



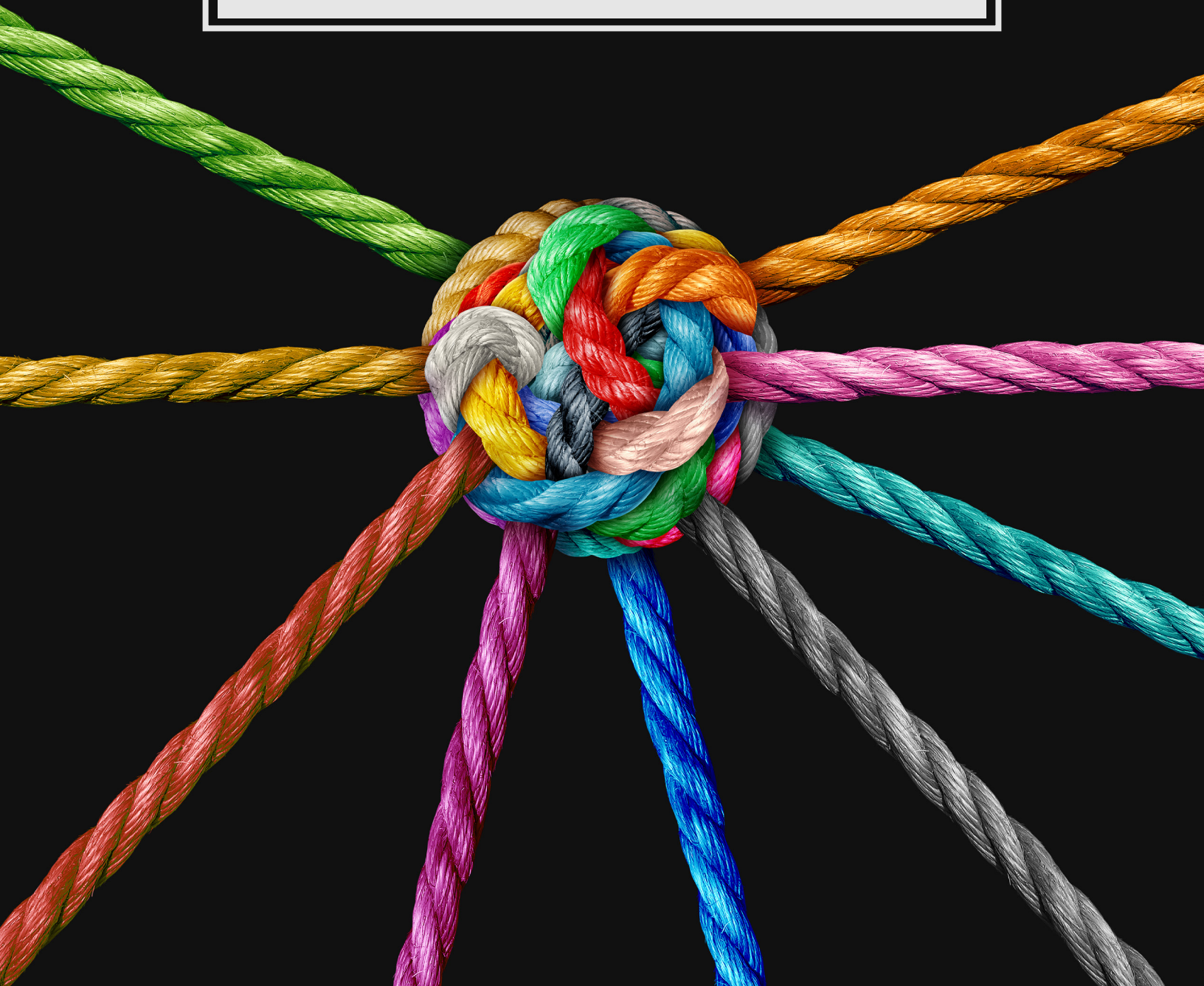
BALSILLIE SCHOOL  
OF INTERNATIONAL AFFAIRS

# Gordian Knot

## 2024 Global Trends Report

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







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The Foreign Policy Research and Foresight Division at Global Affairs Canada is proud to support and be associated with the Graduate Fellowship Program/Young Thinkers on Global Trends Initiative. The challenges facing Canada today are unprecedented and truly global. Tackling those challenges requires fresh ideas and engagement with new generations of thinkers, researchers, and activists to help create opportunities for a sustainable future. We would like to thank the students and professors of the Balsillie School of International Affairs for their time, effort and commitment throughout the year to make this initiative successful. The results of their work, which has been encapsulated in this anthology, will help inform the work of Global Affairs Canada as it relates to foreign policy, trade and international development.



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# Introduction

The mandate of the Balsillie School of International Affairs (BSIA) is to find solutions to humanity's greatest challenges - and it is a mandate which we take very seriously. The list of global challenge continues to increase, introducing concerns and complexities which challenge existing policy tools, frameworks and approaches. Indeed, it is not uncommon for commentators to suggest we are living in an era of "polycrisis" – the idea that the world is currently immersed in a series of major crises each of which on its own would be difficult enough to resolve, but which collectively represent a Gordian Knot for which there are no easy solutions. Unlike Alexander the Great, we cannot simply wield a sword to cut our way through these interconnected problems. The world needs more and better international cooperation and more effective global governance, both of which seem to be in short supply these days.

The situation is, however, not completely dire. While we have not yet seen the end of the Covid-19 pandemic, its impacts have largely receded, in no small measure due to the marvels of scientific ingenuity. Thanks in part to central bank interventions, the post-pandemic inflation crisis that saw high single-digit levels of inflation in North America is slowly being tamed without the significant economic downturn or recession that many feared would happen. And, thanks in part to President Joe Biden's signature 2022 Inflation Reduction Act, *The New York Times* reported that the push to move off fossils to renewable sources of energy is occurring faster in the United States than most analysts anticipated.

Even so, the challenges are daunting. 2023 was the hottest year on record, contributing to a series of extreme weather events, notably the devastating wildfires across Canada and the United States. These wildfires served as yet another reminder that we are falling behind in the race to decarbonize our economies. The release of generative artificial intelligence tools that can create content, that is indistinguishable from that created by humans, in only mere seconds has the potential to disrupt and distort our political systems, economies and social fabrics to such a degree that many in the sector compared their development to the invention of the nuclear bomb. The war in Ukraine continued to exacerbate geopolitics shifts and great power rivalry, leading some to argue that we are now living in a multipolar world in which a direct conflict among the United States, China and Russia is no longer inconceivable. Meanwhile, former US President Donald Trump faces nearly 100 federal and state indictments for his role in efforts to overturn the results of the 2020 presidential election. The outcome of this process, which could involve a prison sentence for Trump's crimes, would signal that in the world's greatest democracy no individual is above the rule of law. This notwithstanding, polls also suggest that a significant portion of Americans believe the charges are politically motivated and would not accept a guilty verdict lightly. Lastly, on October 7, Hamas launched an armed attack against Israel. At the time of writing, the conflict has already recorded the deaths of over 1,200 Israelis and over 15,000 Palestinians, and has led to a widespread humanitarian crisis in Gaza, continued violence and regional instability.

*This anthology* is our contribution to efforts to “untie the knots.” It consists of 11 student policy briefs divided into four thematic sections. It is the final product of the 2022–2023 Young Thinkers/Graduate Fellowship program, a professional development program that the Balsillie School runs in collaboration with Global Affairs Canada (GAC). Section 1, “Africa and Asia” contains two briefs outlining opportunities for Canada to strengthen its relations with Africa and the Indo-Pacific, respectively. Section 2, “Trade and Economy” consists of two briefs examining the possibilities and challenges associated with the adoption of digital currencies and transitioning the Canadian economy off fossil fuels. Section 3, “Development Assistance and Environment” contains four briefs that focus on subjects of food insecurity, combatting discrimination against 2SLGBTQI+ communities, migration within the Great Lakes region of North America, and addressing climate change in Canada’s Arctic. Finally, Section 4, “Conflict, Sanctions and Arms Control” includes three briefs examining the scope of destruction in the war in Ukraine, the efficacy of international sanctions regimes and the case for Canadian leadership in strengthening the nuclear non-proliferation regime.

This anthology is the seventh in the series of anthologies which the BSIA has published since the partnership with GAC began in 2015. It reflects the efforts of so many people; people without whom the program would not be possible.

On behalf of everyone at the BSIA, we thank the many GAC officials who read and commented on the briefing notes, and whose feedback was invaluable. It has been a true pleasure to work with all of you. Special thanks to colleagues in the Foreign Policy Bureau — specifically to

Halleh Koleyni and Janice Frichette — for coordinating the program on behalf of GAC. The program is the success that it is because of you.

We would also like to thank the more than two-dozen BSIA faculty, fellows and Ph.D. students who mentored the teams throughout the program.

Thank you to our copy editor, Carol Bonnett, and graphic designer, Melodie Wakefield, for their work in getting this anthology to press. We are deeply grateful for your help.

Last, but not least, we would like to congratulate the students in the Master of Arts in Global Governance and Master of International Public Policy programs for their hard work and for putting bold ideas on the table. Thanks to all of you for your efforts in helping the school fulfill its mandate.

Ann Fitz-Gerald  
Director, BSIA

Andrew Thompson  
Program and Partnerships Manager, BSIA



# Africa and Asia

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# Africa-Engagement Framework: An Opportunity for Canada

Frederick Okello, Mark Pompilii and Karson Simpson

## Issue

The challenge for Canada to date in its relationship with the African continent is based to a large extent on the lack of a new, more strategic, meaningful and trusted partnership. Importantly, not pursuing a strategic and achievable policy direction in Africa at this moment in time could pose a significant opportunity lost for Canada. Our research suggests that Canada could spear-head an evolving, more comprehensive commitment to Africa through augmenting its assistance programs with higher education capacity building.

## Overview

Canada has been a champion of multilateralism within the rules-based international system (Global Affairs Canada [GAC] 2023). The mandate of GAC tasks the department with leading negotiations of bilateral, plurilateral and multilateral trade agreements (GAC 2023). Canada's engagement with Africa to date has been shaped by humanitarianism, development and peace and security commitments (GAC 2021b). However, Africa's priorities have evolved, and the steps Canada has taken to develop a new African engagement framework reflect Canada's recognition of this and the need to transition to a newly defined relationship and commitment.

## Background

### Canada's Engagement to This Point

Multilateral engagement in Africa has been on the Canadian radar as the discourse suggests that Canada and Africa share common visions of peace, sustainable development and equal opportunity. Prime Minister Justin Trudeau and African Union (AU) Chairperson Moussa Faki have discussed how continued economic transformation and growth in Africa creates opportunities for all (Canada 2020). In October 2022, the Government of Canada committed \$223 million in project funding to support various priorities shared with African countries:

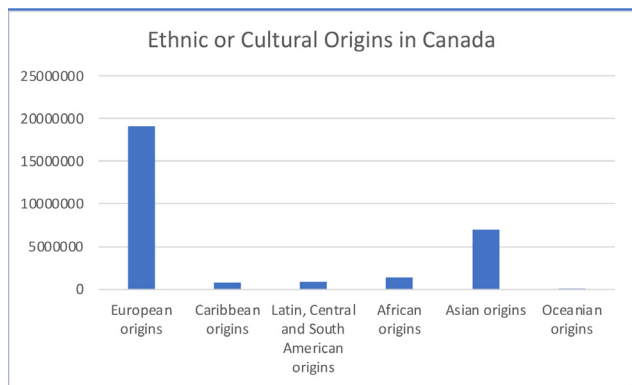
- Over \$37 million allocated to peace and security initiatives (GAC 2022a);
- Over \$18 million for economic development and support for small and medium sized businesses (ibid.);
- Over \$168 million for sustainable development focusing on work towards gender equality, education, and COVID delivery (ibid.).

Canada also has trade and investment interests in Africa, concentrated in 10 Sub-Saharan countries: Benin, Burkina Faso, Democratic Republic of Congo, Ethiopia, Ghana, Mali, Mozambique, Senegal, South Sudan and Tanzania (GAC 2021b). To date, Canada's engagement in Africa has involved peace and security funding, development and growth assistance, and identifying further opportunities for increased investment.

## A Logical Progression to Further Engagement

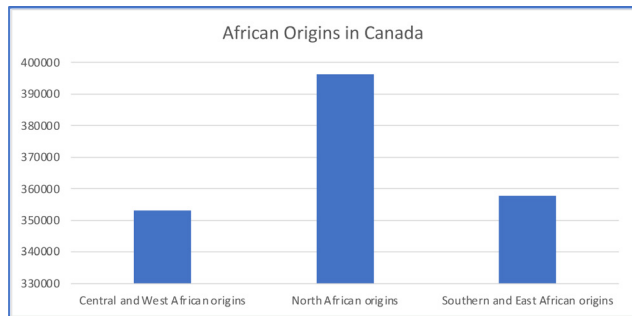
Beyond the shared priorities between Canada and the African continent, the people-to-people links facilitate further reasons for engagement. The African diaspora is the third largest in Canada (see Figure One) — yet Canada lacks any significant multilateral commitment. The majority of migrants come from North Africa, followed by Southern and East Africa, and Central and West Africa (see Figure Two).

**Figure One: Ethnic or Cultural Origins in Canada**



Source: Graph created by Mark Pompilii, from data sourced from Statistics Canada (2022).

**Figure Two: African Origins in Canada**



Source: Graph created by Mark Pompilii, from data sourced from Statistics Canada (2022).

Demographic trends suggest that, with approximately 70 percent of people on the African continent under the age of 35, exponential growth will be observed in both the diaspora and at home. Further, many African Canadians have strong commitments to their cultures and homelands (Tetty et al. 2006). Diaspora organizations can act as a catalyst for collective identity as members of diaspora networks form obligations towards their host societies and countries of origin (ibid.). Globalization has intensified

the commitments to local communities, ultimately making diaspora groups an important part of the policy process due to both familial ties and political connection to one’s homeland (ibid.).

## Engagement Strategy

Canada should embark in multilateral relations with Africa that aim to foster economic growth, regional integration and intercontinental trade across the African continent. Canada’s engagement with the African continent should focus on developing the adequate infrastructure to grow intra-African trade.

Africa trades with outside regions more than it does with itself, despite the availability of regional and continental policies aimed at increasing intra-continental trade (Mlambo and Masuku 2022). In a period of post-decolonization African countries concluded that continental integration would become important towards their socio-economic and political development (ibid.). The formation of the Organization of African Unity (now African Union) and regional economic communities (RECs) indicated that Africa wanted to implement a continental agenda built on integration, communalism, and social cohesion (ibid.). However, Africa is not trading enough with itself to harness its full economic potential. Two important realities stand out from the above: first is the need for African states to reposition themselves economically after colonialism; and second appears to be the failure of many attempts to foster regional integration and increased intra-continental trade (ibid.). Despite acknowledging the existing challenges, the African Continental Free Trade Area (AfCFTA) emerges as a unique opportunity to grow intra-Africa trade and diversify trade exports with the rest of the world (ibid.). AfCFTA has huge potential to succeed as intra-Africa trade is expected to grow by the mid-2020s (ibid.).

Nonetheless, there are concerns that not all African states will equally benefit. Central to these concerns are fast-developing states and those which have the adequate infrastructure causing skepticism among some African states (ibid.). Benefits cannot only accrue to bigger economies such as South Africa, Nigeria, Egypt, Angola and Kenya if it wants to avoid the exit of some of the smaller countries as the agreement matures (ibid.). This will require a careful balancing between opening markets and protecting smaller players.

Canada should expand its multilateral engagement with African countries and regional organizations including the AU and RECs such as the East African Community and African Development Bank. This engagement should focus on supporting intra-African trade across the continent for social and economic development.

## Recommendations

Canadian multilateral commitments in Africa should proceed through a soft power engagement strategy supporting multilateral relations with Africa through methods of science diplomacy to bridge opportunities for higher educational and civil society partnerships in the domains of energy, agriculture, natural resources and technology. Science diplomacy (SD) is an international policy instrument well suited to address the central challenges of the globalization age (Copeland 2011). SD is a subset of public diplomacy (PD) and should not be seen as a distant outlier (ibid.). It is a crucial, if under-utilized component within PD, and represents a significant source of soft power (ibid.). SD is significant not only in its capacity to resolve many of the world's most pressing problems, but also because it is an effective conduit for the transmission of essential human values such as evidence-based learning, cooperation, openness and sharing (ibid.).

This engagement framework would be welcomed as it operates on a partnership basis rather than an extractive nature, which is still being pursued by many Group of Seven nations. An engagement driven by educational and capacity-driven partnerships also aligns with Canada's international principles of equity diversity and inclusion and its feminist international assistance policy.

The recommendations are as follows:

**GAC should foster educational partnerships with African institutions.** Canada should promote collaborative education, science and technology research partnerships and networks in Africa for mutual benefit through training and technological development. Canadian scientists and professors from partner organizations should conduct field research in Africa. Canada must strengthen higher education and research partnerships to encourage academic knowledge and learning resource sharing through joint research programs and scholarships for African scholars under friendlier visa rules.

