations

In the context of emerging domestic and foreign policy SLO-related challenges, international trends toward greater government scrutiny over corporate activities, and the current review of Canada's international assistance policy framework, Canada has an opportunity to exercise leadership and create advantages for Canadian companies abroad by advancing international SLO standardization, strengthening standards for Canadian companies abroad, and cultivating partnerships with Canadian companies to achieve better alignment with Canadian foreign policy priorities. These measures deliver on 2015 Speech from the Throne and 2016 budget commitments to renew Canada's leadership on the world stage and restore Canada's reputation as an active and constructive member of the international community, support economic growth and improve the effectiveness of development, humanitarian, and peace and security programming. They also support Global Affairs Canada's international assistance priorities for sustainable economic growth, advancing democracy, ensuring security and stability, environmental sustainability and governance (Global Affairs Canada 2016).

**It is recommended that Canada take leadership to develop a common definition and international standards (including consequences) for obtaining and maintaining SLO and for the governance of natural resource extraction more broadly.** Given that there is

currently no universal definition for the SLO and that the unilateral imposition of new requirements would create a competitive disadvantage for Canadian companies, it is necessary to work toward global understanding and global standards. By taking leadership, Canada can shape these standards in ways that create advantages for Canadians. Given that governments around the world are adopting increasingly stringent CSR requirements, it is anticipated that there would be general receptivity to the idea. In undertaking such efforts, engagement with industry, Aboriginal peoples and local communities will be critical. Each of these partners have valuable knowledge and experience with respect to resource extraction challenges and best practices, which can inform the formulation of appropriate international standards as well as build legitimacy (see Working Group on Natural Resource Development 2015).

**It is recommended that Canada dedicate greater political will and resources to strengthen operating standards for Canadian companies abroad.** The limited uptake of services offered by the Extractive Sector CSR Counsellor and National Contact Point reflect their limited effectiveness in supporting responsible corporate conduct abroad, which is further undermined by the government's current approach of "unconditional" support for Canadian companies abroad. Dedicated political will and resources to monitor Canadian companies and create real consequences for non-compliance with the standards articulated in Canada's enhanced CSR Strategy could have a substantial contribution toward increasing compliance and strengthening the legitimacy of the standards. In doing so, such measures would also improve Canada's "brand" and support Canadian economic development as well as international humanitarian, development, and peace and security objectives.

**It is recommended that Canada dedicate greater attention toward fostering stronger partnerships with Canadian companies operating abroad in order to leverage and channel their investments to support sustainable development outcomes in strategic areas.** This approach is articulated in Canada's enhanced CSR Strategy. Partnerships with Canadian companies abroad could be strengthened in two ways. First, Global Affairs Canada could dedicate analysis to identify areas of overlap (geographical and strategic) between Canadian humanitarian and development assistance, and community investments of Canadian extractive companies abroad.

Second, the department could organize planning sessions that bring together development partners, Canadian companies, governments of host countries, local community and other stakeholders to plan and coordinate development activities to achieve better alignment, pool resources and realize greater sustainability in development outcomes.

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# Game-changing Technologies

Tyler Cesarone, Rupinder Mangat and Patrick Segsworth

## Background

Through rapid advancements in science and engineering, new and innovative technologies are increasingly challenging how human society is governed. Developments in space mining, quantum computing and algorithms, for example, will have tremendous implications on economic growth, human security and computational capabilities. In regard to space mining, vast quantities of resources in space — including hydrogen, oxygen and platinum group metals — will pave the future of economic growth on and off Earth. Quantum computing will greatly enhance computational power, with applications in robotics, encryption and information processing. Advancements in digitization will allow algorithms to perform tasks that would be impossible to do manually, with sample applications in surveillance, automated violence and extractive commercial activity.

While the benefits are clear, each technology poses significant ethical, security, political and legal challenges to those impacted by their development. Due to restrictions on national appropriation in space, extracting resources off Earth may ultimately be deemed illegal under current international legislation. Quantum computing may jeopardize personal security through advancements in quantum decryption capabilities. Algorithms present significant ethical concerns, as areas such as warfare and surveillance become increasingly autonomous of human decision making.

It is imperative, therefore, that the Canadian government establishes *flexible foresight* measures to predict and respond to the rapid rate of development for such game-

changing innovations. With technological progress gradually shifting toward non-state actors, the need for adaptable foresight becomes evermore pertinent. Consulting experts in private industry, academic institutions and non-governmental organizations will assist in the establishment of informed policy directives. In addition to consultations with non-governmental actors, cooperation across ministries and agencies within Canada will allow the complex implications raised by these technologies to be tackled more appropriately. A closer look at space mining, quantum computing and algorithms will reveal how game-changing technologies are influencing the future landscape of human societies.

## Space Mining

With respect to space mining, recent analyses suggest significant opportunities for economic growth in space. A five-hundred metre-wide near-Earth asteroid (of which there are more than eleven-thousand), for example, has been estimated to be worth as much as \$5.4 trillion dollars and contain more platinum than ever mined in human history (Hackett, 2015). In addition to platinum group metals, near limitless supplies of oxygen, hydrogen and other resources are found in space (Lee 2012). Through growing partnerships amongst private, academic and governmental actors, space mining is becoming less a product of science fiction and more within the realm of plausible reality. In April 2016, for example, the Canadian Space Agency awarded Deltion Innovations Ltd. of Sudbury, Ontario CDN\$700,000 to develop a multi-purpose device for mining asteroids and other celestial bodies (CBC 2016). In similar developments, an instrument engineered by the Canadian firm MacDonald

Dettwiler and Associates Ltd. will help NASA assess near-Earth asteroids for potential mining operations later this year (Byers 2016).

With the passage of national space legislation in the United States, space mining now has legal backing as well. In November 2015, the *Commercial Space Launch Competitiveness Act* was passed, guaranteeing any US citizen or multinational firm the right to claim ownership over material mined in space (US Congress 2015). Following the United States' lead, the Government of Luxembourg announced that it too will pass legislation granting its citizens similar rights to extract resources in space (Cookson 2016).

While the United States and Luxembourg pursue commercial interests off Earth, international legislation currently exists which prohibits the appropriation of material sourced in space. The *Outer Space Treaty* (OST) of 1967, for example, stipulates that “outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation or by any other means” (General Assembly 1966, 13). Although receiving less support than the OST, the *Agreement Governing the Activities of States on the Moon and Other Celestial Bodies* of 1979 (otherwise known as the ‘Moon Treaty’) reinforces the OST by stating that “neither the surface nor the subsurface of the moon, nor any part thereof or natural resources in place, shall become property of any State, international intergovernmental or non-governmental organization, national organization or non-governmental entity or any natural person.” (General Assembly 1979, 79). Thus, despite expanding domestic interest in space, space mining may in fact be illegal under current international law.

Although Canadian investment in space mining is growing, passing similar space legislation as the United States or Luxembourg may threaten the spirit of international cooperation in space. Instead of issuing domestic legislation of its own, Canada should focus on pushing for new international legislation to be drafted that better reflects humanity's growing capabilities and interests in space. Greater attention should also be directed toward the ethical, political, cultural and economic implications of increased exploitative activity in space before any form of domestic or international legislation is passed. Collaborating with academics, ethicists, policy makers and public audiences will help ensure that any opportunity or

threat posed by space mining, and/or similar commercial activity in space are appropriately addressed as such technological processes continue to develop.

## Quantum Computing

Quantum computing is the design and theory associated with building computer systems using the laws of quantum physics (Law and Rennie 2015). Quantum computers are predicted to be extremely fast and powerful. These computers will help create ground-breaking technologies, such as quantum sensors to detect diseases at microscopic levels and bionic technologies to enhance human experiences (Laforest 2015). However, quantum computers will create challenges for data and other types of security because they can easily break the existing encryption algorithms protecting most public and private communication and data (Nordrum 2016). As quantum computers are still in the development stages, now is an opportune time to think about how existing regulations affect their development and how future regulation needs to be shaped to support ethical development.

Currently, Canada has a lead in the quantum race because of ongoing private and public investment in foundational physics research. In order to retain this leadership position, Canada needs to invest heavily and strategically in quantum infrastructure, particularly in human resources (Laflamme 2015). Canada placed in the bottom 15 for new inflows and top 10 for outflows of scientists among Organisation for Economic Co-operation and Development (OECD) countries, which does not bode well for the health and growth of its quantum program (OECD 2015).

By building on its technical expertise in quantum technology and historical prowess in global governance, Canada can lead in developing regulatory thinking on what kind of challenges quantum technologies might create. By engaging ethical oversight during the development stages, Canada can ensure that solutions to any emerging quantum challenges will be tackled equitably for all stakeholders — public, government, academics and industry. Innovation and the dispersion of new technologies occur at a much faster rate today than ever before, so time is of the essence. If the policy to support or deter quantum technology evolves simultaneously with the technology itself, there is time to inform and consult stakeholders and to prepare for unexpected challenges and opportunities.

