BALSILLIE SCHOOL
OF INTERNATIONAL AFFAIRS

The Illiberal Order:

2025 Global Trends Report

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

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Introduction

Yogi Berra, the legendary catcher for the New York Yankees, is credited with having once said, "The future ain't what it used to be."

This quote, in all of its brilliance, could easily be used to describe the current state of the rules-based international order, which does not resemble what many of us imagined it might look like at the quarter mark of the twenty-first century.

That the world has changed in two-and-a-half decades is indeed an understatement. In 2000, things appeared to be on a different path. In the 10 years after the collapse of the Soviet Union, the international community had reaffirmed the centrality of human rights in international affairs at the 1993 Second World Conference on Human Rights, the Universal Declaration of Human Rights turned 50 five years later and was celebrated as one of humanity's great achievements, and much of the world pledged its support for a new International Criminal Court that would try those alleged to have committed the worst crimes imaginable. More and more countries were transitioning to democracies, while bold commitments were made to fight, and ultimately vanquish, global poverty.

Of course, it wasn't all roses, and to suggest as much would be disingenuous. The 1990s were, as many have observed, one of the bloodiest decades of the twentieth century. But, for a brief moment, it appeared as though the twenty-first century might somehow be different, and that law might actually become a constraining force in international affairs.

One would be forgiven for thinking the promise of the turn of the century now seems quixotic. Today, the international system is plagued by great power rivalry, polarized politics and democratic backsliding, economic malaise, war and rapid environmental change. Moreover, the institutions designed to solve humanity's great challenges have proven unable to mitigate the worst instincts of human nature.

Canada can and must adapt to this profoundly transformed global order. It must continue to fight to preserve the best of the rules-based international order. Multilateralism and international cooperation remain noble pursuits. Besides, the alternative is too unpalatable. A world in which law is irrelevant is not one in which Canada thrives. But it must also concede that the world stage is not as friendly towards Canada as it once was, and that it cannot rely on international norms and law to protect its interests.

"The future ain't what it used to be."

Given the stakes, there is a pressing need for smart thinking informing foreign policy that, above all, avoids the trappings of cynicism. The world's problems are only intractable if we decide they are so, and if we succumb to defeatism. There are ways forward. They will not be easy, but they are there. We can decide whether to walk the paths together or alone. We hope for the former.

The Illiberal Order is an anthology consisting of 14 student policy briefs divided into four thematic sections. Section 1: Geopolitics and Security contains four briefs that reflect on the changing nature of Canadian alliances, the importance of soft power, the future of Ukraine and the pressing need to reaffirm the central tenets of international humanitarian law. Section 2: International Assistance, Human Rights and Migration consists of three briefs that, respectively, explore new trends in official assistance, Canada's bid for a seat on the UN Human Rights Council and steps that can

be taken to prepare for the increased migration demands of the next decade. Section 3: Environment and Climate Change is made up of three forward-looking briefs that propose a series of recommendations aimed at advancing the green transition, climate financing and climate security. Finally, Section 4: Trade and Technology contains four briefs that focus on inclusive trade, responses to digital authoritarianism, the use of satellite data to support the Sustainable Development Goals and a nation-wide technology strategy.

On behalf of everyone at the Balsillie School of International Affairs (BSIA), we thank the many people who read and commented on the briefing notes. Special thanks to colleagues in the Foreign Policy Bureau — specifically to Lia Hiltz and Janice Frichette — for coordinating the program on behalf of Global Affairs Canada, and to Paul Samson, Don McCutchan, Peter Bates, Omar Bitar and Lillian Thomsen for serving as discussants for the March and June oral presentations. Your collective insights and feedback were invaluable, and all of the briefs are better as a result.

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. You have been so generous with your time and energy, and for this we are eternally grateful. Without your support, the fellowship program simply would not happen.

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 our Master's students for their courage in putting bold ideas on the table. This is no small feat. Well done.

Ann Fitz-Gerald
Director, BSIA

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Program and Partnerships Manager, BSIA

Geopolitics and Security

Strategic Imperatives for Canada: Leveraging Economic Strengths and Securing Strategic Partnerships Amid Global Uncertainty

Khai Phan, Samuel Taylor and Alexander White

Issue

The global order is increasingly characterized by disruption and uncertainty. Canada's priority should be to secure meaningful partnerships that fulfill our security and economic objectives while also serving our strategic interests on the international stage. Our research suggests a disciplined and intentional approach to Canada's strategic partnerships that takes advantage of the country's unique core strengths.

Background

Leveraging Canada's Economic Strengths

Canada's mining sector, with assets worth $320.2 billion in 2022 (Natural Resources Canada 2024), houses 75 percent of the world's mining companies and hosts 40 percent of public mining companies listed on the Toronto Stock Exchange (TSX), is a global mining industry powerhouse (Global Affairs Canada 2021; TSX 2023). Mining has the potential to considerably strengthen and create new economic relationships with non-traditional partners, such as South America, Africa and Asia. In Africa, for example, 98 Canadian companies have invested over $37 billion, targeting areas with significant mineral resources including 30 percent of the world's minerals and lithium, gold, platinum, cobalt chromium among other vital minerals (Al Jazeera Staff 2018).

Canada's bilateral and multilateral trade agreements with these strategic regions are inadequate, limiting both economic and diplomatic potential. Canadian companies are confronted by regulatory uncertainties, trade barriers and market access restrictions due to an absence of agreements, which in turn hampers their ability to pursue international opportunities. Moreover, challenges such as environment concerns, human rights violations and geopolitics require harmonizing regulations through diplomatic relationships and bilateral agreements to strengthen enforcement, promote sustainable development and improve human rights protections. Bilateral and multilateral agreements lower tariffs but also work to standardize regulations between economies that include the aforementioned concerns.

Sovereignty and Multilateralism

The lack of a strong diplomatic presence in the Arctic Council undermines Canada's ability to leverage its scientific and policy expertise for stronger diplomatic cooperation and security efforts. The Arctic's rapid warming (three times faster than the global mean) further complicates matters by providing greater accessibility into Canada's northern waters, posing both opportunities and risks for which Canada is ill-prepared.

Additionally, Canada must improve its relationship with South American and Caribbean states. The Canada-

CARICOM Strategic Partnership (CCSP) is a positive step toward building these relations but lacks substantive road maps for action and formal agreements. This has affected progress in areas such as infrastructure development, education exchanges, technology transfers and access to development funding that are crucial to boosting South American economies and securing critical minerals for Canada.

In Africa, there is no cohesive plan addressing Sub-Saharan and northern regions; clear direction on how to move toward a Canada-Africa economic cooperation strategy is missing. This gap inhibits trade and development partnerships. Moreover, the lack of any frameworks for responsible sourcing of raw materials and reciprocal economic benefits hinders efforts to stabilize global mineral supply chains and enhance governance and transparency in Africa's mining sector.

Canada's engagement in the Indo-Pacific remains inadequate. Important partner states such as India, Indonesia and Vietnam are absent from Canada's Critical Minerals Strategy. All of the abovementioned states are major players in the supply chain of vital minerals for modern technology and energy solutions. Similarly, there is a low level of cooperation between Canada and these states with respect to research, exploration and mining of critical minerals as well as processing technologies, thereby undermining Canadian goals towards efficiency and environmental sustainability within these sectors. Canada's limited engagement poses a risk for securing essential supplies for its technology or energy industries and constrains its role in promoting international cooperation and sustainable development among critical mineral-producing states across the globe.

The Arctic in Focus

Canada is facing a security environment defined by new challenges. Russia's invasion of Ukraine has thrown into sharp relief the challenge to international norms against aggression. Canada and its allies face increasing threats from authoritarian powers that use coercion to further their goals. To face these challenges, Canada must improve its ability to defend its borders while also strengthening its alliances. Focusing on expanding Canada's presence in the Arctic is crucial for accomplishing both of these goals.

Russia has continued to engage in airspace violations against a number of North Atlantic Treaty Organization (NATO) allies, including in the Arctic. Preparing to detect and intercept incursions of this type will allow Canada to defend its Arctic sovereignty and deter foreign violations of Canadian territory. Russia has engaged in unprecedented aggression in their brutal invasion of Ukraine and, as part of the war, has engaged in a military buildup unprecedented for a large country in modern times. Regardless of the outcome of the war, it is likely that this spending will remain at elevated levels for the foreseeable future. Canada must take seriously the likelihood that Russia could use these new capabilities in the Arctic in the form of harassment and violations of Canadian airspace and territory. While Russia is currently focusing nearly all its efforts on the war in Ukraine, it represents a significant and growing threat to Canadian sovereignty in the near future.

Bolstering Canada's relationships with its allies in NATO is also a key part of defending Canada's sovereignty. The best way to improve our relationships with key security partners is to identify areas where Canada can make useful and meaningful commitments to our collective defence. The Arctic is one area where Canada can make a unique and irreplaceable commitment to its allies' collective security by virtue of our geography, while also bolstering our own security by defending the only area where our sovereignty faces a serious threat.

Leveraging Canada's Inherent Strengths

Canada's global influence risks being watered down. Our foreign policy tries to be present everywhere, diluting its impact and spreading itself too thin (Robertson 2023; *Canadian Foreign Policy Journal*, IAffairs Canada and Norman Patterson School of International Affairs 2022). In this context, our recommendations are informed by a critical understanding of Canada's inherent strengths. Canada's decision to engage in strategic partnerships with international partners must be guided by whether these partnerships take advantage of our strengths, as this will contribute to partnerships being substantive and meaningful.

Canada's geopolitical situation is unique and endows it with key strengths. Canada is one of the few global Arctic powers. In this sense, the Arctic provides Canada with a domain for global leadership and influence. Canada is also a leader in critical minerals. Canada's close proximity to the United States and its strong diplomatic and economic ties must not be taken for granted. Maintaining our friendship with the United States gives us certain responsibilities, but this partnership is not mutually exclusive with Canada's autonomy and influence on the world stage.

Canada also derives major soft power advantages from our diaspora connections and from having French as an official language. The French language goes beyond communication

and allows Canada to participate in Organisation Internationale de la Francophonie. This opens the door for Canada to create relationships that most countries cannot.

Moreover, Canada is home to a vast network of internationally lauded institutions, including both globally competitive corporations and internationally recognized educational and research and development institutions. This includes universities renowned for their research output and academic excellence. Additionally, corporations such as Shopify, a leader in e-commerce, and Bombardier, a major player in the aerospace industry, exemplify Canada's global competitiveness. These institutions contribute significantly to Canada's reputation as a hub of innovation and excellence on the world stage. These institutions can be leveraged to foster educational or expert diplomacy initiatives with partner countries, and to encourage smarter Canadian foreign policy. Moreover, leveraging these institutions internationally compliments Canada's soft power endeavours by promoting a distinct, recognized image of Canada on the international stage.

Recommendations

Canada must urgently develop a coherent strategy for Africa. The upcoming Canada-Africa Economic Cooperation Strategy should prioritize investments in digital technology and collaborate with groups such as the African Development Bank (Government of Canada 2023). This includes fostering educational partnerships, promoting expert diplomacy and enhancing collaboration in areas of energy, agriculture and natural resources. A comprehensive minerals strategy is essential as African states house mineral wealth constituting 30 percent of global mineral reserves, and they control a majority of essential minerals such as cobalt and lithium. Collaborating with the African Union and regional communities to create frameworks for responsible sourcing will stabilize supply chains globally and ultimately prevent resource extraction from being a cause of economic instability rather than supporting local economies (Robertson 2023).

Canada must bring value-added engagement to the Indo-Pacific. To increase engagement in the Association of Southeast Asian Nations (ASEAN) Strategic Partnership, Canada should seek membership or observer status in regional organizations such as the East Asia Summit and the ASEAN Defense Ministers Meeting Plus. Doing so will facilitate ASEAN in promoting its own normative leadership in the region, strengthening regional stability. Canada can offer targeted engagement on security matters and should field expertise to key ASEAN research and industry events. Additionally, Canada should work with ASEAN businesses to improve mining and processing technologies; increased efficiency as well as lower environmental impacts leads to securing crucial links in the supply chain, encouraging international cooperation and progress towards sustainable development goals.

Prioritizing economic partnerships with South America and CARICOM for sustainable development and security. Canada should focus on forging economic alliances with South American states because of their abundance of minerals and the rising global demand as a result of technological advancements and adoption of renewable sources of energy. In the next few years, the world will need twice as much lithium to produce batteries; Argentina, Bolivia and Chile have over 75 percent of the world's reserves. Additionally, Peru mines most of the copper necessary for wiring systems used in electrical installations and sustainable energy technologies. The Canada-CARICOM Strategic Partnership (CCSP) is a move in the right direction, but Canada must use the CCSP to build a mutually beneficial relationship with CARICOM that advances substantive "road maps for action." This includes: working with private banks and other financial institutions to help CARICOM countries access development finance and finance for climate-related development initiatives; collaborating with CARICOM countries on climate adaptation; and cooperating on regional security issues, including weapons and drug trafficking, and on political violence, especially regarding ongoing instability in Haiti. Within the framework of the CCSP, there should be comprehensive trade agreements between Canada and CARICOM member states on ensuring stable supply chains for copper. This could be done through infrastructure development cooperation, technological transfers initiatives and education exchange programs (Bayoumi and Mowla 2023).

Canada must conduct a strategic review to identify strengths and weaknesses in air defence in the Arctic and assess its current ability to respond to foreign airspace violations. Canada's recently released plan, *Our North, Strong and Free: A Renewed Vision for Canada's Defence*, provides a blueprint for defending the Arctic (National Defence Canada 2024). It outlines significant increases in military spending on critical hardware that will be necessary to protect our sovereignty in the Arctic, including $1.4 billion for Maritime sensors, $300 million for airborne early warning aircraft and $200 million for northern operation hubs, along with $18 billion for tactical helicopters. The overwhelming majority of this spending, however, is allocated to the period between 2029 and 2044. This time

frame risks leaving Canada vulnerable and unprepared during a critical time period where military spending by potential threats is elevated.

Additionally, Canada should invest heavily in scientific research in the Arctic. Canada has made significant progress on this objective with Northern Affairs Canada's Polar Knowledge Canada program and the Canadian High Arctic Research Station, but resources for these programs need to be scaled up as climate change accelerates and Canada's engagement in the Arctic increases.

Lastly, Canada must prepare and plan for the anticipated growth of the Northwest Passage as a major trading route linking North America with Indo-Pacific countries. To minimize environmental impact and safeguard sovereignty, robust monitoring capabilities must be established in the vicinity of the likely routes. Canada must demonstrate its leadership capacity to govern future Arctic commerce in such a way that it minimizes environmental and security risks for both Canada and its allies if it is going to be able to preserve its sovereignty. It is in the interest of Canada and its partners to avoid chaos in a navigable Arctic. In order to reassure its allies, Canada must make efforts to credibly demonstrate its capacity to provide security to its internal waters in a way that benefits all Arctic states and communities.

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Soft Power, Sport and Diplomacy Strategies: Potential and Opportunities for Canada's Foreign Policy

Matthew Dang, Davin D'Mello and Lea Dörflinger

Issue

Given the current escalation of hard power in international relations and the decline of unipolarity, it is crucial for Canada to restore international influence and regain its status as middle power through focusing on its soft power capabilities, such as using mega sports events to project a positive national image and send political and normative signals globally. As Canada prepares to co-host the 2026 FIFA Men's World Cup, leveraging sport as a soft power tool offers untapped potential for Canadian foreign policy and diplomatic influence.

Background

Canada as a Former Middle Power

Politics and governance operate on a power hierarchy. At the top are "major power" nations like China, Russia and the United States, which wield influence due to their significant "hard power" resources, such as large militaries and influential economies (Volgy et al. 2011). These nations can shape the ideologies, cultures and politics of the international community. Conversely, "small" or "low power" nations are still developing and lack substantial hard power resources, limiting their influence on the global stage (Chapnick 1999).

Canada lacks the coercive influence of major powers yet possesses the potential "hard" and "soft" power resources to create change at the international level (Haynal 2024, 2). In the past, Canada embraced its role as a global "middle

power," encouraging multilateralism and cooperation, while also taking up the role as peacekeepers across international conflicts (ibid., 4).

However, Canada has slipped as a middle power. The nation has faced a continuous loss of influence as shown in its failure to earn a United Nations Security Council seat (ibid., 3; Kemp 2023, 2). Canada has also taken a massive step back in its approach to foreign policy as the nation lacks a clear sense of direction on foreign policy and is instead producing reactive policy with ad-hoc approaches (Kemp 2023, 4). This slip in international status puts an even greater hinderance on the nation's ability to use its hard power resources. For example, Canada's hard sanctioning capacities are completely ineffective due to compounding factors of Canada's step back as a middle power and Canada's lack of economic or military resources to coerce countries into changing their behaviour (Nault 2017, 11). Moreover, as a nation that still pretending to operate as a middle power, Canada struggles with the moral implications of employing "blunt" sanctions that can lead to human rights violations in the targeted country (Elliott 2016, 177-78; Biersteker, Tourinho and Eckert 2016, 272). Violating human rights and negatively impacting other nations contradicts the middle power position of upholding peace and security, which has historically shaped the Canadian political identity (Hynek 2004, 36). Lastly, hard sanctions can disrupt Canada's social network and create friction between Canada and its biggest allies (Nault 2017, 9, 28). This creates extreme volatility since the world has continued to shift toward a greater multilateral approach, creating greater connections between nations and putting

Canada in a tricky situation when attempting to take the lead on multilateral initiatives such as hard sanctioning (Kemp 2023, 1).

Strengthening of Canada's Soft Power

Since Canada is limited in its resources for exercising "harder" military and economic strategies on the international stage (Kleinfeld et al. 2021, 9), the nation needs to rely on more nuanced forms of influence. Scholars and experts therefore see the strength of nations like Canada pursuing "softer" indirect approaches to the exercise of power (ibid., 13). For example, a discussion paper from 2023 on the future of Canadian diplomacy addressed to Global Affairs Canada (GAC) calls for more investment in Canada's diplomatic capacities and suggests GAC "should continue to maximize the use of 'soft power' and public diplomacy abroad, including through support for science diplomacy, sport diplomacy, academic diplomacy and cultural diplomacy" (GAC 2023, 22; emphasis added).

"Soft power," a term introduced in 1990 by Joseph Nye, means the exercise of power by political actors and states over other states, based on the ability to persuade others through its national image (Henne 2022; Ohnesorge 2020; Nye 2004; 1990). In contrast to hard power, soft power is therefore aimed at non-military conflict resolution (Grix, Brannagan and Lee 2019, 526) meaning global influence no longer depends exclusively on whose army wins, but also on whose story wins (Ohnesorge 2020, 7). Today, soft power is a "major ingredient within national power strategies" (Jarvie 2021, 4) that provides opportunities for a declining middle power like Canada to regain influence and play a more significant role internationally.

Since the introduction of the soft power concept, think tanks and research centres have made several attempts to create soft power indices that show that soft power "has real qualities that can be converted to numerical values." (Wang 2023, 190). Although those indices do not provide a perfect measurement, they are valuable for nations such as Canada to identify weaknesses, strengths and opportunities for improvement. Analysis of soft power rankings could therefore help Canada build a targeted soft power strategy. Particularly considering the loss of middle power status, the nation would be well advised to use numerical indicators and concrete metrics that show why Canada has lost influence and how it might regain it.

Although soft power rankings are quite entrenched due to historical reputations, they can change swiftly when countries develop a soft power strategy and systematically work on their nation's brand. This can be seen in the United

Arab Emirates, Qatar and Saudi Arabia, which have driven their soft power influence through the hosting of mega events (for example, Expo 2020, COP28 [the UN Climate Change Conference], FIFA World Cup) (Brand Finance 2024). Specifically, Qatar is a good example of a small middle power seeking to expand its influence through sport events such as the 2022 FIFA World Cup to balance its power differentials with neighbouring states such as Iran, Iraq and Saudi Arabia that possess substantial military power (Dubinsky 2023). This demonstrates that because soft power rankings can become "sticky," success in soft power is rarely accidental but linked to targeted action, making it worth investing in strategies (Brand Finance 2024). Canada should use soft power indices as guidance to leverage soft power more effectively in the future and restore its influence globally.
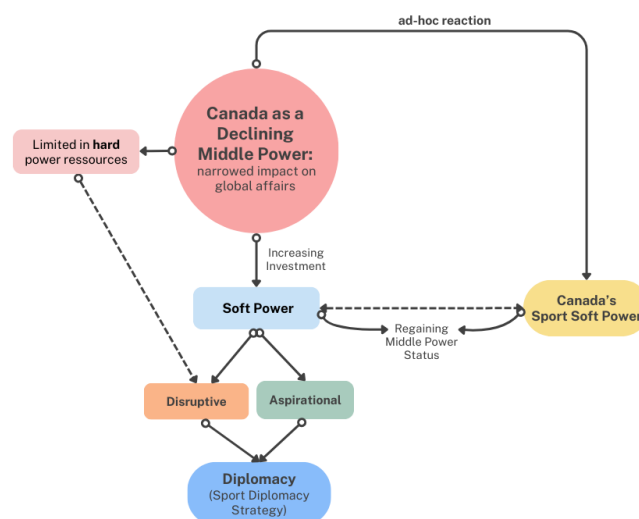
Figure 1: . Canada's Decline as a Middle Power and the Diplomatic Shift Toward Soft Power, Including Sport as a Soft Power Tool – *Image created by Lea Dörflinger.*

Figure 1 illustrates how Canada's limited power capabilities as a declining middle power nation suggests the country ought to focus more on soft power to reinforce its international influence. This includes the opportunity for Canada to regain middle power status through increased investment in soft power. Part of this is the utilization of sport as a soft power tool (Canada's sport soft power), discussed in the following sections.