Capacity-building programs have been pursued by other donor countries; however, this support has been focused primarily on health, defence and security. Canada's higher education system is strong and African leaders have enormous respect for academics and academic institutions. Further, this engagement is relatively low risk but carries with it a high potential return on investment. It can also serve as an important basis for meaningful relationships at the policy and business levels. These meaningful educational partnerships can lead to the fostering of industry and sector-based expansion that promote collaborative research partnerships and training to support industrialization and the manufacturing sector that many of Africa's subsistence economies and diversification strategies are eager to realize. This expansion should primarily be focused on energy, agricultural, natural resource and technology industries.

**Canada should increase its energy diplomacy with African institutions in renewable energy initiatives, research collaborations, and public and private networks.** Canada can replicate the USA Inflation Act to strengthen its support of energy transition in Africa through finance, technology and research in gendered on- and off-grid private hydro, solar and wind power generation, in collaboration with other development partners such as the World Bank Group and International Finance Corporation in stimulating private investment in distributed renewable energy systems under the Multilateral Investment Guarantee Agency initiative.

**GAC should foster partnerships through agricultural assistance programs.** There has been a dramatic shift to the way in which African agriculture has been operating with economic growth, urbanization, and climate change affecting methods of production (Christiaensen 2017). The information base on which African agriculture operates has been limited, with dated technology and developing slowly (ibid.). Engagement in Africa's agricultural sector can involve scientific research, combined with traditional knowledge, to increase the productivity of their fields, diversify their crops, boost their nutrition and build climate resilience (Dongyu 2022). For this transformation to be achieved, African countries must be in the driver's seat (ibid.). This investment should be targeted towards the Comprehensive African Agricultural Development Programme, a continent-wide initiative led by African countries to end hunger and reduce poverty through agricultural development (ibid.).

**GAC should foster partnerships through natural resource governance.** As Canada works to advance international standards and guidelines for the governance of natural resources, there is an opportunity to foster multilateral relationships with African institutions to develop best practices in natural resource extraction, development and security (GAC 2022b). Canada can offer collaboration, partnership and guidance from leading scientists, professors and experts to collaborate with African leaders and institutions to advance economic stability, natural resource extraction and to strengthen the governance of natural resources in Africa. This kind of collaboration would foster innovation, environmental protection and management, strengthen value chains and advance women's participation in key development sectors (GAC 2021a). Engagement in the governance of natural resource can be best achieved through research and the transfer of scientific knowledge to better inform the governance and expansion of Africa's natural resource sector and improve women's engagement in the governance of natural resources (ibid.).

**GAC should prioritize investments that increase digital transformations in Africa.** Technological advancement can transform Africa into digital Africa. Digital technologies (DT) are defined broadly to include digital and data infrastructure, broadband internet, smartphones, tablets, and computers (World Bank Group 2023). They also include more specialized productivity-enhancing solutions, such as management upgrading, worker training, procurement, marketing, logistics, financing and insurance (ibid.). Bold policy actions that create a conducive DT environment that is appropriate for Sub-Saharan Africa will result in positive impacts that are visible across governments, corporations and households (ibid.). This can also support Africa's growing workforce and facilitate continued learning.

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# India's Potential as a Growing Digital Economy: An Opportunity for Canada's Indo-Pacific Strategy

Alessandro DiRaimo, Matthew Olsen, and Alexander Waworuntu

## Issue

India's development of a highly digitized economy represents untapped potential for Canadian participation and engagement. How can Canada leverage this in the context of Canada's Indo-Pacific Strategy?

## Background

In the current geopolitical climate, the Canadian-Indian bilateral relationship has been strained, nevertheless, India remains a key actor in the Indo-Pacific region. In the event of a restoration in diplomatic relations, digital transformation is an area of potential positive improvement in this relationship.

India is of growing strategic and economic importance to Canada's engagement in the Indo-Pacific region. It has been identified in the recent Indo-Pacific Strategy as a "critical partner" in pursuing our objectives (Global Affairs Canada [GAC] 2023). India has emerged as a powerful economic force with a GDP exceeding four trillion dollars CAD since 2021 and being home to the world's largest population (ibid.). Under Prime Minister Narendra Modi's leadership, India is positioning itself to attract a large share of foreign investments, notably in the electronics sector, where the government aims to expand its manufacturing economy from 16 percent to 25 percent over the next few years (*The Economic Times* 2022). India is expected to play an increasingly dominant role in the Indo-Pacific region.

By 2030, the Indian GDP is forecasted to rise to over US\$7.7 trillion (Biswas 2023).

Continued engagement with India will therefore become increasingly important, especially considering the deterioration of Canada-China relations since 2019 (Reaves 2020, 55). The Indo-Pacific Strategy correctly identifies India's importance in achieving Canadian strategic goals in the region by focusing on developing economic, academic, educational and research ties (GAC 2022). However, given recent trends in New Delhi's economic strategy, one area that merits greater attention is the country's potential to become the largest digitized economy in the region.

## Digital Transformation in India

India prioritizes digital transformation in its current economic development platform. This transformation will not only modernize India's domestic infrastructure and stimulate economic growth, but it will also open a gateway to a more digitized and connected global landscape. Throughout his term, Prime Minister Narendra Modi has placed digitization at the forefront. In 2015, he initiated the "Digital India" campaign aimed at enhancing digital infrastructure and facilitating basic bureaucratic and commercial functions online (*The Indian Express* 2015). Since then, this strategy has produced various homegrown digital capabilities and services.

Digital India has been a momentous addition to the country's digitization efforts. In 2006, the Indian government launched a national e-governance strategy, covering digitization and tech adoption in various government areas, including agriculture, land records, health, education, passports, police, courts, municipalities, commercial taxes and treasuries. Since then, its expansion into its current, full-fledged digital strategy has brought about three major infrastructure projects in digital ID, broadband and service delivery. It also includes 10 government service initiatives and 16 others designed to empower citizens and businesses to pursue digitization in their own work (Ministry of Electronics & Information Technology [MEITY] 2021).

For example, the Indian government's foray into digital infrastructure through its "India Stack" project has led the country to develop a broad, open API (application programming interface) that allows government bodies, businesses, start-ups and developers to utilize a unique digital infrastructure to solve India's hard problems towards presence-less, paperless and cashless service delivery (ibid.). This enabled innovations such as the Unified Payments Interface, which allows more efficient and accessible peer-to-peer and bank-to-bank transactions. The Government of India hopes to use initiatives like these to transform its economy while tapping into a greater network of people in India and abroad (Dieterich 2023).

Additionally, with the launch of the 2020 Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors, the Indian government has increasingly focused on building a domestic electronics manufacturing industry (MEITY 2020). Most importantly, India is transforming its economy to meet the physical requirements of digitization by joining the global semiconductor race. Narendra Modi's "Make in India" campaign has driven the country to incentivize semiconductor manufacturers to launch ventures in cities like Chennai, with subsidies amounting to around US\$10 billion (Reed 2022).

Evidently, India views digitization not simply as a tool for efficiency, but as a window for adopting advanced manufacturing offering investment upsides for tech multinationals from other industrialized countries.

## **Canada-India Science and Technology Relations**

Canada and India have a long-standing commitment towards science and technology (S&T) cooperation, laid out by the 2005 Canada-India Science and Technology Agreement. This has led to multiple memorandums of understanding and joint declarations in areas such as patent protection, aerospace, agriculture, energy, information technologies, mining, remote sensing and medicine (Giri 2022). In 2018, Canada and India signed a Joint Declaration of Intent on Cooperation in the Field of Information and Communication Technology and Electronics. This document charts the potential areas for collaboration, though with little mention of India's growing focus on digitization (Ministry of External Affairs 2018). As well, Canada and India partake in a biannual India-Canada Joint Science and Technology Cooperation Committee Meeting in which both governments discuss emerging priorities in this field, the last of which was held in 2022 (GAC 2022).

Additionally, Canada and India have very strong civil society and business linkages, both formally and informally. Indian companies are increasingly becoming active in Canada in fields such as information and communication technology and software. At the same time, more than 600 Canadian companies have a presence in India and more than 1,000 are actively pursuing business in the Indian market (High Commission of India 2023). Moreover, Canada has become an education destination for over 650,000 Indian students from 2012 to 2021 (GAC 2023).

Comprehensive engagement with India will require a multifaceted response that engages with the Indian state, civil society and business community. Despite India's recent push towards digitization, supporting Indian digital transformation remains an under-explored area for cooperation. While supporting the development of regional digital infrastructure is a stated goal of the Indo-Pacific Strategy, Canada must recognize the potential that India represents for future Canadian participation and engagement as it pursues its digitization agenda (ibid.).

## **Cultivating Digital Transformation Cooperation with India**

The prevailing S&T relationship with India sets the foundations for a concerted focus on digital transformation cooperation. Like New Delhi, Ottawa

is increasingly interested in building a highly digitized economy. In the last few years alone, Canada launched the Canada Digital Adoption Program, which seeks to help Canadian businesses adopt digital technologies to increase their competitiveness (Innovation, Science and Economic Development [ISED] Canada 2023a), implemented its very first digital charter that improves transparency, safety and protections for everyday Canadians accessing digital platforms (ISED Canada 2023b) and announced a CDN\$136 million Advancing Industry Driven Digitalization of Canada's Supply Chain initiative (Transport Canada 2022). These highlight mutual priorities in the digitization of Canada and India's respective economies.

Canadian strengths, expertise and credibility can be leveraged to support India in its digitization agenda. Canada can become a foremost partner in sharing technological and policy-relevant knowledge, opening avenues for digital business and building secure digital economic infrastructure in both countries. While India is not a traditional ally of Canada, nor do Ottawa and New Delhi see eye-to-eye on every issue, digital transformation cooperation is an area where interests converge. Both countries stand to gain from the investment in this increasingly critical area for current and future cooperation.

Cultivating digital transformation cooperation with India will be the vehicle to secure the five objectives laid out in the Indo-Pacific Strategy (GAC 2023). It will promote peace, resilience and security (Objective 1) by promoting safe and accountable digital platforms. It will expand trade, investment and supply chain resilience (Objective 2) by building on digital technology industries and emerging markets. It will invest in and connect people (Objective 3) through increased international S&T knowledge-sharing. It will build a sustainable and green future (Objective 4) by enabling digital solutions to societal challenges. It will solidify Canada as a committed and engaged actor in the region (Objective 5) by partnering with the largest democracy and soon-to-be largest digitized economy in the region. Not recognizing the potential of Canadian participation in India's digital transformation will be a strategic loss to Canadian interests.

## Recommendations

**GAC should facilitate greater working relationships between Canadian and Indian academia, firms and civil society on digital transformation.** Expanding Canadian academic and research elements rests on Canada's advantage from healthy and organic interactions. Canada should focus its partnership on research with Indian academia and development firms. In accordance with the Investment Canada Act (ICA) and the National Security Guidelines for Research Partnerships (NSGRP), preventing foreign interference and unwanted knowledge transfer, among other considerations, should be at the forefront. As a result of recent Chinese state involvement and in accordance with the above, GAC needs to encourage research and development programs with Indian institutions that follow these guidelines. GAC must consider a partnership with the Natural Sciences and Engineering Research Council of Canada and Canada Research Chairs to develop research programs with Indian institutions. Research partnerships should focus on digital technologies, transformation and the digital economy, and follow the guidelines set out under the ICA and NSGRP. Following the guidelines, Canada can secure partnership with Indian institutions and its growing technology community fostering greater innovation in emerging technologies.

**GAC should pursue greater government-wide cooperation with India on digitization efforts.** Canada should pursue greater efforts as laid out in the 2018 Joint Declaration of Intent on Cooperation in the Field of Information and Communication Technology and Electronics. This can be expanded toward a memorandum of understanding between Innovation, Science and Economic Development Canada and India's Ministry of Electronics and Information Technology, focusing on taking advantage of digitization and developing digital infrastructure. Canada should signal digital transformation as a key priority in the 2024 India-Canada Joint Science and Technology Cooperation Committee. Canada should also pursue novel and innovative forms of cooperation in digitization, including developing cooperative mechanisms between Canadian and Indian ministries on digital safety, supply chain resilience and in accountable data governance, many of which will present mutual positive spillover effects in other domains, such as strengthening national security, pursuing green technologies and ensuring economic resiliency.

**GAC should ensure that the Canada-India bilateral Comprehensive Economic Partnership Agreement (CEPA) includes goals similar to the Digital Economy Partnership Agreement (DEPA).** India's growing commitment to digital transformation presents an opportunity for Canada to partner in technology expertise sharing, digital business, investment and securing digital infrastructure. A clear, transparent Canada-India digital partnership should incorporate elements from the DEPA, a comprehensive digital trade framework open to World Trade Organization members. Despite India's historical hesitancy toward formal trade agreements, Canada should strive to incorporate DEPA aspects into a bilateral CEPA, specifically, the non-application of customs duties on electronic transmissions, digital small and medium-sized enterprise dialogue and digital inclusion to enhance connections and access.

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# Trade and Economy





# The Future of Currency: Defining Canada's Role in Global Digital Monetary Reform

Michelle Ehinlaiye, Ethan Ellsmere, and Claudia Gallant

## Issue

Central banks have begun recognizing the potential of public digital currencies as both a tool to facilitate monetary reform, and a danger to global financial stability. Canada must engage with international partners to create a regulatory framework for central bank digital currency (CBDC) reform that promotes democratic values, while reducing the risks of destabilizing implementation.

## Background

CBDCs are a form of fiat currency that are issued completely electronically by a country's central bank. Different from crypto currencies, CBDCs are issued, monitored and backed by public institutions (Wiertz and Boven 2022; Bank for International Settlements [BIS] 2020). Since CBDCs are completely electronic, certain implementations allow for unprecedented access to currencies to any individual with an electronic device (Adams, Kewell, and Parry 2018). Possible design features such as offline functionality, zero transaction fees and data portability are ways of making CBDCs more accessible and attractive to more people, especially those in remote areas (Group of Thirty 2020).

As of December 2022, 114 countries, representing over 95 percent of global GDP, are researching CBDCs. Sixty countries are in the advanced phases of exploration, development, pilot or launch (Atlantic Council 2022). All Group of Seven (G7) countries have now moved into development stages of CBDCs and 18 of the Group of Twenty countries are now in the advanced stages, with

seven of them issuing pilot projects (ibid.). The Society for Worldwide Interbank Financial Telecommunication (SWIFT) reported that the international trade capability of CBDCs is being further explored by 14 central and commercial banks worldwide — including Banque de France, the Deutsche Bundesbank, Standard Chartered, and Wells Fargo — which are testing pilot inter-network communication to accelerate full-scale use of CBDCs for trade purposes by ensuring interoperability within their trading network (SWIFT 2022). While the Bank of Canada has decided not to pursue the implementation of a domestic CBDC at this time, because of the rigour of current national monetary infrastructure, Canada continues to research and develop CBDC capabilities to better understand avenues of implementation should it be needed in the future (Bank of Canada 2023).

## A Call for Regulation

The BIS emphasised in the 2020 “principles of CBDCs” that the novel currencies’ implementation must *do no harm*, that “any CBDC must support ... the ability of central banks to fulfil their mandates for monetary and financial stability” (G7 Research Group 2021). Forums of international policy development have begun recognizing the latent potential public digital currencies pose to global financial innovation (BIS 2020), asserting that the values of transparency, accountability and digital inclusivity should be foundational to its development (BIS 2020).

Current CBDC innovation in the global fora remains uncoordinated, leaving the webs of financial market structures vulnerable to disruptions if development

continues without global regulatory support. Nigeria's implementation effort of the CBDC "eNaira" and its following cash-withdrawal restrictions in a push for CBDC efforts, induced national civil unrest and "cash riots" (Anthony 2023). Nigeria's "cautionary tale for other countries" (ibid.) highlights a dangerous incongruence between the understood opportunities that the novel currency can create under guiding frameworks, and the disruptions to global financial stability created in the wake of premature adoption. With global CBDC development and research funding increasing exponentially since 2020 (BIS 2020), alongside 25 current national implementations and pilot projects as of June 2022 (UN Department of Economic and Social Affairs 2022), the declaration of CBDC positions alone is insufficient to address the underdeveloped regulatory frameworks and discourse necessary for global financial stability. From the lessons of CBDC implementation efforts and growing research on equitable CBDC development, a guiding set of principles must be promoted to ensure the harmonization of international policy in support of inclusive monetary security, accountable government use and transparent implementation to promote public trust.

### **The Guiding Principles of CBDC Development**

One of the main appeals of CBDCs is their design, which has been created to thrive within the public sector. This allows for greater levels of accountability and transparency among central banks within this currency type. The trackability of this currency offers possibilities for combatting cybercrime, including anti-money laundering and counter-terrorism financing, as every transaction is monitored (*ACAMS Today* 2021). Therefore, CBDCs have the potential to combat digital illicit activities while also enhancing levels of integrity through its public institutional framework, which prioritizes a secure platform that users can trust.