## Algorithms

Algorithms are beginning to stretch beyond solely the realms of mathematics or computer sciences and shape daily activities without us even realizing. They are delegated to perform tasks that would otherwise be impossible to do so manually, automating the decision-making process (Musiani 2013). Legal scholar Danielle Keats Citron has stated that not only have algorithms entered the realm of public policy, but they are replacing humans as primary governance actors (cited in Eubanks 2015).

When algorithms are applied in the context of public policy there are two areas of considerable ethical concern:

- **Bias and subjectivity:** when algorithms are coded, they are built upon assumptions about their intended target audience. Presumptions become subsumed into the development process, resulting in algorithms facilitating inequities (ibid.). With subjective decision making being placed in the hands of algorithms, further scrutiny and critical analysis of such automated processes is required.
- **Non-transparency:** one implicit problem with algorithms is that they are opaque or “black boxes” (Vieth and Bronowicka 2015). This makes it difficult to determine whether or not an algorithm promotes certain biases or discriminations, as the mechanisms used in the coding process are not observable.

Due to the invasiveness of algorithms, arguments have been made for greater governance of the technology. While some have advocated for simply more openness and accessibility, others have argued for more democratic designs of such processes (Introna 2015). Calls for governance of algorithms have stemmed from the technology evolving into unknowable public goods that represent a new and currently ungoverned space. If this is the case, advocates argue that algorithms are an affront to our democratic system, which require governmental intervention to promote greater accountability mechanisms (Owen 2015). However, the extent to which states can govern algorithms remains unclear.

Canada has the potential to be a leader in establishing enforcement mechanisms to regulate the usage of algorithms. However, a balance needs to be struck. Too much regulation and the legislation surrounding

intellectual property rights could be circumvented, leaving Canadian innovators handicapped. The purpose of regulation should not be to collect all data from innovators and implement extremely stringent guidelines that stifle their creativity. Simply, rules should ensure that certain safeguards are put in place to limit algorithms from acting beyond their original or intended purpose (O’Reilly 2013).

To ensure ethical development of these technologies, Canada needs more inclusive stakeholder engagement in the research process, and more ethicists and social scientists embedded within science and engineering teams (Wallach 2016).

## Recommendations

Game-changing technologies need governance that is forward-looking and remains malleable with respect to the evolution of these technologies.

**To maximize its role in technological innovation, Canada must capitalize on its foundational infrastructure and existing expertise.** With regard to research and development, Canada maintains substantial investments in technological innovation. However, as Canada has one of the highest outflows of scientists among OECD countries, further direct investment will be needed to ensure technological innovation occurs within Canada. Continued governmental support for quantum computing, for example, will secure Canada’s competitive edge in quantum innovation. As a respected middle power, Canada should also leverage its privileged status in international fora to promote regulation, oversight and investment, which better reflect the concerns of those (including Canadians) implicated by technological development.

**Canada must collaborate with other actors to promote technological advancement and to establish responsible oversight.** Developing partnerships with private industry and academic institutions will allow Canada to benefit from the growth of technological expertise among non-state actors. For example, further partnerships with robotic engineering firms, such as Deltion Innovations or MacDonald Dettwiler, will bolster Canada’s stake in future space mining operations. In addition to partnerships that benefit further innovation, Canada must collaborate with other actors in forming responsive and appropriate governance measures. With respect to space mining, new international legislation is needed to

reflect growing interests and technological capabilities in space. Cooperative action with international actors will assure each technology is developed within a regulated, ethical and accountable framework. Inter-departmental partnerships within governments will also ensure each technology is assessed in a comprehensive and inclusive manner.

**Canada must develop proactive governance.** Given the rapid and unpredictable rate of technological innovation, it is paramount to think of regulation as a process that evolves alongside technological advancement. Assessing where legal, political, economic or social issues may arise will assist in establishing policies reflective of the opportunities and threats apparent in each technology. Embedded in the governance process should be the consultation of ethicists to ensure moral and responsible development of game-changing technologies. Such inclusion would help ensure that the attractiveness of technological advancement does not render innovators blind to the adverse ramifications of each technology. For example, regulations that promote the transparency of algorithms would help reveal any biases or discriminations subsumed in the coding process, thereby decreasing the likelihood of algorithms facilitating inequities.

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# Inclusive Growth and International Development

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# The Power of Remittances: Migration and Women's Economic Empowerment in Morocco

Harrison Ellis and Nikita Shah

## Background

The feminization of migration is a significant and growing cross-border phenomenon, as is remittance-led development. Women account for nearly half of the 247 million international migrants, due to increasing demands for care work to replace state social protections, increasing pressures for women to become breadwinners, and gender-segmented labour markets (Hennebry et al. forthcoming). Women are increasingly migrating autonomously (with varying levels of education and training) in order to provide and support their families, while many continue to migrate with families and others stay behind to carry on the work of caring for families in countries of origin.

Women migrants have become central to economic growth, as they remit a higher portion of their wages than their male counterparts, despite pervasive wage inequity. In 2014, global remittances totalled US\$414 billion (World Bank 2015a), becoming as significant as foreign direct investment and far outpacing official development assistance (World Bank 2016a). Women accounted for half of this total, and they spend a higher portion of remittances on health, education, family and community development than men (Duflo 2012, 1054; Ang et al. 2015a, 56). Women are also the primary receivers of remittances, and therefore direct how they are spent. Alongside economic remittances, differing norms, practices and ideas flow transnationally as social remittances, encouraging women's involvement in economic and social

development, as well as challenging gender norms in the public and private spheres (Hennebry et al. forthcoming, 55). Yet, in many contexts these contributions are not met with the legal and social protections vital for women's economic empowerment, although promising practices are underway (Walton-Roberts et al. 2014; Freedman 2012; Hennebry et al. forthcoming; Leichtman 2002; World Bank 2006).

At national and international levels, there is increased attention to the complex challenges and opportunities related to gender, migration and development. Indeed, with the Sustainable Development Goals (SDGs) taking effect in 2016, this year presents significant opportunities for women's economic empowerment. The SDGs stipulate that improving migrant women's rights will enhance their ability to be agents of sustainable economic development. Specific targets within the SDGs include ending discrimination against women and girls, and initiating reforms to give women equal rights to economic resources, access to property, and financial resources (UN Women 2015b). The 2013 UN High-level Dialogue on Migration and Development called for gender-sensitive migration policies and legislation that protects women migrant workers, facilitates access to decent work opportunities, and enables the collection and analysis of data disaggregated by age and sex (UN General Assembly 2013, 8). The 2015 Global Forum on Migration and Development recognized the contributions of women in migration to economic and social development in

countries of origin and destination. The Group of Seven have further echoed the need to ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life (UN Department of Economic and Social Affairs 2015).

At national levels, countries of origin and destination are increasingly cognizant of the unrealized potential of migration for development and its impacts on broader socio-economic and cultural change. The 3.3 million Moroccans living and working abroad (MTM 2007) send a total of USD\$ 7 billion back home (World Bank 2015a). Canada is home to 71,000 Moroccans who remitted CDN\$141 million in 2014 (Statistics Canada 2011; World Bank 2015a). Morocco is one of Global Affairs Canada's (GAC's) partner countries, as well as an origin, destination and transit country. As a destination country, Morocco is home to an estimated range of migrants (including those without documentation) from 4,500 and 10,000, of which women are thought to represent between 20 to 30 percent (Stock 2012, 1578). Between 2012 and 2013, the Canadian International Development Agency (CIDA) disbursed CDN\$8.86 million to Morocco (GAC 2015c). The country has made strides in economic growth and political stability in recent years, with gender-specific barriers remaining in women's economic empowerment. Morocco ranks 130 out of the 187 countries on the United Nations 2012 Human Development Index due to social inequality and further rural and urban disparities. Morocco is Canada's fifty-sixth largest trading partner, with 2012 merchandise trade totaling CDN\$522.6 million. The two countries are developing a free trade agreement, which would be Canada's first with an African country and would provide access to emerging markets in Africa and the Middle East (GAC 2015a). In addition, the GAC issued a call for proposals for women's economic empowerment in Morocco (GAC 2015b). Morocco is also a priority country for the European Union. Between 2007 and 2013, the bilateral cooperation from the European Union to Morocco totalled €1.3 billion in the areas of economic modernization and social policy (European Union 2015).