Sport as a Soft Power Tool

One area that has become a source of soft power is sport. In the twenty-first century, for instance, non-Western nations invest heavily in sport mega events such as the

Olympics and FIFA World Cup (Boykoff 2022; Grix 2013; 2012). Fostering a positive national image, displaying their economic power while furthering social and political goals domestically and internationally, countries such as China, Qatar and Russia have hosted the Olympics or World Cup. However, from a Western perspective, these sport mega event spectacles are employed to conceal human rights abuses and territorial encroachment (Boykoff 2022; Jirouchova 2022). Not merely a tool for authoritarian regimes, sports have also been used by democratic countries such as Canada in response to rogue actors.

Canada has a long history of using sport as a soft power tool in attempts to address global issues through ad hoc sporting sanctions. For example, in 1977, Canada signed the Gleneagles Agreement that outlined the Commonwealth's restriction of sporting contact with South Africa to challenge the nation's Apartheid policies (Payne 1991). Canada also participated in the boycott of the 1980 Moscow Olympics in response to the Soviet invasion of Afghanistan (Kanin 1980). Canada's use of sports as a soft sanctioning tool is not limited to examples from the last century. More recently, Canada used a diplomatic boycott of the 2022 Beijing Olympics, which entailed withholding Canadian delegates from Olympic events in response to China's human rights record (Tasker 2021).

In addition to these "disruptive" measures, Canada has boosted its soft power using sports in an aspirational way. It has a long history of hosting sport mega events including three Olympics, FIFA's Women's World Cup as well as multiple Commonwealth and Pan American Games (Black 2016). In addition, it is set to co-host the 2026 FIFA Men's World Cup. The World Cup offers both opportunities and challenges for Canada to flex its economic and political muscle and to promote its ideals and strengths such as democracy and multiculturalism. However, concurrently, the FIFA World Cup could be a stage for demonstrations targeting Canada. For Canada to fully benefit from the World Cup, it must take every opportunity to wield its soft power.

Hosting is not the only way Canada uses sport to build its soft power. Canada invests heavily in achieving sporting success with initiatives such as Own the Podium to support medal-potential athletes in international competitions. Hosting sport mega events can build international prestige and recognition, while highly visible sports victories build pride in the populace and demonstrate the ability to defeat rivals (Freeman 2012). The ulterior functions of sporting victory are exemplified no better than in the example of the 1972 Summit Series,

a captivating series of hockey games between Canada and the Soviet Union (Wilson 2004). Canada's victory was not only a sporting one, but also a geopolitical one of West over East and an ideological one of capitalism over communism against its Cold War rival (ibid.).

Disruptive and Aspirational Forms of Sport Soft Power

The examples of how sport is used by Canada reflects the two sides of soft power: an aspirational form aimed at enhancing a state's image (Li 2013); and as a disruptive form used to exert political pressure on "bad actors" and signal dissatisfaction (Chhichhia 2008; MacLean 2018; Elcombe 2021). Figure 1 illustrates the two alternative forms of soft power and shows how disruptive soft power is an indirect consequence of, as well as an alternative to, the limited hard power resources that characterize historical middle powers such as Canada (see Figure 1).

One form of implementing disruptive soft power is cultural sanctions (Rosler and Press-Barnathan 2023). Unlike traditional hard sanctions, cultural sanctions are not based on coercion, but on the naming and shaming of a state's misbehaviour and therefore also understood as symbolic sanctions. They can take various forms, such as the boycott of cultural mega events (ibid.), for example, in the form of a diplomatic boycott of international sporting events. (Elcombe 2021). Because of their immense importance for organizing states in terms of image-making and identity building, mega events are ideal for challenging a state's national narrative. However, for a cultural sanction to be effective, the boycotted mega event must be perceived as significant by the target nation (Press-Barnathan and Lutz 2020; Rosler and Press-Barnathan 2023).

Sport, as a soft power tool, can send messages to a variety of different actors and can therefore be two-level or even multi-level strategies. According to Robert Putnam's (1988) two-level diplomatic games concept, political decisions are often both domestic and international negotiations and produce effects in both spheres. The 2014 Sochi Olympics is an example of this dynamic. In messaging around the Olympics, organizers crafted narratives of "normalcy" internationally and infused patriotic themes into the Games domestically (Boykoff 2022). Despite the exorbitant cost and Russians' economic pessimism regarding the Games, most Russians were still proud to host them (ibid.). Two-level diplomatic games using sport may even be multi-level diplomatic games, including strategies with non-state actors, institutions, sport governing bodies, corporations and civil society organizations.

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Considerations

Effects on athletes: Leveraging sport for disruptive purposes have hurt athletes, impacting training, careers and personal finances (Crossman and Lappage 1992). Athletes have reacted poorly, viewing themselves as pawns in boycotts regarded as instrumentally futile (ibid. 1992).

Cost: Hosting sport mega events come with price tags in the billions and can end up being financially debilitating to host nations as cost projections are exceeded, revenue from the event fails to materialize and venues are abandoned post-event (Preuß, Andreff and Weitzmann 2019; Kasimati 2015). High-performance athlete funding also costs hundreds of millions that may be better spent elsewhere (Freeborn 2021).

Immeasurability: Unlike hard power strategies, soft power strategies do not produce measurable effects such as loss of GDP or foreign investment (Gutmann Neuenkirch and Neumeier 2023). As a result, it is often hard to assess the efficacy of sport sanctions, making them challenging to use as policy tools.

Recommendations

Canada should focus on becoming a global soft power to regain its role as a middle power. Given that Canada's hard power resources are limited, Canada should capitalize on its existing capabilities in soft power and use indices and numerical measurements of soft power to determine how and where Canada can improve its soft power to restore its role as a middle power. Therefore, Canada should focus on strategic actions and the development of a soft power strategy. Sport and mega sports events should be relevant tools for Canada's success and, therefore, Canada should place a special emphasis on sport as part of its soft power strategy.

Canada should lead in the creation of a comprehensive sport power index. To assess strengths and weaknesses in Canada's existing use of sport and how it compares to other nations, it should act as a leader in the creation of a comprehensive sport power index. Indexes already exist that provide crucial rankings in performance in sport. However, these usually only include singular aspects of sporting performance. This index should encompass numerous factors that play into sport power. The development of a comprehensive sport power index will allow officials to improve on weaknesses and emphasize strengths during decision making. In addition, it would allow for policy makers to assess the sport power of other nations, making

Canada better prepared when sports are weaponized against it at sport mega events such as the 2026 FIFA World Cup. Likewise, the creation of a sport power index should be understood as an essential part of the approach to using sport to restore Canada's international influence and middle power status. Only when Canada's strengths and weaknesses in the field of sports are revealed through metrics, can the power of sport be used effectively and purposefully to regain middle power status.

Canada should develop a sports diplomacy strategy rather than relying on ad hoc approaches. This strategy must account for Canada's soft power resources, as well as sport's capacity to enhance reputation and cultural sanctioning. Canada must use the aspirational and disruptive forms of sport diplomacy, relying on the concept of two-level games to realize Canada's domestic and international goals. Considering the reliance on collaboration with other countries, corporations and civil society actors in the success of using sport as a soft power tool, in addition to developing a sport diplomacy strategy, Canada should also build strong relationships and act in tandem with like-minded actors to ensure that its strategy is effective and impactful.

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Protecting Canada's National Interests in Ukraine: Navigating End-of-War Scenarios

Mohammad Nazer Alemi, Jayanti Jerath and Adam Ladha

Issue

What are some potential scenarios for an end to the war in Ukraine, and how should the Government of Canada respond to these? The current hostilities between Russia and Ukraine are the largest Europe has seen since World War II. Russia's aggression towards Ukraine and its apparent intention to annihilate Ukrainian nationhood pose serious challenges to international stability, global cooperation, and the rules-based international order. The war in Ukraine thus confronts Canada with questions that are vital to its national interests.

Background

Military

The war between Russia and Ukraine has followed an erratic course. After Russian forces failed to conquer Ukraine outright in 2022, the Ukrainian counteroffensive in the spring of 2023 stoked optimism among Allied states that Kyiv might turn the conflict around. However, since the autumn of 2023, the Russians have gained respite and momentum. The Armed Forces of Ukraine (AFU) are facing significant challenges due to shortages in manpower and equipment, and have lost critical towns along the front line. To meet the operational needs of the AFU, Western states have committed billions of dollars in military aid to Kyiv. Since the start of the war, Canada has committed bilateral aid to Ukraine worth approximately €5.8 billion (Kiel Institute for the World Economy 2024). Additionally, Canada continues to deploy Operation UNIFIER, a military training and capacity-building mission in Latvia,

Poland and the United Kingdom, in which 300 Canadian personnel are training AFU soldiers in a variety of combat skills. This initiative began in 2015 and will continue until March 2026 (Department of National Defence 2023). Most recently, as Ukraine awaited the approval of a US$61 billion military aid package from Washington in the winter of 2024, Russia steadily advanced along the front line (Karklis, Ledur and Mellen 2024), benefiting from military aid it received from Iran and North Korea (United Nations 2024), and a shift in global attention away from the war in Ukraine to the conflict in Gaza (Raine 2024). Russia's offensive has put tremendous strain on the AFU; its forces are struggling to hold their positions and are withdrawing in some areas.

Diplomatic

The prompt and untrammeled delivery of military aid to Ukraine is the primary concern of Canada and its Allied partners, and rightly so. It is vital to ensure Kyiv's ability to repulse any Russian attempt to strike more deeply into Ukraine. However, it is important for Ukraine's partners, such as Canada — always in coordination with Kyiv — to pursue any favourable leads for a possible diplomatic solution to the conflict, or to at least plan for the postwar status quo once the fighting abates. Until this point, Allied military support to the AFU has not compelled Russia to come to the negotiating table on favourable terms. Nevertheless, Canada has maintained unequivocal diplomatic support for Ukraine, condemning Russia's actions by denouncing its war of aggression at the United Nations (Prime Minister of Canada Justin Trudeau 2023). Canada is actively engaged in various summits and peace talks, including those in Saudi Arabia and Malta, rallying support for Ukraine's 10-Point Peace Plan (Chase

2023). Moreover, Canada has imposed sanctions on more than 3,000 individuals in Belarus, Moldova, Russia and Ukraine whom it deems complicit in the illegal war waged against Ukraine (Global Affairs Canada [GAC] 2024b). Additionally, Canada has taken the initiative of co-chairing the International Coalition for the Return of Ukrainian Children with the Ukrainian government to achieve the fourth point of Ukraine's Peace Plan[1] (ibid. 2024a). Canada's large Ukrainian diaspora, close diplomatic ties with Ukraine and middle power position make it a player in the international diplomatic arena as it pertains to this issue.

Judicial

The international community is rallying behind the International Criminal Court (ICC) to ensure accountability for Russian war crimes and crimes of aggression. The ICC holds legal jurisdiction over war crimes, crimes against humanity, genocide and crime of aggression. Since Russia's invasion of Ukraine in February 2022, Ukrainian authorities and the International Commission of Inquiry on Ukraine have documented over 47,000 alleged war crimes committed by Russian military forces on Ukrainian territory (Marchuk 2022). Canada, as a dedicated supporter of the ICC, is playing a crucial role in organizing a coalition with Ukraine to repatriate abducted children. Through Canada's War Crimes Program, a partnership between the Department of Justice, the Royal Canadian Mounted Police (RCMP), the Canadian Border Services Agency (CBSA) and Immigration Refugees and Citizenship Canada (IRCC) was established. The RCMP, in conjunction with the CBSA and IRCC, has initiated an investigation in Canada to collect evidence of Russian war crimes from Ukrainian individuals who have taken refuge on Canadian soil. This evidence may be used to bring war criminals to justice through the ICC. The program involves documenting crimes and identifying victims, witnesses or suspects for potential future legal action (Public Safety Canada 2023).

End-of-War Scenarios

The task before the Government of Canada at the current juncture is to craft contingency plans tailored to any weak signals that currently indicate what course the war in Ukraine may yet follow. There are three general scenarios that Ottawa can anticipate and, in some cases, even help to

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1   The fourth point of the Ukrainian Peace Plan is titled "Release of all Prisoners and Deportees." It focuses on the release of prisoners, civilians and all adults and children, estimated to be around 20,000 children, who were illegally deported and forcefully transferred to Russia.

bring into being, ranging from those least desirable to the Canadian national interest to the most.

Scenario #1: Ukrainian Military Defeat, Russian Advance

The worst-case end-of-war scenario would involve Russia's strategic defeat of the AFU, forcing Kyiv to sue for peace. This could result from delayed Western military assistance, a Ukrainian manpower shortage that cannot be offset by conscription or the collapse of the Ukrainian home front due to domestic unrest. In such an event, the Allies can expect Russia to occupy and even annex additional swathes of Ukrainian territory, although it is highly unlikely that the entire country will fall to the Russians (Watling and Reynolds 2024). In this scenario, tensions will mount between Russia and NATO, and the chances of direct conflict between the two will be greater. The integrity of the rules-based international order would be severely damaged, as a major power successfully changed another state's borders by force.

Scenario #2: Stabilization of Ukrainian Front and Frozen Conflict

The second scenario that may mark the end of the war in Ukraine, or at least ongoing internecine fighting, is the complete stabilization and immobility of the front line — in other words, a stalemate. The AFU has repeatedly demonstrated its prowess, and while large-scale offensive operations against numerous, dug-in Russian defenders have yielded only mixed results, Kyiv has shown that it can hold the line when equipped with state-of-the-art weapons, with which it has exacted staggering losses on Russian forces (Foreign, Commonwealth & Development Office 2024). Despite the setbacks over the last six months, the arrival of the US $61 billion US aid package could allow Ukraine to restabilize the front line. Whether Ukraine can recover all territory it has lost since 2014, or even 2022, is open to doubt. However, the cementation of the front line could yield a Korean War-like scenario in which a free, prosperous and relatively secure Ukrainian rump state exists opposite a fortified border, as Russia, inflicted with colossal losses, resigns to the fact that it can no longer press an advantage (Gady and Kofman 2024).

Scenario #3: Russian Military Defeat, Ukrainian Advance

The third possible scenario for an end to the war in Ukraine would be a stunning AFU advance and its repulsion of the Russian occupiers, leading to a recapture of varying

proportions of its territory as defined by its 1991 borders. This is a possibility in 2025 or 2026, if the attrition strategy proposed in Scenario #2 can inflict losses on the Russians at a greater rate than Moscow can replace them (Cohen and Zagorodnyuk 2024). Vital factors enabling such a turn of events would include the success of Ukrainian conscription efforts aimed at replenishing AFU ranks and the provision of generous quantities of Western military aid to Ukrainian troops. How much territory Ukraine could recapture would change the stakes in the conflict, potentially intensifying the risk of the Russians use of nuclear weapons on the battlefield or direct NATO-Russian military confrontation. This risk would be particularly acute in the event of Ukrainian success in retaking Crimea. However, such a Ukrainian strategic victory would restore the integrity of the rules-based international order, as Ukraine and the Allies will have successfully prevented a major power from redrawing the map by force of arms.

Recommendations[2]

It is recommended that the Government of Canada pursue the following policy options in response to these three scenarios.

Military Options

Canada must expand the scope of Operation UNIFIER by providing more Canadian Armed Forces (CAF) personnel for AFU capacity building. To meet Ukrainian troop needs, Kyiv has expanded their mobilization and recruitment, initially aiming for an increase of approximately 500,000 troops, a goal that has been significantly reduced (Palikot 2024). Currently, the AFU is facing difficulty in training these recruits rapidly enough, despite their reduced number. Abundant, trained Ukrainian military personnel will be needed in all three scenarios. Even in the event of Scenario #1, the resultant rump state of Ukraine will require robust defence and security forces. In support of this effort, Canada should also expand the Junior Officer Development program currently delivered in Latvia (Department of National Defence 2023) to train Ukrainian officers at the Canadian Forces Leadership and Recruit School in Quebec.

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2 Given the rapidly evolving nature of the war in Ukraine, some events described in this policy brief may have changed by the time of publication. The recommendations are not solely contingent on the immediate, on-the-ground realities of the war but the focus of the policy brief is on broader and long-term strategic recommendations which align with Canada's national interests.

Canada must deliver on its bilateral security agreement with Ukraine, ensuring the long-term provision of aid and support. At the Vilnius Security Summit in July 2023, the Group of Seven (G7) nations pledged to create bilateral security agreements with Ukraine (Prime Minister's Office 2024). As of May 22, 2024, Germany (Auswärtiges Amt 2024), United Kingdom (GOV. UK 2024), France (Élysée 2024), Italy (Italian Government Presidency of the Council of Ministers, 2024) have all concluded negotiations with Ukraine and are finalizing their agreements. The agreement on security cooperation between Canada and Ukraine was likewise signed in February 2024. Given the limited size of Canada's standing military, Ottawa should focus on Part IV, Section B of the agreement related to defence industrial cooperation (Government of Canada 2024). Canada should invest in domestic Canadian defence-industrial start-ups like Roshel, which has production assets in both countries (Mazurenko 2024). This is especially vital to increasing the likelihood of Scenarios #2 and #3 discussed above.

Canada should deploy CAF personnel to western Ukraine to perform auxiliary roles in the rear. Without invoking Article 5 of the North Atlantic Treaty, Canada can unilaterally send military personnel to Ukraine to take over the function of rear-echelon units of the AFU, freeing up Ukrainian manpower for duty at the front (Daniel 2024). Such an action, undertaken at the request of Kyiv, would be in harmony with international law enshrined in Article 51 of the United Nations Charter, which permits collective defence.

Diplomatic Options

At the 2024 NATO summit in Washington in July, Canada should advocate the expeditious entry of Ukraine into NATO. Ottawa should propose a specific schedule for Ukraine's admission and a firm date by which the 32 member states should certify Ukraine's entry into the organization in their respective legislatures. No doubt, Moscow will declare this a "red line," yet the Allies have crossed previous red lines without consequence (Cohen and Zagorodnyuk 2024). The Allies agreed at Vilnius in 2023 that Ukraine could forgo the Membership Action Plan typically required of aspiring members (Holland, Irish and Siebold 2023). This demonstrates that NATO allies are capable of bending some of the rules regarding NATO accession when expedient, including the famous provision in the 1995 "Study on Enlargement" that stipulated prospective members have no outstanding territorial disputes (NATO 1995). Ukrainian membership in NATO would greatly increase the likelihood of Scenarios #2 and #3 for ending the war and diminish the chances of Scenario #1 — a Russian strategic victory — from occurring.

Canada should collaborate with other states to confiscate Russian state assets. Seized Russian financial assets can be used to finance the resupply and rearmament of Ukrainian forces and support the reconstruction of Ukraine. The EU countries reached a deal in May of 2024 to use the profits earned from frozen Russian assets to provide military support to Ukraine (ABC News 2024). Canada has taken the lead among G7 countries by introducing legislation targeting Russian assets through amendments to the Special Economic Measures Act with Bill S-278[3] (Parliament of Canada 2023). An international treaty should be established to create a global mechanism for using frozen Russian Central Bank assets as third-party countermeasures for loans and bonds for Ukraine's reconstruction, utilizing legal justification under Article 75 of the Vienna Convention on the Law of Treaties (VCLT).[4] In the increased likelihood for Scenarios #2 and #3, these assets should be used as collateral for loans and bonds for Ukraine by the World Bank and International Monetary Fund to ensure transparency and accountability.

GAC should work with Immigration, Refugees and Citizenship Canada (IRCC) to develop a national strategy to expand Ukrainian protection to refugees fleeing from the Russian occupation. The strategy should be initiated with the increased likelihood of Scenario #1 and #2 and should involve restarting the Canada-Ukraine Authorization for Emergency Travel, providing temporary protected status for Ukrainians, and offering a legal status and protection until they become permanent residents. Additionally, affordable housing remains a challenge in Canada, especially for Ukrainian refugees amidst increased rental demand. GAC should collaborate with Infrastructure Canada to establish a modular housing program for Ukrainian refugees, given its importance in 2024's federal budget.

As a middle power with a proven track record in track-two diplomatic dialogues and being in the top 10 ranking in the Global Soft Power Index, Canada is uniquely positioned to lead and invest in track II diplomacy.[5] This leadership role will ensure open communication and pave the way for an eventual peace settlement between Ukraine and Russia in Scenario #2 and #3. GAC should collaborate with third-party actors, including think tanks such as the Canadian Global Affairs Institute, Ottawa Dialogue and representatives from the International Crisis Group to address underlying issues, incrementally build mutual understanding between both parties of the war and develop long-term peace-building strategies.

Judicial Options

Canada must lead the way in repatriating abducted Ukrainian children. Canada, through the UN Human Rights Council, should ensure the safety of the children and establish the first point of contact with their families.

Canada should provide more assistance to Ukraine in the prosecution of war crimes on Ukrainian soil. This would include providing experts on the ground in the form of CAF Legal Officers and members of the RCMP with expertise in international humanitarian law, crimes against humanity and war crimes. These experts could provide necessary support to the Ukrainian Attorney-General's office to strengthen Ukraine's judicial capacity to ensure investigations of war crime tribunals are effectively conducted in alignment with international legal standards.

Canada should accumulate evidence of Russian crimes among the Ukrainian diaspora living in Canada. The RCMP should expand its investigation program beyond voluntary methods and online accessibility by reaching out to Ukrainians through IRCC and resettlement organizations in Canada to initiate direct contact with them. This will ensure that its own investigations within the country are connected to other international and Ukrainian efforts, facilitating greater international assistance in the prosecution of perpetrators beyond Ukrainian borders.