For example, the rapid development of digital currencies in Africa, such as the Nigerian eNaira and the Ghanaian eZwisch, has resulted in organizations such as the West African Economic and Monetary Union (WAEMU) considering the implementation of CBDCs for its potential in creating transparency and accountability (Simons 2022; IMF 2022). The WAEMU cites CBDC development as a platform for reform to begin remediating the US\$120 billion trade finance gap that Africa faces today (tralac 2015). According to the BIS, the use of distributed ledger

technology and cryptographic hashes supported by CBDCs offer enhanced accessibility to ensure a high level of integrity for transaction records that can create confidence for states and businesses to further engage in global commercial activities and pathways to reform (BIS 2022).

Although the benefits of increased accountability and transparency outweigh the disadvantages, there are increased concerns regarding public surveillance. The design of CBDCs creates a digital footprint for each individual that uses this currency (European Data Protection Supervisor 2023). Therefore, people's payments and spending habits are tracked by public institutions, which presents a threat to one's privacy. The risks associated with tracking digital transfers revolves around the ability of public central banks to access information connected to an identity, thus leading to state misuse that could create biased profiling and unwanted surveillance (ibid.).

The significance of streamlining financial connections is addressed through the adoption of CBDC technology and it supports a renewed engagement in international trade and investment through lowered trade finance barriers (SWIFT 2022). These include factors such as the reduction of cross-border interest rates and near instantaneous transaction times. Under SWIFT connector gateways, CBDC networks and existing payment systems can be harmonized to facilitate new levels of cross-border interoperability (ibid.). This form of collaboration will allow for greater inclusivity among banks, which would increase access to central banks in order to achieve mandates such as payment settlements (BIS 2021b).

As a result of greater streamlined financial connectivity, currency substitution, defined as using foreign currency instead of one's domestic currency, would result in issues for both the sending and receiving country within this network. According to the BIS, this occurrence would devalue independent monetary policies that have been implemented by the countries involved (BIS 2021a). With regard to the sending country, greater demand than supply for the foreign currency could lead to an increase in capital flow within that nation (ibid.). While this may not necessarily be a negative outcome, the drawback in this situation lies in its interference with monetary policy and the extent to which it is enforced. As for the receiving country, the result of currency substitution would lead to a destabilization of the domestic currency demand (ibid.). This would affect the domestic central bank as it would

struggle to control the flow of money due to the lack of domestic liquidity, reducing the influence domestic banks have on domestic monetary systems and policies (ibid).

The promotion of financial inclusion is a crucial feature of CBDCs that could be used to further efforts to develop less economically stable countries. CBDCs have the potential to become a more accessible method of digital financial transfers. According to the World Bank, approximately 1.7 billion people are unbanked (World Bank 2021). The World Economic Forum showcases that CBDCs could bring financial services to people previously excluded from traditional banking systems. In remote areas without digital infrastructure, transactions through CBDCs can be made at little or no cost using cellular devices, completely offline. In regions such as Sub-Saharan Africa where transfers and payments come at an expensive cost of eight percent per transfer (Fuje, Quayyum and Ouattara 2022), CBDCs could create a viable option for a cheaper, faster and easier method of banking compared to private forms of digital currency.

The increased use of digital currencies presents a risk of eliminating physical cash, which has no cost associated with transactions. This means that legislation would need to be created to ensure that CBDC transfers do not have an associated “transaction cost.” Ultimately, while proponents of digital currencies are hopeful about the prospect of updating the current monetary system, CBDCs may not have a radical impact on current trading or domestic transactions.

## Recommendations

**The construction of an inter-ministerial position on CBDCs through a concerted policy harmonization effort will fortify Canadian policy responses to future developments.** CBDC's potential for fundamental monetary transformation continues to be a topic of policy research for the Bank of Canada, analyzing implications to security, transparency and the effective support of current Canadian policy imperatives. New implementation efforts in foreign jurisdictions requires Canada to harmonize its national position on CBDC governance and assuage incongruities in current policy stances. Unifying an inter-ministerial approach to Canada's position on CBDC development will provide key actors in the Canadian government the information necessary to successfully engage with CBDC technology.

**Continued leadership by Canada in key forums of policy development to promote the coordination of international policy regulation.** SWIFT, in tandem with its central bank partners (BIS 2021a), launched the first pilot of a cross-border CBDC settlement mechanism interoperable between both traditional and digitized fiat mediums (SWIFT 2022). SWIFT's successful implementation of global public digital currency exchange represents the latest initiative led by key forums of policy innovation that continue to shape policy in CBDC development. Asia-Pacific Economic Cooperation (APEC) has already facilitated the drafting of a digital CBDC inclusion agreement (APEC 2022). Canada's position as a founding member provides a unique opportunity to bring national insights on CBDC learning and promote a collaborative path for accountable implementation practices, with an emphasis on regulatory oversight and concerted interoperability. With digital inclusivity remaining a key value for Canadian policy by the Bank of Canada (2023) and GAC (2023), balancing both important elite forums of policy innovation and plurilateral mediums must be considered to project a position of inclusive financial digitization.

**Canadian accession to the Digital Economy Partnership Agreement (DEPA) and reflexive economic agreements should remain a priority.** The lack of comprehensive regulation for public digital currencies in international financial institutions highlights the nascence of CBDC development. Where rigid international regulatory frameworks may fail to adapt to the rapid evolution of CBDC technologies, the adoption of a reflexive approach to digital financial governance through the creation and accession to living agreements should become a policy imperative. DEPA, led by Canadian-aligned partners of New Zealand, Singapore and Chile (Government of Canada 2022), acts as both a statement of financial multilateral cooperation, and a cognizance to the evolving climate of digital economic technologies through its principles of adaptive governance. As the impacts of CBDC development are realized, Canada's engagement with reflexive digital governance bodies will ensure its policy development remains at the forefront of accountable implementation practices.

**Under the auspices of digital inclusivity, Canada must engage with the developing normative discourse surrounding CBDC implementation.** The Bank of Canada's growing research in both wholesale and integrated CBDC development highlights the necessity that governance structures must be integrated to ensure intersectional compliance with financial security and rule-of-law. Preliminary contributions to the "CBDC principles endorsement" announced by G7 and the BIS mark the first step for Canadian contributions in shaping international norm-setting behaviour for the novel financial technology. As the international fora looks to Canadian governance as a model for democratic values, a determined projection of good governance principles into CBDC will prove vital against emerging concerns of the technologies misuse.

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# Energy Greenification and a Net-Zero Industrial Transformation in Canada

Joanne Joseph, Anjali Patel and Matthew Vucic

## Issue

As one of the leading global emitters of greenhouse gases, Canada must act now to move to the forefront of leading a green energy transition, adopting policies in line with achieving Canada's goals around a net-zero industrial transformation and minimizing its contributions to climate change.

## Background

### What is Net-Zero?

One vital pathway to achieving net-zero entails pulling as many greenhouse gas (GHG) emissions out of the atmosphere as are being put in (Canadian Climate Institute 2022). This helps to avoid the harmful effects of emissions that contribute to climate change by either switching to technologies that do not produce emissions or pulling emissions out of the atmosphere and sequestering them permanently underground.

Exactly how Canada's net-zero transition will unfold is still uncertain. However, Canada has already begun its energy "greenification" journey through a series of international and domestic commitments, such as the Net Zero Accelerator initiative, which involves reducing GHG emissions by 40-45 percent by 2030 and achieving net-zero by 2050 (Government of Canada 2023b). The Canadian Net-Zero Emissions Accountability Act ensures accountability and transparency in achieving government targets. The legislation requires public participation and independent advice to guide the Government of

Canada's efforts in offsetting emissions (Government of Canada 2023a). With less than a decade left until 2030 and countries around the world racing to capture the jobs, investment and security of a low-carbon economy, Canada is laying the foundation to support an affordable, reliable, and sustainable transition to 2050 (Government of Canada 2022).

Key enabling conditions that play an important role in reducing emissions across all sectors of the economy include widespread electrification, increased use of renewable energy and alternative fuels, and the accelerated deployment of engineered CO<sub>2</sub> removal mechanisms, such as carbon capture, utilization and storage (CCUS) technologies. These long-term strategies are of utmost importance for Canada, as the country is warming at twice the global average (with Canada's North warming three times as fast). These effects are projected only to intensify, leading to more frequent and severe weather extremes.

### Canada's Efforts to Reach Net-Zero

As a major producer, consumer and energy exporter, Canada is met with challenges and opportunities for reaching its enhanced emissions targets. Energy makes up 10 percent of Canada's GDP and is a major source of capital investment, export revenue and jobs. Moreover, Canada's highly decentralized system of government means that close coordination between federal, provincial and territorial governments is essential for a successful energy transition.

Canada has already begun its efforts to reduce emissions through the use of non-emitting sources of energy such as hydro and nuclear power. Therefore, Canada's domestic electricity supply is among the cleanest in the world, with over 80 percent of it coming from such sources. Canada is also actively advancing a number of technologies, most recently announcing additional support for carbon capture & storage (CCUS) and hydrogen and nuclear small modular reactors (SMRs), with intentions of serving as a supplier of energy and climate solutions to the world (Kucharski and Exner-Pirot 2022; NRCan 2012).

Decarbonizing energy production is central to energy transition. Clean fuels such as hydrogen, advanced biofuels, low-carbon natural gas, sustainable aviation fuel and synthetic fuels make up less than six percent of Canada's total energy supply, but between 10 percent and 51 percent of Canada's national energy demand is expected to be met with clean fuels in 2050 to reach its net-zero goal (International Energy Agency [IEA] 2022). To achieve such an ambitious target, the Government of Canada has introduced a number of measures that support the production of clean fuel industries, such as the Clean Fuel Fund and the Hydrogen Strategy for Canada. Ensuring these initiatives and technological advancements are employed via Canada's vast network of trading partners (other areas where Canadian companies drill for oil) will ensure that these changes meet energy goals.

In a post-COVID world, Canada has also shown its commitment to pandemic recovery efforts with its climate ambitions by developing green stimulus measures, targeting areas such as upstream emissions, clean energy infrastructure, buildings efficiency and zero-emission vehicles. The last three budgets in 2021, 2022 and 2023 reflect this in highlighting new clean energy investment tax credits, CDN\$3 billion in funds for direct clean electricity spending, electric vehicle infrastructure investments and CCUS funding (Andrew, Majerbi and Rhodes 2022). The implementation and use of more affordable technological practices can help achieve maximum macroeconomic and employment impact while also maneuvering the energy system in a more sustainable direction (International Institute for Sustainable Development 2023). Canada's "Strengthened Climate Plan," aimed at meeting and exceeding Canada's emissions targets under the Paris Agreement and achieving net-zero by 2050, will also be central to the government's goal of

creating one million jobs and restoring employment to pre-pandemic levels (Natural Resources Canada 2023).

Additionally, accelerating the transition towards a green future requires recognizing Canada's strengths and acknowledging its weaknesses.

### Canada's Strengths

- **Utilizing oil and gas experience** — Amid volatile oil prices and the effects of the COVID-19 pandemic, the federal government has made "green energy" a strategic priority. Canada holds a unique comparative advantage in oil and gas production, which in the long run will ensure Canada's place as a reliable supplier of renewable energy (IEA 2022). The oil and gas industry has the skill, institutional resources, know-how and industrial capacity to help pave a path forward for decades of clean, renewable energy. Canadian start-ups are leveraging their oil and gas drilling experience, demonstrating potential for the development of geothermal energy and the opportunity to attract international attention and investment.
- **Resource hub** — Western Canada has vast potential for fostering a green transition. With the large availability of subsurface data from oil and gas exploration and development, the economy is equipped with an extraordinary ability and knowledge to understand and map the potential of geothermal energy. Furthermore, Canada is at an advantage with readily available drilling equipment at costs significantly lower than in many economies worldwide. For instance, the Yukon Territory or the Intermontane Basins in British Columbia have the potential to co-produce oil and gas activities alongside geothermal energy through the implementation of new technologies to develop the area (Trudeau 2021a).
- **Nuclear and SMRs** — Nuclear energy in Canada is a strategic asset. Canada is a "Tier 1" nuclear nation with a full-spectrum industry that is leveraged for significant economic, geopolitical, and social and environmental benefits. Canada can anchor jobs, intellectual property and supply chains to deliver on our climate change and clean energy commitments while enabling constructive dialogue with Indigenous communities on remote energy issues. The SMRs



in Canada can be used to meet the different energy demands for on-grid, heavy industries such as mining, and remote communities. SMR can enhance competitiveness in the mining sector as a lower-cost source of low-carbon heat and power in remote frontier areas. It also promotes unlocking regional growth opportunities through advanced manufacturing and nuclear supply chain services. Building on decades of experience in supporting and deploying supply chain and national laboratories primed for growth, Canada is one of the few countries with capabilities that cover the full nuclear lifecycle from mining to plant construction to operation to waste management (Canadian Small Modular Reactor Roadmap Steering Committee 2018).

### Canada's Challenges

- As mentioned, Canada has the potential to tap into potential resources to develop geothermal energy capacity. However, there is no **centralized strategy within the federal government**. A whole-of-government approach is required to work across departments and agencies to implement a coordinated response to a complex issue like climate change and accelerate the transition to a “green future.” Additionally, under the purview of Environment and Climate Change Canada, climate policy is on “the doorstep of many different departments” — from agriculture to transport to natural resources and infrastructure (Trudeau 2021). Departments and agencies need to support and work collaboratively towards common climate goals by addressing specific issues or sectors of the green transition (Ghori 2022).
- Canada **risks falling behind in new frontiers** and losing out on the important economic opportunities — on innovation, development and implementation — that will arise through the green transition. If the economy lags in implementing green technologies, it might be impossible to catch up or to effectively capitalize on new technologies. Therefore, since the green transition is in Canada’s economic, international affairs and individual-level interests, it would be a major disadvantage to the future well-being of the economy not to take part in energy greenification.

### Other Key Players

- As of April 2020, industry groups from both the oil and gas and geothermal sectors have created an alliance to promote the development of renewable technologies in Canada. Players such as Clean Energy Canada, the Canadian Association of Oilwell Drilling Contractors and Geothermal Canada (in alliance with oil and drilling companies like Beaver Drilling and Terrapin Geothermics) hope to create opportunities for clean energy sector jobs and the development of renewable technologies in Canada (Trudeau 2021b).
- The UN Framework Convention on Climate Change (UNFCCC) and Canada’s “Just Transition” can support a green transition through the conversion of hydrocarbon infrastructure and the development of local clean energy projects.
- Canadian start-ups — a research centre in Ottawa, CanmetENERGY, and the Deep Earth Energy Production Corp. in Saskatchewan — reveal how Canada leverages existing skills in research and expertise in oil and gas, mainly drilling techniques, to attract international attention and demonstrate the potential for development of geothermal energy.
- Collaboration between the Minister of International Trade, Export Promotion, Small Businesses and Economic Development and Ministry of Environment and Climate Change will be important to continue Canada’s leadership on the global effort to phase out mining of thermal coal and coal-power electricity (Trudeau 2021a).

### Recommendations

**Focus on swift, centralized action.** In Canada, the mindset of producing the last and cleanest barrel of oil is a common one among industry and government heads alike. However, first-mover status on energy greenification would yield huge benefits for Canada to not only attract an incoming wave of foreign investment and innovation within green energy, but also to encourage other fossil fuel-based economies to similarly make the leap towards energy greenification. GAC should pursue meaningful leadership and bold commitments within multilateral fora (such as the UNFCCC) while maintaining strong partnerships with provinces in order for Canada to become the world’s first leading energy superpower on energy greenification and assume all of the benefits therein (Trudeau 2021b).

**Wield federal capacity for procurement and investment.**

The purchasing power in government procurement processes is a useful tool that should be harnessed to a greater effect with regard to directly supporting technologies and businesses with the greatest potential for emissions reductions. Furthermore, Canada's attitude on tax breaks and credits to these businesses is currently extremely successful and should continue to be improved — transitioning to green technology is a matter of existential importance, so dismantling all financial barriers is of utmost importance (i.e., with initiatives like the Accelerated Investment Incentive being an effective framework for future barrier reduction). Finally, procurement should not only move towards greenification, but also away from carbon-intensive technology — implementing strong guidelines on existing carbon-heavy procurement within construction, transportation and utility industries is one step toward forcing an all-encompassing shift within the Canadian economy.

**Standards-setting in natural resource extraction.** Given that Canada is on the path to becoming a major supplier of critical minerals within a global push toward energy greenification, the federal government/Foreign Affairs has the power to unilaterally create stricter regulations without driving away business to other places that will use worse environmental regulations to extract these resources for a smaller price (Natural Resources Canada 2021). This is the opportunity to create an international reputation for sustainability (especially among allies within the larger trend of “friendshoring”) (Freeland 2022), and to capitalize on the current trends to implement long-needed strict regulations on extractive industries domestically (Church 2020). Energy greenification takes place within a larger movement for environmental safety/well-being — as such, Canada must do its part in ensuring that the entire process of greenification creates a safer environment for all (beyond simply emissions reductions).