### Migration and Feminized Labour

Women workers migrating from the Global South are concentrated in domestic and care sectors, filling care gaps so that women in the Global North can engage in formalized work sectors outside the home (Fleury

2016, 10). The economic value of carework decreases as it is passed down social hierarchies. This phenomenon is known as the global care chain, which is replicated within national contexts and rural to urban divides (Petrozziello 2013, 131; Hennebry et al. forthcoming).

Moroccan diaspora are dispersed predominantly throughout Western Europe, with growing numbers in North America, particularly in Quebec due to French linguistic and cultural ties. Moroccan migrants in Europe tend to be lower skilled, while those in North America tend to be higher skilled. Morocco is also a transit and destination country for migrants, primarily from Sub-Saharan Africa, who become stranded in the country due to heightened border controls and increased securitization of the Mediterranean-European Union corridor (de Haas 2014; Freedman 2012, 49; Berriane 2013, 7). Many sub-Saharan migrant women in transit through Morocco fill care gaps in domestic labour created by out-migration of women migrants from Morocco — carrying out essential reproductive labour as part of the global care chain. Other women migrants in Morocco have small-scale businesses, with most entrepreneurial endeavours largely in feminized sectors/occupations, such as hairdressing and beauty salons (Freedman 2012, 50).

### Rights and Social Protection

The Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) Committee in 2008 noted concerns about the vulnerabilities of migrant women in Morocco, including gender-based violence (ibid.). CEDAW General Recommendation 26 states that migration offers a degree of economic empowerment, but can also place their human rights and security at risk. Migrant women suffer intersecting forms of discrimination. Women migrant workers may be unable to save or transmit savings safely through regular channels due to isolation, cumbersome procedures, language barriers or high transaction costs. In general, women earn fewer wages than men but remit roughly the same. They face familial obligations to remit all their earnings to families in ways that are not expected by men, even to support extended family members (Ramirez et al. 2015, 26).

Inadequate enforceable labour rights are a key barrier to women's empowerment vis-a-vis migration. The Morocco-Spain Social Security Agreement provides mobile social security benefits for domestic workers, and

is among the few bilateral agreements that extend to this sector (Vazhynska 2016, 6). The International Labour Organization's Convention 189 — adopted at the one hundredth session of the International Labour Conference on June 16, 2011 — offers a framework of protections that could lead to women's empowerment through the labour migration process. Convention 189 ensures rights such as freedom of association, protections against abuse, rights to paid leave, normal hours of work and the option to live outside the employer's home.

### Remittance Transfer Costs

In 2012, CDN\$23.4 billion were remitted from Canada overseas (Bhushan 2013, 6). While Moroccan diaspora in Canada remitted CDN\$141 million in 2014, the actual figure is likely to be higher given the usage of informal transfer methods, such as carrying cash during their visits home or through the Hawala system (Maloumy-Baka and Kingombe 2015, 4).<sup>1</sup> At 11.1 percent, the average cost to send money from Canada is the highest in the Group of Eight countries and above the global average of nine percent, due to low competition among banks and money transfer businesses (Bhushan 2013, 28). Transferring CDN\$1,000 from Canada to Morocco using Western Union costs approximately CDN\$40.<sup>2</sup> The World Bank estimates that reducing remittance costs would save migrants US\$16 billion per year globally (World Bank 2015b). Migrant women earn less than men, but typically remit the same, though in smaller portions and more frequently (International Organization for Migration 2010, 1). Consequently, women spend more on transfer fees than their counterparts, adversely affecting their financial security.

Representatives at the federal government, as well as the provinces of British Columbia and Ontario, have attempted to pass bills that would place a five percent limit on transfer fees (ACORN Canada 2015). In addition, the

Royal Bank of Canada, the Bank of Montreal and Western Union temporarily waived/lowered their remittance transfer fees to assist humanitarian efforts following Typhoon Haiyan in the Philippines in 2013 and the 2010 Haiti earthquake (Westhead 2013). CIBC has also removed their global transfer fee, enabling migrants in Canada to remit funds free of charge (CIBC 2016). Western Union currently has an expansive corporate social responsibility program, which should be broadened to include child care programs for transnational families and women's entrepreneurship programs.

Women migrants are more likely to remit through informal methods, and are less likely to have bank accounts than men due to proximity to formal financial services and barriers associated with domestic work. Remittance-receiving households in rural areas may be faced with challenges in accessing a bank account. Women in Morocco are 20 percent less likely to have a bank account than their male counterparts (Zottel, Ortega and Randall 2014, 25). As a result, women cannot participate to the same level as men in decision making over finances, nor can they establish credit histories, affecting their opportunities to participate in entrepreneurship.

### Financial Literacy and Inclusion

Financial literacy enables women to manage their finances, understand transfer fees, budget and save, and fosters financial independence and enhances economic participation. Transnational families can then convert savings into successful investment opportunities. Another key aspect of financial literacy is the ability to plan and develop risk-mitigation strategies (International Fund for Agricultural Development 2013, 45). Such plans can enable women and families to budget their money, create savings, take out insurance and establish emergency funds (*ibid.*). When women migrant workers can more effectively balance responsibilities and budgets transnationally, managing household finances to mitigate insecurity and diminish dependency on remittances may slowly begin to decrease. While presenting clear benefits for short-term income diversification, without gender-sensitive financial literacy and inclusion, remittances alone cannot support sustainable development (Hennebry et al., forthcoming; de Haas 2007).

1 The Hawala system is an informal remittance method widely used in the Middle East and South Asia, particularly amongst the Islamic community. Based on trust and close kinship networks, money is transferred through intermediaries called Hawaladars or Hawala operators. It remains a popular option as transfers remain undocumented and almost untraceable (Hennebry, Holiday and Monirizzumam, forthcoming).

2 Calculated using Western Union's online calculator, available at [www.westernunion.com/us/en/price-estimator/continue.html](http://www.westernunion.com/us/en/price-estimator/continue.html).

Within the national context, access to education is a major barrier toward women's economic empowerment. Sixty percent of the illiterate population in Morocco is comprised of women and the illiteracy rate in urban and rural areas is 48 percent and 95 percent, respectively (Sadiqi 2012). It may not be deemed safe for girls, notably in rural areas, to travel to school either on foot or public transport. Additional impediments include a shortage of women teachers and infrastructure such as female bathrooms (ibid.; World Bank 2013, 129). Without sufficient literacy, women may be unable to participate in domestic or political decision-making processes. Morocco spends almost 26 percent of public funds on education, yet female students are not learning the required skills to participate in jobs that would lead to economic empowerment (World Bank 2013, 106). While the female labour force participation is 27 percent, women are inclined to study feminized subjects in fields with stagnated job creation and lower salaries (ibid.; World Bank 2016b, 176). While new jobs are created in engineering and manufacturing, men continue to dominate these sectors (World Bank 2013, 107-8).

Despite current obstacles, Morocco has made strides toward women's economic empowerment at both the state and community levels. Since 2008, the Moroccan government and banking sectors have made reforms to enhance financial inclusion in poor and rural communities where women are disproportionately represented. Poste Maroc offers a postal banking system that is widely used in rural areas, improving accessibility. Maroc Telecom developed Mobicash, a mobile banking platform supported by Attijariwafa Bank and Banque Central Populaire (Zottel, Ortega and Randall 2014, 37). Mobile banking, alongside the use of mobiles more broadly, provide an opportunity to increase financial inclusion and education. Indeed, technological advancements and growing internet access can allow individuals and small businesses, particularly in rural areas, to participate in international markets and overcome barriers due to literacy or access (Gililnski et al. 2015, 40) For example, Anou is a mobile platform working to establish equal access to markets among artisan communities, such as Association Nadha in rural Morocco (a women's textile cooperative). The mobile platform removes intermediaries and is image-based, allowing users to overcome barriers in literacy (Anou n.d.).

At the state level, the Moroccan Department of Literacy began conducting gender-responsive budgeting in 2009.

Several programs have been developed to suit different age brackets, providing literacy at all stages of life; women constitute 85 percent of the beneficiaries (UN Women 2014). Programs can teach beneficiaries to read and write over a two-year period, with additional arts-based courses, contributing to women's economic empowerment (ibid.).

## Recommendations

**Canada should regulate money transfer businesses, and mandate that remittance transfer fees be lowered to a maximum of five percent by 2020, and to three percent by 2030.** By decreasing transfer fees, migrant workers will be encouraged to use formal transfer services. The cap on remittance fees has been agreed upon by numerous intergovernmental processes such as the Group of Twenty, Global Forum on Migration and Development, and the Valetta Summit on Migration. This movement has been reflected domestically by bills at the provincial and federal levels, as well as the advocacy of diaspora civil society groups. According to the World Bank, cutting remittance rates by five percentage points can save migrants over US\$16 billion (World Bank 2015b).