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3   Bill S-278, an act to amend the Special Economic Measures Act, was tabled by Canadian Independent Senator Rata Omidvar and is currently at the second reading in the Senate. The proposed amendment would allow a judge to seize a foreign state's assets to support the reconstruction of a foreign state impacted by a violation of international peace and security.

4   Article 75 of the VCLT provides "[t]he provisions of the present Convention are without prejudice to any obligation in relation to a treaty which may arise for an aggressor state in consequence of measures taken in conformity with the Charter of the United Nations with reference to that state's aggression." In the context of the war in Ukraine, measures can include resolutions of the UN General Assembly condemning Russia's aggression or supporting the ICJ Order on Provisional Measures.

5   Track II diplomacy involves a third-party facilitator bringing together a small group of people and experts who are familiar with the conflict region to participate in informal dialogues and problem-solving activities outside official diplomatic channels. The diplomatic initiatives under track II diplomacy, which focus on building trust and understanding, have an important role in leading up to diplomatic negotiations under track I diplomacy, which are more formal and involve high-level government officials.

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Tipping the Balance: Unveiling the Imperative of International Collaboration against Disproportionate Warfare

Eunice Ngiengi, Ludmila Puchulú-Mocchiutti, Amila Sadic and Jessica Uitvlugt

Issue

The lack of clear guidelines and enforcement mechanisms on proportionality in international humanitarian law (IHL) has led to a disproportionate military response in asymmetrical armed conflicts, resulting in extensive civilian casualties and infrastructure destruction, as exemplified by the current situation in Gaza and Ukraine.

Background

IHL establishes the protection of civilians and, specifically, vulnerable individuals such as the sick, wounded, pregnant women and children (United Nations, 1949).[6] However, military objectives can be attacked regardless of civilian presence that results in casualties and destruction. Proportionality in IHL mandates that the harm to civilians and civilian property during military operations must not be excessive compared to the anticipated military advantage. This principle aims to minimize civilian casualties and destruction. Disproportionality occurs when the harm significantly outweighs the military benefits, causing unnecessary suffering.

Disproportionality in armed conflicts is becoming a frequent global issue in Gaza, but also in other regions such as Ukraine and will continue if proportionality is not adequately addressed. The appropriate way of addressing disproportionality would be through international law, but with the global rise of authoritarianism, nationalism and populism, international law is struggling to effectively intervene in such a hostile environment (Amadi 2020). These ideologies mentioned above directly infringe on liberal principles of global cooperation and multilateralism and restrict the functioning of liberal institutions and organizations (Ginsburg 2020) that can help prevent disproportionality (Amadi 2020). Disproportionality is derived from the lack of effective enforcement of international law, a by-product of an increasingly asymmetrical international order where some states have advanced military capabilities above others. As a result, we are witnessing more disproportionate and asymmetrical armed conflicts that are harming innocent lives and violating international law. Therefore, international law must be strengthened and reaffirmed in this new global order to ensure that proportionality is respected.

Despite external factors and changes to the international liberal order, it is still somewhat challenging to apply international law in asymmetrical armed conflicts when international law provides resources that are vague and ambiguous (Keiler 2009). This ambiguity of proportionality in international law can lead to the lack of protection of innocent lives, the spread of crimes against humanity and infringements of humanitarian international law (ibid.). The rules governing proportionality need to clearly define the

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6   The most important treaties that lay the foundations of IHL are the 1949 Fourth Geneva Convention and Protocol I and III and are further enforced through other agreements that rule specific weapons or protections (International Committee of the RedCross,2004).

boundaries between proportionate and disproportionate. It is easier to identify a disproportionate response when there is something in which to compare the responses. No quantifying properties have been included in determining proportionality, even though armed conflicts and military force are quantifiable (Hicks and Spagat 2008). A quantifiable approach could ease determining the difference between proportionality and disproportionality.

This is where Canada comes into play. Canada has never been a state that has shied away from engaging in global cooperation and multilateralism (Black, David and Greg Donaghy. 2010). Canada's foreign policy has used multilateralism to emerge Canada on the world stage, but recently, it has been losing its place on that stage. For example, Canada had a solid international voice in the Suez Crisis of 1956, but that international voice is slowly fading away (Black, David and Greg Donaghy. 2010). Canada now has the opportunity to reclaim its international voice and reputation and provide global peace and security. The situation in Gaza is in dire need of strengthening International Law and redefining proportionality. If situations like these are not adequately and promptly addressed, then this will not be the last disproportionate armed conflict. Canada could be the one to start the discussion toward reaching global security and peace while regaining its international voice and strengthening its famous multilateralist strategies (Black, David and Greg Donaghy 2010).

Case Study of Gaza

The case of Gaza exemplifies the trend of disproportionality, with extensive civilian casualties, destruction of critical infrastructure and a severe humanitarian crisis resulting from the significant power imbalance between the parties involved. By examining the situation in Gaza through the lens of IHL, the aim is to highlight the urgent need for strengthening the legal framework surrounding proportionality in armed conflicts and propose concrete measures to ensure better protection for civilians and promote adherence to the principles of proportionality in future conflicts.

On October 7, 2023, Hamas launched attacks on Israel that killed 1,181 Israelis, including 801 civilians and resulted in the kidnapping of 250 hostages (AFP 2023). In response, Israel declared war on Hamas and initiated a campaign of air strikes targeting Hamas militants and infrastructure in Gaza, particularly in the northern region. The data

displayed below shows that over the first 100 days[7] of the conflict analyzed here, Gaza experienced nearly continuous bombing at a level of intensity and consistency not seen in other recent conflicts.[8] The only respite came in November when Israel and Hamas briefly negotiated a humanitarian pause in the fighting.

Civilian casualties: In the first 100 days of the war, an estimated 22,878 Palestinians were killed (Appendix A, Figure 1). The Ministry of Health does not methodically classify deaths by gender or civilian status but estimates that casualties of women and children are approximately 70 percent of all fatal casualties (Epstein 2024). While some sources question the integrity of this data, citing lower casualties among women and children, the estimates are plausible given that women and children make up about 73 percent of the population (Palestinian Central Bureau of Statistics [PCBS] 2023). Historical data, such as the London Blitz (1940-1941) indicated that roughly eight percent of the exposed population suffered fatal casualties, a number comparable to that suggested by Palestinian data in the bombardment of Gaza (see more in Appendix B). In Palestine, the estimated 6,000 men killed represents an upper limit of Hamas combatants and some male children (defined as males younger than 18) expected to be Hamas fighters. Thus, soldiers accounted for approximately 26.23 percent of the total population killed. In comparison, the United Nations estimates about 10 percent to 20 percent of fatal casualties in global conflicts are combatants (United Nations 2022). International law permits civilian casualties if they result in a military advantage (Newton 2018, 867–86). In the upper limit of all men being combatants, the ratio of civilian casualties in Gaza might be slightly lower than in other conflicts. Yet, the use of explosives and urban warfare has led to a high proportion of civilian deaths (United Nations 2022).

Infrastructure: According to available data, 69,000 housing units have been destroyed (Appendix A, Figure 2), and 290,000 are partially damaged. Only 15 out of 36 hospitals remain partially functional, and 374 (90 percent) of school buildings have sustained substantial damage.

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7 This analysis covers only the initial 100 days of the conflict, as the situation remains fluid and events are still unfolding at the time of writing. The first 100 days provides a representative snapshot of the scale of destruction while acknowledging the ongoing nature of the crisis.

8 There has been disagreement regarding the reliability of the data provided by the Palestinian Ministry of Health and replicated by intergovernmental organizations and other civil society groups. However, the analysis of the data suggests that it should be largely reliable. For further discussion, see Appendix B.

Article 53 of the Fourth Geneva Convention (United Nations 1949) and Articles 52 and 54 of Additional Protocol I (United Nations 1977a) protect civilian property and critical infrastructure, prohibiting their destruction unless necessary for military operations. Israel claims that Hamas operates from civilian areas and critical infrastructure, using human shields, which is strictly prohibited under IHL. Israel justifies its disproportionate response to Hamas' violations of the rules of war, leading to higher civilian casualties in this new type of warfare (Rubinstein and Roznai 2011, 127).

Displacement crisis: Since hostilities began, 1.9 million people (85 percent of Gaza's population) have been displaced. On October 13, 2023, Israeli officials ordered the evacuation of northern Gaza, affecting about one million people. UN officials deemed the rapid evacuation unfeasible (Al Jazeera 2023). Figure 3 (in Appendix A) illustrates that shelters in southern and central Gaza (Rafah, Khan Younis and Deir al-Balah) together accommodated one million people by the start of the humanitarian pause on November 23, illustrating the scale of displacement and evacuation challenges amidst daily bombings. Article 47 of the Fourth Geneva Convention (United Nations 1949) and Article 17 of the Additional Protocol II (United Nations 1977b) prohibit forced civilian movement unless required for safety or imperative military reasons. The IDF's warnings provided insufficient time, complicating the displacement efforts and enhancing challenges.

Humanitarian aid: According to the World Food Programme, "more than one in four households face extreme hunger," (Awad 2023). By day 100 of the conflict, 2.2 million people were categorized as being at imminent risk of starvation. Limited access to humanitarian aid exacerbates this dire situation, with an average 78.52 truckloads of aid entering Gaza daily, down from 500 before the conflict. The right to humanitarian relief is guaranteed by the Fourth Geneva Convention (United Nations 1949) and Additional Protocol I (United Nations 1977). However, Article 23 of the Convention allows disruption of the passage of aid if an "advantage may accrue to the military efforts or economy of the enemy," which Israel can use to justify such disruption. This provision, combined with the ongoing conflict, has resulted in a severe shortage of food and essential supplies, putting the lives of countless civilians at risk.

The situation in Gaza highlights the devastating impact of disproportionate warfare and non-compliance with IHL. The lack of specific thresholds for disproportionality in the IHL framework has led to civilian casualties and infrastructure destruction. This issue is also seen in conflicts like those in Ukraine and Syria, underscoring the need for the international community to establish clear guidelines for proportionality in armed conflicts.

Recommendations

The Russia-Ukraine and Gaza conflicts, among other recent international crises, highlight the lack of proportionality and symmetry in modern warfare, leading to increased civilian casualties, urban devastation and egregious violations of international and humanitarian law. To address this, it is recommended that Global Affairs Canada lead the proposed Lac-St-Jean Conference, reaffirming Canada's influential role as a committed advocate for peacekeeping on the global stage. The primary objective of the Lac-St-Jean Conference is to address the urgent matter of disproportional and asymmetrical international warfare through collaborative efforts. A central objective will be the creation of a comprehensive index to regulate warfare among actors, state and non-state, establishing a foundational framework to promote ethical conduct and minimize harm on an international scale.

Effective collaboration among external and internal stakeholders is crucial in addressing the contemporary challenges of asymmetrical warfare and disproportionate retaliation. Proposed attendees include Global Affairs Canada, Public Safety Canada, the Department of National Defence, the Canadian Human Rights Commission and the Canadian Security Intelligence Service. Additionally, the presence of international organizations such as the United Nations, North Atlantic Treaty Organization member states, the International Committee of the Red Cross, the European Union and other relevant international state actors is advised at the Lac-St-Jean Conference.

The proposed Lac-St-Jean conference agenda is outlined below.

Discussion on Proportional and Symmetrical Law: Participants will engage in in-depth discussions to define guidelines for proportional and symmetrical responses in warfare. Case studies and real-world examples will be presented to illustrate practical applications. Participants must collectively agree on measured responses to aggression, minimizing the risk of disproportionate retaliation.

Exploration and Formulation of Regulatory Index: Detailed discussions and collaborative efforts will focus on formulating an index to regulate warfare between both state and non-state actors. Clear guidelines, quantitative

measures and standards for conduct during conflicts will be established, ensuring adherence to international humanitarian law and principles of proportionality.

Threshold Measure of Proportionality: The regulatory index will include a threshold measure of proportionality. Criteria for assessing the proportionality of a military action will be defined, considering factors like civilian casualties and collateral damage. Interdisciplinary collaboration between legal experts, military strategists and humanitarian practitioners are recommended to be a part of the discussion.

Protocols of Humanitarian Relief: Protocols and mechanisms for effective humanitarian relief during conflicts will be developed. Inclusive approaches will be integrated to address the specific needs of women, children and marginalized groups. Coordination mechanisms between humanitarian actors, military forces and local authorities will ensure safe and efficient aid delivery.

Protection of Civilians: Innovative approaches to minimize civilian casualties and support vulnerable populations are proposed to be explored. Inclusion of provisions for human rights defenders and journalists at risk are emphasized.

Protection of Cultural Infrastructure and Medical Centres: Measures to protect cultural sites, monuments and medical facilities from deliberate targeting are urged. Establishment of partnerships with cultural heritage organizations and the United Nations Educational, Scientific and Cultural Organization are suggested to enhance protection efforts.

Conclusion

As modern warfare increasingly involves disproportionate and asymmetric tactics, international laws must evolve to better protect civilians, urban areas and medical facilities. By adopting these recommendations, Canada can reclaim its role as a global peacekeeper and lead efforts to implement effective measures that safeguard civilians and communities.

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Acknowledgments

Appendix A: Figures

Figure 1
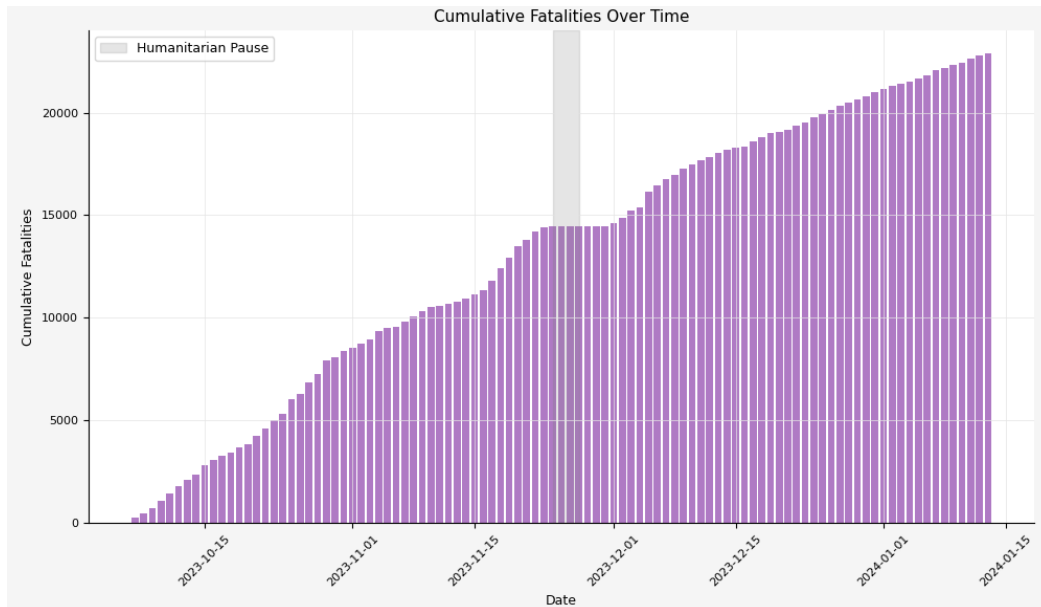
Cumulative graph of fatal casualties in the Gaza Strip in the first 100 days. The data does not discriminate between civilians and fighters. Shadowed area represents the four days humanitarian pause was negotiated between Israeli and Hamas officials between November 24 and November 27. Source: Table produced by Ludmila Puchulú-Mocchiutti based on data from ACLED (2024).

Figure 2
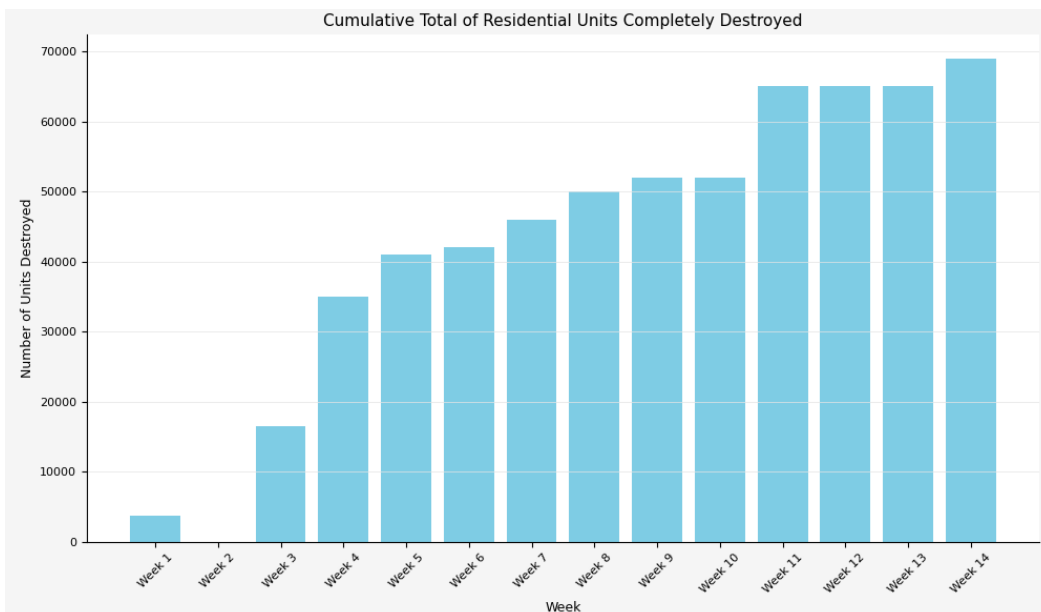
Cumulative graph of residential units completely destroyed in the Gaza Strip per week since the conflict started up until day 100 or week 14. *Source*: Table produced by Ludmila Puchulú-Mocchiutti based on data from Office for the Coordination of Humanitarian Affairs (OCHA) (2024a).

Figure 3
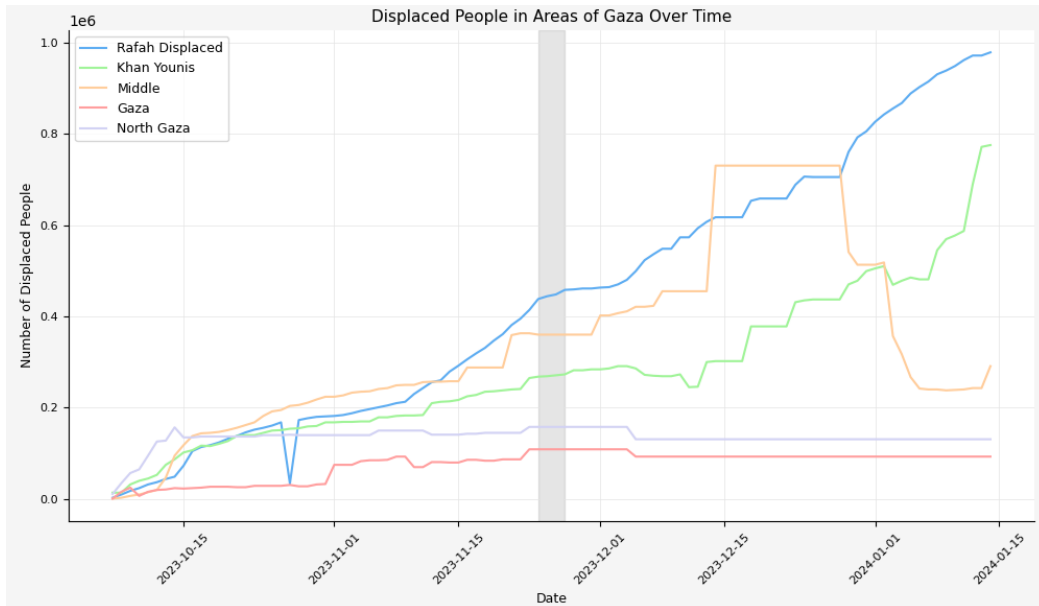
Linear graph on the number (in millions) of internally displaced people on any given day. The data includes those in UN Relief and Works Agency for Palestine Refugees, government and other shelters and is divided between internal displacements in each region of the Gaza Strip. *Source*: Table produced by Ludmila Puchulú-Mocchiutti based on data from OCHA (2024b).

Figure 4
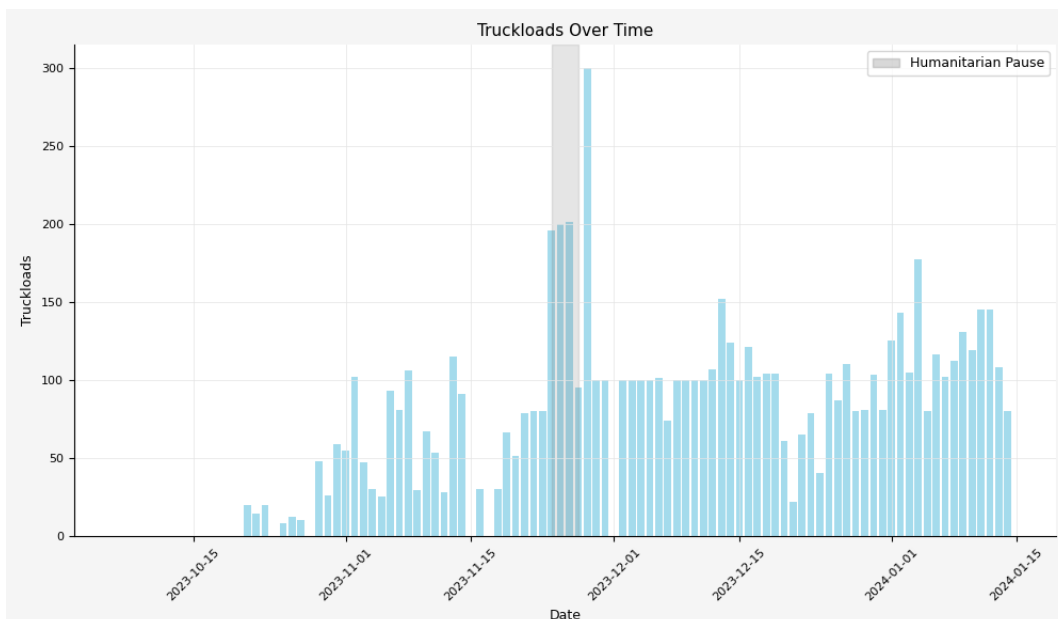
Bar graph with number of truckloads with humanitarian aid entering the Gaza Strip per day for the first 100 days. Shadowed area represents the 4 days of humanitarian pause that was negotiated between Israeli and Hamas officials between November 24 and November 27. *Source*: Table produced by Ludmila Puchulú-Mocchiutti based on data from OCHA (2024a).