**Capitalize on knowledge in natural resources.** Canada has a wealth of international institutional power and knowledge in natural resource industries, largely in Western provinces that might find themselves disadvantaged by anti-oil/gas energy policies. This is a strength that should be capitalized on in order to offset any potential negative sentiments that arise as a result of greenification — carbon-heavy corporations and industries must be supported and pushed Foreign Affairs and NRCan in a mass retooling and transition to applicable/

similar green energy fields — i.e., with oil and gas drilling being supported in a transition to greater geothermal capacity (Office of Energy Efficiency & Renewable Energy n.d. ). Similarly, Canada's tech industry should be supported with additional incentives for deployment of impactful technologies (especially in transportation — to match programs like those of the United States) to move the transition most effectively and quickly (Alternative Fuels Data Center 2022).

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# Development Assistance and Environment

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# Women Feeding Cities: Supporting Women in the Informal Food Sector in the Global South Beyond COVID-19

Heba Hamzeh, Laeba Khan and Adwoa Konadu-Yiadom

## Issue

The COVID-19 pandemic has disproportionately impacted women in the Global South who work in the informal food sector, deepening food insecurity, gender inequality and economic inequities in urban areas.

## Background

Women who are informal food vendors in the Global South perform an important role in feeding the cities where they live and work. However, the COVID-19 pandemic has produced multiple negative gendered impacts on their lives and livelihoods, pushing women in the informal food sector into precarious situations. This policy brief presents two case studies to highlight the challenges that women face while working in the informal food sector and how these issues were exacerbated by COVID-19.

The pandemic recovery context provides a historic opportunity for Canada to act on its strong commitment to promoting gender equality, as enacted by the Feminist International Assistance Policy (FIAP) (Office of the Prime Minister 2021). Aligning with the UN Women “A Feminist Plan for Sustainability and Social Justice” (UN Women 2021), FIAP’s priority area of “Growth that Works for Everyone,” will be particularly important to economically empowering women in the informal food sector. By supporting women-led informal enterprises

in the food sector, recovery efforts and preparation for inevitable future food system shocks can be supported.

## Women’s Role in the Informal Food Sector

Women in the informal food sector, who operate outside of legal frameworks, are the backbone of local food systems and household food security in many parts of the world. They play important roles across the food supply chain and contribute to its stability by holding jobs in food production (availability), food distribution (access) and food utilization (consumption) (Chakraborty 2020). Informal food vendors make cheaper-priced, diverse and nutritious foods available to marginal and poorer urban communities.

Women are also largely responsible for care work and domestic duties. Before the pandemic, women spent 3.2 times as many hours as men on unpaid care and domestic work (UN Women 2022). During the pandemic and ensuing lockdowns, these duties for women increased significantly (Chakraborty, 2020), limiting their time to focus on their informal businesses and thus having negative impacts on their earnings. However, women’s work inside the home is unpaid — rendering it invisible.

Women’s participation in the informal economy is due to the ease of entry into informal work (McCordic and Raimundo 2019). However, across cities, workers in the informal economy have lacked social protection, access to

credit, and government pandemic relief measures needed to prevent themselves from slipping into poverty (UN 2020). Drawing on evidence-based research from the Hungry Cities Partnership, this brief provides two urban case studies to identify the crucial roles women food workers play in contributing to urban household food security and outlines the challenges they faced prior to the pandemic.

### **Case Study 1: Mexico City, Mexico**

In Mexico City, approximately 51 percent of total employment constitutes informal work, with women making up 44.5 percent of informal workers in the city (Capron et al. 2017). Informal workers participate as street food vendors or operate food stalls in one of the city's 300 markets (ibid.), supplying diverse food products for their neighbourhoods. More than 60 percent of urban households frequent these small shops on a weekly basis (Capron et al. 2018), making informal food vendors a critical source of food in Mexico City.

Despite their key role in food provisioning, numerous policies have been put in place to restrict their activities, including a heavy police presence to displace the activities of informal workers (Capron et al. 2017). This lack of legal security puts informal workers in a vulnerable situation. Considering that the average income earned from informal work in Mexico City was only about US\$308 before COVID-19 (Capron et al. 2018), women working in this sector are left living hand-to-mouth.

### **Case Study 2: Maputo, Mozambique**

Women dominate the informal sector in Maputo. More than four million women are involved in the city's informal economy, constituting 59% of total informal employment (Chikanda and Raimundo 2016). Many women rely on the informal food sector as a main source of their household income and food security.

Like Mexico City, most urban households regularly obtain food from these informal vendors. Small informal shops were the most widely used source to buy food for 75 percent of Maputo's households (Raimundo, McCordic and Chikanda 2018). Most urban residents depend on these informal vendors for household food supply. Yet, informal workers face legal challenges as "unplanned" informal marketplaces are considered illegal in Maputo (Chikanda and Raimundo 2016).

Women food vendors often start their informal businesses with their own savings or from family loans (Raimundo et al. 2020). They survive on an average income of about US\$290 (Raimundo, McCordic and Chikanda 2018), leaving many without the ability to reinvest or grow their businesses. This lack of financial security is an indication of the survivalist, rather than opportunistic, strategy orientation of many informal food workers (Crush, Kazembe and Nickanor 2023).

## **COVID-19's Impact**

The COVID-19 pandemic has exacerbated the financial risk and social security challenges faced by women in the informal food sector. Lockdowns, containment measures, disrupted supply chains and increased food prices have disproportionately impacted women in this sector. UN Women reported that globally, women lost over 54 million jobs in 2019 and 2020 — leading to a "Shecession." Data from the International Labour Organization (ILO) confirms that women experienced higher job losses than men in 2020 and 2021, particularly in the informal sector. This trend was observed in countries such as Mexico and Mozambique (ILO 2023).

During the pandemic, many women dropped out of the labour force to provide at-home care during lockdowns and school closures (Karkee and Sodergren 2021). As a result, much of the progress made under Sustainable Development Goal #8 of Decent Work and Economic Growth as well as Goal #5 of Gender Equality threatens to be rolled back.

In countries like Mexico and Mozambique where millions of women are working in the informal sector, lockdown measures during the pandemic had crippling effects on women's livelihoods and has increased food insecurity for their families (Nyabeze and Chikoko 2021). The pandemic compounded existing vulnerabilities and pushed women into survivalist strategies. In a Women in Informal Employment: Globalizing and Organizing-led survey, 35 percent of respondents reported drawing on already meager savings, while 23 percent were forced to reduce spending on food items (Reed et al. 2021). Consequently, many women vendors faced the dilemma of "dying from hunger" or "dying from the virus" during the pandemic.



## Policy Responses

There is an urgent need to address the issues surrounding the challenges women face in the informal food sector or food insecurity, gender inequality and economic inequities will continue to be felt by millions of people in urban areas.

On the one hand, gender mainstreaming in policy responses to the COVID-19 pandemic has been insufficient. Out of 4,968 global response measures, only 1,506 (32.30 percent) were found to be gender-sensitive, indicating a lack of prioritization of women's needs by governments (UN Development Programme 2021). Measures addressing women's economic security, violence against women, unpaid care and informal sectors were notably lacking worldwide (ibid.). Inadequate attention to gender dynamics by many governments has resulted in weak policy reactions to the challenges faced by women in the informal food sector.

On the other hand, even if governments have taken action in the social and economic protection of women when carrying out COVID-19 response measures, those engaged in informal work do not benefit from government stimulus measures because support often does not extend to informal enterprises (UN 2020). For instance, the Government of Canada's international development assistance focuses heavily on supporting formally registered women-led small- and medium-sized enterprises (Government of Canada 2018) and fails to specifically mention informal food businesses or vendors.

Moreover, there is a strong rural bias present, in which assistance measures mitigating food insecurity and empowering workers seem to be disproportionately geared to rural areas in the Global South (Crush and Riley 2017). Although Canada has prioritized food security (Government of Canada 2018), its international development assistance is mainly productivist or food production centred, rather than on strengthening local food systems. With rapid urbanization and many of the informal workers operating in urban centres, these existing initiatives do not address the needs of informal workers in urban areas.

## Recommendations

### Short Term

**Support countries to take adequate action in the social and economic protection of women when carrying out COVID-19 gender response measures:** Gender-disaggregated data on informal employment and social protection measures should be improved to identify evidence-based weaknesses so that progress can be assessed, and decision-makers made accountable to these gaps. Improving the global response to COVID-19 can be achieved by providing resources to develop gender-sensitive pandemic response measures — such as the expansion of family leave, emergency childcare services or cash-for-care — and ensuring that gender is mainstreamed into all COVID-19 response activities. Such actions will ensure that the pandemic response is effective and inclusive, leaving no one behind.

**Target the informal sector specifically within Canada's Implementation of the 2030 Agenda for Sustainable Development:** Aligning with the recommendation by the UN Women (2021) "Feminist Plan for Sustainability and Social Justice," livelihoods-led interventions, especially for workers in the informal sector, should be a central aspect of post-COVID recovery. Canada should expand its existing development assistance initiatives regarding financing or entrepreneurial training to include women working in the informal food sector. This will promote a more comprehensive and inclusive approach to achieving the Sustainable Development Goals by Canada.

**Use innovative and blended finance:** Canada's FIAP should pursue gender-responsive design practices in blended finance initiatives. Through the Equality Fund, Canada can fund women's organizations in developing countries through predictable and flexible funding, along with technical assistance. Canada can use these funds to address new pandemic-related challenges for women food vendors, as well as future protracted crises. Canada should focus specifically on taking a feminist and intersectional pandemic recovery approach when financing women in the informal food sector to overcome challenges and build more resilient communities to maintain growth that works for everyone.

## Long Term

### Strengthen Canada's partnerships and empower women:

Canada's FIAP needs to broaden its focus to build diverse multi-stakeholder partnerships in the Global South across informal vendors' organizations, women's civil society organizations and government institutions — especially at local levels. There is an opportunity for Canada to use its rich experience in fostering women's entrepreneurship by leveraging the Women Entrepreneurship Strategy (WES) to create a triangular cooperation model with urban women working in informal food sectors across cities in the Global South. By drawing on WES's established knowledge hubs, Canada can transfer knowledge and capacity-building training to women in the Global South, while building strong alliances and empowering women.

### Address the rural bias and support women in rapidly

**growing urban areas:** Although food security is already a priority within Canada's international development assistance initiatives, the focus needs to be broadened from rural areas to include support for urban areas. Since women are the largest constituents of urban food environments, support for their activities in local informal food systems will contribute to gender equality and local food security in the rapidly growing urban areas across the Global South.

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# Advancing SOGIESC Rights Abroad: Opportunities for Inclusive International Assistance

Cassandra Ascenzi, Asha Harris and Alyssa Haskell

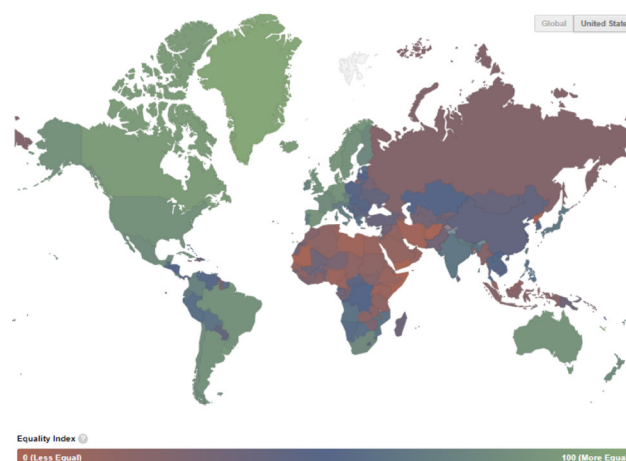
## Issue

As SOGIESC (sexual orientation, gender identity and expression, sex characteristics) minorities are marginalized around the world, Canada has an opportunity to play a global leadership role in protecting SOGIESC rights by developing its own intersectional, anti-colonial SOGIESC-inclusive international assistance programming in close collaboration with civil society organizations.

## Background

Around the world, people are discriminated against on the grounds of their sexual orientation, gender identity and expression, and sex characteristics. In Canada and other Western countries, these individuals may be referred to as Two-Spirit, lesbian, gay, bisexual, transgender, queer, intersex or asexual (2SLGBTQIA+); however, these terms are not universal. The SOGIESC term is considered best practice because it can be applied across languages and cultures, to people with fluid identities and to those who do not fall into the 2SLGBTQIA+ categories (UN Women 2021). In addition, SOGIESC people are diverse, and experience discrimination differently and unequally.

Figure 1: LGBT Equality Around the World



Source: Equaldex (2023)

SOGIESC minorities face discrimination and a lack of legal protection globally, particularly in countries that receive international assistance. For example, consensual same-sex acts are criminalized in 62 countries and punishable by death in 11 (International Lesbian, Gay, Bisexual, Trans and Intersex Association 2023). Many SOGIESC minorities are subjected to violence and face barriers to employment, health, education, and family (UN Human Rights Council [UNHRC] 2011). The Lesbian Gay Bisexual Transgender (LGBT) Equality Index [Figure 1] displays the level of equality in countries based on legal and social indicators. The map ranges from green (more equal) to brown (less equal), with countries in the

Americas and Europe tending to be more equal than those in Africa, Asia and the Middle East.

Discrimination against SOGIEESC minorities is the result of enduring colonial legacies as well as societal, religious and gender norms. Homophobia and transphobia are rooted in Euro-Christian ideas of morality and gender roles, as well as anti-SOGIEESC attitudes and laws exported by European powers abroad as a part of their colonial “civilizing” missions (Human Rights Watch 2008). The COVID-19 pandemic and global rise in far-right populism have exacerbated these attitudes and increased threats to the lives of SOGIEESC minorities globally.

Although progress has been made in protecting SOGIEESC rights in the past 30 years, in recent years there has been a rise in anti-SOGIEESC laws and attitudes around the world. Most recently, Uganda has passed one of the world’s most restrictive anti-SOGIEESC laws. Signed in March 2023, the law criminalizes same sex relations, punishable by either life imprisonment or the death penalty, and outlaws any activism on SOGIEESC rights or issues (Nyeko 2023). Current trends on SOGIEESC discrimination are alarming and deserve renewed and urgent attention.

## SOGIEESC Rights in the Global Context

Currently, there is no binding international human rights convention that protects the rights of SOGIEESC minority communities. However, there have been substantial efforts to protect and promote SOGIEESC rights by the United Nations, the International Commission of Jurists and various civil society organizations (CSOs). The basic human rights of SOGIEESC people are protected under international law, including the Universal Declaration of Human Rights, as well as under regional instruments, such as The Inter-American Convention against All Forms of Discrimination and Intolerance (International Labour Organization 2019). In 2016, the UN created the Independent Expert on Sexual Orientation and Gender Identity to identify and address SOGIEESC human rights violations (UNHRC 2016). The International Commission of Jurists (2007; 2017) created the Yogyakarta Principles and the Yogyakarta Principles Plus 10 to address the specific human rights needs of the SOGIEESC minority community; however, they are non-binding.

CSOs play an essential role in promoting SOGIEESC rights, documenting rights violations and supporting SOGIEESC minority communities globally. Canadian CSOs, such as Dignity Network Canada, raise awareness and resources for SOGIEESC issues, and partner with CSOs abroad to support vulnerable communities. Local CSOs around the world, such as Sexual Minorities Uganda, provide direct, essential support to SOGIEESC minority communities.

## Canada’s Commitment to SOGIEESC Rights

Canada is a leader in domestic SOGIEESC rights, with a strong track record of legal protection and social acceptance of its 2SLGBTQIA+ population (University of California, Los Angeles 2021). In August 2022, Women and Gender Equality (WAGE) Canada released the first Federal 2SLGBTQIA+ Action Plan to advance the rights and social, economic and health outcomes for 2SLGBTQIA+ Canadians (WAGE 2022b).

The Government of Canada (GoC) has also pledged to promote SOGIEESC rights abroad through bilateral engagements, partnerships with civil society organizations, and international assistance programming (GoC 2022). In 2009, Canada acknowledged and affirmed the Yogyakarta Principles as guiding principles for protecting SOGIEESC rights (GoC 2013). Canada has an opportunity to play a leadership role in protecting and promoting SOGIEESC rights around the world.

## The Changing Development Landscape

Foreign policy has increasingly become a tool to promote human rights, and more countries are adopting human rights-conscious international assistance (IA) programming. One example is Feminist Foreign Policy (FFP), which promotes the rights of women and girls abroad, and has been adopted by eight countries to date (UN Women 2022). Canada is currently developing its own FFP and FFP White Paper in collaboration with Canadian CSOs; however, the policy has yet to be released (Amnesty International 2021; Thompson, Ahmed and Khokhar 2021).