**Canada should work with money transfer businesses to expand their corporate social responsibility programs to address women's unequal care burden, such as child care.** Public responsibility and private support for care will help legitimize care work and increase formal employment opportunities by enabling caregivers to convert a portion of their time from unpaid to paid work.

**Canada should continue to support research on financial inclusion and gendered migration within the Moroccan context, and pursue partnerships with small-scale cooperatives within Morocco to support women's entrepreneurship.** Steps toward this have been taken with the GAC's call for proposals on women's economic empowerment in Morocco. Data on women, migration and financial inclusion in Morocco is sorely lacking, and research on gender and migration has too often depicted women as victims rather than agents of change. Canada can play a role in supporting research that uncovers the statistics, barriers and opportunities in the realm of financial inclusion. Data collection must also focus on contexts in which migrant women are empowered, which can shift the pervasive lens of women in the Middle East and North Africa region from victims to agents of change and economic growth.

**Canada should support entrepreneurial endeavours in Morocco that lead to development, building relationships with the Moroccan diaspora and Canadian start-up communities.**

Canada's start up community can offer best practices and technical expertise that can be replicated in other contexts in ways that can support women's economic empowerment. Scholarships for Moroccan students to study and partake in co-op placements should be geared toward entrepreneurship, enabling the sending of social remittances such as intercultural knowledge and experience. Outcomes of such partnerships must be gender-mainstreamed and support women's entrepreneurship.

**Canada should work toward a gradual harmonization with international human rights norms, such as the International Convention on the Rights of Migrant Workers and their Families, CEDAW and General Recommendation 26.** In forming gender-sensitive and rights-based policies, the Canadian government should actively involve women migrant workers, as well as civil society organizations such as domestic worker's groups.

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# The Global Food Security Landscape: Interconnected Issues, Fragmented Governance

Heather Harkness, Jacob Hayes and Derek Orosz

## Background

The current global food and agriculture landscape with low commodity prices stands in stark contrast to the context that led to the 2007-2008 global food crisis. At that time, skyrocketing food and energy prices created widespread hunger and many instances of political instability. The episode highlighted the complex relationship between globalized food and energy markets and a changing global climate. In response to this crisis, large-scale initiatives were undertaken by multiple international organizations such as the Group of Twenty (G20), the World Bank and the United Nations that focused primarily on enhancing food production and trade, rather than addressing the interface of these complex drivers of food security. Although the food price situation today has eased, crisis could erupt again at any time as a result of changes in any one of these complex drivers.

It is important for Canada to take a leadership role in the global governance frameworks to address food security issues at the interface of the energy-trade-climate nexus. Canada is an important exporter of agricultural commodities, a major player in global energy markets and is party to a number of international negotiations addressing questions of climate change. Given its involvement in these interconnected issues, Canada can play a key role in reducing fragmentation and increasing the effectiveness of global food security governance.

## The Importance of Energy Markets, Environment and Trade for Global Food Security

### Energy Markets

The global food crisis brought the relationship between energy markets and food security to the forefront. Although the dramatic spike in prices was due to a confluence of factors, the price of oil and biofuel production were attributed as the significant drivers in reports by the UN Food and Agriculture Organization (FAO) (FAO 2008). Oil prices directly impact the cost of food production, processing, and distribution, most notably through the cost of fertilizer and transportation (UN Department of Economic and Social Affairs 2011). Despite the direct interaction between oil and food prices, the exact correlation between the two has been difficult to estimate at the global level (Macrotrends LLC 2016; FAO 2015).

The impact of biofuels offers a partial explanation for the difficulty in measuring the relationship between oil and food prices. When oil prices are high, it creates a strong incentive for countries to generate alternative energy sources (Mitchell 2008). This threatens the global supply of food as agricultural commodities are redirected from human consumption to energy production (ibid.). For instance, the UN Department of Economic and Social Affairs estimated that in 2011 up to 120 million tons of

cereal grains were being diverted from food production to the creation of biofuels (UN Department of Economic and Social Affairs 2011, 68). The lack of mechanisms to correct for this risk demonstrates that global food supply remains vulnerable to volatile international oil markets and government interest in biofuel energy. During the global food crisis, the International Monetary Fund (IMF) and the World Bank both reported that biofuels drove food prices upwards by over 75 percent (*ibid.*). Although the increase in the number and scope of national biofuel mandates has been modest following the crisis, the lack of effective measures to curb these mandates in times of higher food prices means that global food security remains threatened by oil price shocks and the enlargement of biofuel production.

### Climate Change and the Environment

Agriculture is now widely recognized as a significant contributor to climate change. Estimates suggest it is responsible for 14.5 percent of greenhouse gas (GHG) emissions, while the entire food system from pre-production to consumption may be responsible for up to one third of global emissions (Gerber et al. 2013, 15; Gilbert 2012). Data from the FAO illustrates that from 2001 to 2011, emissions from agriculture increased by 14 percent, and trends indicate a gradual yet consistent increase by as much as 30 percent by 2050 without further adaptation and mitigation efforts (Tubiello et al. 2014, 20). Despite its consequential impact of agriculture on GHG emissions, agriculture is simultaneously considered to be a significant opportunity for mitigation. In this respect, one of the most fundamental policy challenges is to feed a growing global population in a more environmentally sustainable manner.

Although climate change is exacerbated by the emissions produced from agricultural practices, it also has an impact on food security because it is associated with a rise in extreme weather events, which have varied and complex effects on the global food system. For instance, droughts and severe heat appear to have a more direct impact than floods and severe cold. Nonetheless, extreme weather events have resulted in a negative impact on crop production, threatening local and global food security (Lesk, Rowhani and Ramankutty 2016, 84). El Niño weather events have also destabilized prices in global commodity markets, despite decreasing food prices in recent years (Plimmer 2016). Additionally, unpredictable

weather patterns impact the trade flows of agricultural and food products in international markets (Gallucci 2015; Pratt 2016). Any limited short-term benefits of these climatic events, which trends suggest are going to increase in number and unpredictability, will be overshadowed by their recognized long-term negative impact (Cai et al. 2014, 11–16; Intergovernmental Panel on Climate Change 2014, 5–6). This is the case for both developed countries as well as developing and vulnerable regions, which rely upon crop production and are less capable of adapting to the impacts of extreme and changing weather conditions (Lesk, Rowhani and Ramankutty 2016; FAO 2008).

### Global Trade

The World Trade Organization (WTO), mega-regional trade agreements and bilateral agreements have reached a critical juncture in their significance to food security. The total value of trade in agricultural products is US\$919 billion annually, while 1.2 billion people depend on trade in these products and are vulnerable to price and volume fluctuations (FAO 2015, 43; Fader et al. 2013, 1). Currently, the WTO faces a fractious journey forward regarding food security, as the trade landscape is divided into two key perspectives. The former asserts that food security must be achieved domestically, while the latter maintains that trade liberalization is the only way to address this issue (de Schutter 2012). While recent developments at the Tenth Ministerial Conference in Nairobi demonstrate that compromise is possible between these opposing positions, the Doha Round remains unresolved and food security gains have been minimal (Farsund, Daugbjerg and Langhelle 2015). Deadlock within the Doha Round has also resulted in a proliferation of mega-regional and bilateral preferential trade agreements that have been predominantly pursued by developed countries (Palit 2014). The level of asymmetry in these new negotiations further incentivizes developed countries to continue their staunch defence of trade rules that benefit their own trade in agricultural products within the WTO and ignore the food security concerns of others. Meanwhile, industrialized countries have pursued their interests through fora such as the Trans-Pacific Partnership (Hufbauer and Cimino-Isaacs 2015). These new agreements also neglect the concerns of food security while prioritizing twenty-first-century trade matters such as intellectual property, trade in services, government procurement and investment measures (Mercurio 2014, 1560; Narayanan and Sharma 2016, 2). Issues in the trade

of agricultural products are further exacerbated as major economies, such as China, become net food importers and consumptive demand for agricultural products continues to rise (Hansen and Gale 2014).

## Governance Fragmentation and the Energy-Trade-Climate Nexus of Food Security

Global governance mechanisms relevant to food security are highly fragmented (Biermann et al., 2009; Clapp 2013). With respect to energy and agricultural commodity markets, the G20 has unsuccessfully attempted to address issues regarding biofuels and commodity financialization (Clapp and Murphy 2013). Specific factors that have an enormous bearing on the ways in which food and energy markets intersect include: domestic government policies, biofuel mandates, oil subsidies, financial derivatives regulation and market trends including the value of the dollar and oil prices (Clapp and Murphy 2013; Margulis 2013). Climate change and environmental governance is also fragmented and not articulated clearly within the governance of food security (Zelli and van Asselt 2013; Zelli et al 2013; Clapp 2016). The UN Framework Convention on Climate Change (UNFCCC) process has been slow and piecemeal, and its attention to food and agriculture has until recently been minimal (Pasquini 2015). There have been efforts to address the food-climate interface through national and subnational governance initiatives, but these efforts lack effective coordination across jurisdictions. The interface of trade and food security is governed primarily through the WTO and regional trade agreements such as the Trans-Pacific Partnership (Margulis 2015). Efforts on these fronts are not effectively tied to climate, energy or food governance. The result is a patchwork of governance initiatives that each have important implications for food security, but which are overall weak with respect to the intersections of these important drivers of food insecurity.