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Appendix B: Rationale of Data (by Dr. Stephen Evans)

1. **Gaza geography**: Gaza has an area of 360 km^2 (CIA 2024) and a 2022 population of 2.17M (Palestinian Central Bureau of Statistics 2022). This gives a population density of 6,028 p/km^2. Much higher population densities occur in urban areas such as Gaza City and in the eight Gaza refugee camps.[9] Included in the population of Gaza are 1.57 million Palestinian refugees (UNICEF SoP 2023).

2. **The demographic structure of pre-war Gaza**: The 2022 population of Gaza is estimated as 2.17 million of which 1.10 million are males of all ages and 1.07 million are females of all ages. Children (defined by the PCBS as those persons younger than 18 years old) number 1,023,771 and make up 47 percent of the population (PCBS 2023a). Men (males of 18 years and older) number 577,302 (27 percent of the 2022 Gaza population) and women (females of 18 years and older) number 568,927 (26 percent of the Gaza population). Women and children together number 1,592,698 (73 percent of the Gaza population); these numbers reflect the historical high fertility of Gazan women.[10]

3. **Housing units in pre-war Gaza[11]**: Based on an average occupancy of 5.6 people per housing unit reported by the PCBS, it is estimated that there were 387,500 housing units in Gaza in 2022 (PCBS 2022). The Gaza housing unit is characterized by its small dimensions (average 130 m^2) and a general overcrowding; in 2022 PCBS data shows that the average number of rooms per unit was 3.5 with an average of 1.7 persons per room (5.95 persons per housing unit suggesting a total number of 364,705 housing units in 2022). The 2017 Palestine Census recorded 334,632 housing units in Gaza; in the Census 76.7 percent of Gaza's population lived in apartments.

4. **Impact of Israeli bombardment (housing losses and casualties)**: as of January 7, 2024, (Day 93 of the bombardment) approximately 65,000 housing units (17 percent of the total) had been destroyed by Israeli forces and a further 290,000 had been damaged. As of Day 93, casualties numbered 95,251, of which 22,835 were fatal casualties (OCHA 2024a), 58,526 were seriously injured and 7,000 were missing and presumed dead. Thus, it appears that there were 29,835 fatal casualties (31 percent of the total casualties) up to January 7.

5. **Estimate of exposed population**: Assuming the exposed population as the total number of persons occupying the totally destroyed housing units, this would represent 364,000 persons. Of this number, 8.2 percent (29,835) were fatal casualties.

6. **Comparison to the London Blitz[12]**: In the aerial bombardment of the County of London (forming the core of the London Civil Defence Region (area of 303 km^2; population of 3,083,900) by German forces in 1940-1941 (known as the Blitz), 46,607 housing units were totally destroyed by high explosive weapons. The average occupancy of these residential units was 3.3 persons, which gives (using the assumption in point 5 above) an exposed population of 153,803. 12,957 fatalities occurred in the County of London during the Blitz, which gives a fatality rate of 8.4 percent, remarkably close to our Gaza estimate in point 5 above.

7. **Evaluation of Gaza Ministry of Housing (MoH) statistics**: Thus, it can be concluded, based on the scale of destruction of residential units (a proxy for weight of attack), household occupancy and a fatality rate based on data from the London Blitz, that the Gaza MoH total casualty statistics are both plausible and credible as they roughly correspond to what may be expected in the sustained aerial bombardment of a densely populated urban area using high explosive weapons.

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9   PCBS data shows that the most densely populated areas in Gaza are the eight refugee camps with densities that exceed 40,000 persons /km^2, followed by the main cities of Gaza, Jabalya, Deir Al Balah, Khan Younis and Rafah Governorates with densities that range between 20,000 to 40,000 persons /km^2.

10 The total fertility rate during (2017–2019) declined to reach 3.8 births, compared to 4.6 births during the period (1999–2003); 3.8 births in the West Bank and 3.9 births in Gaza Strip. On the other hand, the fertility rate was 3.8 births in urban areas compared to 4.4 births in rural areas and 3.5 births in the Palestinian refugee camps (PCBS 2022)

11 See Gaza housing data PCBS (2023b).

12 This paragraph is based on unpublished data of S.G. Evans (Balsillie School of International Affairs, Waterloo, ON).

8. **Structure of Gaza casualty response**: With reference to the structure of the total fatal casualties, the assumption is that this has reflected the demographic composition of the Gaza population. From point 2 above, we calculate that 6,165 men (males of 18 years and older), 5,937 women (females of 18 years and older) and 10,732 children (males and females younger than 18 years old) were killed up to Day 93. Up to January 7, 2024, a total of 16,669 women and children were killed (73 percent of fatal casualties).[13] Palestinian data reported by Epstein (2024) for Day 93 gives total fatal casualties (22,835) as 5,835 men, 7,000 women,10,000 children (and women and children together 17,000); these numbers roughly correspond to those calculated based on the composition of the exposed population[14] and suggest that at least 74 percent of the fatal casualties were civilian.

9. **Number of Hamas combatants killed:** The estimate (6,165) of the number of men killed (in point 8 above) represents an upper limit of Hamas combatants killed. Three perccent of this total consists of aged men (over 65 years old), which suggests that this number is closer to 6,000 (Thomas, Horton and Garman 2024). Thus, there are three times non-combatants killed for every combatants. It should also be noted that not all men of fighting age were Hamas combatants, and some male children (defined as males younger than 18) would be expected to be Hamas fighters.

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13 Update to March 21, 2024 (Day 167). Gaza MoH report 31,819 fatal casualties]. Using the same assumptions as in point 8 above, fatal casualties up to Day 167 are men (8,591), women (8,273) and children — (14,955). Women and children fatal casualties together number 23,228. An upper estimate of Hamas combatants killed is thus 8,333.

14 On November 23, 2023 (Day 48) the Gaza MoH reported a total of 14,800 fatal casualties consisting of 6,000 children or 41 percent of the total (compared to 47 percent in the Gaza population), 4000 women or 27 perceent of the total (compared to 26 percent in the Gaza population), and 4,800 men or 32 percent of the total (compared to 27 percent in the Gaza population). Women and children together would be 10,000 or 68 percent of the total. Thus, at least 68 percent were civilian casualties as of Day 48.

Comparison to IDF and other estimates:

10. **Indiscriminate bombing**: The fact that these statistics suggest indiscriminate bombing of residential areas (see Abraham 2023, para. 38) in Gaza reflect both Hamas war tactics of sheltering in and operating from residential buildings (and tunnel complexes beneath them) as well as Israel's war aim of eradicating Hamas in response to the October 7 attacks (ibid.). This appears to be the case despite Israel's use of high-precision bombs.

11. **Concluding comments as of Day 169**: The number of fatal casualties (31,829) in the 169-day Israeli bombardment of Gaza exceeds that in the seven-month London Blitz (1940-1941) and the Royal Air Force Bomber Command attack on Dresden (1945) in WW II. The number reflects the intensity of the Israeli attack, the targeting policy of the IDF (particularly attacks on so-called "power targets"), the high population density of the Gaza Strip, locally increased in high-rise apartment buildings, the high occupancy of residential units, and Hamas war tactics of using residential buildings as cover for defensive operations. It should be noted that Israeli weapons used were almost exclusively of the high explosive type; this allowed direct comparison with data on fatal casualties in the London Blitz. An analysis of the County of London data indicated that roughly eight percent of the exposed population (defined as the number of people living in those housing units destroyed based on average occupancy data) suffered fatal casualties, a number comparable to that suggested by Palestinian data in the bombardment of Gaza. This indicates that the fatality statistics released by Palestinian authorities are plausible and credible. Considering the demographic structure of the fatal casualty response, the assumption that the total number of people killed in the bombardment mimics the composition of the Gaza population that was roughly verified by Palestinian casualty data. These statistics suggest that indiscriminate "area" bombing (whereby neighbourhoods were "attacked on a large scale and not in a surgical manner" (Abraham 2023) of residential areas in Gaza and reflects both Hamas war tactics of sheltering in and operating from residential buildings (and tunnel complexes beneath them) as well as Israel's declared war aim of eradicating Hamas, and that Israel's reported efforts to reduce the exposed population by evacuation (IDF 2023) and/or leaflet warning have not been successful or were implemented in a limited manner. The fact that 73 percent of the

fatal casualties are women and children is a tragic consequence of their dominance in Gaza demography resulting from the historical high fertility of Gaza women. We also estimate the number of Hamas combatants killed in the bombardment as of Day 167 to be 8,333; the ratio of non-combatants to combatants killed as of Day 167 is calculated to be 3.8, a figure nearly double that of the IDF estimate.

12.   A counterargument to the assertion that the data from the Hamas Ministry of Health is plausible, based on its consistency with the extensive damage to residential buildings, household density, and the fatality rate observed during the London Blitz, concerns the Israel Defense Forces' directive for civilians to relocate from Gaza's north to its south. This order led to the displacement of approximately 2.2 million individuals towards Khan Younis and Rafah, as depicted in Appendix A, Figure 3. Still, the original assertion remains valid considering that this mass displacement occurred over an extended period amid ongoing bombings.

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International Assistance, Human Rights and Migration

The Future of International Assistance: Canada's Role on the Global Stage

Erika Campos-Hohn, Mikayla MacIntyre and Samuel Brenneman Ramer

Issue

Despite allocating over 95 percent of its 2022 budget to gender-focused initiatives, Canada's Feminist International Assistance Policy (FIAP) confronts a significant gap between its commitments and outcomes. This gap compromises the policy's effectiveness and jeopardizes a crucial chance to advance international aid for gender equality. Our analysis indicates that Canada could lead a more impactful global initiative by refining its approach to include clearer definitions, enhanced reporting and broader engagement strategies.

FIAP Overview and Success

Canada's FIAP, adopted in 2017, aims to improve developmental outcomes globally, focusing on areas such as human dignity, inclusive governance and environmental action (Global Affairs Canada [GAC] 2021). The policy demonstrates a potential to empower aid recipients and legitimize women's participation in decision-making processes. A notable achievement has been the allocation of 99 percent of all Canadian bilateral aid towards projects promoting gender equality (ibid. 2023a). Top recipients of Canadian aid across any action area are Afghanistan, Bangladesh, the Democratic Republic of Congo, Ethiopia, Mozambique, Nigeria, Pakistan, South Sudan, Sudan and Ukraine (ibid. 2023b). FIAP showcases Canada's capacity to be a global leader in progressive policy. This approach elevates Canada's standing in multilateral institutions and provides a blueprint for other nations looking to follow in the creation of gender-focused policies through the gender equality toolkit. The toolkit provides clear assistance in planning, implementation, monitoring and reporting for officials to ensure and achieve gender equality outcomes (ibid. 2024a).

Recent Trends and Adjustments

Despite significant investment in the FIAP strategy, the national budget for traditional international assistance approaches has dwindled in recent years. This is seen in the 2023 funding falling by 15 percent, equaling a $1.3 billion dollar reduction (Khan 2023). Reasons for the cuts have been attributed to issues such as COVID-19 response efforts and Russia's war on Ukraine, as these are seen as larger priorities to the government than international assistance (Grover 2023). These decisions to cut funding occurred regardless of calls to action by civil society organizations, humanitarian groups and advocacy groups nationally, due to ongoing food, conflict and democratic crises abroad (CanWaCH 2023). These recent trends and adjustments have been criticized for undermining the effectiveness of the policy, as well as Canada's leadership on the global stage.

Critiques by Civil Society and Major Issues

Several critical concerns on FIAP have arisen from evaluative reviews from civil society, recipient feedback, and audit reports. GAC publicly committed to working more closely with civil society in 2020 to facilitate deeper grassroots engagement. The Feminist Foreign Policy Working Group (FFPWG), as a representative of several civil society actors, including Amnesty International, Above Ground and the Equality Fund, reported two primary concerns regarding the use and lack of clarity on key policy terminology.

The FFPWG found **definitional ambiguity impacted policy coherence**. The lack of clear definitions for feminism, feminist approaches and intersectionality has led to inconsistent implementation and misinterpretation of policy objectives (FFPWG 2021; Cadesky 2020). The undefined terms fail to incorporate inclusive language and neglect anti-oppressive and anti-racist approaches (FFPWG 2021). This vagueness results in broad, poorly implemented programs where almost any initiative can be labelled as feminist, ultimately undermining FIAP's goals and compromising its long-term feasibility (Morton, Muchiri and Swiss 2020).

The report also found that FIAP has a **limited economic focus.** Civil society respondents concluded that feminist policy should address economic justice and decolonization, prioritizing and uplifting marginalized communities (FFPWG 2021). The emphasis on individual economic empowerment overlooks systemic barriers that perpetuate economic inequality and hinder the equitable distribution of economic benefits (Cadesky 2020). With FIAP covering a substantial portion of Canada's international assistance, the policy must adopt a transformative approach centred on achieving gender equality and economic justice, as well as set specific goals to improve the circumstances of beneficiaries (Dicks and Woroniuk 2023; Office of the Auditor General of Canada 2023).

Our research uncovered **gaps in recipient feedback.** GAC currently uses results-based assessments that quantify success based on outcomes compared to predetermined indicators (GAC 2024b). This method does not currently include any direct recipient feedback. The FFPWG (2021) noted a desire from recipients outside of Canada to more deeply engage with the policy development process. Third-party assessments reveal that recipients often have limited access to government stakeholders beyond designated "gender experts" (Dobrovnik 2024). Results-based assessments alone are insufficient for capturing changes in structural inequalities. This method can inadvertently contribute to the furthering of paternal aid relationships and unequal power dynamics (Obrecht 2018).

The Equality Fund additionally completed a quantitative third-party review of FIAP investments in 2023. Both audits found **inadequacies regarding transparency in reporting and reliability practices.** The Equality Fund's report highlighted challenges in understanding resource flows and inconsistencies between GAC's internal investment tracking and reporting captured within the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee's (DAC's) Creditor Reporting System (CRS), making it difficult to assess the quality and impact of initiatives (Dicks and Woroniuk 2023). The Auditor General reports failures in GAC's monitoring and reporting of outcomes against policy goals. Despite legal requirements mandating reporting progress under the Official Development Assistance Accountability Act and the Treasury Board's Policy on Results, significant weaknesses were found in how project information was managed and reported by the department (Office of the Auditor General of Canada 2023). Requests for documentation for auditing purposes were consistently unmet, indicating a lack of transparency and reliability in reporting.

Engagement Strategy and Strategic International Comparisons

Sweden pioneered the world's first feminist foreign policy in 2014, inspiring similar approaches in France, Germany, Mexico and Spain (UN Women 2022). With the introduction of FIAP in Canada in 2017 came the introduction of the National Action Plan on Women, Peace, and Security, and advanced gender equality initiatives through trade policy (FFPWG 2021). FIAP broadened Canada's previous efforts from a specific geographical focus with the intent to have the "greatest positive impact" (GAC 2021).

Despite differing policy limitations, conceptualizations and implementation, FIAP could gain valuable insight and lessons from the achievements and setbacks of other feminist foreign policy initiatives. Sweden's feminist foreign policy utilized a framework of the Three Rs, "women's Rights, with Resources and supporting increased female Representation" (Thompson and Clement 2020). In 2022, following the election of a more conservative government, Sweden abandoned its feminist foreign policy, describing the term feminist as failing its intended purpose and obscuring Swedish values and interests (Walfridsson 2023). These failures included the continuation of weapons exports to countries with recorded human rights abuses against women and girls, and stringent migration policies, leading to criticism of the policy (ibid. 2023). The contradictions between Sweden's policies and lack of cohesion resulted in the abandonment of the policy (Portillo 2023).

In 2021, Spain adopted its Action Plan for a Feminist Foreign Policy, which comprehensively transformed both national and international policies to promote gender equality through a feminist approach (Gobierno De España 2021). This approach included an emphasis

on intersectionality, along with annual reporting and monitoring of the policy's success, which was then presented to Parliament, various stakeholders and civil society. The cohesion of Spanish policy, along with consistent reporting mechanisms and the focus on public diplomacy, bolsters support internally and abroad.

While promoting several complementary feminist foreign policy initiatives, Canada does not describe its overall foreign policy as feminist. Canada has faced criticism similar to Sweden's with the continuation of military weapon sales to Saudi Arabia and a continual increase in defence spending without greater contributions for international assistance (Tiessen 2019). For a continuation of the policy across shifting political landscapes, Canada must learn from the failures of Sweden and the successful contemporary approach of Spain. These lessons are vital to ensure the continuation of this policy and the empowerment of women and girls across changing political realities. Given the current trend of reduced international assistance funding due to shifting priorities, it is crucial to use allocated funding in ways that benefit both recipients and Canada to ensure that the future of international assistance remains relevant.

Recommendations

FIAP should provide greater definitional transparency on the use of the term "feminism." FIAP must create clear and specific definitions of "feminist" and "feminism." The current lack of conceptual clarity leads to vague interpretations and broad understandings, ultimately reducing the potential impact of the policy (FFPWG 2021). Although there is an inherent tension between the need for clear definitions for accountability and the need for flexibility to address cultural contexts, the general notions towards gender equality and empowerment within the policy are not enough. It is also important to note that this ambiguity may be strategic for this purpose of flexibility, and although this may have benefits, in practice it falls flat. Clearly defined conceptions can ensure FIAP can guide future aid programming, make a tangible impact on recipients, and avoid broad and unhelpful applications of the policy. If possible, a balanced-hybrid approach where strategic ambiguity is used necessarily to allow for cultural adaptation should be adopted, but still emphasizing core definitions and clarity.

GAC should enhance the transparency and reliability of FIAP-related information reporting. GAC assesses all FIAP-related projects and sorts them by gender-based coding markers internally. The OECD DAC's CRS provides

an independent review of FIAP funding but has reported discrepancies in GAC-reported data (Dicks and Woroniuk 2023). Data discrepancies and a lack of publicly available information make assessing the quality and impact of these investments difficult. Improving public reporting and implementing new coding guidance can ensure FIAP's goals translate into tangible benefits, address systemic power imbalances and promote local-level equity and empowerment.

FIAP should focus on establishing direct recipient feedback channels to address paternalistic legacies of Global North-South aid relationships. The federal government's participatory feedback approach selectively contacts stakeholders supporting donations in recipient nations. Without direct participation from all recipient states, there is a risk of overreliance on conclusions drawn by government officials, limiting the accuracy of assessments regarding the state of social progress (Obrecht 2018). Canada should prioritize the establishment of more direct feedback channels to mitigate the influence of underlying power dynamics and ensure a comprehensive understanding of recipient countries' unique needs and contexts. Further, Canada must enact pre-consultation with recipients of FIAP to better ensure meaningful results. The Government of Canada can draw upon its framework of duty to consult with Indigenous communities, which the Canadian government views as allowing to strengthen relationships and partnerships (Government of Canada 2024). Pre-consultation with communities prior to FIAP allocation will ensure meaningful allocation of resources and ensure the policy works with communities instead of imposing unwanted aid practices.

FIAP should view gender equality as the end goal while remaining flexible to support those suffering from ongoing and persistent conflict. FIAP utilizes gender equality as one strategy for a broader global poverty eradication effort, not as the policy's end goal. Without a transparent intersectional approach, these poverty reduction efforts of FIAP may fail to directly challenge patriarchal structures while continuing and promoting harmful gender roles (Cadesky 2020; Portillo 2023). Thus, FIAP, to support the empowerment of women and girls, must take a transformative intersectional approach with gender equality as its principal goal to ensure meaningful results. Further, FIAP's emphasis on poverty reduction efforts should not hinder its ability to provide emergency aid in ongoing and persistent conflict areas. As crises continue in Gaza, Sudan and Ukraine, Canada's aid must remain flexible and responsive, providing essential support such as food security, clean wate, and other types of emergency aid for those who are suffering under conflict.

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Closing the Credibility Gap: Strengthening Canada's Bid for a Seat on the UN Human Rights Council

Varinia Salazar and Katelyn Shantz

Issue

Canada's desire to join the UN Human Rights Council is laudable and can become a reality, but to realize this goal, more direct action needs to be taken for the protection of women and 2SLGBTIQ+ individuals.

Background

The current multilateral, rules-based international system is being increasingly subjected to great power dynamics, which are slowly altering the way in which international relations are conducted and human rights are protected. In the face of this relative return to realpolitik, Canada has a chance to step forward, championing the legitimacy of multilateral institutions and reasserting itself as a key player in the realm of human rights.

Countries around the world are experiencing attacks against human rights norms and laws, and in particular, women's and 2SLGBTIQ+ rights and autonomy are being challenged. The global backlash against women's rights is evident: the right to abortion was overturned in the United States (Supreme Court of the United States 2022); in Afghanistan, women and girls are now banned from receiving education, moving and working freely (Barr 2024); South Korea's new government is looking to abolish the Ministry of Gender Equality and Family (Lee 2024); transgender people constitute one of the most discriminated groups within the United Kingdom (Mijatović 2022); and women's activists, feminist organizations and champions for women and

gender-diverse individuals are increasingly surveilled and targeted by states and labelled as potential threats.