Canada follows a human-rights conscious approach through its Feminist International Assistance Policy (FIAP). Introduced in 2017, FIAP recognizes that gender equality and human rights are an important part of reducing global poverty and targets IA to key issues such as climate action and inclusive governance (GoC 2017). To develop and monitor its IA programming, Canada uses a Gender-Based Analysis Plus (GBA+) framework, which assesses how diverse groups such as women and different ethnic communities are impacted by Canadian policies (WAGE 2022a).

In addition to FIAP, Canada has engaged in some SOGIESC-inclusive IA programming through a series of initiatives. Following a commitment made at the 2018 Equal Rights Coalition, Global Affairs Canada (GAC) announced CDN\$30 million in dedicated funding over five years, followed by CDN\$10 million per year to improve SOGIESC rights and outcomes abroad (GAC 2019). This commitment was reaffirmed in 2022 with an additional CDN\$9 million in funding for three SOGIESC projects in the Global South (GAC 2022a). Canada provides this funding through the Act Together for Inclusion Fund (ACTIF), which is coordinated by Dignity Network Canada (GAC 2023).

### **Challenges in SOGIESC-inclusive Development**

FIAP explicitly focuses on gender equality for women and girls, and only mentions SOGIESC in passing; as such, the policy lacks consideration of the unique issues and needs of the SOGIESC minority community (Aylward and Brown 2020). The policy upholds the gender binary between men and women, marginalizing gender-diverse individuals. In its current form, the FIAP is not intersectional — that is, it does not recognize the full spectrum of human diversity and unique experiences that come from intersecting identities like race, gender and sexual orientation.

While Canada has funded SOGIESC-specific development programs, the overall volume has been limited. Canada's 2022 commitment of CDN\$9 million is a fraction of the overall CDN\$8.1 billion Canada spent on IA in 2021 and is far outpaced by the CDN\$377 million spent on gender equality and women's empowerment in 2021 (GAC 2022b). Canada's SOGIESC IA has also been disproportionately directed towards women, with only eight percent of funding allocated towards transgender

communities and one percent toward intersex communities (Global Philanthropy Project 2022).

Prior to 2019, Canadian funding for SOGIESC issues abroad had been largely ad hoc (Aylward and Brown 2020). Canada now channels its SOGIESC IA funding through calls for proposals, the FIAP and the ACTIF. Canada lacks a specific international SOGIESC office or special representative, which would help to coordinate, promote and monitor these SOGIESC initiatives.

GBA+ is also limited in its application to SOGIESC rights. The framework was developed to assess the rights and outcomes of 2SLGBTQIA+ individuals in Canada rather than abroad. The identities and experiences of SOGIESC minority communities around the world are diverse and may not align with Canadian frameworks. Canada must be cautious in applying Western frameworks abroad.

Development assistance has been used as a tool for imperialism by imposing assumed “universal” ideas of progress on the Global South (Achilleos-Sarll 2018). Even progressive IA programming such as FFP can perpetuate imperial relations and marginalization, particularly if the “target” population is not included in its design and development (Thompson, Ahmed and Khokhar 2021).

### **Innovative Approaches to SOGIESC-inclusive Development**

Several countries, including the United States and Germany, have adopted a SOGIESC-inclusive approach to IA programming, from which Canada can glean best practices.

The United States has:

- Appointed a US Special Envoy to Advance the Human Rights of LGBTQIA+ Persons (US Department of State 2021).
- Developed detailed manuals on SOGIESC rights and country-specific reports of the local SOGIESC rights environment to train U.S. workers in that country (United States Agency for International Development 2018).

Germany has:

- Mainstreamed LGBTI issues in its Foreign Policy and development cooperation (Federal Ministry for Economic Cooperation and Development 2021).

- Centered the local context and experiences of SOGIESC minority communities, including the recognition of colonial histories (ibid.).

### Opportunities for Canadian Leadership

Given Canada's strong SOGIESC protection and human rights-conscious IA programming, Canada can play a global leadership role in developing and implementing a SOGIESC-inclusive IA policy. Canada has previously co-chaired the Equal Rights Coalition to promote SOGIESC rights globally and has worked with CSOs such as Dignity Network Canada and Rainbow Railroad to coordinate SOGIESC rights funding and provide protection for SOGIESC refugees through the Rainbow Refugee Assistance Program (RRAP) (GAC 2017; 2022a; Immigration, Refugees and Citizenship Canada [IRCC] 2019). An opportunity exists for Canada to strengthen these partnerships both domestically and abroad.

Scholars have critiqued Canada's FIAP for focusing on traditional gender equality at the expense of transformative policy, while a SOGIESC-inclusive FFP aims "to disrupt colonial, racist, patriarchal and male-dominated power structures" (Thompson, Ahmed and Khokhar 2021, 26). As a first step, Canada can mainstream SOGIESC rights and issues into the FIAP. This approach must go beyond the gender binary and recognize that SOGIESC minorities face unique marginalization due to their intersecting identities and thus require distinct support. As the FFP White Paper is still being developed, Canada has an opportunity to mainstream SOGIESC issues into its FFP.

Canadian programming must also recognize and mitigate any imperial relations that arise from development assistance by taking an anti-colonial, bottom-up approach to development. This approach includes cautioning against assumed universal frameworks and ideas, having local stakeholders play an active role in designing what the goals and processes of IA programming are, and tailoring IA to the local context and history (Ndlovu and Makoni 2014). Canada should strengthen its partnerships with CSOs abroad, deepen its understanding of local experiences and needs, and work alongside local stakeholders in designing and implementing IA programming.

## Recommendations

**Create a special representative to advance the human rights of SOGIESC minority communities abroad** to coordinate, promote and monitor Canada's SOGIESC international initiatives. The representative should create a federal office to advance international SOGIESC rights and a pilot project in partnership with CSOs like Rainbow Railroad, building off existing expertise and networks abroad. Creating a special representative recognizes that the needs of SOGIESC minorities globally are distinct from that of Canada's 2SLGBTQIA+ population. (Timeline 12–18 months).

**Increase and diversify programming for SOGIESC rights initiatives through the Act Together for Inclusion Fund and in partnership with Dignity Network.** Canada has contributed CDN\$16.7 million in funding to ACTIF, representing a small fraction of Canada's IA (GAC 2023). Canada should increase this funding to ensure that SOGIESC initiatives receive substantial, flexible and sustained funding. Canada should ensure that this funding reaches the most marginalized SOGIESC communities by conducting an intersectional evaluation of funding outcomes. (Timeline 1–18 months).

**Finalize Canada's FFP and work with WAGE Canada and CSOs abroad to adapt the GBA+ to an international context.** Canada should continue and finalize its work with the FFP Working Group to expand SOGIESC-rights in other government initiatives. Canada should develop and pilot an international GBA+ framework and ensure that its structure is developed in partnership with local stakeholders to reflect the needs, identities and experiences of SOGIESC minorities abroad. (Timeline 12–18 months).

**Collaborate with GAC desk officers to develop reports on the SOGIESC context in each country of assistance to strengthen understanding and knowledge-sharing of local experiences and needs.** Country-specific manuals and reports will ensure that Canadian IA staff are trained for and sensitive to local SOGIESC contexts and indicate key issues to GAC for future programming. These reports should be developed in partnership with local SOGIESC minorities, CSOs and staff. (Timeline 18–24 months).



**Coordinate with Rainbow Railroad and IRCC to expand and promote the RRAP.** In many countries, SOGIESC minorities and CSOs are persecuted, leaving refugee resettlement one of the few viable options. As anti-SOGIESC laws are being passed around the world, Canada should further promote the RRAP abroad and expand its target for RAPP refugees to provide protection for a greater number of SOGIESC refugees. (Timeline three to six months).

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# Climate Migration in the Great Lakes Region: Collaborative Planning for an Uncertain Future

Olivia Karp, Suzanne Sawicki and Kendra Shields

## Issue

In the face of a rapidly changing climate and its profound impact on people's lives and livelihoods, the Great Lakes Region finds itself at the forefront of a pressing new challenge: climate migration. As the region grapples with expected population growth stemming from the movement of people from higher risk climate locations across North America, collaborative planning emerges as paramount for Canada's approach to sustainable development.

## Background

Climate migration is a fast and growing topic among the international climate change adaptation community. According to the United Nations High Commissioner for Refugees (UNHCR), an annual 21.5 million refugees have been forcibly displaced from their homes, because of climate related events since 2008 (UNHCR 2016). This number is expected to surge to 1.2 billion people in the next 30 to 50 years as the effects of climate change on communities and livelihoods become more frequent and severe (Institute for Economics & Peace 2020).

Dry and arid regions across the United States and Canada have become susceptible to climate vulnerability and risk within the last few decades. In Canada, due to changing frequencies of temperature and precipitation levels coupled with prolonged lengths of wildfire seasons, Western provinces are expected to face increased levels of risk for

climate events such as wildfires, droughts and floods (Bush and Lemmen 2019; Hanes et al. 2019). Water shortages and megadroughts in the Southwestern United States have persisted and worsened since the early 2000s, and severe climate events are becoming increasingly frequent and intense, forcing people on the move (US Environmental Protection Agency 2023). Sea level rise is one example of a gradual change that researchers believe alone could force more than 13 million people to permanently relocate across the United States by the end of the century (Hauer et al. 2020). In Canada, research indicates sea levels may rise 175 cm in parts of Canada by 2100, leading to 42 percent more Canadians in coastal communities becoming vulnerable to climate hazards.

The migration of persons across North America and into the Great Lakes region due to climate change realities will have significant implications for community vulnerability and water security in the region.

## Positioning the Great Lakes as a Climate Haven

There are 35 million people currently living in the Great Lakes region across the United States and Canada, and as climate challenges across North America are expected to continue, many have begun to label the Great Lakes region as a potential climate haven (Rajkovich et al. 2022).

Although more robust methodologies for projecting the magnitude of this trend are still forthcoming, preliminary

US studies of internal migration patterns since 1990 suggest that migration into Great Lakes cities tends to originate from areas facing extreme heat, indicating that the region could be poised to receive potential influxes from the south as the country continues to warm (Hauer, Baule and Channell 2022). Projected to face a relatively low risk of exposure to natural hazards under climate change when compared to the United States' national average and boasting an abundance of freshwater resources and temperate climate, the Great Lakes are expected to experience population growth as a result of climate-induced migration from higher climate-risk areas across the United States (United States Federal Emergency Management Agency 2023). Understanding how these population shifts might affect communities, resources, and infrastructure in the region is imperative in planning a sustainable future for all residents.

### **Typologies of Climate Migration**

The International Organization for Migration delineates two types of climate impacts that drive subsequent migration: climate processes, or slow onset changes such as sea level rise, drought and temperature increases; and climate events, or sudden onset changes such as wildfires, floods or hurricanes (Brown 2008). Climate impacts will produce varying typologies and patterns of migration, influencing demographic trends and levels of mobility (Marandi and Leilani 2022). Community integration efforts should encompass both temporary and permanent, planned and unplanned, climate migration. Policy planning will be required at varying spatial and temporal scales to attend to the specific needs of different migrants.

## **Implications for Future Planning**

### **Data Standardization and Coordination**

Coordination among stakeholders is critical to the development of policies that will provide support to communities impacted by climate migration. Existing frameworks for binational coordination bring together relevant groups to tackle issues in the Great Lakes region, such as the Great Lakes Water Quality Agreement and the International Joint Commission. Although work at the provincial and state level has begun to enact policies that support climate migrants, such as Michigan's Healthy Climate Plan, recent initiatives from international bodies such as the Great Lakes Commission's Action Plan for a Resilient Great Lakes basin have yet to prioritize climate

migration in their renewed efforts to standardize policy guidance and support collaboration in the region (Clark 2022; Altenberg et al. 2022).

Canada must urgently address the growing concerns voiced by civil society, businesses and local governments in outreach initiatives regarding the priority of collecting comprehensive demographic data on climate migrants in the Great Lakes region, which hampers effective planning initiatives aimed at seamlessly integrating climate migrants into community programs, including vital areas such as social services, health care, affordable housing and training and education. While accurately predicting climate migration proves challenging, substantial efforts towards scenario planning are necessary to develop effective strategies for comprehending the magnitude and extent of population changes that may arise, in order to effectively manage climate migration in the region. Therefore, it is crucial to establish consistent definitions of climate migrants and actively gather data on their demographics and population figures. In addressing these shortcomings, Canada can better equip itself to tackle the pressing challenges associated with climate migration.

### **Economy, Trade and Industry**

The Great Lakes region remains one of the leading economic and natural resource engines globally. Shared between the United States and Canada, the Great Lakes is home to 51 million jobs and 84 percent of North America's fresh surface water (Council of the Great Lakes Region 2016; US Environmental Protection Agency 2023). The region's reliance on the safe use of its waters is projected to increase in line with a rising population. Although robust trends have yet to be identified, early signs of increased business appetite for relocating water intensive industries to the Great Lakes are also expected with prolonged droughts occurring across dry and arid regions of the United States (Van Berkel et al. 2022).

With over 38 million people reliant on the lakes for drinking water, significant bilateral funding has been invested into protecting and revitalizing infrastructure and water security in the region, including the recent development of the Canada Water Agency and a \$420-million Canadian federal budget commitment to preserve and restore the Great Lakes over the next decade (Government of Canada 2023). Current agreements, however, are piecemeal — binational technical regulations on the use of water resources such as the Great Lakes

Water Quality Agreement are decoupled from economic labour, trade and investment strategies on Canadian water sources such as Canada's Blue Economy Strategy, which focuses on sustainable business practices and developments in science and technology for marine rather than freshwater resources (Government of Canada 2021). As people and industry alike move to the Great Lakes, Canada should look to an integrated sustainable economic model that strikes a balance between leveraging the region's resources and this influx of people as a potential labour resource, with higher levels of water use and increased scarcity.

Some cities in the Great Lakes region are already looking to leverage potential demographic shifts and integrate climate migrants into a new model for economic growth, and business leaders are taking proactive steps towards peer-to-peer learning surrounding policies towards effective water sustainability. However, industry stakeholders have echoed the desire for better demographic data in order to plan for climate in-migration (American Society of Adaptation Professionals 2022). Industries centred around sustainable infrastructure and land use planning require better information on potential demographic and resource use changes in the region in order to invest now in practices that will benefit both current and future residents. An economic shift based upon a blue economy model that focuses on environmental restoration, the incorporation of new labour demographics driven by climate migration, and the sustainable management of natural resources in a freshwater context serves as an opportunity for revitalization across cities in the Great Lakes.

### Community Infrastructure and Resilience

An influx of migrants into existing populated cities in the Great Lakes may increase vulnerabilities in the current infrastructure and capacities of the region to provide affordable social and public services to different residents. Governments, community members and civil society must work together to identify capacity needs and availability for the short-term and long-term integration of climate migrants, and ensure the needs of new residents are met without compromising those who are already there.

Community engagement, including Indigenous engagement, is critical for ensuring further marginalization and gentrification of existing communities is minimized in

the implementation of public service programs for climate migrants. Approximately 120 Indigenous communities occupy the Great Lakes. As of 2018, Indigenous communities in both the United States and Canada have been developing climate adaptation plans that utilize data and projections within their vulnerability and impact assessments (US Climate Resilience Toolkit 2018).

Existing groups such as the Council of the Great Lakes Region, Alliance for the Great Lakes and Great Lakes Community Action partnership, are engaging in the United States at both the local and provincial level to identify community needs and perspectives on building climate resiliency within the region through outreach programs (Nordman and O'Keefe 2018). Canada should ensure programs aiming to protect and restore the Great Lakes such as its Great Lakes Local Action Fund and the Great Lakes Protection Initiative incorporate local and Indigenous knowledge perspectives into water infrastructure programming. Collaboration is also needed between communities, organizations and each level of government to create equitable, co-created models and public information tools that address potential community climate vulnerabilities and allow for informed planned migration by those looking to migrate due to slower onset climate events.

## Recommendations

**Promote Cross-Agency Collaboration.** Recognizing that climate change issues require investment from each level of government, Canada should establish an intergovernmental working group to engage in scenario-planning and develop an adaptability plan that researches and addresses current and anticipated risks in the Great Lakes resulting from climate migration. GAC should collaborate with relevant federal departments such as NRCan, Fisheries and Oceans Canada (DFO), Environment and Climate Change Canada (ECCC), and provincial and municipal governments in Ontario and Quebec to define strategic interests and coordinate a national response that enables Canada to engage with bilateral partners through International Joint Commission working groups with the United States on a set of clearly articulated objectives.

**Standardize Data Collection and Definitions.** Stakeholders need to develop and implement a comprehensive data collection framework that includes a

standardized definition of climate migrants. Using existing governance mechanisms of the Great Lakes Water Quality Agreement, Canada should propose expanding the mandate of the Climate Change Impact subcommittee to develop transboundary climate change modelling that incorporates climate migration into scenario planning efforts. In addition, Canada should look to incorporate climate migration data on demographics such as age, gender, ethnicity, income and education levels into the International Joint Commission's Great Lakes Science strategy.