The fragmented global food governance landscape is at odds with the deeply interconnected drivers that shape food insecurity. Oil represents one of the most significant elements of the world economy in part because crude oil is the world's most actively traded commodity (Statista 2016; Trading Economics 2016). Changes in these markets have far-reaching implications due to the enormous size of the global energy market, as well as

the number of processes and products that rely on it. As was highlighted by the global food crisis, food security is deeply affected by energy market volatility. There is also a deep connection between trade and climate change, although the nature of that connection is contested. Some argue that climate change-induced food shortages can be addressed by shifting supplies from areas with food surpluses through global trade (Baldos and Hertel 2015). Others suggest that any benefits from increased trade is cancelled out by deforestation and emissions associated with the mass transportation of goods, which exacerbate the negative effects of extreme weather events on agricultural yields (Schmitz et al. 2012). Energy and climate similarly are deeply entwined. The food sector accounts for approximately 30 percent of global energy consumption (FAO 2011, 3). Agricultural production methods, particularly in developed countries, rely heavily on fossil fuels, which are directly and indirectly utilized in farm machinery, fertilizers, pesticides, irrigation, and the refrigeration and transportation of food products (Woods et al. 2010; Pelletier et al. 2011; FAO 2011, 2). These agricultural techniques are subject to increased costs associated with oil price volatility, while also contributing to global GHG emissions. Overall, these intersections demonstrate that a focus on global energy markets, trade or climate change alone insufficiently capture the deeply interconnected and complex impact they have on the global food system.

## Coordinated Food Security Governance and the UN Committee on World Food Security

The Committee on World Food Security (CFS) provides an innovative and non-traditional governance mechanism to facilitate coordination among a diverse array of actors, governance bodies and drivers that affect international food security. The global food crisis highlighted the failures of food security governance and prompted reforms to address institutional fragmentation. The CFS was first established in 1974 as an intergovernmental committee within the FAO. But as part of reforms following 2009, it now operates as a participatory global forum tasked with identifying the gaps and inconsistencies between various agricultural and food-related policies (de Schutter 2012, 480-1). This mechanism incorporates governments, as well as food-relevant “participants including: UN agencies and bodies, civil society, non-governmental organizations,

international agricultural research systems, the World Bank, the IMF, regional development banks, the WTO, and private sector and philanthropic foundations (ibid.). Following these reforms, the CFS has been recognized as a more inclusive and legitimate source of transnational norm-building and rule making at the global level (Margulis 2015, 164).

The CFS is poised to recognize that the energy-trade-climate nexus has a direct and indirect effect on multi-level food security and impacts the effectiveness and sustainability of the global food system. However, it operates in an institutional grey area that challenges the authority of global governance mechanisms dedicated to a single issue-area. Although it has been tasked with coordination of governance efforts, the CFS itself lacks the level of authority of other governance mechanisms dedicated to specific issues such as the WTO, the UNFCCC and the G20 (McKeon 2015). The result is a continuation of multiple sites of food security governance that are often not well-coordinated. International food governance should move beyond isolated and technical project-based strategies to recognize these interconnections. This can be achieved through increased coordination and the fostering of mutually cooperative institutional and governance relationships at all levels. In this task, the CFS and other non-traditional bodies must be given a more prominent role within the global food security governance architecture to be effective and responsive in addressing the energy-trade-climate nexus moving forward.

### Food Security Governance in the Canadian Context

Canada is potentially in a conflicted position with respect to the complex and interrelated drivers of global food insecurity. The country is currently the fifth-largest exporter of agriculture and agri-food products, and exports nearly half of the value of its primary agricultural production (Government of Canada 2015a). Canada could greatly benefit from an increased global need for food exports. Furthermore, some estimates indicate that climate change will bolster the country's agriculture yield by increasing the amount of arable land and expanding the growing season (Government of Canada 2015b). However, focusing on short-term and domestically focused benefits from global food insecurity trends is unwise. Severe climate impacts resulting from increased fossil energy use, for example, will threaten the quality and yield

of all agricultural commodities, in turn reducing Canada's food exports and affecting long-term global food security (Government of Canada 2015b; Lesk, Rowhani and Ramankutty 2016). Ultimately, Canada must recognize that it will not benefit within a highly food-insecure and politically unstable global environment. For these reasons, Canada has a vested interest in strengthening global food security and can take a leadership role in governance organizations that address the energy-trade-climate nexus.

Canada has recently prioritized food security in its foreign policy initiatives. Since launching the Food Security Strategy (FSS) in 2010, government spending on food and agriculture aid has doubled, including funding for the UN's International Fund for Agricultural Development and the World Bank's Global Agriculture and Food Security Program (Margulis 2015, 164). Canada has also been influential in advocating for global food security governance reform, particularly in the Group of Eight through the L'Aquila Food Security Initiative and the New Alliance on Hunger and Nutrition Security in 2013 (ibid.). These efforts, however, have focused more on production issues than the complex issues associated with the energy-climate-trade nexus. Canada is in a unique position to extend its leadership role to reframe food security governance to better recognize the complex energy-trade-climate nexus in governance forums such as the CFS.

### Policy Recommendations

**Canada should update the FSS to better reflect interconnections and the need for more coordinated governance.** The current FSS has shifted away from short-term humanitarian food relief alone to encompass a greater medium- and long-term vision of global food security. While recognizing climate change, it must reflect the interconnections of the energy-trade-climate nexus and the need for greater coordination among governance bodies to address this.

**Canada should reframe its discourse on global food security by facilitating a coordinated approach to governance.** This would include engaging policy makers from all aspects of the energy-trade-climate nexus both through federal departments and federal-provincial relations. Global Affairs Canada should foster interdepartmental coordination among actors relevant to food security as outlined.

**Canada should take a leadership role at the CFS to facilitate improved coordination with the governance bodies that deal with volatile energy markets, climate change and environmental sustainability, and international trade.** For example, assistance can be provided to the scientific, research and knowledge-based arm of the CFS — the High Level Panel of Experts on Food Security and Nutrition — to spearhead the identification of the energy-trade-climate nexus as an emerging and policy-relevant trend that merits further prioritization and attention.

**Canada should engage other member countries of the G20, the UNFCCC and the WTO to consider how their actions within these disciplines impact food security.** An excellent platform for Canada to facilitate this would be later this year at the 22nd session of the Conference of the Parties to the UNFCCC in 2016. Other attendees have already expressed their interest in having issues of agriculture and food security discussed at the meeting (Pasquini 2015). Canada should advocate for increased participation and inclusion of a diverse range of stakeholders, similar to the CFS, in the other governance forums related to the energy-trade-climate nexus of food security.

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# Youth Entrepreneurship and Inclusive Growth in Sub-Saharan Africa

Rebecca Bell, Aramide Odutayo and Sarah Yoder

## Introduction

The Government of Canada should support youth<sup>1</sup> entrepreneurship programs as a partner of development in Africa. Youth entrepreneurship is recommended as way of achieving income security for this population and inclusive growth for the region (Kew 2015; UN-Habitat 2014; Chigunta et al. 2005).

## Background

### Urbanization, Youth and Livelihoods

Sub-Saharan Africa (SSA) has an extremely young population (Figure 1) and the region is rapidly urbanizing. Most young people in cities are underemployed and work in low-income sectors (Figure 2).

### Economic Issues

The potential contribution of young people to the continent's economic growth is significant, and harnessing those capabilities presents an exciting development opportunity for the future of the continent (Kew 2015).