Women's and 2SLGBTIQ+ rights are canaries in the mine shaft. Human rights in general are increasingly losing their legitimacy. Rising rates of nationalism and populism are fostering a turn towards conservative and narrow values, generating a backlash and resistance to the progressive inclusivity of human rights. This resistance can manifest in the form of regressive policies, discriminatory rhetoric or even violence (See Appendix A and B).

Canada's Credibility Problem and Bid for a Seat on the Human Rights Council

As Canada has long considered itself to be a champion of women's rights, 2SLGBTIQ+ rights and human rights in general (Trudeau 2024), its position within the realm of international human rights is vital to advancing the creation of more egalitarian and inclusive societies in which rights are respected and protected. Unfortunately, Canada's reputation is experiencing a decline on the international stage. Various Canadian actions and policies of late, such as arms sales, mining operations abroad and systemic violations of Indigenous rights on Canadian soil are all strikes against Canada and its international standing.

These policies and actions fail to protect or promote human rights and lead to a discrediting of Canada's role in the human rights system. In short, Canada has a credibility problem. Thankfully, the damage is not irreparable. Canada should seize this opportunity to step forward as a leader

in the rules-based international system, reinforcing the legitimacy of multilateral institutions by increasing their functionality. The Trudeau government's announcement that Canada will be running for a seat on the Human Rights Council from 2028 to 2030 is a welcome first step, and a key opportunity to show leadership as part of the international community's most important human rights body.

Canada's Human Rights Priorities

Already, Canada has outlined six priorities upon which their candidacy for the Human Rights Council is based (Global Affairs Canada [GAC] 2023a):

1. seeking justice and accountability for those on the front lines of defending human rights;

2. striving for an inclusive future by championing anti-racism, freedom of religion or belief;

3. advancing the rights of Indigenous peoples and reconciliation;

4. advancing gender equality, including the rights of women and girls, 2SLGBTQI+ rights and sexual health and reproductive rights;

5. protecting and defending human rights online; and

6. responding justly to climate change.

Priority number four is an important area where Canada can focus and have an impact and has already been making dedicated efforts towards the protection of women's and 2SLGBTIQ+ rights. Canada facilitated the creation of the Group of Seven Gender Equality Advisory Council in 2018 (Government of Canada 2023), executed targeted sanctions on individuals and entities in Iran, Myanmar and Russia, that are complicit in human rights abuses (Human Rights Watch n.d.), implemented a domestic ban on conversion therapy (Government of Canada 2021), and created the Canadian Feminist International Assistance Policy (FIAP). It is through the FIAP that Canada's brand as a feminist country has manifested, with the most important action area in the policy being achieving gender equality and the empowerment of women and girls. Peace and security — one of FIAP's specific action areas — is vital to creating spaces with human dignity, inclusive governance, growth, development and the environment, demonstrating how important gender equality and empowering women and girls is to Canada.

The new Indo-Pacific Strategy (IPS) can help position Canada not only higher in the Feminist Foreign Policy

Index, but also its partners. China, India, Indonesia, Pakistan, South Korea and others are rated on the lowest half of the feminist foreign policy performance, but one of the main objectives of the IPS is to "strengthen dedicated Canadian funding and advocacy to support human rights across the Indo-Pacific, including for women and girls, religious minorities, 2SLGBTQI+ persons and persons with disabilities" (Government of Canada n.d., para 91). This intersectional approach in the region is innovative and necessary for the creation of democratic societies with economic prosperity, respect for international law, public health, protecting the environment, and the rights of women, girls and human rights (ibid.).

With a record of prioritizing and defending women's and 2SLGBTIQ+ rights, and as one of the few countries in the world that recognizes women as a vulnerable group (Papagioti 2023), Canada now needs to prioritize action and the enforcement of these rights both domestically and on an international scale, leading the international community to do the same.

Canada is Falling Short

Despite all of Canada's efforts and policies in the support of women's and 2SLGBTIQ+ rights, it is in this very same area of rights that Canada has been garnering a reputation for inactivity. The following are some of the areas where Canada is falling short on the active protection and enforcement of women's and 2SLGBTIQ+ rights:

- **Corporate accountability:** While Canada's mining projects contribute to the regional development of different parts of the world, they also contribute to the displacement of Indigenous communities and violations of women's rights. Canada has signed and ratified international legal frameworks for the protection of women, such as the Convention on the Elimination of All Forms of Discrimination against Women and the International Labour Organization's Violence and Harassment Convention, to work on the elimination of violence and harassment in the workspace, and while this demonstrates involvement and leadership on the protection of women's rights, it is imperative for Canada to actively ensure the international projects of Canadian corporations do not exacerbate existing inequalities or violate human rights laws. While the 2019 creation of the Canadian Ombudsperson for Responsible Enterprise (CORE) was a significant move towards the protection of impacted populations, it has been widely acknowledged that the position lacks the authority to compel the cooperation required

for its investigations, conduct investigations quickly and efficiently, and enforce meaningful changes when violations are uncovered (Grant 2023; Robertson 2024; Wisner and Pellerin 2023). It is often the most vulnerable groups, including women, that are impacted by these international corporations (Ravon and Warren 2022), and as such, Canada has a responsibility to ensure its corporations are abiding by domestic and international human rights standards.

- **Domestic limitations of gender-affirming care**: While Canada has taken steps to support the rights of 2SLGBTIQ+ persons, such as federally banning conversion therapy in 2022 (Government of Canada 2021), regressions to gender-affirming care in provinces such as Alberta are inhibiting Canadian's fundamental freedom and right to make choices about their personal health (Canadian Medical Association 2024).

- **Rights and protections for Indigenous women, girls and Two-Spirit persons in Canada**: Despite the National Action Plan created to address the *Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls and the Métis Perspectives of Missing and Murdered Indigenous Women, Girls and LGBTQ2S+ People*, the Native Women's Association of Canada (NWAC) has reported 2023 as another year without meaningful action to address violence against Indigenous women, girls and 2SLGBTIQ+ persons (NWAC 2023). Indigenous women and girls remain six times more likely to be murdered than other groups in Canada (Burczycka and Cotter 2023).

- **Arms and military exports:** Despite the Export and Import Permits Act (EIPA) that denies the export of military goods and technology, if there is a substantial risk of those items being used to facilitate violations of international humanitarian and human rights laws, including acts of gender-based violence (Global Affairs Canada 2023b), Canada has a record of exporting military technology and light armoured vehicles to known conflict sites of Colombia, Israel and Saudi Arabia (ibid. 2023b; Gallagher 2024). While there have been attempts to halt these arms exports in the case of Israel, the motion that was passed only prevents future authorization of export permits but does not revoke any existing or pending permits (ibid.). While the approved motion might appear satisfactory on the surface, its limited application highlights the credibility gap for which Canada is increasingly known. The continuation of these exports supports the continuation of conflict and considering civilians, especially women

and children, face increased risk of harm during conflicts (Amnesty International n.d.), these exports are in direct opposition to FIAP, negatively impacting the lives of the vulnerable groups Canada purports to protect.

These gaps in Canadian policy and practice demonstrate that although Canada might be known for its interest in human rights, it has reached a point where its inaction and inconsistencies are being noticed.

Potential Resolutions for Canada as a Member of the Council

While winning a seat on the Human Rights Council will not solve multilateralism, it would provide an opportunity for Canada to demonstrate that not only is Canada still an active, relevant participant in and supporter of multilateral institutions, but that Canada is reclaiming its title of defender of human rights, establishing a new era of concrete action in pursuit of those rights and reestablishing its own credibility. With a dedication to promoting the rights of women and 2SLGBTIQ+ persons, Canada would bring a unique, targeted perspective and skillset to the Human Rights Council that recognizes the distinctive and vulnerable role of women, girls and 2SLGBTIQ+ persons. However, winning this seat is not guaranteed. With two previous failed attempts to win a seat on the Security Council, it is important for Canada to highlight the unique strengths and expertise it will bring to the Human Rights Council.

Canada's approach to women's and 2SLGBTIQ+ rights differs from countries already part of the Council or interested in being part of it, such as Greece (who has also announced its bid for a seat). Canada has an assistance policy focused on international solidarity with an intersectional, human rights-based and climate-sensitive perspective.

Winning a seat on the Human Rights Council will provide Canada with the opportunity to be a global leader in the fight for human rights, and more specifically, women's and 2SLGBTIQ+ rights. By bringing Canada's unique skills and perspective to the table, it will not only improve global perceptions of Canada, but also increase the legitimacy of multilateral institutions and their capacity to make a difference. Because if international human rights continue to fall by the wayside, if Canada and like-minded countries are not prepared to invest in multilateralism, the world of political rivalry that will follow will not be beneficial for Canada or its place in the international community. Canada needs to reassert itself to help secure the rules-based international order, and Canada's place within it.

Recommendations

Provide greater protection for female migrant workers and ensure the Canadian mining industry abroad protects human and labour rights, specifically concerning violence against women. Global Affairs Canada should focus on increasing the power and authority available to CORE in an effort to ensure Canadian corporations are held accountable, and victims are able to easily and securely raise complaints. A first priority should be for CORE to have the power to compel documents and testimony from companies being investigated. As an already existing mechanism, empowering CORE and improving its legal capabilities can support gender equality and the elimination of violence against women, strengthening collaborative work without diminishing the work of other international human rights missions.

Lead on the recognition and defence of sexual orientation and gender identity (SOGI) rights globally, including championing a global ban on conversion therapy. Canada should move beyond its domestic accomplishments and head the international charge for a global ban on conversion therapy. Such a campaign would demonstrate a deeper commitment to SOGI rights and affirm Canada as a key progressive player in the international human rights field. Through diplomatic efforts and advocacy at global forums, Canada can take explicit, visible action in the support of SOGI rights and its own proclaimed values.

Improve domestic protection for Indigenous women, girls and Two-Spirit persons. Canada should prioritize working more closely with NWAC and other Indigenous groups to understand the needs and priorities of Indigenous peoples, and to prioritize the protection of these vulnerable groups and the investigation of the crimes committed against them. Canada should recommit to implementing the National Inquiry into Missing and Murdered Indigenous Women and Girls' 231 Calls for Justice, and focus on moving beyond simply funding commitments to prioritize tangible actions with accountability mechanisms. This would improve Canada's reputation and solidify Canada as a country of action that is willing to acknowledge its own shortcomings.

Look beyond FIAP and leverage the Indo-Pacific strategy to advance women's and 2SLGBTIQ+ rights. Research indicates that FIAP has an average performance on the ratification of International Labour Organization conventions on freedom of association, collective bargaining, violence and harassment in the world of work, migrant integration and domestic workers protection policies, commitments to gender-sensitive climate justice, women's representation in party delegations, policies with a feminist vision of global economic justice, and funding for women's rights organizations and movements and government institutions (Papagioti 2023). This indicates that there is room for Canada to improve its performance and with Global Affairs Canada already recognizing the Indo-Pacific strategy as a priority, there is an opportunity to leverage that strategy to prioritize Canada's focus on the protection women's and 2SLGBTIQ+ rights, demonstrating that these are priorities in all of Canada's international work and strengthening Canada's portfolio of action.

Follow through on the EIPA and cease exporting arms and military technology to countries where their usage has proven to violate international humanitarian laws. The cessation of arms and military exports would not only provide immediate relief to those living in conflict zones but would also demonstrate Canada's commitment to and prioritization of the protection of human rights. Canada should explicitly enforce EIPA to all previous, pending and submitted export permits, halting all exports of arms and military technology to conflict zones with known humanitarian law violations and thereby fulfilling Canada's commitment to the protection of women's and 2SLGBTIQ+ rights. This recommendation does not contravene the Arms Trade Treaty, signed and ratified by Canada, because while the international legal system recognizes the right to self-defence in conflict, proportionality is a core principle of International Humanitarian Law, as is the prohibition of targeting civilians. This is why prioritizing adherence to the EIPA, which focuses on halting arms exports only to countries where their usage has proven to violate International Humanitarian Laws, and not on completely banning arms trade, is a logical step for protecting human rights.

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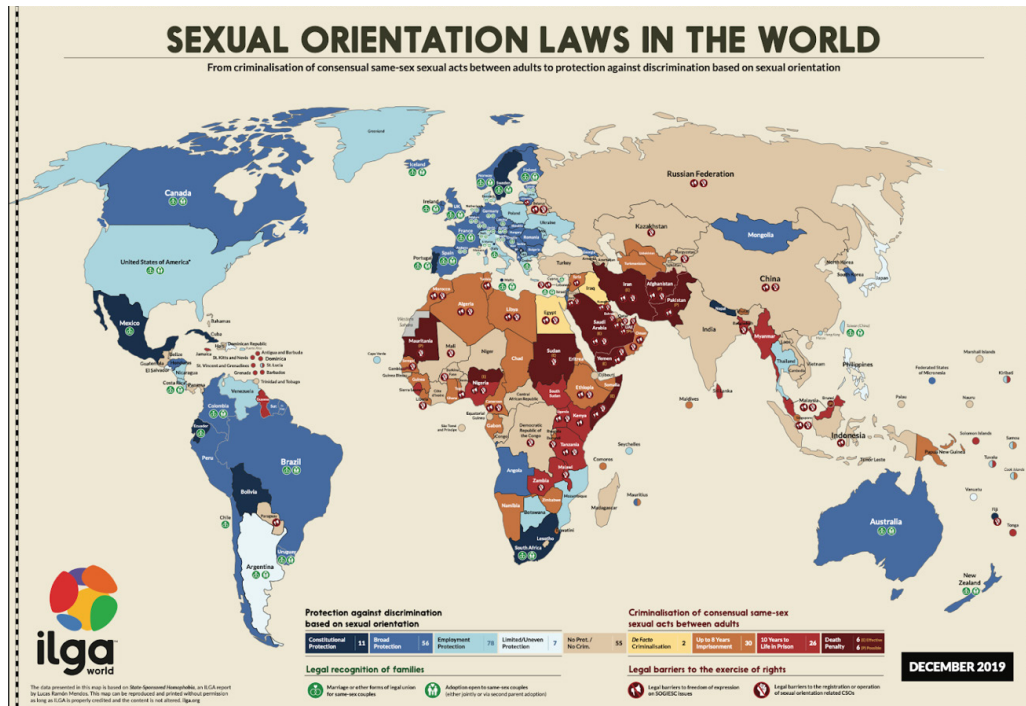
Appendix A

Source: International Lesbian, Gay, Bisexual, Trans, and Intersex Association (2019).

Appendix B: Gender Inequality Index

This index covers three dimensions: reproductive health, empowerment and economic status. Scores are between 0-1 and higher values indicate higher inequalities.
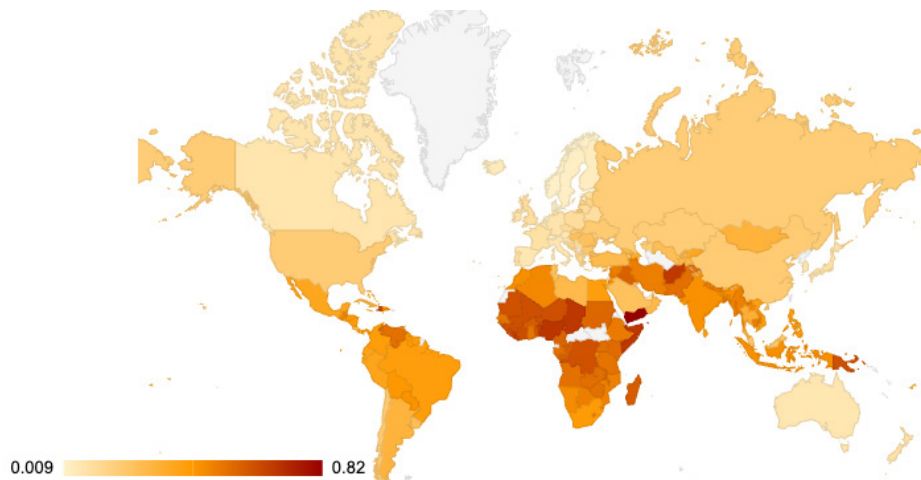
Source: Our World in Data (2024).

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Gender-Responsive Migration Governance in Canadian Feminist Foreign Policy

Hannah Bacon and Ava Hassan

Issue

Despite widespread recognition of the feminization of migration, migration governance tends to be gender-blind, leaving gender inequality and women's rights unaddressed. Canada has yet to adequately engage with migration through its current feminist foreign policy (FFP) or commitments to the Global Compact for Safe, Orderly and Regular Migration (GCM) and the United Nations' Sustainable Development Goals (SDGs).

Background

The feminization of migration is a conceptual term meant to engage with gender in global migration trends. It highlights women as autonomous economic migrants moving as the head of their own households rather than secondary members (Piper 2023). Currently, women make up approximately 49 percent of international labour migrants (UN Population Division 2020). It is important to understand the gendered experiences of migrants, particularly migrant women, as gender discrimination can make migrants more vulnerable to violence and precarity at all stages of their migrant journeys (International Organization for Migration 2023).

The GCM and the SDGs are a roadmap for utilizing migration's full potential and resolving displacement crises, particularly through a gender lens. The Expert Working Group for Addressing Women's Human Rights in the GCM has ensured that all 23 of the GCM's objectives can fulfill their obligations for gender-responsivity, particularly to address the rising feminization of migration (UN Women 2021). The SDGs are a cross-categorical framework for gender-responsive migration governance, particularly noting five indicators for gender equality, eight for decent work and economic growth, four for quality education and 10 for reduced inequality — which directly mentions reduced inequality for migrants (Global Migration Data Analysis Centre [GMDAC] 2024). Despite the international adoption of the GCM and SDGs, only 23 percent of countries have incorporated a gender perspective into their national migration strategies or feminist foreign policies (GMDAC 2024). Other rising trends in migration, such as increased border securitization and increased gender-based violence (GBV), continue to threaten gender equality for migrants (Baldwin and Hynes 2022).

Canadian Feminist Foreign Policy (FFP) Framework

Globally, Canada was the second state to adopt a FFP (Global Affairs Canada [GAC] 2017). Canada's Feminist International Assistance Program (FIAP) is an international development-based policy meant to target gender equality and women's empowerment across several sectors, such as human dignity, economic growth, climate action, inclusive governance, and peace and security (ibid.). Canada also employs a gender mainstreaming approach to all policy areas, including migration, through the Gender-Based Analysis Plus (GBA+) initiative (ibid.). GBA+ is an analytical tool employed across government departments to ensure inclusive and responsive policies through intersectional analysis (Women and Gender Equality Canada Canada 2024). Despite not having a migration focus in our FFP, Canada has made progress in implementing some gender-conscious initiatives.

- The Assistance to Women at Risk Program provides resettlement opportunities and pathways for women in unstable migration situations or the protection of a family unit (GAC 2021).

- The former Racialized Newcomer Women Pilot supported economic settlement and integration in Canada (Immigration Refugees and Citizenship Canada [IRCC] 2023a).

- The Sex and Gender Client Identifier Policy allows migrants to be listed as Gender X, creating a more inclusive and robust GBA+ approach to migrant information collection (ibid. 2021).

However, despite some progress in gender-responsive migration programming, Canada still falls short of addressing the experiences of most migrant women, particularly migrant women workers. The IRCC continues to dedicate itself to GBA+ by collecting gender-disaggregated migration data to ensure more equitable migration pathways (ibid. 2023a). However, Canada must remember to address migration as both a foreign and domestic policy issue, as even domestic migration programming has international implications.

Gendering Economic Migration in Canada

Economic migration through temporary and permanent pathways was Canada's largest immigration source in 2022, with 604,382 migrants admitted on temporary work permits and 255,660 new permanent residents (PR) admitted through economic pathways, making up the largest source of PR applicants in 2022 at 58.4 percent (ibid. 2023b). Considering the IRCC's 2022-2023 Parliamentary Report, only 43.4 percent of economic principal applicants admitted for PR were women, but women make up over 52 percent of dependent applicants (ibid.). Focusing more specifically on Canada's Express Entry programs — the Canadian Experience Class, Federal Skilled Worker Program and the Federal Skilled Trades Program —these three programs accounted for 70,176 of Canada's PR admissions in 2022; however, only 18,896 or 26.9 percent of these programs accepted principal women applicants for PR (ibid. 2023b; 2023c). Despite the international increase in women's autonomous economic migration, women are underrepresented as principal admittees for PR through economic migration pathways in Canada. This leaves migrant women potentially vulnerable as their PR status, which provides legal recognition and access to social services, is likely being determined by their partner's status, giving less attention to their unique gendered needs (Goldring and Landolt 2011; Canadian Council for Refugees 2019).

Figure 1: Temporary Foreign Worker Program and International Mobility Program by Gender, 2023
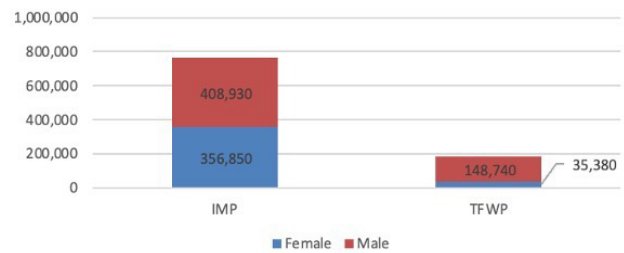
Source: Graph created by Hannah Bacon, from data sourced from IRCC Open Data Canada 2023.