By implementing a standardized data collection framework that includes a comprehensive definition of climate migrants, stakeholders will have a better understanding of the scope and characteristics of climate migration, and work to better inform future resource allocation and policy decisions related to climate change adaptation and mitigation.

**Ensure Adequate Representation of Climate Migrants in Planning and Coordination Efforts.** Following federal budget announcements reiterating the need to preserve and protect the Great Lakes, Canada should ensure community outreach and planning for climate migrants within this funding. In line with work done in the United States, Canada should look to fund initiatives by civil society and academic institutions that engage with the communities and business leaders in the region, including focus groups and stakeholder engagement seminars to gather input and feedback on policies and programs related to climate migration, as well as to identify and address any barriers to successful integration and inclusion.

**Integrate a Blue Economy Model into Canada's Updated Freshwater Action Plan.** The Canadian government has recently established a new Canada Water Agency in their efforts to build a cleaner, stronger, more resilient economy and safeguard freshwater resources for generations to come. Canada should respond to calls for consolidating "place-based solutions" for the Great Lakes within recent "what-we-heard" engagement reports on Canada's Blue Economy Strategy, by encouraging a focus on climate migration's possible impacts into their planned evaluation of a renewed Freshwater Action Plan (Government of Canada 2021). This approach will allow Canada to create pathways for integrating potential climate migrants into a sustainable labour force, while ensuring investment into coastal infrastructure works in support of community adaptation and economic development objectives.

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# Securing the Northwest Passage: Integrating Climate Change into Canada's National Security Policy

Jennifer Jaeger, Eneria Mucaj and Jenna Phillips

## Issue

The Canadian government is ill-equipped to mitigate the threats that climate change presents to Canada's core national security interests in the Northwest Passage (NWP), with implications for surveillance and crisis management, Canada's position as a leader in Arctic governance and Indigenous rights and sovereignty.

## Background

### Climate Change as a Security Threat Multiplier

Climate change is an emerging security threat that is excluded from the Government of Canada's (2004) National Security Policy. As a threat multiplier that challenges our core national security interests, climate change is exposing new, unclaimed areas that can act as sites of conflict, resource extraction and threats to sovereignty of Indigenous populations and Arctic allies (Bronskill 2023; Fu and Jiang 2020). Sea ice melt is the most prevalent threat that climate change poses to the Arctic; the Arctic is warming three times faster than the global average. Arctic sea ice extent has declined by more than 25 percent since the 1970s and extensive sea-ice free periods are projected by mid-century (National Aeronautics and Space Administration 2022). This means that Canada's northern internal waters are becoming increasingly accessible. Specifically, as ice melts in the NWP, there will be increased access to large pools of oil

and critical minerals that other Arctic states, including the United States, the Federation of Russia, the Kingdom of Denmark, Iceland, Sweden and Norway, may want to claim. Sea ice melt also makes Arctic waters more accessible, creating opportunities and challenges through trade and tourism-related traffic, increasing the risk of spills and pollution in local Indigenous communities.

Focusing on the NWP as a way of managing the implications of climate change on Canadian security policy allows for feasible, spatially bound recommendations for action on this emerging threat. Although the immediate security threat is low, now is a prime opportunity for Canada to act proactively and secure its sovereignty over the NWP. The Minister of Foreign Affairs Mandate Letter advises Global Affairs Canada (GAC) to "move faster and go further on security measures" (Government of Canada 2021). Securing the NWP is a proactive measure for climate-proofing Canada's security strategies and offers a tangible first step for climate securitization across the country. To minimize the threat of climate change to national security in the NWP, important areas for GAC to consider are surveillance and crisis management, building confidence in Canada's leadership in the Arctic, and Indigenous sovereignty and security.

The current political context also provides an opportunity for GAC to proactively work toward Goals 6 and 7 of Canada's Arctic and Northern Policy Framework (Government of Canada 2019), which was established

in 2019. Goal 6 aims to ensure that “the rules-based international order in the Arctic responds effectively to new challenges and opportunities” and “bolster Canadian leadership in multilateral forums where polar issues are discussed and decided upon.” Goal 7 outlines ways to “strengthen Canada’s cooperation and collaboration with domestic and international partners on safety, security and defense issues” to ensure that “the Canadian Arctic and North and its people are safe, secure, and well-defended” (ibid.).

### **Arctic Surveillance and Crisis Management**

Currently, surveillance and crisis response in the Canadian Arctic consists of three RADARSAT satellites and a fleet of vessels and aircrafts from the Canadian Coast Guard and Canadian Armed Forces, many of which are expected to cease operation before they can be replaced (Canadian Space Agency n.d.). The RADARSAT satellites monitor as far as 1,200 nautical miles from Canadian shores, but cannot process multiple demands at once; therefore, they do not have the capacity to meet the current needs of National Defence and other federal organizations, let alone the increased demand that new issues such as increased traffic and environmental risks will create. These satellites will begin to degrade in capability after spring 2026 and the replacement technology will not be operational until at least 2035. This will leave the NWP without fully operational satellite surveillance for up to nine years at the most pivotal point in time for proactive action against the threat of climate change to national security.

This technology requires replacement or enhancement to meet the needs of national security in the changing climate. The satellites require the ability to monitor the rate of sea ice melt to prepare for future foreign use of the area, track foreign movements continuously throughout the NWP, provide full coverage of the area more often than every 10 hours, and perform disaster management and ecosystem monitoring applications simultaneously, without compromise. Other areas of surveillance that can be developed include remote sensing, use of meteorological stations, and citizen observation (especially Indigenous communities local to the area). The combination of updated surveillance mechanisms can ensure more complete surveillance, sufficient data collection and efficient information sharing.

Canada has the opportunity to co-produce and co-enforce a comprehensive plan with Indigenous

communities that establishes which actors are authorized to use the NWP, when the NWP can be used by these actors, what can be transported through the NWP, pollution management regulations (i.e., regarding waste and fuel) for vessels using the NWP, mandated responses for emergency environmental management (i.e., oil spills) and for illegal and/or unidentified ships present in Canadian waters. These criteria are vital to Canada’s sovereignty over the NWP.

### **Confidence in Canada’s Leadership**

To secure the rights to govern the NWP, Canada must prove to its Arctic allies that it is the best-equipped state to manage climate-related security threats in the NWP. National Defence argues that Canada must boost its ability to respond to new safety and security threats in the Arctic resulting from increased traffic. Among Arctic states, Canada is viewed as being too under-resourced to research, survey and defend the territory against these growing security threats. Building Canada’s physical capacity is essential, as is strengthening relationships with Arctic allies so they feel that they can trust Canada to effectively manage the NWP.

As tensions over Arctic sovereignty rise, the Minister of Foreign Affairs’ Mandate Letter encourages GAC to leverage its Arctic partnerships (Government of Canada 2021). Doing so can provide access to the critical resources that Canada needs to strengthen its leadership, while proving to its Arctic allies that Canada is capable of Arctic leadership. Two specific partnerships could strengthen or hinder Canada’s Arctic security priorities, depending on whether GAC leverages them now. First, Operation NANOOK is Canada’s best mission for enhancing Arctic research and surveillance capabilities (National Defence 2013). In the past, NANOOK has invited Arctic states and local Inuit populations to participate, under the guidance of its Canadian leadership. As Canada’s Arctic security concerns evolve, NANOOK’s operations and cooperative approach must also evolve to meet changing geopolitical and environmental conditions. Likewise, expanding Canada’s security capabilities will help meet North Atlantic Treaty Organization (NATO) commitments, without getting involved in international military conflict.

Second, the new NATO Climate Change and Security Centre of Excellence (COE) based in Montreal must place Arctic security as a core function. The NATO Climate Change and Security Action Plan recognizes

that “although NATO is not the first responder for every challenge related to climate change, the Alliance has a role to play in a comprehensive response to climate change” and that climate impacts on security are critical to integrate into its core tasks (NATO 2021). Security in the NWP can be presented as one of the first ways that NATO can turn this statement into action. If omitted from the COE’s mandate, NATO members will not have a critical strategy for coordinating Arctic security concerns or responsibilities.

### Indigenous Sovereignty and Security

Canada’s sovereignty in the Arctic is, in part, determined by the use and occupation of Arctic lands and waters by the Inuit peoples of Inuit Nunangut. For instance, Article 15.1.1 of the Nunavut Agreement (2010, p. 130) stipulated that “Canada’s sovereignty over the waters of the Arctic Archipelago is [also] supported by Inuit use and occupancy.” Canada’s Inuit are disproportionately threatened by climate change due to colonial forces that have reduced their capacity to withstand the impacts on their culture and traditional territory.

Given that Indigenous reconciliation is a core priority for the federal government under the Arctic and Northern Policy Framework (Government of Canada 2019), Canada’s mission to maintain Arctic sovereignty must also foster a future where Arctic Indigenous peoples are thriving, strong and safe. This is necessary to fulfill the federal government’s commitment to a renewed nation-to-nation relationship with Indigenous peoples based on recognition of rights, respect, truth, cooperation and partnership, and for upholding Canada’s commitments to the United Nations Declaration on the Rights of Indigenous Peoples. Yet, security discussions with the Arctic Council and NATO have thus far largely excluded local Indigenous communities.

To avoid infringing on Indigenous sovereignty and instead heal the harms of the past, GAC must include affected Indigenous communities in security-related negotiations, project planning and international diplomacy activities. There are also significant knowledge gaps about Arctic climate change due to the NWP’s inaccessibility (Office of the Auditor General of Canada 2022). Building this knowledge with local Indigenous communities and ethically integrating Indigenous knowledge systems into security measures can boost Canada’s knowledge of the region while meeting our commitment to reconciliation.

## Recommendations

**Prioritize the planning of surveillance for transportation and environmental management.** GAC can initiate Indigenous-led plans to create an early response mechanism addressing the expected competition for jurisdiction over Canada’s Arctic waters, develop Canada’s Arctic surveillance capacity and enhance or replace current surveillance technologies and practices. To consolidate efforts and pool resources, these plans can be developed in partnership with Indigenous peoples, Inuit, First Nations and Métis, relevant territorial and provincial governments, relevant Canadian federal institutions such as the Canadian Military and Arctic Council partners.

**Build confidence in Canada’s leadership in the Arctic.** GAC can establish formal roles for Arctic allies in security missions that affect the NWP, including Operation NANOOK and NATO COE. This will secure critical resources to strengthen the country’s capacity and political buy-in for Canada’s leadership over the NWP.

**Establish an Indigenous-led Arctic advisory group to facilitate respectful engagement, knowledge sharing and reconciled negotiations.** This group can sit in on all internal and international meetings related to Arctic security. It can be composed of community-elected members of the groups affected by the NWP, who can have the opportunity to co-develop projects taking place in the region.

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# Conflict, Sanctions and Arms Control

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# Urban Damage and Civilian Casualties in Ukraine

Abigail Ollila, Halyna Padalko and Roman Vysochanskyy

## Issue

This policy brief examines Russian damage to civilian infrastructure and civilian populations in Ukraine, considers the strategic implications that this issue presents and identifies relevant policy opportunities for Canada.

## Background Assessing the Damage

Since the invasion began on February 24, 2022, the Russian campaign has not limited itself to military targets but has also systematically threatened Ukraine's civilian population. These attacks on civilian targets connect to Russia's strategic goals, stemming from Russian intent to eradicate Ukrainian culture and subjugate the population of Ukraine. Russian forces pursue these goals through eight military actions against non-military targets:

- 1. Direct risk to the life and health of civilians**  
As of June 19, 2023, the Office of the High Commissioner for Human Rights (OHCHR) recorded 24,862 civilian casualties, including at least 9,083 fatalities. They believe that the actual figures are considerably higher (OHCHR 2023).
- 2. Destruction of housing stock**  
As of February 24, 2023, the total number of destroyed or damaged housing objects is about 153.86 thousand buildings. The total area of damaged or destroyed objects is 83.1 million square metres (Kyiv School of Economics 2023).
- 3. Destruction of the healthcare system**  
As of July 26, 2023 a total of 995 attacks on Ukraine's healthcare system have been documented (Attacks on Health Care in Ukraine n.d.).
- 4. Destruction of educational institutions**  
As of July 26, 2023, 3536 educational institutions have suffered Russian bombing and artillery attacks (Save Schools 2022). Education for more than five million children has been disrupted (UN News 2023).
- 5. Destruction of culture**  
As of February 2023, at least 2,148 cultural and religious institutions have suffered direct damage (Kulish 2023).
- 6. Destruction of critical infrastructure**  
As of February 2023, Russian armed forces have damaged 19 airports and civil airfields, at least 57 railway stations, 23.8 thousand km of roads and 305 bridges (ibid.).
- 7. Nuclear terror**  
During the full-scale invasion, Russia resorted to unprecedented steps such as the occupation of nuclear stations aiming to commit nuclear terror, occupying the Chernobyl and Zaporizhzhia nuclear power plants, shelling stations and kidnapping the nuclear power plant workers (UN Press 2022).

## 8. Ecocide

The destruction of the dam at the Novo-Kakhovska Hipro Power Plant became a new unprecedented act of ecocide and caused large-scale losses for thousands of Ukrainians in 80 settlements (US Mission to OSCE 2023). The full estimation of loss and destruction will be fully appreciated after the water recedes.

## Weapons Analysis

Following the OHCHR 2023 report, it has been determined that a substantial percentage of civilian casualties during warfare are attributed to explosive weapons that possess wide-area effects (UN News 2022). This includes weaponry such as aerial bombs, cruise and ballistic missiles, and artillery shells. Such weapons account for more than nine in 10 civilian casualties throughout the time of full-scale war in Ukraine (ibid.).

As recorded by the monitoring efforts of Action on Armed Violence (AOAV), which utilizes English language media reporting to track the number of civilian casualties caused by explosive weaponry, 94 percent of civilian casualties in Ukraine since the onset of the conflict have occurred in populated areas. This figure corresponds with similar patterns of harm inflicted upon civilians in other conflicts in the past decade (AOAV 2023). Overall, according to the General Staff of the Armed Forces of Ukraine, within a year of the full-scale war waged by the Russian military forces, about 5,000 missile strikes and almost 3,500 air strikes have been carried out on objectives on the territory of Ukraine. In addition, the invaders employed almost 1,100 strikes using drones (Mazurenko 2023).

Russia has employed a range of missile weapons in its conflict with Ukraine, escalating in the past year to full-scale war. The Russian arsenal comprises three types of ballistic missiles and five types of cruise missiles that are commonly used against Ukraine (Mankov 2022). Precision-engineered weapons include the Kh-47M2 *Kinzhal* (the Dagger) hypersonic ballistic missile and the group of Kalibr cruise missiles. Frequently used against Ukraine, the long-range, highly precise Kalibr cruise missiles and Iskander-M ballistic missiles target military installations and civilian residential buildings. One such example is the Kalibr missile attack on Vinnytsia on July 14, 2022, resulting in at least 23 civilian deaths (CityNews Staff 2022).

In contrast, Russia also deploys non-precise missiles and unguided bombs to cause extensive destruction. Unguided-air-dropped explosives caused approximately 600 fatalities in the Mariupol Drama Theatre attack on March 16, 2022 (Hinnant, Chernov and Vasilisa 2022). The low-precision S-300 ground-to-air missile has been repurposed to attack land targets. Similarly, the Kh-22 air-based anti-ship Soviet-era cruise missiles, known as “aircraft carrier killers,” have been used to damage residential buildings and infrastructure, with a notable example being the January 14, 2023, strike on a Dnipro apartment complex that killed 46 people and injured 46 others (Wasiura 2023). Furthermore, the Russian military has deployed Grad and Uragan multiple-launch rocket systems, along with Smerch and Tornado-S rocket launchers. Despite their substantial destructive capacities, these weapons lack precision and are generally used against large urban areas.

The Russian military’s approach against Ukraine involves a deliberate strategy of targeting civilian populations and infrastructure, using both highly accurate and less precise missile systems, in direct violation of international humanitarian law. This pattern of weapon usage reveals a strategic intention to cause extensive civilian damage — demonstrating a callous disregard for the norms of warfare.

## Understanding Russian Strategy

The nature of the Russian attacks on Ukraine’s civilian population and civilian infrastructure, as summarized above, reveals three objectives: terror, ethnic cleansing and preparation for future conflict.

Several cases of Russian crimes against civilians, particularly during the early phases of the invasion, show remarkable brutality but little to no coordination. For example, the UN Inquiry Commission reports “numerous” cases of sexual and gender-based violence against civilian victims aged four to 82 (UNHRC 2023). Such attacks do not advance conventional military objectives or reveal any pre-determined targets other than the Ukrainian population at large. Actions like these can be explained in two ways: either they result from command-and-control failure or the perpetrators have authorization from their superiors to disregard the international law of war. Since Russian authorities have opted to deny rather than investigate or prosecute these crimes, the latter explanation appears more plausible (UN Web TV 2022). Thus, the uncoordinated crimes against Ukrainians point to an overarching intent to terrorize the civilian population and

break Ukrainian morale. This approach has not succeeded; Ukrainian morale remains high (Reinart 2022).