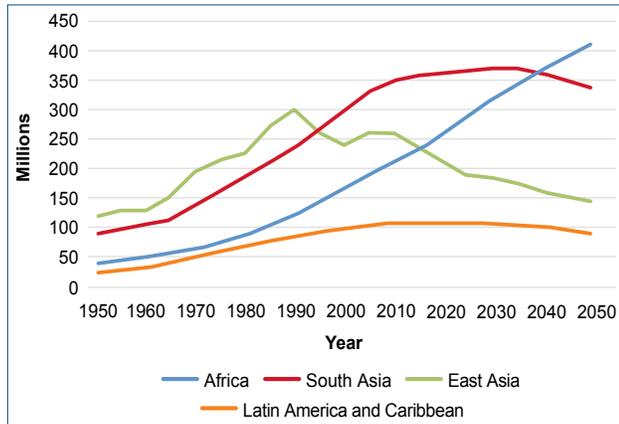
Despite growth in certain sectors across SSA, the benefits have not been shared by all and inclusive growth —

which emphasizes productive employment as a means of increasing income for excluded groups — has remained elusive (World Bank 2009). For example, African youth are three times more likely than adults to be unemployed and in some countries youth constitute up to 75 percent of the urban unemployed (Kew 2015; Chigunta et al. 2005). It is important to analyze these employment figures in light of the dual nature of African urban economies, which includes both a formal and informal sector (see Table 1).

The formal sector constitutes activity that occurs within the purview of state regulation and privileges wage work (Kay 2011). Only about 16 percent of those in the labour force in SSA have jobs that pay a regular wage (World Bank 2014a). Most African youth participate in the expanding urban informal sector (ibid). The ILO defines the informal sector as “all economic activities by workers and economic units that are — in law or in practice — not covered or insufficiently covered by formal arrangements” (Husmanns 2004, 2). Although there are many challenges surrounding the nature of work in the informal sector, it remains a significant economic driver in SSA (Fraser, Moonga and Wilkes 2014).

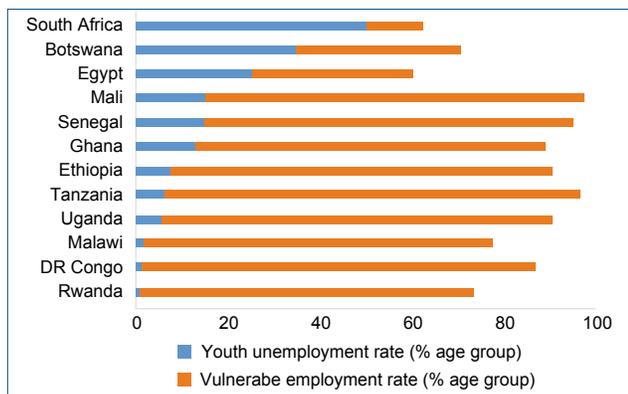
1 Individual countries and international organizations have varied definitions of youth, which range from 15 to as high as 35 years old. This brief adopts the UN age category of 15 to 24.

**Figure 1: Youth Population Aged 15–24, 1950–2050**



Source: Japan International Cooperation Agency (2013, 15).

**Figure 2: Youth Unemployment (selected African countries), 2004–2011<sup>2</sup>**



Source: UN-Habitat (2005, 6).

### Social Development Issues

Multiple factors impact the ability of youth to start and grow viable businesses in the formal or informal economy. These include gender, socio-economic status, business type and educational achievement (Gough 2015).

<sup>2</sup> Vulnerable employment is defined as the sum of the employment status groups of own-account workers and contributing family workers (International Labour Organization [ILO] 2013). Unemployment refers to all persons who are without work, currently available for work and seeking work (Organisation for Economic Co-operation and Development 2003). Youth are defined as ages 19 to 24.

**Table 1: Characteristics of Formal and Informal Employment**

Formal Sector Employment	Informal Sector Employment
<ul style="list-style-type: none"> <li>• Difficult entry into sector (i.e., must find and qualify for a formal job)</li> <li>• State-regulated enterprises with corporate ownership</li> <li>• Wage-earning</li> <li>• Formally acquired skills necessary</li> <li>• Capital intensive/ imported technology</li> <li>• Registered businesses operating in protected markets</li> <li>• High productivity</li> </ul>	<ul style="list-style-type: none"> <li>• Easy entry into sector</li> <li>• Small-scale enterprises with (typically) family ownership</li> <li>• Self-employment</li> <li>• Skill sets can be acquired outside of formal education</li> <li>• Unregistered businesses with little regulatory support</li> <li>• Low productivity</li> </ul>

Source: Fraser, Moonga and Wilkes (2014, 3).

Young women in SSA currently face more barriers to economic activity than young men. Although women tend to engage more in entrepreneurial activities, over half work in businesses in which there are no prospects for expansion, for example by hiring more people (Kew 2015). Moreover, 78 percent of young women work in the retail and agricultural sectors, while men have more diversified sectoral involvement (ibid).

Young women are often tied down by domestic responsibilities and constrained in their ability to engage in business activities outside of the home (Riley and Dodson 2014). They also have a lack of transport options and an over-reliance on walking to access out-of-home activities. Where travel options exist, costs can eat into small incomes and add to the financial burden, reducing access to jobs and the sustainability of entrepreneurial activities (Lucas 2011). Young men often have fewer commitments within the home and face fewer challenges to independent mobility.

Low levels of literacy also present a challenge to youth in SSA. The gender parity index in SSA indicates that

women aged 15 and above are 24 percent less likely to be literate than men in the same age group (UN Educational, Scientific and Cultural Organization 2015). Furthermore, broader trends in universal primary education in SSA in 2012 indicate that 30 million children were still left out of school, while many who enrol do not complete primary education (ibid). This impacts directly on a lack of marketable skills and high rates of illiteracy.

While it is important to address these interlinked economic and social issues, any intervention should facilitate inclusive

growth, hence the need to support entrepreneurship for African youth.

### Promoting Entrepreneurship

For millions of young Africans, creating their own enterprise is the most feasible avenue for gainful employment (Kew 2015). Some best practice examples of successful and innovative programs are provided in Table 2. They demonstrate that the framing of entrepreneurship programs — in a way that prioritizes inclusive growth —

**Table 2: Examples of Entrepreneurship Programs in Uganda, South Africa, and Tanzania**

Country	Project	Target Audience/Mechanism	Outcomes	Funding
<b>Uganda</b>	Connect to Implement Development (C2iDev)	<ul style="list-style-type: none"> <li>Provides youth (18–30) with business training and skills to increase innovation of their ideas and open businesses</li> <li>Provides access to financing</li> <li>Successful projects are provided more funding and teams are required to mentor proceeding classes</li> </ul>	<p>Final 10 entrepreneurs of competitive process are given seed money and guided mentorship</p> <p>Currently financing 20 individual projects</p>	Successful projects are funded by individual local and international donors
<b>South Africa</b>	Education with Enterprise Trust (EWET); Youth Enterprise Society (YES) and Business Now	<ul style="list-style-type: none"> <li>YES targets secondary schools with training programs; extramural school activity for grades 8–11</li> <li>Business Now provides out-of-school youth with business skills</li> <li>A focus on marginalized youth at the local level</li> <li>Mentorship provided by local business community</li> </ul>	With 20 years experience, projections for 2020 include: 128 local partnerships, 297,945 YES members and over 70,000 YES graduates	Financed primarily through large sponsorship (such as Barclay's, MTN Group, Nelson Mandela Children's Fund)
<b>Tanzania</b>	Kijana Jijiri (Youth Business Tanzania)	<ul style="list-style-type: none"> <li>Collaboration between Youth Business International, National Economic Empowerment Council, and Tanzania Entrepreneurship and Competitiveness Centre</li> <li>Support underserved young entrepreneurs by providing business training</li> <li>Help youth access low interest financing and link with relevant networks</li> </ul>	Aims to provide 400 youth with business training and create 200 new business start-ups by mid-2016	Financed through large industry and international development agencies (such as UK's Department for International Development, and US Agency for International Development)

Sources: World Bank (2014b), EWET (2015) Youth Business International (2015).

is critical to their effectiveness.<sup>3</sup> In addition to providing employment and an opportunity for cash income, entrepreneurship programs must also address the material and social constraints that limit young people's access to economic activities (DeJaeghere 2014).

The financing of entrepreneurial activity is one of the primary challenges facing young entrepreneurs and potential entrepreneurs. Most youth rely heavily on personal funds and funding from family and friends to finance their business operations. Many have difficulty accessing bank or investor finance due to a lack of credit history (Kew 2015). Youth may also avoid formalizing their businesses due to barriers such as language, lack of personal identification documents and illiteracy.

However, simply registering businesses or increasing the amount of funding available to young entrepreneurs without an accompaniment of mentoring and opportunities for skills development is unlikely to result in a sustainable increase in youth entrepreneurial activity (ibid). Young entrepreneurs report feeling a lack of business support and advice, and only a very small percentage of young people are aware of the entrepreneurship-support programs available to them (ibid). A number of actors have a role to play in promoting youth entrepreneurship including:

- local business owners, entrepreneurs and innovators to provide mentorship and business support;
- municipal governments to facilitate greater access to technologies;
- national governments to address structural issues of education and training, apprenticeships, and technical and entrepreneurial programs, and to facilitate access to credit and finance; and
- international actors (non-governmental organizations and governments) to support and training, funding and research.