Temporary work permits are granted through Canada's Temporary Foreign Workers Program and International Mobility Program (Kachulis and Perez-Leclerc, 2020). However, both programs have severe gendered gaps, as seen in Figure 1. Temporary status programs are often associated with increased legal precarity, vulnerability to economic exploitation and limited mobility. In line with GBA+ recommendations, the IRCC has issued an Open Work Permit for Vulnerable Workers (OWP-V) program to assist temporary workers in leaving abusive working conditions without compromising their status, particularly highlighting gender-based abuses (IRCC 2023a). However, out of 750 issued OWP-Vs in 2022, only 204 went to women despite their increased risk of exploitation (ibid. 2023d).

Regional data has shown an even larger gender divide. Sixty percent of the Provincial Nominee Program (PNP) admissions were male. Similar numbers were found in further regional programming (ibid.). The PNP addresses provincial labour shortages in Canadian health care, transportation and agriculture sectors. Of these three industries, women were only overrepresented in health care, with 74.74 percent female applicants (ibid.). Canada has recognized the feminization of migration within the care sector through programs such as The Home Child Care Provider Pilot and Home Support Worker Pilot. However, it is essential that Canada addresses women worker migrants' needs outside of traditionally feminine work sectors and encourages diverse gender participation within these sectors (UN Women and International Labour Organization (ILO) 2022).

Gendering Refugees and Resettlement Initiatives

Gender-based and sexual orientation, gender identity, gender expression and sex characteristics persecution are grounds for refugee protection in Canada, giving those

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fleeing GBV and persecution a safe destination (IRCC 2023d). In 2021, the IRCC collaborated with civil society on the GBV Settlement Sector Strategy Project to strengthen the IRCC settlement staff's response to GBV (ibid. 2023b). The IRCC continues to commit itself to LGBTQ+ diversity through the Rainbow Refugee Partnership, which has admitted 40 LGBTQ+ refugees in 2022. They will expand the program by 150 spots over the next two years (ibid.). As previously mentioned, Canada has made some progress in providing gender-specific programming for integration and resettlement through The Assistance to Women at Risk Program, which resettled over 2,000 vulnerable refugee women and children in 2022 (ibid.). Although these specific initiatives speak to Canada's commitment to intersectionality and gender-responsivity, larger trends in Canadian refugee and asylum pathways highlight possible discrepancies. Only 19 percent of principal refugee applicants admitted for PR in 2022 were women, as shown in Figure 2 (ibid.).

Figure 2: Refugees and Protected Persons In-Canada by Gender, 2022
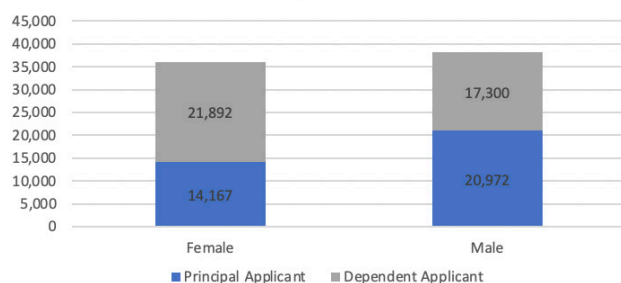
Source: Graph created by Hannah Bacon, from data sourced from IRCC's 2023 Annual Report to Parliment on Immigration p. 62.

Despite Canadian law dictating that all claims (principal or dependent) are individually assessed, women's underrepresentation of principal claimants for refugee status in Canada could increase barriers to understanding the experiences of refugee women and girls (Canadian Council for Refugees 2019).

Recommendations

Looking to our FFP+ partners: Canada should take inspiration from other FFP+ Group member initiatives to address gender and migration in our implementation of the SDGs and GCM (GAC 2023). Highlighting Germany, the Federal Ministry for Economic Cooperation and Development employs UN Women's Making Migration Safe for Women program in their existing FFP. Utilizing its developmental partnerships with Ethiopia and Nigeria, Germany is working to increase women's options for safe, regular and orderly migration. Through the Shaping Development-oriented Migration Program, Germany is increasing migrant women's meaningful participation in international development projects based on their own lived experiences (Federal Ministry for Economic Cooperation and Development 2023).

Fostering Collaboration Gender-Responsive and Development-Conscious Migration Strategies: Our current FPP should work to address the relevant connections between gender, migration and development as supported by Canada's commitment to the SDGs. Canada should expand existing FIAP initiatives to address development-related migration trends and aid migrant women and girls in our partner states (Atak, Linley-Moore and Kim 2023). This collaboration should encourage an intersectional and human-rights-based approach to Canadian FFP, in line with Canada's Auditor General recommendations for GAC and the IRCC's own Anti-Racism Strategy and GBA+ initiatives (Auditor General of Canada 2023; IRCC 2023b).

Increasing Regular Pathways, Protections and Principal Candidacy for Women Migrants: Globally, women have fewer options for regular migration, but irregular routes increase the risk of migrant women experiencing violence, trafficking and exploitation (ILO 2021). Canada should increase opportunities for women to be recognized as principal refugee claimants or economic applicants. Canada must ensure that the assessment criteria for programs account for gendered biases in education, work history, language and domestic/familial responsibilities as per their obligations to GBA+ (IRCC 2023d). In cases where women do appear as dependent applicants, Canada must ensure an equal collection of data, and support for their migration experiences. Increasing opportunities for women's principal candidacy fits with larger global trends of the rising feminization of migration (Piper 2023). Economic pathways should encourage gender diversity in specific industries, particularly noting women migrants' underrepresentation in agriculture and transportation and men migrants' underrepresentation in care sectors (Storm and Lowndes 2019; Gabriel and MacDonald 2019). The IRCC should work closely with Canada's Strategy to Prevent and Address Gender-Based Violence to extend existing protections toward temporary migrant workers who already experience an increased workplace violence risk (IRCC 2023b).

Strengthening Gender-Responsive and Intersectional Data Collection, Monitoring and Evaluation: Making gender-disaggregated data more accessible encourages

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collaborative and evidence-based policy making as per GCM Objective 1 and with SDG Indicator 17.18, which calls for more high-quality and reliable disaggregated data by gender, migrant status, ethnicity and race (GMDAC 2024). This mirrors the Auditor General's recommendation for more intersectional considerations within Canadian FFP (Auditor General of Canada 2023). Disaggregated data should also include marital and familial status. Given migrant women are overrepresented as dependent applicants, we must ensure that their experiences and stories are not overshadowed and are equally accounted for in Canadian migration programming and data (Canadian Council for Refugees 2019).

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Climate Change and the Environment

Greening Canada: Transforming the Nation's Energy Landscape

Anthara Muralidharan, Hasina Hamidi and Madelyn Rawlyk

Issue

As one of the top 10 global greenhouse gas emitters (Friedrich et al. 2023), Canada is a large contributor to climate change. Concurrently, the window of opportunity to reduce emissions and meet its 2030 climate targets is rapidly closing. With the energy sector being the country's largest source of carbon emissions (Environment and Climate Change Canada [ECCC] 2023), Canada must urgently act toward a net-zero industrial transformation to facilitate a smooth green transition.

Background

What is a Green Transition?

Currently on track to surpass 4.4 degrees of atmospheric warming by the end of the century (Calvin et al. 2023), the world urgently needs to reduce carbon emissions and decarbonize energy systems to secure a livable climate. A green transition involves shifting from fossil fuel-based energy sources such as coal, oil and natural gas to sustainable and renewable alternatives like solar, wind, hydroelectric, biomass and geothermal energy (Terämä n.d.).

The energy sector faces increasing threats from technological advances that reduce fossil fuel use, shifts in global markets, divestments and a growing reluctance from capital markets to invest in oil and gas holdings. Arguing for a future surge in demand for Canada's high-cost oil resources seems increasingly impractical. While the abrupt end of the oil and gas sector may not be imminent, a plausible scenario is emerging where a significant portion of Canada's oil and gas assets may become non-economic, leading to stranded fossil fuel resources and decreased competitiveness on the global stage. This scenario suggests a steep decline in the economic value of Canada's fossil fuel resources and operational assets over time. Consequently, envisioning a future of zero reliance on fossil fuels is necessary and inevitable (Nathwani and Fitz-Gerald 2021).

Global Efforts

On a global level, the United Nations Framework Convention on Climate Change (UNFCCC) serves as the primary platform for climate initiatives. Built upon its principles, the Paris Agreement, adopted in 2016 by over 195 countries, outlines nationally determined contributions (NDCs) that focus on reducing greenhouse gas emissions and adapting to climate change impacts. Despite widespread participation, many nations struggle to meet their NDC targets, highlighting the insufficiency of current commitments to limit global warming to below 1.5 degrees (Calvin et al. 2023).

The urgency for rapid decarbonization and robust climate action is growing. During the recent UNFCCC Conference of Parties (COP28), participating countries made a significant stride by collectively agreeing to transition away from fossil fuels, marking a pivotal moment towards impactful climate measures that acknowledge the imperative for an energy shift.

On an international scale, Canada stands as the world's fourth-largest fossil fuel exporter and exhibits the highest per capita greenhouse gas emissions among developed nations, despite having a relatively small population

(Government of Canada 2020). Within the Group of Seven (G7), Canada has shown the least progress in emissions reduction since 1990 (Office of the Auditor General of Canada 2023).

Canada's commitments during COP28 entail considerable pledges, including allocating over US$67 million to support developing nations, fostering partnerships with Indigenous communities, investing in clean energy technologies and critical minerals, and bolstering infrastructure to be more sustainable and resilient. Furthermore, Canada has introduced economic incentives to curb methane emissions from beef cattle production Government of Canada 2023a, 28).

Domestic Efforts

Canada aims to have affordable, reliable, and sustainable energy, achieving net-zero emissions by 2050 (Office of the Auditor General of Canada 2021). This long-term goal is facilitated by a short-term target of a commitment to reduce greenhouse gas emissions by 40-45 percent below 2005 levels by 2030. Despite some progress, Canada's emissions have increased by more than 20 percent since 1990 (ECCC 2022b). This means that most reductions must occur in the years ahead to meet the 2030 target.

Canada's 2030 Emissions Reduction Plan aims to reduce emissions from the oil and gas sector by 31 percent from the 2005 level by 2030. To reach this goal, among various initiatives, Canada has proposed clean fuel regulations, launched an Emissions Reduction Fund of CDN$750 million, initiated an Energy Innovation Program, invested in carbon capture utilization and storage technology, and committed to eliminate inefficient fossil fuel subsidies. The government has also committed to reducing oil and gas methane emissions by at least 75 percent below the 2012 level by 2030 (ibid. 2022a).

Furthermore, as a part of the federal government's Strategic Innovation Fund, it has allocated CDN$100 million to the Clean Resource Innovation Network to accelerate the development and adoption of innovative technologies and processes to lower the oil and gas industry's environmental impacts. Despite all these efforts, in 2030, the transportation and oil and gas sectors are projected to remain Canada's largest emitters. In addition, more recently, Canada proposed a 2023 regulatory framework to cap oil and gas sector greenhouse gas emissions, which suggests reducing emissions from the sector through a "national emission cap-and-trade system" (ibid. 2023). These efforts illustrate a move toward decarbonizing the oil and gas sector. However, despite these measures, meeting national climate action targets seems unlikely.

Canada's Strengths

Clean Electricity Landscape

Canada's electricity generation has the lowest emissions among countries worldwide, with 83 percent of electricity generated in Canada identified as "non-emitting," including 68 percent from renewables and 15 percent from nuclear (Government of Canada 2022).

Nuclear and Small Modular Reactors (SMRs)

Nuclear energy stands as a strategic asset for Canada. Canada's nuclear sector is well-positioned to create jobs, develop intellectual property and establish robust supply chains, all while supporting the country's climate change initiatives and clean energy goals. Additionally, it facilitates meaningful discussions with Indigenous communities regarding energy solutions for remote areas. SMRs in Canada offer versatile applications, addressing energy needs for on-grid systems, heavy industries such as mining and isolated communities. They also stimulate regional growth through advancements in manufacturing and nuclear supply chain services. With decades of expertise in nurturing and deploying supply chains and national laboratories, Canada is among the few countries with comprehensive capabilities spanning the entire nuclear lifecycle — from mining and plant construction to operation and waste management (Natural Resources Canada [NRC] 2018).

Critical Minerals Hub

Critical minerals serve as the foundation for the green and digital economy, playing a pivotal role in essential products such as mobile phones, solar panels, electric vehicle batteries, and medical applications. Currently, the Canadian industry produces 21 of the 31 minerals and metals identified by Canada's Critical Minerals List (Government of Canada 2023b). By developing critical mineral value chains, Canada can expand to further its position as a front-line actor in critical mineral extraction to undergird the rising green economy.

Canada's Challenges

Canada's Climate Finance Lag

The race to secure global investments for Canada's net-zero transition is accelerating more rapidly than anticipated. To match the worldwide move towards clean energy, Canada needs over CDN$80 billion annually in new investments, predominantly from the private sector (Arnold and Leech

2023). However, financing this transition has become more challenging for Canada due to the U.S. Inflation Reduction Act, which promises attractive returns for investors in the United States (ibid.). Recognizing the role of climate in organizing and guiding the financial system to align with climate goals, all other G7 and Group of 20 (G20) countries have established a Climate Investment Taxonomy Framework (ibid.). Canada, however, remains the last to adopt such a taxonomy, which could enhance its climate policies, including regulations and carbon pricing (ibid.). These taxonomies provide a standardized, science-based method to identify projects that support the energy transition, helping to counteract misinformation and greenwashing in climate finance. They ensure that investment is directed toward essential projects such as renewables and clean hydrogen (ibid.).

Reliance on Natural Resources

Abundant with natural resources, Canada mainly relies on massive resource extraction for export (Carter 2020). Today, Canada has an average GDP per capita of US$55,522, making it a high-income country (World Bank Data 2022), where natural resources account for 19.2 percent of nominal GDP, and the energy sector directly contributes 8.9 percent (NRC 2022). While these natural resources have resulted in economic benefits for Canada, the continued growth of the oil and gas sector creates significant challenges for decarbonization and a net-zero future. Like many other facets of Canada's policy landscape, Canada's climate policy is characterized by regionalism: control over natural resources is mainly within provincial jurisdiction (Carter 2020). This demarcation of control allows certain provinces, primarily Alberta, Saskatchewan, Newfoundland and Labrador, to encourage fossil fuel production without federal impediment, leading to a federal-provincial divide (ibid.). However, as a high-income country and one of the world's largest fossil fuel producers, Canada is responsible for pursuing swift decarbonization strategies and a green industrial future.

Violations of Indigenous Rights

Canada, existing on Indigenous land, has a responsibility to respect the rights of Indigenous people, as articulated by Section 35 of the Canadian Constitution Act of 1982 (Centre for Constitutional Studies n.d.) and the United Nations Declaration on the Rights of Indigenous Peoples, which articulates Indigenous peoples' rights to free, prior and informed consent for land use (Article 19). The Office of the Auditor General of Canada notes that Indigenous groups such as the Assembly of First Nations did not feel adequately consulted within Canada's green transition

strategies (Office of the Auditor General 2023). Canada has a history of violating Indigenous people's land rights, even for clean energy projects such as the case of Manitoba Hydro, which displaced many Indigenous peoples (Byrne, Glover and Martinez 2017). While Canada does have the Indigenous Leadership Fund that provides funding for Indigenous-led climate action, the government could do more to advance Indigenous leadership and adopt Indigenous approaches in the energy transition.

Other Key Players

Coordinating on federal plans for industrial decarbonization, the NRC, the ECCC, the Ministry of Innovation, Science and Economic Development Canada and Canada Energy Regulator are the most significant federal bodies to consider. In addition to this wide array of federal government departments and stakeholders as well as the provincial energy ministries, nationwide industry associations such as the Canadian Association of Petroleum Producers are vital to consider in decarbonization plans, as their membership accounts for 80 percent of Canada's natural gas and crude oil production (Chen 2022).

Similarly, policy approaches must consider the expertise of civil society actors such as the Canadian Renewable Energy Association and Indigenous Clean Energy (ICE), who research and advocate for renewable solutions to energy challenges. Given Canada's colonial past and present, organizations such as ICE, Indigenous Climate Action, the Assembly of First Nations, and Canadian Council for Aboriginal Business are also essential partners for decarbonization policy making as they represent some of the most climate-vulnerable groups in Canada and advocate for justice-based solutions that center equity and Indigenous empowerment.

Recommendations

Power Innovation and Capitalize on Patent Potential for SMR and Battery Technologies. Canada is uniquely positioned to become a leader in green technologies such as SMRs and advanced battery systems. The country has all the required resources, including essential minerals, advanced research and lab facilities, and a globally respected brand. To capitalize on this opportunity, Canada should fast-track the commercialization of these green energy technologies and leverage their patent potential by providing tailored financial support to companies actively working to bring these technologies to the market. Additionally, Canada needs to focus on overcoming early adopter risks and barriers to entry by co-financing pilot

projects and demonstration plants, which can showcase these technologies' practical benefits and operational viability. While Canada's recently launched International Technology Pilot and Demonstration Program aligns with this vision to a certain level, its limitations, such as excluding nuclear tech and strict eligibility criteria, alongside a modest funding cap of $300,000 (Government of Canada 2024), risk undermining Canada's true cleantech innovation potential, which needs to be addressed.

Accelerate the Finalization and Implementation of the Climate Investment Taxonomy Framework. On March 3, 2023, the Sustainable Finance Action Council of Canada published its "Taxonomy Roadmap Report," which outlines a Canadian Green and Transition Financial Taxonomy Framework. This framework has the endorsement of the country's 25 largest financial institutions (Canadian Climate Institute 2023). The framework aims to correctly direct investments and ensure that the country remains a competitive player in the global transition to net-zero emissions, and leverages global capital to finance its green transition by categorizing investments under green, transition and non-eligible labels (Arnold and Leech 2023). While the framework sounds promising, it is still not finalized. Considering that Canada has already been too late in implementing this framework being the last among G7 and G20 countries, regulators and government, in collaboration with the financial sector, must move quickly to turn this framework into a practical, independent and science-based tool to evaluate projects and portfolios.

Transform Canada's Net-Zero Advisory Body. To address crucial aspects of achieving a net-zero target, such as securing a provincial-federal consensus, emphasizing grassroots involvement, and ensuring sustained investment in energy development, we recommend transforming Canada's Net-Zero Advisory Body into an Independent National Commission. The proposed changes include expanding the body's membership to include a representative from each province for better coordination between federal and provincial levels and enhancing its role as a liaison with governments. Additionally, we recommend that the Commission reports directly to the Canadian government, increasing transparency and autonomy in advising on emission targets and strategies to reach them, thus improving its efficacy in guiding the transition towards net-zero emissions by 2050.

Incorporate an Indigenous Climate Lens and Prioritize Localized Solutions. We also recommend that the ECCC and all Canadian federal bodies dealing with green transition initiatives adopt an Indigenous Climate Lens mirroring the Assembly of First Nations (AFN) National Climate Strategy. AFN's Climate Lens eschews the dichotomy between mitigation and adaptation initiatives that ignore the complex interconnectedness of human relationships with the earth and leave room for Indigenous communities and vulnerable populations to be left behind. Canada's green transition plans should emphasize localized energy systems and self-sufficient communities, moving away from fossil-fuel-driven extractive industry to meet Canada's energy demands. Incorporating an Indigenous Climate Lens encourages questioning taken-for-granted assumptions about capitalism and the ability of market-based mechanisms to resolve a crisis of colonialism. To incorporate this lens into policy making and planning, the ECCC, NRC and provincial and regional governments should take leadership from AFN and engage in more meaningful consultation with Indigenous groups, centre the rights of Indigenous peoples and land defenders before approving any industrial projects, and prioritize funding for localized renewable energy solutions. All industrial projects that receive federal funding should abide by this perspective and sufficiently collaborate with local Indigenous communities.

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Engaging with Climate Smart Agriculture: Using debt relief and Multilateral Development Partnerships as Climate Finance Tools

Julye-Anne McKenny, Bradley Watts and Madelyn Stimac

Issue

Highly indebted poor countries (HIPCs) throughout Sub-Saharan Africa benefit from support in building climate-resilient communities through the use of nature-positive solutions. Based on Canada's agricultural expertise in capital and competencies, Canadian policy makers have an opportunity to develop climate-smart agriculture as a mitigative measure of environmental damage while also easing financial burdens on developing nations by employing a debt relief development model as a climate finance instrument.

Overview

Canada has doubled its initial monetary commitment at the 2015 Paris Climate Conference to aid developing nations in their transition towards low-carbon, climate-resilient economies. The Canadian government has placed greater emphasis, both domestically and internationally, on implementing nature-based climate solutions, such as climate-smart agriculture (CSA), as a means of adaptation. Even though Canada made a substantial commitment in 2015, monetary aid is not sufficient to effectively transition HIPCs towards CSA. Due to the debt crisis that many HIPCs are already facing, they are choosing to pay off debts rather than adapting to climate change. To alleviate this, debt relief should be used as a climate finance tool. This would both contribute to achieving the UN Sustainable Development Goals and strengthen Canada's relationships with developing nations via informed development and economic engagement. As well, it would be a reconciliatory step to righting Canada's position as a beneficiary of modern exploitative neo-colonial systems.

Climate Smart Agriculture

CSA is an integrated approach that addresses the interlinked challenges of food security and climate change (World Bank 2024). Already, the agricultural sector faces a multitude of climatic challenges that burden farmers, impacting global food supplies (ibid.). Specifically, the nutritional value of many crops has been reduced, and yields are lower than ever before (ibid). To mitigate these impacts, CSA includes a variety of practices, such as conservation agriculture, integrated crop-livestock management and cover cropping, as well as better nutrient and water management (Ogisi and Begho 2023). Substantial investments in climate adaptation will be required to maintain current yields and to achieve production and food quality increases (World Bank 2024).