Other Russian crimes against civilians and civilian infrastructure are relatively systematic. Examples include, but are not limited to, mass killings of civilians, forced deportations, forced transfers of Ukrainian children to Russian homes, the destruction of residential buildings and the seizure and/or destruction of cultural artifacts (Venneri 2023). These actions seem designed to stimulate Ukrainian migration while erasing Ukrainian cultural ties to the land. Meanwhile, reports have noted an influx of Russian settlers to the occupied territories (*ibid.*). While no internationally recognized definition for ethnic cleansing currently exists, this pattern of activity matches the definition offered by the United Nations Commission of Experts in their 1994 report on the former Yugoslavia: "... a purposeful policy designed by one ethnic or religious group to remove by violent and terror-inspiring means the civilian population of another ethnic or religious group from certain geographic areas" (UN n.d.).

Lastly, Russian air and artillery forces have targeted critical infrastructure and civil institutions that deliver crucial functions of the state: educational facilities, hospitals and energy stations. These attacks suggest that Russian strategists anticipate a prolonged or recurring war in Ukraine. Inflicting maximal damage to Ukrainian civil society puts Russia in an advantageous position for future territorial gains — especially if Ukraine's allies do not renew their support.

### Securing Ukraine's Future

In an increasingly unstable international order, Canada must strengthen its ties with traditional allies. This means contributing its fair share to protect democracies in crisis from authoritarian aggression. Key allied players agree that the long-term survival of a free Ukraine will require extended international aid both during and after the war (G7 Germany 2022).

As a NATO member, a close partner of the United States and a vocal champion of human rights, Canada should pursue a leadership role in the reconstruction of Ukraine. The Canadian mining industry produces world-class expertise in geological engineering, civil engineering and seismology — all of which may prove useful for designing conflict-resilient infrastructure systems. Canada has also cultivated a long-standing development relationship with

Ukraine, having committed over \$890 million towards "securing Ukraine's future as a democratic, rules-based state" since 2014 (Global Affairs Canada [GAC] 2023a).

The forefront of the reconstruction effort is not only a natural place for Canada, but one that advances Canadian interests. Renewing its investment in Ukraine remains the best way to secure returns on previous development investments. In addition, it presents a vital opportunity to foster rapport and cooperation with its allies. Finally, this task invites Canadians to step towards the vision espoused by GAC: "a more peaceful, prosperous and inclusive world" (GAC 2023b). By rebuilding Ukraine, Canada rebuilds confidence in its alliances, governance systems and the values that hold them together.

## Recommendations

**Reconstruction and Development Aid.** To help Ukraine stand resilient against future Russian aggression, Canada must invest in post-conflict reconstruction and development with an intense focus on rebuilding critical infrastructure and civil institutions. Canada should coordinate with fellow signatories to the Lugano Declaration, the outcome document of the 2022 Ukraine Recovery Conference (Ukraine Recovery Conference delegates 2022), to develop a concrete implementation plan as soon as possible. In tandem with these measures, Canada should lend technical expertise to Ukraine to guide the reconstruction process.

**Multilateral Disarmament.** To promote a safer world for future generations, Canada should advocate tighter restrictions against the use of explosives in civilian areas. In November 2022, Canada and 22 other NATO members endorsed the "Political Declaration on the Protection of Civilians from the Use of Explosive Weapons in Populated Areas" (INEW 2022). Codifying these principles into law may help to refine the currently ambiguous definition of "indiscriminate weapons" in the Geneva Convention, Additional Protocol I (International Committee of the Red Cross 2005). In light of the recent and devastating attack on the Nova-Kakhovka hydroelectric power plant, we further recommend that Canada support the recognition of ecocide as an international crime.

**International Justice.** To secure justice for the victims of Russian aggression, Canada should support the creation of a Special Tribunal to prosecute the crimes committed in Ukraine. While this measure has been taken only four

times prior — in Yugoslavia (1993), in Rwanda (1994), in Cambodia (2003) and in Lebanon (2005) — our findings affirm that the Russian invasion of Ukraine deserves this level of inquiry. Russian actions against Ukrainian civilians have already warranted war crimes charges and may even invoke the question of genocide.

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# Canada's Sanctions Regime: Curving the Edges of a Blunt Tool

Saad Hammadi, Mallory Haggith and Keegan McNaught

## Issue

The limited success of sanctions suggests that not only are they blunt foreign policy tools, but that without meaningful accountability mechanisms, Canada may be contributing to human rights violations — including against women and girls — and to the growing rivalry among great powers.

## Background

Canada's sanctions are classified into five broad types: asset freezes, arms and related materials embargoes, export and import restrictions, financial prohibitions and technical assistance prohibitions (Government of Canada [GoC] n.d.a). States and multilateral institutions also exercise diplomatic sanctions, which refer to the general suspension of a state and its accredited personnel from intergovernmental organizations. The UN Commission on the Status of Women, for example, suspended Iran's participation in the body for its policies and actions that violated the rights of women and girls in Iran (Nichols 2022). Similarly, the Group of Seven — previously the Group of Eight — expelled Russia from the coalition after it annexed the Crimean Peninsula (Nault 2017, 7). Sanctions are used to coerce behavioural changes in the actions and policies of a target, constrain resources of the target from carrying out proscribed activities and signal or stigmatize the target for carrying out those activities in violation of the international norms (Biersteker Tourinho and Eckert 2016b, 21).

The Canadian sanctions regime is mandated under the Special Economic Measures Act (SEMA), the Justice for Victims of Corrupt Foreign Officials Act (Sergei Magnitsky Law) and the United Nations Act. Global Affairs Canada (GAC) is the lead agency coordinating the implementation of sanctions with financial, intelligence and security agencies. Until 2017, Canada's use of sanctions was primarily limited to multilateral efforts or acting with at least one other country (Lilly and Arabi 2020, 170, 177). The legal threshold for a unilateral sanction required is a breach of international peace and security, as designated by the UN Security Council. The Sergei Magnitsky Law, introduced in 2017, is Canada's latest foreign policy tool in the sanctions regime tool kit. The law reduces the legal threshold for Canada to respond unilaterally against human rights abusers and corrupt actors anywhere in the world. A key advantage of a targeted sanction against an individual or entity is that the direct impact on the target can be measured with precision and is easier to enforce in comparison with sweeping sanctions against a state, the impact of which can be difficult to measure and have unintended consequences.

The SEMA and the Sergei Magnitsky Law were amended in 2022 to include a provision for the “sharing of information” between financial, security and intelligence agencies. This provision is critical for GAC's coordination with other agencies for targeting, implementing, monitoring and enforcing sanctions, which were previously fragmented and unclear.

The amendment of SEMA (s. 5.1 (1) of SEMA; amendment 2022, c. 10, s 439) also ensured that both pieces of legislation now have provisions for targeted individuals to appeal the sanctions imposed against them. SEMA articulates that proceeds from any forfeiture of assets seized or frozen will be used for reconstruction of a foreign state adversely affected by a grave breach of international peace and security, restoration of peace and security, and compensation of victims of a grave breach of international peace and security, gross and systemic human rights violations or acts of significant corruption. In the case of the Sergei Magnitsky Law, the proceeds will be used to compensate victims of corruption or gross violations of internationally recognized human rights.

Canadian legislation includes the right of appeal. Any forfeiture of assets occurs only with the failure of a target's compliance with human rights commitments, an unsuccessful appeal against the sanction, or a dismissal of the appeal. The laws, however, do not provide criteria for lifting sanctions, or the length of time that Canada should give a target to change its behaviour before it confiscates its assets, or the process for redistribution of the assets to the affected state or individuals.

Canada has targeted more than 3,500 individuals and entities under the SEMA and 70 under the Sergei Magnitsky Law (GoC n.d.b). The sanctions are a symbolic act, functioning primarily to denounce human rights violations and other targeted behaviour. (Lilly and Arabi 2020, 165; Nault 2017, 9). However, there are issues of selectivity at play. In November 2018, Canada sanctioned 17 Saudi nationals for the torture and extrajudicial killing of journalist Jamal Khashoggi (GoC n.d.c). But Canada has not responded in the same way to the murder of other journalists around the world, such as the 2022 assassination of Palestinian-American journalist Shireen Abu Akleh by Israeli forces. Inconsistencies in the applications of sanctions, whether real or perceived, can undermine their legitimacy and effectiveness.

A comprehensive review of the SEMA and the Sergei Magnitsky Law conducted by the Standing Senate Committee on Foreign Affairs and International Trade on the fifth anniversary of the laws' enactments found several criticisms of the Canadian sanctions. Some of the key concerns are that "targets are not informed that they are sanctioned" and that "the Government of Canada does not communicate the changed behaviour required of the

targets to lift the sanctions" (Standing Senate Committee 2022a, 24:20, 21). Unlike its allies, the Canadian sanctions database on the website does not provide "detailed information about sanctioned individuals" such as aliases, alternative spellings of names, dates of birth, when a sanction has been enforced against a target, the reasons behind the sanctions or general guidance on the types of activities that would be deemed permissible and those that would be prohibited (*ibid.*, 24:3, 22; Saunders 2022, 8). In the absence of clear guidelines, companies are prone to overcompliance to avoid violating sanctions, which could worsen the economic impact in Canada and have adverse implications for humanitarian aid and remittances whereby impediments to financial services hinder the transactions many individuals rely upon (Weschler 2022, 9). Moreover, there are no provisions in the law for periodic review of the effectiveness or the human rights or geopolitical impacts of the sanctions.

## The Effectiveness of Sanctions

The effectiveness of sanctions is widely contested. Critics say that there is no direct evidence of sanctions alone being able to derive a positive change in the behaviour of a target. In a study of 63 cases of UN-targeted sanctions over a period of 25 years since 1991, sanctions were more effective in constraining and signalling targets (both effective 27 percent of the time) than coercing a change in the target's behaviour (effective 10 percent of the time) (Biersteker Tourinho and Eckert 2016c, 233). Overall, the sanctions were effective 22 percent of the time (*ibid.*, 235). The partial success of sanctions was contingent on criteria, such as modest goals, quick and decisive enforcement, whether the targets were democratic and had close ties and trade relations, whether the sanctions were used in conjunction with other foreign policy tools, and the cost of sanctions on the sanctioning state being lower than the expected gains (Lilly and Arabi 2020, 167; McTaggart 2019, 2).

Despite their narrowed scope, targeted sanctions can have detrimental consequences on the human rights of civilian populations when critical entities of a state fail to function as a result of sanctions. Not only have sanctions had limited success in securing desired behaviour, but more than half of the UN-targeted sanctions had direct adverse impacts on the economy, while psychological impacts on citizens could not be measured (Elliott 2016, 177-78). Furthermore, no systematic study has been



made on the unintended consequences of UN-targeted sanctions (Eriksson 2016, 191). However, there is evidence of increased corruption and criminality (58 percent of the time), followed by negative humanitarian consequences (44 percent of the time) and strengthening of authoritarian rule (35 percent of the time) (*ibid.*, 202, 205). Evasion of sanctions by way of trading through third countries, using private contractors and using an alternative value source (e.g., diamonds) also occurs (Biersteker, Tourinho and Eckert 2016a, 270).

## Human Rights and Humanitarian Impacts: From Comprehensive to Targeted Sanctions

The comprehensive UN sanctions against Iraq following its invasion of Kuwait amounted to what one UN official called a “genocide” (Siegal 1999). According to UNICEF, Iraq experienced the death of 500,000 children (Eckert, Biersteker and Tourinho 2016, 1). The cost of a family’s monthly food supply increased 250-fold (Perry 2022, 152). The human rights and humanitarian consequences of the comprehensive sanctions imposed against Iraq in the 1990s prompted the UN Security Council and most states, including Canada, to revise the sanctions regime and limit the interventions to individuals, entities and sectors of a state by using targeted sanctions (*ibid.*, 152; Nault 2017, 8).

One of the most effective human rights sanctions to date is the United States’ targeted sanctions in December 2021 against Bangladesh’s paramilitary force Rapid Action Battalion and six of its members under the Global Magnitsky Act for their involvement in extrajudicial executions (Human Rights First 2022, 28; Office of Foreign Assets Control 2021). Reports of extrajudicial executions and enforced disappearances dropped dramatically as a result (Hasan 2023). However, the country’s Prime Minister, Sheikh Hasina, has since said her government would stop imports from sanctioning states (UNB 2023), suggesting regimes and leaders do not respond passively to sanctions.

Moreover, punitive restrictions on entities like banks and financial institutions, including those based in third countries, can make it difficult for sanctioned states to import essential food items, health-care equipment and other forms of humanitarian aid. In 2021, the UN High Commissioner for Human Rights, Michelle Bachelet, called on states to avoid unilateral coercive measures

targeting entire countries or sectors of economic activity (United Nations Office of the High Commissioner for Human Rights 2021).

The United States and allied sanctions against Iran aimed to constrain Iran’s capacity to build nuclear weapons (Maloney 2023). However, the sanctions against Iran pushed the country’s civilian population into growing poverty and limited people’s access to critical health-care supplies and life-saving vaccines during the COVID-19 pandemic. Moreover, secondary US sanctions targeting foreign companies for trading with Iran resulted in over-compliance by withdrawing investment from the country (United Nations Children’s Fund 2022; United Nations Human Rights Council 2022, 8, 12). Since the re-imposition of US sanctions against Iran in 2018, two in every three job losses affected women in a labour market where women’s representation is one in every nine men (*ibid.*, 13). The socioeconomic circumstances have put approximately three million female-headed households in precarity and nine million women in low-income households into vulnerability in accessing essential services, including health care (*ibid.*). The consequences contradict Canada’s gender-responsive approach to humanitarian action as outlined in its Feminist International Assistance Policy, which addresses the specific needs and priorities of people in vulnerable situations, particularly women and girls. Although targeted sanctions minimize the effect on the wider economy, when key state officials and entities such as central banks become the target of sanctions, the effects can trickle down to the economy. In short, the unintended consequences of enforcing sanctions can contribute to violations of international human rights law.

At the Tom Lantos Human Rights Commission hearing in the House of Representatives on October 4, 2022, Rep. James P. McGovern observed that sanctions were not being reviewed methodically by the US Congress. Consequently, the sanctions were bringing US adversaries together, undermining the use of the US dollar as a reserve currency, exacerbating humanitarian crises and a higher-than-normal migration flow from countries such as Cuba (Rapoza 2022; McGovern 2022, 2).

## Geopolitical Impact: Exacerbating Rivalry and Collateral Damage

Canada's use of sanctions is predicated mainly on determinations made by allied countries, most notably the United States and the European Union (Portela and Charron 2023, 8; Saunders 2022, 12; McTaggart 2019, i, 2). In February 2023, the Canadian authorities imposed a sweeping ban on the use of the Chinese social media app TikTok on government-issued devices, two months after the United States imposed the same ban citing concerns about data privacy and the security of users (Hern 2023; Bhuiyan 2022). The actions were taken despite investigations on different continents suggesting that "TikTok's data harvesting is [not] anything more than the same 'surveillance capitalism' that rivals such as Facebook and Instagram apply to sell targeted ads" (Hern 2023).

The tit-for-tat sanctions against individuals and corporate entities escalated over the years. In 2009, China restricted Western social media platforms Facebook, YouTube and Twitter and compelled companies such as Google, Microsoft and Yahoo to comply with the country's content restrictions to limit the spread of news about human rights violations against the Uyghur Muslims (Mueller and Farhat 2022, 354). In May 2019, the United States imposed sanctions against Chinese technology firm Huawei for its supposed links to the Chinese government and evasion of Iran sanctions (Zhou, Jiang and Chen 2022, 15; U.S.-China Economic and Security Review Commission 2019, 46). The United States attributed its decisions to the significant threat that China's technology industry posed to US economic competitiveness and national security. In May 2022, Canada similarly joined its ally in extending the ban to Huawei over security concerns (Tunney and Raycraft 2022). The concerns, however, produced no substance in the findings of the US House Permanent Select Committee on Intelligence and the National Security Agency (Mueller and Farhat, 2022, 358). The Huawei affair further demonstrated the collateral risks that sanctions pose to the citizens of the sanctioned and sanctioning states. The Chinese authorities arrested two Canadians on spy charges in retaliation shortly after Canadian authorities arrested Meng Wanzhou, the company's chief financial officer, in December 2018 on a US extradition request. China released the two Canadians only after Wanzhou was released in September 2021 (Associated Press 2021; BBC 2021). In response

to the Western sanctions, China introduced the Anti-Foreign Sanctions Law in 2021, which enables China to take countermeasures against foreign sanctions, such as restricting visas and entry into China, banning activities with Chinese entities and freezing assets within Chinese territory of entities and individuals behind foreign sanctions, as well as their spouses and relatives (Zhou, Jiang and Chen 2022, 15, 18).