## Recommendations

In an effort to promote inclusive growth and address the employment challenges of African youth, the Government of Canada should:

- **invest in entrepreneurship-specific events and programs** such as local, national and international mentorship programs and others that prioritize inclusive growth;
- **partner with municipal and national governments to help subsidize transportation** (bus, train, taxi fares) for SSA youth enrolled in certified entrepreneurship programs. Subsidized transportation options will help even the playing field, for example, by encouraging women's participation in entrepreneurship programming;
- **support business-training skills for marginalized youth**, and especially young women, in urban centres;
- **support research into the barriers that prevent vulnerable youth from accessing gainful employment and participating in entrepreneurship programs.** Research to identify creative ways to further entrepreneurship opportunities is also needed. For example, more research into access to credit and banking is required; and
- **facilitate and encourage partnerships between the entrepreneurship and innovation ecosystem in Canada**, and the actors therein, and those in SSA.

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<sup>3</sup> See DeJaeghere (2014) for criticism of the neoliberal underpinnings of entrepreneurship.

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# Leveraging Canadian Aid and Trade through Sub-Saharan Africa's Development Corridors

Charis Enns

## Introduction

Sub-Saharan Africa's (SSA's) development corridors aim to improve trade and connectivity by linking agricultural and mineral production to wider international markets. By providing technical assistance with social and environmental feasibility studies and sharing expertise in sustainable agriculture and mineral production, Global Affairs Canada can partner with African governments in the design and implementation of sustainable corridors while simultaneously moving toward greater coherence between its development and trade efforts.

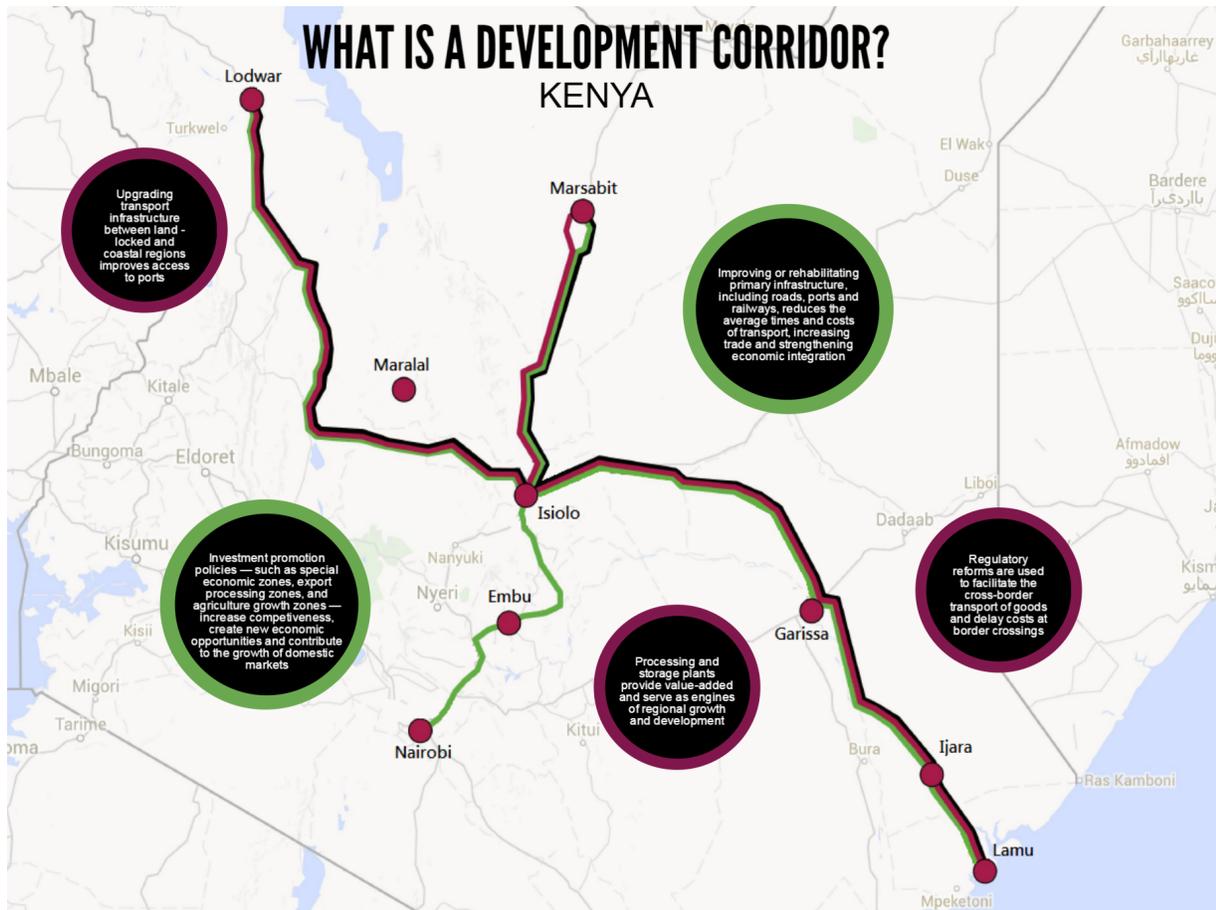
## Background

Development corridors — also known as growth corridors, economic corridors, infrastructure corridors and spatial development initiatives — aim to attract domestic and foreign investment in commercial agriculture and industrial development by constructing or upgrading necessary infrastructure. Development corridors include both “hard” and “soft” infrastructure. Hard infrastructure refers to transport infrastructure — such as roads, railways, pipelines and ports — as well as accompanying logistical infrastructure — such as transport services, storage and processing plants, and agricultural extension services. Soft infrastructure refers to regulatory reforms (i.e., one-stop borders), the creation of new implementation and monitoring agencies (i.e., governmental initiatives to measure corridor performance) and investment promotion initiatives (i.e., special economic zones) (see Figure 1).

The underlying premise of development corridors is that well-developed infrastructure attracts investment in commercial agriculture and industrial development. For example, investors in commercial agriculture generally want good roads in place prior to investing in order to limit transportation costs and prevent shipping-related crop spoilage (Laurance et al. 2014). Infrastructure development also removes other barriers to industrial intensification, enabling higher productivity activities. For instance, mineral extraction across SSA drives the need for roads, railways and ports. This transport infrastructure, however, passes through existing agricultural areas, improving transport for agricultural goods simultaneously. Development corridors also encourage the growth of secondary industries — such as manufacturing and service sectors — which are often seen as key to economic growth.

Development corridors are often planned for regions with large expanses of arable land where yields are perceived to be less than optimal, or in regions where other types of natural resources are abundant. As the African Mining Vision (2009) states, development corridors aim to release and monetize “stranded resources.” From a planning perspective, development corridors are also ideally planned in regions that are settled, as a large workforce is key to the long-term success and productivity of development corridors. With these common characteristics of development corridors in mind, it can be said that development corridors are planned in areas where the lack of infrastructure is the primary constraint for agricultural expansion and industrial growth (Weng et al. 2013).

**Figure 1: What Is a Development Corridor?**



Source: Infographic by Julie Christopherson based on data from the author (unpublished elsewhere).

### Recent Trends in SSA’s Development Corridors

In recent years, development corridors have (re-)emerged as a priority development strategy for SSA. There are approximately 30 development corridors underway across SSA. These corridors are at various stages of implementation, ranging from seeking financing to under construction to in operation. Once complete, these corridors will link nearly 80 percent of the countries the SSA region. This has the potential to substantially improve trade and connectivity within countries and across the continent (see Figure 2).

The rapid growth of these large-scale infrastructure projects over the past decade can be partly attributed to the extractive industries boom, which has served as a powerful economic impetus for corridor development.

Growing concerns about food security have also led governments, international financial institutions and private investors to seek out new strategies for increasing commercial agricultural production on the continent. Development corridors have emerged as one potential approach to addressing food security and to feeding SSA’s growing cities.

The positioning of development corridors as a priority development strategy is not new. The first deliberate attempt to design and implement development corridors was initiated by the South African government in the mid-1990s. However, over the past decade, this approach to development has been more actively promoted by and through partnerships between African governments and regional institutions, such as the Southern African Development Community, the Common Market for Eastern and Southern Africa and the East African

**Figure 2: SSA's Development Corridors**



Source: Infographic by Julie Christopherson based on data from the author (unpublished elsewhere).

Community. More recently, several new partnerships have also been formed to improve multilateral collaboration around corridor planning and construction. For example, international financial institutions — including the Africa Development Bank, Asian Development Bank, Asian Infrastructure Investment Bank, European

Bank for Reconstruction and Development, European Investment Bank and the World Bank Group — and bilateral aid agencies, such as US Agency for International Development, are each involved in financing corridor projects.