CSA is an ideal area for investment because it helps farmers achieve a triple-win, whereby farmer productivity is improved, agriculture and food systems are made increasingly resilient and greenhouse gas emissions are reduced (ibid). The Ministry of Agriculture and Agri-Food Canada (2024) emphasizes the necessity of strengthening

the resilience of the agriculture and agri-food sector while also capturing new market opportunities, driving economic growth and competitiveness, combatting climate change and remaining a reliable partner in global food security. Canada has taken steps towards advancing CSA domestically, and the nation's agricultural expertise can be used to assist developing countries abroad. The government has not only made monetary commitments but has also developed four agricultural policy frameworks and introduced the Canadian Agricultural Partnership (Government of Canada 2021). With these initiatives, the government aims to foster ongoing innovation, growth and environmental stewardship within the sector. Through the above programs, the government has pledged to work with farmers and other agri-food businesses within Canada in the transition to a low-carbon economy by supporting the adoption of cleaner practices and technologies (ibid). As of 2021, it has committed to investing CDN$165.7 million over seven years to support the agricultural industry in developing and adopting transformative clean technologies (ibid). This includes the Agricultural Clean Technology program, which develops on-farm clean technologies, such as precision agriculture and agri-based bioproducts, to reduce carbon footprints and resource waste (ibid).

Canada's reputation for humanitarianism and its policy focus on CSA supports national goals of international security and economic stability. Canada should utilize their agricultural expertise to assist HIPCs in implementing adaptive measures, achieving climate goals and stabilizing international food systems. HIPCs often experience the most severe climate effects, such as droughts, storms and heat waves, but are burdened by other short-term spending needs, such as debt servicing, and are unable to sufficiently respond to climate crises (Georgieva, Gaspar and Pazarbasioglu 2022). To expand Canada's humanitarian reputation and develop its soft power in Sub-Saharan Africa, Canada should assist nations looking to advance in these areas but lack the requisite resources.

Debt Relief and HIPCs

HIPCs throughout Sub-Saharan Africa struggle with debt burdens to both private and public lenders. Due to increasingly stringent criteria and conditions, HIPCs have turned more to private lenders who impose significantly higher interest rates and shorter repayment periods compared to bilateral or multilateral agreements (Kedir et al. 2023; Akolgo 2023). From 2000 to 2019, HIPCs' debt to private creditors surged, encompassing 40 percent of their total debts (Kedir et al. 2023). This rapid debt accumulation has fuelled socio-economic unrest, contributing to recent political instability across Africa (ibid.). As part of the Paris

Club, a group of public lenders, Canada responded with debt relief programs in conjunction with the International Monetary Fund's (IMF's) Debt Relief Under the HIPC Initiative (Government of Canada 2019).

To participate in the initiative, HIPCs must meet certain criteria and policy commitments. The qualification criteria are having an unsustainable debt burden, eligibility to borrow from the World Bank's International Development Agency, a track record of policy reform based on other IMF or World Bank programs and the development of a "Poverty Reduction Strategy Paper" (IMF 2023). Once eligibility is determined by the executive boards of the IMF and World Bank, the international community commits to reducing debt to a level that is considered sustainable (ibid). Canada also has national multilateral debt forgiveness programs that function through the complete cancellation of debt (Government of Canada 2019).

Reducing HIPC debt is an important avenue for climate finance because 28 of 39 of the HIPCs are situated in Sub-Saharan Africa, a region which faces extreme climatic impacts (IMF 2023). The goal of the IMF's initiative was to ensure that no poor country faces an unmanageable debt burden (Hakura 2020). Unmanageable debt means it is unsustainable for the indebted nation, resulting in governments defaulting on loans and becoming unable to meet essential spending requirements, which can have severe economic and social consequences (ibid). More specifically, HIPCs struggle with issues of underdeveloped infrastructure and food security, making their agricultural sectors especially vulnerable to both economic and climatic shocks (Energy Capital & Power 2023).

Specifically, Sub-Saharan Africa is highly vulnerable to climate change. CSA is a crucial tool for addressing these issues. Furthermore, Sub-Saharan African HIPCs often face difficulties advancing their agricultural sectors due to a lack of national finances, adequate training and appropriate infrastructure or technology (Codjoe, Owusu and Burkett 2014). Debt relief as a climate finance tool could free up funding in HIPCs to be dedicated to CSA as a climate adaptation tool. Strengthening the agricultural sector and infrastructure in the face of climate disasters is a critical piece of development for all nations to ensure adequate food security and nutrition.

Canada has pre-existing commitments to assist countries in need of debt relief, and it is essential that said relief is delivered quickly and efficiently (Government of Canada 2019). HIPC countries such as Angola and Kenya, which currently hold outstanding debt to Canada, could benefit substantially from further debt relief and assistance in

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maintaining both financial and ecological stability in their agricultural sectors (ibid). Angola, for example, has emphasized their interest in increased financial assistance for funding CSA (Energy Capital & Power 2023). Already, the United States has implemented the "Partnership for Global Infrastructure and Investment" in Sub-Saharan Africa; the program is furthering the development of the agricultural sector in Angola (Office of the Spokesperson 2024). Thus, the success of this program suggests Canada could help to implement similar opportunities in HIPCs.

Strategic Commitments and Values-based Development

Canada's commitment to gender equity and the inclusion of historically marginalized stakeholders is vital to ensuring effective climate finance. Based on this goal, Canadian policy makers should identify regional development organizations familiar with the needs and priorities of local communities and provide the opportunity to establish equitable and participatory partnerships. A holistic and bottom-up approach that encompasses education, training, participatory governance and the democratization of resources avoids the often paternalistic nature of aid programs, which disregards the traditional knowledge of local populations.

Alinea is one such development agency dedicated to enhancing the productivity, assets and self-sufficiency of small-scale farmers, specializing in helping them adapt to and mitigate the impacts of climate change (Alinea 2024). The agency utilizes an integrated approach to tackle the challenges posed by climate change by establishing relationships with multiple levels of government and communities (ibid). For example, in Ethiopia, Alinea offers specialized support through management and technical expertise to develop a national protocol for CSA alongside the government's Ministry of Agriculture (ibid). Specifically, they are working towards integrating climate-smart initiatives into watershed and rangeland activities planning (ibid). This includes reviewing climate-smart social protection programs, utilizing modern technologies for enhanced monitoring and evaluation, and strengthening connections with climate and risk reporting and early warning systems (ibid). These partnerships promote development and reduce poverty, specifically in the agricultural sector, by marrying modern approaches with grassroots knowledge. For example, the African Union's Agenda 2063, "The Africa We Want," puts forth the goal of inclusive economic advancement in the agricultural realm, emphasizing the pivotal role of traditional wisdom from African communities (African Union Commission 2015). There is also explicit mention of modernizing agricultural

practices for increased production and the creation of climate-resilient economies and communities, highlighting CSA as a potential solution (ibid).

Participatory values-based development reflects the need for a feminist approach to addressing climate change, as is outlined in Canada's Feminist International Assistance Policy (FIAP) (Government of Canada 2021a). Canada has a history of international commitment to uplifting women and girls, which should be reflected in our relationships with HIPCs (ibid.). Women play a primary role in agriculture in many HIPCs and bear the burden of care; for example, in Kenya, women are viewed as the custodians of traditional farming practices, meaning they are essential to agriculture (Gasparatos et al. 2020) Thus, reducing the barriers female farmers face in HIPCs is critical to increasing the adoption of CSA. The empowerment of women and girls creates the environment required for a sustainable transition due to their already irreplaceable value in current agricultural practices among HIPCs (Ogisi and Begho 2023). As Canada and numerous intergovernmental organizations have highlighted, agriculture makes up the majority of income for working women in developing nations, therefore CSA prioritizes women's empowerment (Government of Canada 2021b; Food and Agriculture Organization of the United Nations 2011; World Bank 2024).

Recommendations

Global Affairs Canada (GAC) should establish a debt-relief program for HIPCs that is focused on financing climate adaptation and CSA in HIPCs. Such a program would emphasize nature-based solutions to climate change mitigation and adaptation, which GAC has established as priorities. Additionally, the program could be modelled after the pre-established debt relief structures in Canada, such as the multilateral debt relief initiative discussed above, but modified to prioritize climate finance. A debt relief program centred around climate change adaptation through CSA would require a HIPC to have a planned framework to implement CSA and contribute to Canada's reparations as a historical emitter. CSA is critical to any debt relief program tied to climate change adaptation strategies because it supports national development by improving food security, building infrastructure and educating local populations. Climate-based debt relief may be a mechanism that enables Canada to acknowledge and rectify our carbon debt in a reconciliatory manner with nation-states in which socio-economic conditions need to improve to secure the welfare of its citizenry. Therefore, debt relief as a climate finance tool can both equalize the carbon debt Canada has,

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as well as encourage development that yields co-benefits for climate adaptation in HIPCs, supported by Canadian partnerships and connections.

GAC should support bottom-up approaches to climate mitigation by partnering with local agencies in HIPCs. Development agencies, such as Alinea, collaborate with local governments and communities to offer expertise, training and capacity-building support for local climate initiatives (Alinea 2024). In the context of CSA, this partnership empowers local communities to enhance resilience against climate impacts in a way that best suits their unique needs while simultaneously promoting sustainable development and poverty reduction in the agricultural realm (ibid). The integration of local knowledge is a priority for many HIPCs throughout Sub-Saharan Africa, as emphasized in the African Union's "2063 Agenda" (African Union Commission 2015). By prioritizing inclusivity and participation, development agencies in HIPCs allow local communities and governments to address the issues burdening their communities in a way that best suits their needs and allows them agency in development processes. Addressing CSA in this way represents a holistic response to climate change, integrating social, economic and environmental considerations. Ultimately, leveraging partnerships with development agencies to support bottom-up approaches to development enables HIPCs to take control of their futures, contributing meaningfully to global climate action while advancing their own development goals.

GAC should continue to prioritize the empowerment of women and girls in HIPCs through climate-resilient agricultural development. Despite efforts, millions continue to suffer from climatic impacts, particularly women and girls in HIPCs. As outlined through FIAP, Canada has made significant strides in supporting women who are vital to global agricultural practices. Presently, Canada's focus lies in economically empowering women through various means, such as endorsing CMA, bolstering local businesses, promoting financial inclusion, ensuring equal market access, advocating for economic rights and providing technical training. These efforts, as outlined in FIAP, yield positive impacts, highlighting the necessity for sustained support for CSA practices in HIPCs (Government of Canada 2021a). Such support equips women with tools and resources, positioning them as experts and managers in future agricultural development (Ogisi and Begho 2023). Hence, Canada must reaffirm its commitment to expanding existing programs, which prioritize the promotion of women in CSA practices. This approach is crucial for building resilience against hunger, inequity and instability.

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Enhancing Civil-Military Coordination in Climate-related Disaster Responses

Libbey Dresser and Rebecca Lloyd

Issue

Understanding and reducing coordination challenges between military organizations and humanitarian actors is vital to create efficient, timely and effective responses to climate-related disasters and emergencies.

Background

Initiating effective response mechanisms to climate-related disasters is a growing security issue that is affecting people in Canada and around the world. According to the United Nations Development Programme (UNDP), by 2030, climate change could push up to 130 million more people into poverty as climate disasters become fiercer and more frequent (UNDP 2023). Disasters such as floods, wildfires and droughts, exacerbate existing vulnerabilities, including food and water insecurity, as well as socio-economic fragility and political grievances (ibid.). Appropriate, timely and effective international response mechanisms are imperative to decrease these adverse effects and ensure climate security.

Military organizations are increasingly being called upon to be first responders to climate-related disasters. Last year alone, Canada experienced over 6,000 wildfires, burning almost 46 million acres, requiring the assistance of the Canadian Armed Forces on numerous occasions (Natural Resources Canada 2024). This mission is increasingly straining Canada's military forces, and is likely unsustainable going forward, as Canada's Chief of Defence Staff Wayne Eyre recently noted (Pugliese 2024). Globally, turning to national and international military forces to respond to climate-related emergencies is increasingly common, according to the Centre for Climate Security, in its efforts to track military responses to climate change (Wong 2024). Enhancing international cooperation for climate disaster interventions is thus crucially important.

Canada has taken steps to address shortcomings in adapting to climate-related disasters by proposing a range of state-to-state initiatives. This has included climate finance, building national adaptation capacity in developing countries such as the program Partnering for Climate, and initiating cooperation with regional organizations such as the North Atlantic Treaty Organization (NATO) on climate security planning. (Global Affairs Canada 2024; Government of Canada 2024a; ibid. 2024b). However, missing from these efforts is a coordinated strategy to strengthen existing coordination and support mechanisms provided by international organizations in the aftermath of international climate-related disasters.

Canada has an opportunity to help address the current gaps in coordination between military and humanitarian organizations, by proposing policies to more effectively and efficiently coordinate aid to vulnerable populations in climate-related disasters.

Gaps in International Law

Gaps exist in international law on how humanitarian actors and the military should coordinate in response to climate-related disasters. While many participating states and humanitarian actors deem the military to be a tool of last resort, the imperative for quick military interventions in disaster responses creates tensions, due to concern that militaries may overstep boundaries, undermine the state and

clash with the impartiality principle crucial to humanitarian actors (UN High Commissioner for Refugees 2006). Four non-binding guidelines currently steer civil-military responses: the Oslo Guidelines (1994); the Inter Agency Standing Committee Reference Paper (2004); the Military and Civil Defence Assets Guidelines (2006); and the Inter-Agency Standing Committee Non-Binding Guidelines on the Use of Armed Escorts for Humanitarian Convoys (2013). These policies lack guidance on how humanitarian actors should work with police forces, militaries or private security contractors. This is important because military actors may be tasked with being first responders by some states and regional organizations such as the Association of Southeast Asian Nations. Moreover, humanitarian organizations may need to negotiate with military actors in order to gain access to affected populations.

Coordination Gaps Lead to Distrust

The leadership and coordination structures of humanitarian organizations are consensus-based, which differs from the command-and-control structures of military organizations (Jones and Stoddard 2003). This can increase tension and distrust between humanitarian organizations and military organizations. The United Nations' Inter-Agency Standing Committee tries to blend these structures together by providing a hierarchical structure for non-governmental organizations (NGOs) and UN branches to coordinate for disaster responses. However, this effort often favours the work of humanitarian actors, frequently neglecting to include the foreign and national military in decision making and coordination work (ibid.). The coordination gaps that sometimes result increase distrust between military responders, NGOs and national groups, harming disaster response efforts.

Responding to Pakistan's 2012 floods, Swedish government defence officials noted that humanitarian actors sent low-ranking professionals to coordination meetings (Pramanik 2015). This sent a message to foreign military actors that the coordination meetings were not important, hampering effective coordination with foreign responders (ibid.). Foreign military responders were uncertain if the reason for poor national coordination was due to distrust and unwillingness to work with foreign military actors or because neither side was clear on the leadership or structures of the other's role (ibid.).

Both actors lack an understanding of each other's mandates and are hesitant to develop dialogue (Grace 2020). As shown in interviews with UN humanitarian actors, many expressed fears that military involvement may exacerbate

existing conflict, leading to the suspensions of humanitarian operations (ibid.). As well, the UN Civil-Military Coordination Guide for Military involvement suggests that if humanitarian organizations associate with the military and their activities, it may put aid workers in harm's way (UN Humanitarian Civil-Military Coordination 2017).

Responding in Complex Emergencies

Humanitarian organizations and foreign militaries often struggle to reach affected populations in disaster emergencies when the area is embroiled in conflict, controlled by oppressive regimes or under military rule. In September 2023, two dams burst during a powerful storm in Libya's coastal city of Derna, causing flooding that killed at least 11,300 people (Michaelson 2023). The International Red Cross and Red Crescent Movement, foreign military organizations, and UN personnel struggled to respond to the crisis. Their ability to access affected populations was limited by the controlling regional militia led by Khalifa Haftar and his sons, who used the disaster response as a way to exert control over the area (ibid.). Facing criticism over neglect of the dams that caused the disaster, Haftar's regime shut off access to Derna, preventing people from accessing electricity, safe drinking water and food (ibid.). This severely impacted humanitarian operations, forcing them to negotiate with the regime in order to access and aid the affected population (ibid.).

Disasters in conflict zones also highlight the challenges of securing humanitarian responders to climate-related emergencies. While providing assistance in Somalia for famine and drought relief in 2011, aid workers were kidnapped and violently targeted by armed actors of the Al Shabaab organization in the south and central parts of Somalia (Tronc, Emmanuel, Grace and Nahikian 2018). Humanitarian organizations were prevented by Al Shabaab from accessing foreign military security services (ibid.). Instead, humanitarian actors relied on private security companies run by local warlords, adopting security tactics such as the fortification of their bases (ibid.). This increased securitization led to a divide between international humanitarian workers and local actors, damaging relationships between locals and international humanitarian actors (ibid.).

Local Perceptions

According to a UN Civil-Military Coordination (UN-CMCoord) "Guide for the Military" involved in emergency response, local populations may not perceive the difference between military and humanitarian operations (UN-

CMCoord 2017). This is especially prevalent under authoritative regimes or in complex emergencies (ibid.). Therefore, because of local distrust toward national and international military forces, the humanitarian environment can significantly diminish, potentially resulting in the suspension of humanitarian operations (ibid.; House of Commons 2017).

Recommendations

Create an Expert Group to provide guidance and knowledge. Canada has begun to build international coordination efforts through its work in crafting NATO's new Climate Change and Security Centre of Excellence (Government of Canada 2024c). However, these efforts can go further by convening an expert group to enhance communication and craft practical solutions to coordination issues. The expert group can involve Canadian and international academics and experienced responders from both military and civilian background, who can help advise international organizations on effective policies and lessons learned. This can strengthen NATO's current efforts to enhance training and education capacities with the International Federation of the Red Cross and Red Crescent Movement and the United Nations, further demonstrating NATO's willingness to openly address coordination issues (NATO 2022; 2019).

Use diplomatic strengths to create action at international forums. Recognizing Canada's limits in deploying military capabilities and personnel to respond to disasters abroad, Canada can use its diplomatic assets to incentivize collaboration among humanitarian actors, military actors and disaster-affected states. This can be accomplished through existing international forums such as NATO and the Organization of American States. In an era of increasing demands on Canada's Armed Forces, Canada can make more effective use of its soft power assets in Global Affairs Canada to promote the creation of clearer guidelines on how both national and international militaries can provide the most effective and efficient disaster aid for people in need.

Promote the creation of anticipatory structures within regional forums. To secure a timely and effective response to climate-related disasters, the creation of anticipatory plans are crucial. Pre-disaster planning can reduce the need for post-disaster interventions. Responding to yearly monsoon floods in Bangladesh, in 2020, the UN Office for the Coordination of Humanitarian Affairs (2020) launched a pre-approved plan to allocate resources and funding to the International Federation of Red Cross, the

World Food Program and the Government of Bangladesh. This plan enhanced the response to Bangladesh's 2020 floods, at half the cost of the 2019 floods (ibid.). Canada can similarly promote the creation of anticipatory plans within regional bodies.

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Trade and Technology

An Inclusive and Transparent Approach to Canada's Free-Trade Agreement and Foreign Investment Promotion and Protection Agreement Models

Sarah Nehme, Madison Paisley and Farzana Rasna

Issue

Evolving trade policy mandates on a global scale increasingly undertake novel, beyond-the-border issues and have allowed Canada to advance Canadian values in the context of trade. In the context of a global trade system that is increasingly dependent on private actors and foreign partnerships, Canada should develop a strategy to engage with bilateral and multilateral trade partners, while empowering local industries and maintaining its domestic goals.

Background

The multilateral trade system has undergone a prolonged and continuous shift towards the achievement of beyond-the-border policy considerations, rather than just market factors (Tapp, Van Assche and Wolfe 2017). COVID-19 has constituted a significant market shock and has forced countries and consumers to re-evaluate trade preferences (Global Affairs Canada [GAC] 2023). The "2023 State of Trade Report" states that the Canadian economy was able to recover well from the decrease in trade activity caused by COVID-19, expanding by 3.2 percent in 2022 and steadily growing despite record-high interest rates introduced in 2023 (ibid.). However, trade growth has not occurred equally for all Canadian businesses. Whereas the value of exports grew by three percent for large enterprises in 2023, small and medium-sized enterprises (SMEs) decreased by 8.6 percent (Statistics Canada 2024). Furthermore,

the World Trade Organization (WTO) predicts that global trade may continue to decrease in the coming years, following persistent decelerated global financial growth, as forecasted by the International Monetary Fund (IMF) (WTO 2023; IMF 2023). Despite trade growth, on balance, Canadian SMEs and consumers remain in an unstable economic position with an affordability crisis arising and economic shocks not fully recovered for individuals and small businesses.

Challenges for Canada's SMEs in Focus

Micro, small and medium-sized enterprises (MSMEs) face unique issues when it comes to trade policy (Machado, Scavarda, Caiado and Thomé 2021). Tactics used to help Canadian businesses rebound post-COVID may not be as effective for Canadian SMEs (ibid.). Stability and growth for SMEs largely hinges on the ability to export goods and services across borders. However, SMEs face a higher burden in exporting goods and services across borders (Jurado 2023). At a policy level, many free trade agreements (FTAs) require a "certificate of origin" for exporting firms, which can be challenging for growing businesses with financial constraints to obtain (ibid.). The WTO acknowledges that 95 percent of companies globally are MSMEs, therefore there needs to be strong assertive frameworks on inclusive trade, that promote under-represented members in all aspects of international trade (WTO 2017).