The Western sanctions against Russia in the wake of its invasion of Ukraine in 2022 have had much less of an effect than anticipated. Instead, Russia has expanded trade relations with alternative markets. Brazil, China, India and Turkey increased Russian imports by at least 50 percent in 2022. Russia's critical industrial imports arrived from China, Turkey and Belarus, its artillery pieces arrived from North Korea, and its drones arrived from Iran (Olive 2023). India has refrained from joining its Western and European allies in imposing sanctions against Russia and, instead, has leveraged its own trade and economic interests by purchasing Russian oil at a cheap price (Dieter and Biedermann 2022, 277; Frayer 2023).

Iran and Russia established their own interbank communication and payment gateway as both countries were cut off from the global financial network called the Society for Worldwide Interbank Financial Telecommunication (SWIFT) (Reuters 2023). When the United States re-imposed sanctions against Iran in May 2018, it pulled out of the nuclear deal (Joint Comprehensive Plan of Action) that brought Iran to the table to contain its nuclear program in exchange for sanctions relief. For Iran, access to SWIFT was a deal maker (Farrell and Newman 2019, 68, 69). As the United States re-imposed sanctions, SWIFT followed suit and cut Iran off the network (*ibid.*, 42, 69; Maloney 2023). The US action irked its European allies that were unprepared for another sanction against Iran. Concerned by the US sanctions and the implications of secondary sanctions on third countries for engaging with Iran, policy makers in the European Union have started exploring financial networks outside of the US systems, indicating a potential decoupling in the future (Farrell and Newman 2019, 79). A French diplomat criticized the US move by saying that the United States was not the "economic policeman of the planet" (*ibid.*, 42). Iran has since moved to advance its nuclear ambitions (Maloney 2023).

These actions significantly challenge the foundations of a rules-based international order and exacerbate the rivalry of great powers (Dieter and Biedermann 2022, 280). Western sanctions against authoritarian regimes and economic competitors are giving rise to new partnerships between China, Russia, Iran and North Korea (Wong 2023), which offers an alternative normative order based on the principles of non-interference, collective security and stability instead of individual rights and political freedom (Dieter and Biedermann 2022, 278; Kutlay and Önis 2022, 26). Going forward, sanctions may do little to protect human rights in authoritarian states.

## Considerations

The considerations for Canada are the following: Canada has little choice whether to participate in different sanctions regimes, and every sanction comes with costs and the possibility of retaliation; sanctions can be politically unpopular, which is why multilateral sanctions through the United Nations are always preferable to bilateral or unilateral sanctions; the effect of sanctions is presumably disproportionately low compared to the resources needed to implement the sanctions; sanctions can have profound intended and unintended consequences that affect the lives of people; and it is imperative that Canada establish mechanisms to gauge the various consequences.

The above discussion underpins three observations. First, Canadian sanctions alone may not have a significant impact on targets (Nault 2017, 11). Second, regional and unilateral trade sanctions often do not protect peace and security as much as they protect economic nationalism (Wraight 2021, 77; Biersteker, Tourinho and Eckert 2016a, 272). Third, by joining allies on sanctions without independent consideration and transparency in the justification process, Canada could lend itself to accusations of being politically selective about its targets and incoherent about the purpose of sanctions (Nault 2017, 9, 28).

## Recommendations

**The GoC should enhance the transparency of its sanctions regime by providing clear information on the sanctioned entities to support the principle of due diligence** (Wallenstein, Staibano and Eriksson 2003, 97). Specifically, the GoC should update the sanctions database

on its website to include detailed information about targets. The website should contain a general guidance on the types of activities that would be deemed permissible and those that would be prohibited.

**The GoC should amend the Sergei Magnitsky Law and SEMA to require periodic House of Commons assessments of the human rights and gender impacts of unilateral and multilateral sanctions.** The House of Commons Standing Committee on Foreign Affairs and International Development should review the sanctions every six months in consultation with a diverse range of stakeholders, including experts in human rights and gender issues, civil society organizations and affected communities to ensure that any sanctions are consistent with international human rights standards. The gender impact should identify potential differential gender impacts and ensure that the policy is consistent with Canada's feminist international assistance policy as well as international standards on gender equality and women's rights. Both assessments should be made public.

**The Minister of Foreign Affairs, the Standing House of Commons and Senate Committees on Foreign Affairs should periodically review the effects of Canada's sanctions on its larger strategic interests and the preservation of the rules-based international order.** Western sanctions are giving rise to new partnerships among predominantly authoritarian states. Without meaningful review, Canada could be pushing states away from the rules-based international order to new geopolitical blocs. Furthermore, resistance to economic interdependence with the West suggests that unilateral sanctions could become a redundant tool to prevent human rights violations.

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# Redefining Canada's Role in an Evolving Treaty on the Non-Proliferation of Nuclear Weapons Regime

Ryan Durante, Paige Martin and Kirat Singh

## Issue

The international framework regulating the control and proliferation of nuclear weapons has weakened over recent years, owing to the open defiance of established global norms by various states. This weakening is intrinsically linked to the deterioration of the rules-based international order, of which Canada counts itself a strong proponent. The erosion of these regulatory frameworks will pose significant challenges to states compliant with the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), including Canada. In light of this erosion of the rules-based international order surrounding the proliferation of nuclear weapons, Ottawa must re-evaluate its dedication to the NPT regime and the global institutions entrusted with the responsibility of upholding its principles.

## Background

Since the ratification of the NPT in 1968, the nuclear landscape has changed dramatically. Created during the Cold War, the NPT is the cornerstone of the non-proliferation regime, bringing together 191 states committed to three pillars: nuclear weapons non-proliferation, the peaceful use of nuclear energy and eventual universal nuclear disarmament. The growing geopolitical rifts of the post-Cold War, multipolar era have transformed the postwar international system and generated fundamental questions about, and challenges to, its effectiveness. This has provoked a renewed sense of

urgency to reaffirm and strengthen the NPT and norms surrounding non-proliferation. Given the fact that no one is immune from the threat of nuclear war, multilateral dialogue and forums play a critical role in addressing and tackling the dangers posed by nuclear weapons, their proliferation and potential use. The NPT regime has come under an increased level of precarity in recent years; the escalating conflict between Russia and Ukraine, rogue states such as North Korea and Iran, the modernization of the United States' nuclear arsenal and Russia's suspension of its involvement in the New START Treaty exemplify a shifting global security arena. The landscape has changed so dramatically, yet protractedly, that we are currently living in a world seemingly apathetic to the horrors of nuclear war.

## Canada's Role in the NPT Regime

Historically, Canada has been a leader in efforts relating to non-proliferation, arms control, and disarmament of conventional arms and weapons of mass destruction (Government of Canada 2021). However, in a twenty-first century context, many rogue states openly flaunt the norms and rules surrounding nuclear weapons and Canada must put forward ways to strengthen a flagging rules-based international order to which it is so resolutely committed. Being an avowed non-nuclear-armed state, Canada does not have the same influence in the nuclear non-proliferation regime as states such as the United States, the United Kingdom or France, and there are gaps in Ottawa's policy surrounding nuclear weapons and the

broader NPT regime that could be filled on the levels of domestic and international policy making. Internationally, Canada is involved in key agreements, such as the NPT, the Comprehensive Test Ban Treaty, and the Fissile Material Cut-Off Treaty (FMCT). However, it is currently not signatory to the Treaty on the Prohibition of Nuclear Weapons (TPNW), nor has it endorsed the original Joint Statement on the Humanitarian Consequences of Nuclear Weapons presented at the 2015 NPT Review Conference (Kmentt 2015). Domestically, there is a gap in Canadian policy aimed at raising the awareness of the Canadian public about the clear and present dangers posed by nuclear weapons, especially in an increasingly insecure global climate.

### Recommendations

**Awareness Raising.** Canada can use its advanced media landscape, including both traditional (print media and television) and modern (social media) outlets, to restore awareness of the realities of nuclear war in the popular psyche. During the height of the Cold War, for instance, the use of media to prompt conversations about the dangers of nuclear war was incredibly effective at changing attitudes to the growing threat of nuclear aggression. The broadcasting of films, such as *The Day After* (1983) and *Threads* (1984), presented visceral depictions of the horrors of life after nuclear war, shocking the global public while also positively affecting nuclear weapons policy, contributing to the eventual signing of the Intermediate-Range Nuclear Forces Treaty (Stover 2018). The use of “shocking realism” (Pajkovic 2017) in media art, like that used in both *The Day After* and *Threads*, can counter the growing apathy that characterizes the global response to immediate nuclear threats to international stability, and the viability of agreements such as the NPT. For instance, when Russia stated that it was suspending its involvement in the New START Treaty, there was little to no public outcry outside of policy-making circles in the face of this brazen act. This might reflect the currently inadequate state of media coverage of the risk of a nuclear exchange, or it may indicate an even graver problem — public indifference to the dangers of nuclear war.

By partnering with Global Affairs Canada and the Department of Canadian Heritage, Canada can promote the yearly broadcasting of anti-nuclear war films, such as *The Day After* and *Threads*, and wage an aggressive media

campaign highlighting Canada’s commitment to seeing the eventual, irreversible elimination of nuclear weapons worldwide (Government of Canada 2023). This can be reinforced with consistent and persistent media campaigns featuring notable Canadians, speakers, intellectuals, popular cultural figures and other influential individuals discussing the dangers of nuclear weapons, Canada’s non-proliferation policy, and what still needs to be done to realize the goals of the NPT, culminating in a week of remembrance of the nuclear attacks on Hiroshima and Nagasaki. During this week of remembrance, films, documentaries and conversations with stakeholders can be utilized as a way of promoting the values of non-proliferation as uniquely *Canadian* values — something that is tied to an international imaginary of what it means to be Canadian. This is an initiative that should evoke a considerable amount of dread among Canadians about the possibility of a nuclear strike, and this is intentional; it is of the utmost importance to, as the 2012 Oslo Conference on the Humanitarian Impact of Nuclear Weapons states, “look in concrete terms at the evidence of what would actually happen to people and human society in the event of a nuclear detonation” (Kmentt 2015).

**Reaffirming Support for Existing Treaties and Establishing New Partnerships.** As set forth in the Minister of Foreign Affairs’ Mandate Letter, a key pillar of the Canadian government is to “expand Canada’s engagement with allies, partners, and international organizations in order to promote peace and security, provide humanitarian assistance, and support international emergency responses” (Government of Canada 2021). As a non-nuclear middle power, Canada occupies a key, liminal position on the world stage, both by being a member of the North American Treaty Organization (NATO) (and a close ally of the United States), while at the same time maintaining amicable relations with other states with whom Washington has a more fraught relationship (Fuhrmann 2012). In order to strengthen its commitment to a nuclear-weapons-free world, it can form, along with other middle-power states, a Middle Power Non-Nuclear Partnership (MPNNP), which must be composed of NATO and non-NATO states. This partnership can enhance levels of trust between NATO nuclear weapon states, NATO non-nuclear weapon states, and non-NATO non-nuclear weapon states without compromising Canada’s commitment to NATO. Through the MPNNP, Canada can take on a broader leadership role on the world



stage in the area of non-proliferation, strengthen ties with both allied and non-allied states, and reaffirm its support for the NPT and the broader non-proliferation regime.

As mentioned, Canada is not currently signatory to the TPNW, and has not endorsed the original Joint Statement on the Humanitarian Consequences of Nuclear Weapons (Kmentt 2015). In order to reaffirm its role as a global leader in the pursuit of non-proliferation with the eventual aim of global nuclear disarmament, Canada must become signatory to the TPNW and endorse the Joint Statement. While these actions might provoke opposition from the United States, Canada must act as a leader in this regard, and in so doing strengthen any future claims and calls to action from Ottawa to hesitant states unwilling to join a proposed MPNNP.

**Strengthening the Rules-based International Order.** The preamble to the NPT emphasizes the importance of easing international tensions and strengthening trust between NPT partners, which Canada and the other signatories of the NPT can do by reusing tested and reliable diplomatic forums. This means re-engaging in multilateral dialogue and following up on earlier priorities, such as the FMCT, which Canada has long been associated with (Berger 2012). The FMCT is viewed by many as the next-level multilateral measure to halt nuclear proliferation and would limit the amount of fissile material available for nuclear weapons use by banning its further production for weapons or nuclear explosive purposes (Meyer 2015). Controlling fissile material is therefore fundamental for controlling nuclear proliferation and for providing the basis for deep, transparent and irreversible reductions in nuclear arsenals (Maerli 2001). By advancing the FMCT towards formal negotiation, Canada would rebuild confidence in the broader non-proliferation regime, which has been eroded by ongoing stalemate. The Conference on Disarmament (CD), which is the world's sole multilateral disarmament negotiating body, needs modernizing, as paralysis and gridlock have blocked that body's progress since 1996 (Berger 2012; Meyer 2021). Momentum needs to be prioritized in order to continue meaningful work in the field of disarmament, which will contribute to global security through easing international tensions and building trust. By innovating and finding new mechanisms and processes to reach disarmament goals, Canada can help strengthen the NPT through advocating for CD reform, working in conjunction with like-minded allies to this end. There remains strong support for the prompt negotiation

and conclusion of an FMCT, and Canada can capitalize on this support by promoting the creation of an ad hoc committee of the UN General Assembly that is open to all states, unlike the CD, which is currently limited to only 65 member states. This would make it possible to build momentum and a broader coalition and generate political will from a greater number of actors to put pressure on those states that oppose an FMCT. Within the UN General Assembly, an issue can be put to a vote without struggling to achieve consensus, which could jumpstart progress on this front, and serve as a reminder of the importance of a rules-based international system. Owing to Canada's long-standing record of international peace and security building through innovative diplomatic and multilateral forums, as well as a record of interest in and commitment to non-proliferation and nuclear disarmament, Canada is an ideal candidate to pursue an alternative FMCT path.

**Expanding the Role of Nuclear Energy in Tackling Climate Change.** As the world shifts into combatting climate change and focuses on lowering carbon emissions, there is no question that nuclear energy will play a critical role as an alternative power source. Four hundred and forty-four nuclear power plants operating in over 30 countries are producing 10 percent of the world's energy without producing carbon emissions. The Nuclear Energy Agency (NEA), after assessing over 90 pathways to net-zero that were proposed by the United Nations Panel on Climate Change, estimated that nuclear capacity globally would have to be tripled to 1,160 gigawatts by 2050 in order to limit global warming to 1.5 degrees, which the world is not on track to achieving (NEA 2021). Canada has invested in nuclear research as a member of the Nuclear Suppliers Group, and it plays a central role in regulating nuclear/nuclear-related exports (Anthony, Ahlström, and Fedchenko 2007). The mandate letter of the Minister of Foreign Affairs highlighted key objectives of the Canadian government related to the NPT, including continued Canadian leadership in international efforts to combat climate change. Canada has done an admirable job of following Article 4 of the NPT and working with countries to develop nuclear energy for peaceful purposes, having signed 46 Nuclear Cooperation Agreements with key partners, such as India, China, South Korea, and the United States. These agreements ensure that nuclear technology is utilized only for peaceful applications, and engages in partnerships that allow for joint research, the exchanging of technology and supplying nuclear

equipment and fissile materials. It is recommended that Canada continue to be an engaging partner that helps develop nuclear programs and technology for developing states.

**Tackling Emerging Threats in Cooperation with Global Partners.** The Network for Strategic Analysis published a report that implicated the promotion of peaceful uses of nuclear technology guaranteed by Article 4 in the greater diffusion of fissile materials, thereby adding to the severity of the nuclear threat. In fact, in 2007, it was estimated that almost 40 countries had access to enough fissile materials to produce their own nuclear weapons. (Lafontaine and Lambert-Deslandes 2021). In relation to this threat, the Minister of Foreign Affairs' mandate letter expressed the need to expand Canada's engagement with allies and partners to promote peace and security. By engaging in Nuclear Cooperation Agreements, Canada is following the spirit of the NPT and engaging in the diffusion of nuclear technology and expertise for peaceful purposes. However, security actors agree that this could be creating a potentially more dangerous world (Fuhrman 2012). In order to balance these two items, Canada must implement stricter regulations and work towards continued dialogue with partner states and allies to better recognize and tackle threats to the NPT (Anthony, Ahlström, and Fedchenko 2007).

Recognizing the need to revive dialogue around the NPT amid new and emerging security concerns, it is recommended that Canada fill the role previously held by the United States and implement a biannual Nuclear Security Summit. Previously, these nuclear security summits spearheaded by the United States under President Obama led to tangible results in the securing of nuclear materials and strengthening international institutions that manage nuclear security. Canada leading the revival of the Nuclear Security Summit and convening like-minded partners would go a long way in recognizing and tackling new and emerging threats to the NPT (Robertson 2019).

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