Other sources of “non-traditional” funding are also advancing Africa’s development corridors. The BRICS (Brazil, Russia, India, China and South Africa) countries’ governments are involved in providing financial support for large-scale infrastructure projects across SSA. For example, a partnership between Mozambique, Brazil and Japan called ProSavana is helping Mozambique to implement the Nacala Corridor, including upgrading rail and road infrastructure and an ocean port. In 2014, the BRICS countries also established the New Development Bank with an explicit objective of financing infrastructure upgrades.

Private and state-owned companies have also emerged as new and increasingly important sources of financing for SSA’s development corridors. Major agricultural enterprises and extractive companies have been particularly keen to support infrastructure development in Africa, as new roads and railways are essential for commercial agriculture and industrial development. Again, companies from BRICS countries have been active in this regard. Chinese firms, such as the China Civil and Engineering Construction Company, receive financial backing from China ExIm Bank for engineering and design contracts related to corridor projects across SSA. Similarly, Brazilian firms, such as mining giant Vale, are investing heavily in Africa’s physical infrastructure

### The Promise of Africa’s Development Corridors

Although Africa’s development corridors are designed and implemented with the primary goal of attracting major international investment by improving infrastructure, they also have the potential to support wider economic growth and socio-political development objectives, including:

- **Increasing international trade:** Development corridors link commodities to new markets. Landlocked countries, in particular, have the potential to benefit from corridors as they can gain access to ports and new opportunities to participate in global trade. For example, in addition to providing Zambia port access, it has been argued that the North South Corridor has the potential to reduce the journey time for goods by decreasing travel time and making border stops more efficient (Department for International Development 2011). By building or rejuvenating infrastructure and introducing regulatory reforms, SSA’s development corridors also promise to attract

new private actors and international investors. This serves as an important economic impetus for these mega-infrastructure developments.

- **Fostering regional integration:** Regional integration is widely understood to be essential to economic growth. Land transport and regional trade across Africa has historically been slow and costly (World Economic Forum 2015). Development corridors open up regional markets, link production clusters in different countries and facilitate the free movement of goods, services and people (Hope and Cox 2015). They may also foster political stability and peace by aligning regional economic interests. For instance, governments connected by transnational infrastructure projects generally have equal interest in ensuring the success of the corridor. Africa’s development corridors have given rise to innovative transnational governmental arrangements, such as the Tripartite Free Trade Agreement between the Southern African Development Community, East African Community and the Common Market for Eastern and Southern Africa.
- **Driving local and domestic economic growth and social development:** Development corridors create new employment opportunities through the construction of infrastructure in the short term. For instance, some research claims that the North South Corridor has created over 14,000 jobs during the construction phase, contributing to job training and improved livelihoods (Byiers and Vanheukelom 2014). In the long term, development corridors have the potential to generate new forms of employment, as well as to open new market opportunities for small and large producers and enterprises. Furthermore, through job creation and market growth, there is the potential for greater tax generation and increased purchasing power.
- **Increasing agriculture production:** Food security is predicted to become a major challenge in Africa over the coming decades, as Africa’s population is projected to double to 2.5 billion by 2050 (UN 2015). Given the continent’s escalating population and generally underperforming agricultural sector, development corridors have been proposed as a strategy for increasing food production. Infrastructure development attracts investment in commercial

agriculture, which has the potential to improve agricultural yields and food security. The food-security nexus is also frequently invoked as a justification for African development corridors, as it has been argued that agricultural investments and intensification are needed in order to prevent conflict (Laurance et al. 2015).

Given these contributions to economic growth, social development and political stability, development corridors have also been acknowledged as an important strategy toward achieving the Sustainable Development Goals (SDGs). Infrastructure development is both an explicit goal of the SDGs (SDG 9), as well as an implicit means of achieving other SDGs.

### Challenges Faced by SSA's Development Corridors

Despite the potential of development corridors to contribute to development, challenges remain in implementing corridors and enabling them to achieve their intended results. One major challenge is ensuring that corridors achieve industrial intensification and improve trade and connectivity without having negative impacts in terms of sustainability or the social dimensions of development. In other words, there are certain challenges that must be considered and managed when planning and implementing development corridors in order to achieve positive development outcomes, such as:

- **Preventing environmental degradation:** Once complete, Africa's development corridors will span over 50,000 km in length, yet their ecological impact of development corridors will be larger (Laurance et al. 2015). The impacts of transportation infrastructure span far beyond the immediate project footprint. In addition to degrading land and water sources, development corridors often traverse areas that are environmentally sensitive and rich in biodiversity. While there has been some discussion around "greening" development corridors, in many cases the environmental safeguards in place in order to protect against environmental damage are weak or non-existent.
- **Accessing land equitably:** Rural communities are often forced to resettle as a result of corridor development. Those that are forcibly displaced may receive inadequate compensation for their land and/or experience a disruption of their land-based livelihoods. This can

result in political unrest and/or conflict (Cousins and Kepe 2004). In some cases, issues around land and compensation have delayed or caused corridor projects to be rerouted. This is cost-intensive for financiers of corridors. Issues around land reflect legitimate concerns about the social justice implications of large-scale infrastructure development.

- **Ensuring improved food security:** Some recent studies suggest that large-scale infrastructure development may fail to address food insecurity in Africa's growing cities and peri-urban areas. Scholars have argued that this is because there is less land available than often described; the land that is available has less agriculture potential than originally anticipated; and there are no processes in place to ensure that increased commercial agriculture reaches those that are most food insecure (see, for example, Chamberlin, Jayne and Headey 2014; Nijbroek and Andelman 2016).
- **Addressing negative social impacts:** Development corridors may introduce new social problems to already marginalized and vulnerable communities. For example, transport corridors have been associated with an increase in the transmission of HIV/AIDs and other diseases, while one-stop border checks have been found to enable human trafficking (Wiemar 2006). Corridors can also disrupt migratory routes and trading networks, as well as sever ties between communities and public goods, such as grazing land, water points, schools, hospitals and places of employment. Thus, while development corridors have the potential to contribute to development, they may also create new development challenges.

Although networks such as the Integrated Resources Corridor Initiative are working to ensure that development corridors are economically, socially and environmentally sustainable, many gaps in resources and technical capacity challenge the planning and implementation sustainable corridor projects. Some of these gaps can be addressed through coordinated international assistance and donor mechanisms that focus on environmentally and socially sustainable corridor development. For example, the European Union has established a fund for infrastructure projects with cross-border or regional impact in SSA, which offers grants for technical assistance/feasibility studies and social or environmental components of projects.

## Recommendations

Development corridors have emerged as a strategic approach to development across SSA and will likely remain a focus of investment and development assistance in the near future. Canada has skills in sustainable agriculture and mineral production, along with expertise in social and environmental feasibility studies, which could be leveraged to help mitigate some of the challenges that threaten the success of Africa's development corridors. Leveraging Canada's significant experience, expertise and skills in these areas would also serve to promote greater coherence between Canada's development and trade efforts. Environmentally sustainable and socially beneficial development corridors also serve the interests of the private sector by addressing existing constraints to efficient and cost-effective trade on the continent.

There is ample guidance material available on how development partners and private sector actors can support the success of SSA's development corridors.<sup>1</sup> Based on this guidance material, possible entry points where Global Affairs Canada could become involved in corridor development in Africa include the following.

**Global Affairs Canada should conduct research on the impact of development corridors in SSA.** It could conduct studies on trade and investment potential of development corridors; studies on the agricultural and mineral potential of development corridors; and studies on how best to balance the commercial success of corridors with the needs of small-scale producers.

**Global Affairs Canada should provide technical assistance.** Areas to do so include producing feasibility and environmental and social impact assessment studies prior to physical development, and identifying and supporting the development of required environmental and social regulations prior to physical development in order to mitigate environmental and social risks.

**Global Affairs Canada should assist with capacity building.** It can provide training on sustainable agricultural production and mining practices, and build the capacity of civil society organizations and industry associations to support equitable and sustainable partnerships between commercial investors and smallholder producers.

Global Affairs Canada is currently rethinking its international assistance policy to identify the strengths that Canada brings to international assistance efforts and how to capitalize on those strengths. These recommendations advise Canada to share its expertise in, and experience with, sustainable agriculture and mineral production, social and environmental feasibility studies, and civil society capacity building. In doing so, Canada can leverage its international assistance, using its expertise to stimulate sustainable corridor development in partnership with African governments while simultaneously working toward greater coherence between its development and trade objectives.

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<sup>1</sup> For example, see: Hope, Albie and John Cox (2015) and Adam Smith International (2015).

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