SMEs constitute a significant market share of Canada's export market, with 42.7 percent of Canada's exports being attributable to SMEs in 2021 (Innovation, Science and Economic Development Canada 2022). However, only 27.5 percent of Canadian companies with at least one employee(s) survive past 18 years in operation. With trade being a prominent source of income for companies, a business's longevity is determined by how well it can integrate into the international market and engage in import-export relations. Canada's Feminist International Assistance Policy plays an important role in addressing the challenges women and under-represented members face, and in creating opportunities that close gender gaps. Part of the international assistance policy is a $123 million investment in Canadian small and medium organizations (SMOs) that engage in international assistance efforts (Government of Canada 2022). While this holds for SMOs, there is no framework or initiative present for SMEs that aim to contribute to Canada's economic growth in the global market. SMEs' connection with the intersectionality of gender and race has yet to be recognized as part of Canada's feminist policies.

Canada's Inclusive Trade Agenda

Canada has taken on board an inclusive approach to trade in recognition that most Canadians are supportive of international trade, but many Canadians also believe that more can be done to increase transparency in negotiations, loosen the privileges of private corporations, make trade work for the consumers and lessen adverse impacts on environments and marginalized groups (GAC 2023). To date, the Government of Canada (ibid.) has made efforts to re-center Canadians in trade policy making, expand access for Canadians to participate in trade and engage with international partners to achieve inclusive trade goals. Canada's inclusive trade agenda lies at the heart of the Canada Trade Diversification Strategy, as Canadians echo global concerns about the liberalization of trade (GAC 2023).

Canada has committed to increasing consultation with a more diverse set of stakeholders, such as women, Indigenous peoples, and SMEs (Government of Canada 2023). In recognition of the special and differential needs of SMEs, Canada has developed a domestic framework to incorporate SMEs into bilateral and multilateral FTAs (Government of Canada 2023). Two of Canada's bilateral FTAs, the Canada-Ukraine Agreement and the Canada-Israel Agreement, and multilaterally, the Canada-United States-Mexico Agreement and the Comprehensive and Progressive Agreement on the Trans-Pacific Partnership (CPTPP) have embedded stand-alone chapters on SMEs

into their trade agreements (Government of Canada 2023). While Canada has committed to incorporating SMEs in its future bilateral and multilateral FTAs, it has yet to do so to existing FTAs and to the Foreign Investment Promotion and Protection Agreement (FIPPA) Model. An analysis conducted by the Office of the Chief Economist in 2023 on the efficacy of stand-alone chapters for SMEs shows that more work is required to embed Canada's SMEs and under-represented members in trade and investment agreements. Their analysis of the CPTPP's implementation of chapter 24 on SMEs showed an increase of 12.3 percent in exports by Canadian SMEs (GAC 2023) Chapter 24 of the CPTPP shows some successes that can arise from including SMEs in FTAs, but the results are not yet conclusive and, do not prove a causal connection between stand-alone SME chapters and growth in export capacity. Moreover, the Office of the Chief Economist's analysis only provides enigmatic results and no data that can be used for policy making. Another set of tools available for SMEs in Canada is the Trade Commissioner Service (TCS) office which provides the connection and tools to facilitate international trade and financial loans available to SMEs. Neither the CPTPP nor the TCS provide the right solutions, as there are more pertinent solutions in place to address the lack of export growth by Canadian SMEs and other underrepresented trade actors (Government of Canada 2023).

International Partnerships

Canada is also party to several international legal frameworks and participates in international groups focusing on beyond-the-border and novel trade policy. In 2017, Canada was a formative member of the WTO's Informal Working Group on MSMEs, which advocates for MSMEs at WTO Ministerial Conferences (WTO 2017). Canada also donates to the World Bank's Women Entrepreneurs Finance Initiative (We-Fi), which helps women-run enterprises access financial products and services, build capacity, expand networks, find mentors and link with domestic and global markets (World Bank 2023; We-FI n.d.). Additionally, the International Trade Centre (ITC), the International Chamber of Commerce (ICC) and the WTO have launched a joint Small Business Champions Initiative, which provides non-financial support to different marginalized groups every year, such as supporting MSMEs to go digital in 2021, supporting small businesses to reduce their carbon footprint in 2022 and small business holders in 2023. The year-specific goal for 2024 is empowering Indigenous peoples through international trade (WTO 2021). Finally, the ITC, ICC and WTO have formed the Alliances for Action, which

focuses on resilience and growth for farmers and SMEs through responsible trade, production and consumption systems (ITC 2023).

Although Canada is donating to We-Fi and is an active member of the WTO informal working groups, it needs support from these international partnerships for the MSMEs led by Canadian marginalized groups (women, Indigenous MSMEs). The research shows many hurdles on the way to internationalizing the Canadian women-led or Indigenous-led MSMEs. The Canadian women-led SMEs have drawbacks such as less acceptance by other business owners/clients, fewer financial and non-financial resources, and less research on obstacles faced by women-owned SMEs in international trade. In addition, Indigenous women-led SMEs find the information gap on external markets as one of the major obstacles (Orser, Riding and Townsend 2012; Lituchy et al. 2006). By leveraging existing international agreements and partnerships, Canada can be more successful in internationalizing domestic women and Indigenous-led SMEs.

Recommendations

GAC should seek out new paths to revise current FTAs and the FIPPA Model. Canada should revisit its existing FTAs and FIPPAs and work with their counterparts to include a strong text that is all-inclusive of SMEs and under-represented members. When looking for support, GAC should reach out to Canada's SME Advisory Board for support.

GAC should collect tangible data on inclusive trade, to better identify gaps and track progress. Canada should leverage the data collection from the Office of the Chief Economist in partnership with Statistics Canada to collect tangible progress and present objective data on the value of Canada's approach to inclusive trade. Research should be focused on understanding the impact of intersectionality among Canadian SME ownership to implement better policies that address SMEs.

GAC should continue to leverage international frameworks and partnerships. Canada can get more involved in the WTO informal group initiative to promote Canadian women-led MSMEs. Canada should join the Digital Cooperation Organization to encourage entrepreneurship and digital inclusion of small businesses. Canada can strengthen FTAs by aligning trade policy goals based on the Canadian Indicator Framework for success in achieving the UN Sustainable Development Goals (SDGs) (United Nations [UN] 2015). Specifically,

Canadian trade policy should aim to meet commitments of SDGs 8, 9, 10 and 12. Canadian FTAs should promote jobs in the clean technology products sector under SDG 8: "Decent work and economic growth," and under SDG 9: "Industry, innovation, and Infrastructure" by promoting gross domestic expenditure on research and development intensity, and access to modern and sustainable infrastructure. The area driven under SDG 12: "Responsible production and consumption" should enhance the businesses adopting selected environmental protection activities and management practices. Moreover, SDG 10: "Reduced Inequalities" should guide the activities of international frameworks, prioritizing disadvantaged areas such as to ensure stakeholders of trade agreements be free of discrimination, inequalities or unfair treatment (ibid.).

TCS should identify and implement more export support programs for members of the Trade Diversification Strategy. The TCS can draw from existing international partnerships, such as the World Bank, to find resources and promote knowledge transfer that can aid in the internationalization and export capacity of Canadian SMEs. The TCS should also utilize domestic funding through the Canadian Feminist International Assistance Policy to invest in women-led SMEs.

GAC should include SMEs as part of Canada's Feminist International Assistance Policy. As part of Canada's global role in promoting gender equity and feminist policy, it should include initiatives that promote SMEs, much like the initiatives held for Canadian SMOs within Canada's Feminist International Assistance Policy.

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Digital Authoritarianism: A Case for Policy Supporting Data Unions

Carissa Hubbard, Justin Myers and Reagan Roopnarine

Issue

Transnational corporations and authoritarian regimes are exploiting personal data to surveil, harass and control populations worldwide in ways that directly undermine Canada's foreign policy objectives related to prosperity, security, democracy and human rights.

Background

According to a 2022 survey by Statistics Canada, 95 percent of Canadians aged 15 and older use the Internet (Statistics Canada 2023). With nearly the entire Canadian population online, it is paramount that the Canadian government enact policies that protect them in the digital realm. This goal aligns with the mandate of the Minister of Innovation, Science and Industry, who has been tasked with shaping global responses to emerging digital technologies and strengthening privacy protections domestically (Trudeau 2021). However, privacy is only one of the many rights under threat in the current global policy regime; labour rights, property rights and moral rights are also being impinged.

Data collection can be beneficial for users of online platforms as it can spark digital innovation and present specific, relevant information for individuals using the services (Moiso and Minerva 2012). However, the current system disproportionately benefits the companies that collect data, resulting in concerns relating to data privacy, unpaid labour, ownership and sovereignty (Zuboff 2015). This current data model suggests that users' access to and use of services such as Google, Facebook and Amazon are free because of the data that they produce (Arrieta-Ibarra et al. 2018). Under surveillance capitalism, data has become a new form of currency (Moiso and Minerva 2012). Specifically, user data is collected, packaged and then analyzed and sold as "big data" by data brokers to companies interested in targeted advertising (Zuboff 2015). This shift towards big data has transformed the Internet into an advertising "real estate market," as advertisers seek access to the data that will most successfully predict customers' purchasing habits (Papadimitropoulos 2021). This has only compounded with the so-called "Internet of Things" — the ubiquitous collection of data gathered from sources including doorbells, fridges cars and watches, among other devices (Langley et al. 2021). No piece of data is considered inconsequential or irrelevant. For example, web searches, text messages, social media likes and comments, mouse movements and user location are routinely collected (Zuboff 2015). These collection processes remain very opaque to data producers, resulting in concerns that data is being misused, as there are currently very few legitimate mechanisms to control where one's data ends up (ibid.).

The deepening of this system has been exacerbated by an international data sharing regime that for years has operated on the presumption that international transfers of personal data should be considered safe and permitted until proven otherwise (Jurcys, Compagnucci and Fenwick 2022). Based primarily on questions of privacy and corporate rights to data, this regime misses significant issues.

However, in some jurisdictions, data governance and protection of personal information have been rising priorities. Key developments include the European Union's general data protection regulation in 2016, California's

similar California Consumer Privacy Act in 2018 and the Schrems II decision made by the Court of Justice of the European Union in 2022. All are significant steps towards protecting the producers of data, who are often the users of online services.

Canada has followed suit and is looking to implement a number of changes to its data governance regime with Bill C-27, The Digital Charter Implementation Act. This bill aims to repeal and supplement specific sections of the current legal framework protecting personal data, the Personal Information Protection and Electronic Documents Act (PIPEDA). Currently under review by the Standing Committee on Industry and Technology, if Bill C-27 passes, Canadians will see a three-fold update. First, the bill will repeal part one of PIPEDA and replace it with the Consumer Privacy Protection Act. Second, the bill will create a Personal Information and Data Protection Tribunal with the power to impose significant fines for organizations that do not comply with the Consumer Privacy Protection Act. Finally, the bill will enact the Artificial Data Intelligence Act to regulate AI in the Canadian Marketplace (Charland, Savoie and van den Berg 2021).

One of the most notable changes introduced by Bill C-27 is the updated definition of "personal information." Under PIPEDA, personal information is defined as data that can identify an individual directly or indirectly, using reasonably available information (ibid. 2000). This definition presents a gap; if information is altered to the extent that its source cannot be traced, it can be used without consent from the individual it came from. Bill C-27 addresses this gap by introducing and distinguishing between the terms "Anonymize" and "De-identify." Anonymization, as defined in the bill, involves permanently modifying personal information to ensure no individual can be identified. Neither Bill C-27 nor PIPEDA offers protections for anonymized data, suggesting that if data is untraceable, it is no longer linked to the person who produced it. Conversely, de-identification involves modifying personal information to prevent direct identification, although a risk of traceability remains. Unlike its predecessor, Bill C-27 accounts for this risk, extending its protection to data in the de-identified category. However, Bill C-27 forgoes issues of labour, ownership and other human rights, instead focusing mostly on privacy and personal information.

Bill C-27's recognition of the risk attached with de-identified data aligns with a growing body of literature that rejects anonymization as a possibility in the current data extraction landscape. Early contributors to this literature include Michael Zimmer, who warned of the fragility of presumed privacy in his 2010 paper on the ethics of research using data from Facebook. Zimmer speaks to a 2008 case study in which a group of researchers accidentally released profile data from the media platform "despite good faithed efforts to protect the privacy of the subjects" (Zimmer 2010, 318). In his analysis, Zimmer found "considerable conceptual gaps in the understanding of the privacy implications of research in social networking spaces" as a whole (ibid., 323). A more recent study found that 99.98 percent of Americans could be re-identified in any data set using just 15 demographic attributes such as age, gender and marital status (Rocher, Hendrickx and Montjoye 2019). These findings question the assurances given by digital media firms regarding the protection of users' personal data, building on Zimmer's concern that current anonymization standards do not sufficiently guarantee privacy.

Therefore, despite Canada's recent attempts to better incorporate and manage data under federal regulations, these could be made more robust to better protect data producers. Currently, data is considered a commodity, merely the by-product of online consumption (Arrieta-Ibarra et al. 2018). In the Internet of Things where data is endlessly gathered from a multitude of sources, people are generating profits for large corporations and advertisers daily. Recent scholarship and activism on the issue suggests that this should be considered a form of uncompensated labour (ibid.).

In recent years, support has been growing for data intermediaries: a new suite of technologies that enable users to pool their data in a secure and trusted virtual space and allow their data to be bundled and sold to organizations only if the individuals have provided explicit consent (Carovano and Finck 2023). Data unions, a category of data intermediaries, can provide financial compensation for data provided and/or allow for new contracts or "terms of service" to be collectively negotiated between users and platforms, giving individuals more input over what they are agreeing to (Smichowski 2019). Data unions can also help to reduce the illegibility of data labour — a person's online activity that is unknowingly captured (Li et al. 2023). Although in some instances users may be aware that their data is being collected (rendering it legible), they may be unaware of the specific way their data is being used (ibid.). Empowering data unions in Canadian legislation would help to mitigate these key issues, as increasing individual Canadians' capacity to manage their data would help lower threats to sovereignty due to data mismanagement.

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Protection of personal data must be balanced with international trade considerations. International trade agreements encourage openness of cross-border data flows and minimize restrictions on international data sharing to reduce the burden on businesses that operate internationally. International agreements such as the Comprehensive and Progressive Agreement on Trans-Pacific Partnership require parties to allow cross-border data flows between businesses. However, some restrictions are permitted if they are used to pursue public policy goals (Gao 2023).

Protecting personal data within the bounds of international agreements has been a rising priority among many of Canada's allies and international partners over the last several decades. The 2005 Asia-Pacific Economic Coperations's Privacy Framework and 2013 Organisation for Economic Co-operation and Development's privacy guidelines are two examples of international agreements that create frameworks for the international transfer of data and include requirements to ensure protection (ibid.). The World Economic Forum's (WEF's) "Rethinking Personal Data" has recognized that technological growth and data flows are "outstripping the ability to effectively govern on a global basis" and has called for a restructuring of the way that society views personal data (WEF 2014, 3). New tools for managing data, such as data unions, will allow consumers to reconsider and redevelop these relationships through the union.

Canada should look to the European Union as an example of progressive innovation in the field of international data governance. The EU 2016 General Data Protection Regulation, drawing from the earlier 1995 Data Protection Directive, contains a sweeping prohibition on cross-border data flows unless strict conditions are met (Jurcys, Compagnucci and Fenwick 2022). This approach of ensuring that other countries have sufficient means to protect the data of citizens is known as the adequacy approach and has since become a best practice for negotiating the terms of international data trade.

The European Union's latest innovation in data governance is the 2022 Data Governance Act, which seeks to incentivize voluntary data sharing and establish trust in data markets. To do this, the Data Governance Act establishes a regulatory framework to govern data intermediaries (Carovano and Finck 2023). The Digital Governance Act imposes 15 conditions on data intermediation services that aim to build trust and foster competition (von Ditfurth and Lienemann 2022). Data intermediaries must be neutral parties to the transaction and cannot use the data they manage for their own benefit. They also cannot make the price for their data intermediation services conditional on the use of other services that they offer, must take measures to ensure that the data they process is interoperable with other data intermediaries, and must monitor their transactions for unlawful transfers (ibid.).

The EU Data Governance Act aims to help data intermediaries such as data unions overcome their most significant hurdles: their unknown status as an emerging technology and the resulting lack of consumer trust. In early stages of growth, the benefit that a data union can offer its users is tied to the size of its user base — larger datasets containing more users and a wider range of data are worth far more than smaller datasets of limited scope. Conversely, a data union's user base will be proportional to the benefit, financial or otherwise, that it can offer new users. Heeding the WEF's message that data sharing and trade is rapidly outpacing governance, Canada should take a proactive approach to ensure that data unions do not become trapped in preliminary stages of development, struggling to build trust and gain users.

Failure to follow the example of the European Union and provide meaningful legislation regarding data protection could result in Canada falling further behind in keeping up with the rapid advancements in digital technology, being sidelined as an innovative player on the global stage and failing to protect citizens domestically. However, if Canada is to take the initial steps forwarded as recommendations, this could make room for more conceptual changes in the future. Empowering data intermediaries and providing Canadians with viable alternatives to better protect their data lays the foundation for revisiting the legal definition of data, potentially viewing it as labour rather than a commodity.

Recommendations

Canada should empower data union start-ups and initiatives by providing multifaceted funding incubators that include financial packages, training workshops and networking/mentoring opportunities. This should be spearheaded by the Minister of Innovation, Science and Industry, pursuant to his mandate to "ensure fair competition in the online marketplace" (Trudeau 2021). Innovative proposals for data intermediary companies should be rewarded with these benefits to help provide Canadians with legitimate alternative choices in relation to the data that they are continuously producing.

Canada should introduce legislation that will regulate and support the growth of data intermediaries by implementing regulatory requirements that data intermediaries must follow, and creating a certification process for those that demonstrate an ability to meet high standards of integrity. Giving federal certification to intermediaries that satisfy requirements for neutrality and transaction monitoring such as those seen in the Data Governance Act will allow successful intermediaries to build consumer trust and develop at a more rapid pace, while making it easier for consumers to know who to trust with their data.

Canada should remove the categorization of anonymized data in Bill C-27. Bill C-27 distinguishes between anonymized and de-identified data, offering protection based on the traceability of the information. Aside from the growing evidence that data can never be truly anonymized, data producers should not lose autonomy over the information they generate online merely because it has been altered to prevent traceability. By failing to protect data that has been decoupled from its producer, Bill C-27 perpetuates the current model of data governance and reinforces a system of data authoritarianism. Protecting all data, regardless of its traceability status, empowers data producers (the average Canadian) to retain control over their information.

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Satellite Insights for Sustainable Governance: Harnessing the HAWC Mission's Potential

Emily Loeven, Christy Lorenz and Olubunmi Onilude

Issue

The Canadian-led High-altitude Aerosols, Water vapour and Clouds mission, also known as the HAWC mission, offers a momentous opportunity for Global Affairs Canada (GAC) to integrate science, technology and the Sustainable Development Goals (SDGs), necessitating the development of comprehensive multi-stakeholder and multi-scalar governance frameworks to leverage and manage the insights from future big data of the Earth's atmosphere.

Background

The HAWC mission, under the aegis of National Aeronautics and Space Administration's (NASA's) Atmosphere Observing System (AOS) and Earth System Observatory program, is poised for launch in 2031. This mission aims to remedy significant gaps in scientific knowledge by enabling increasingly precise quantification of aerosols and clouds from polar-orbital and sub-orbital measurements. This atmospheric big data will support the prediction of severe weather events, the modelling of climate patterns and the surveillance of disease, disasters and storm dynamics. Accordingly, the HAWC mission has the potential to advance several SDGs, particularly SDG 3: Good Health and Well-being and SDG 13: Climate Action.

However, the mere collection of data is insufficient for leveraging the full eco-ethical potential of the HAWC mission. The successful mobilization of future satellite data towards a sustainable and data-driven policy will be contingent on the implementation of effective multi-stakeholder, multi-scalar and data governance frameworks — all of which must be firmly embedded in sustainability principles. With only seven years until the HAWC mission reaches orbit, this pre-launch period represents a pivotal opportunity for GAC to develop policy frameworks for data, health and climate governance by merging technological development with principles of sustainability. Integrating the SDGs, especially SDG 3 and 13, into the foundational objectives of the HAWC mission prior to launch would promote Canadian values and interests both domestically and abroad.

The HAWC Mission and SDG 3: Good Health and Well-being

In an era characterized by global warming and escalating climate volatility, big data play a crucial role in enhancing health outcomes. As poor air quality is the single greatest environmental health risk worldwide (deSouza et al. 2020), efforts to measure and mitigate the health impacts of air pollution are needed more than ever to support smarter and increasingly integrated health services. To this end, satellite Earth observation has emerged as critical infrastructure to calculate and map the evolving nature of air pollution, disease vectors from warmer temperatures and flooding, and other environmental disasters that pose risks to human health (Kaleagasi et al. 2022). The data produced by the HAWC mission will advance the objectives of SDG 3 by providing critical geospatial insights into aerosols and clouds in relation to key health indicators (CSA 2022a; deSouza et al. 2020).

The HAWC mission seeks to address critical gaps in global environmental data, especially regarding the impact of aerosols on air quality, where there is a significant lack of monitoring even for common pollutants. With approximately 90 percent of the global population breathing heavily polluted air and 141 countries lacking regular monitoring — most of which are low and middle-income countries — there is an urgent need for new and improved data collection systems (Holloway et al. 2021). Notably, as climate change continues to alter the atmospheric composition, chemistry and precipitation processes, air quality is expected to deteriorate in several densely populated areas around the world. The disproportionate impact of air pollution on developing countries makes it both a public health concern and a social justice issue. Therefore, the precise quantification of aerosol properties is progressively pertinent to global public health services to not only promote human health, protect ecosystems and manage the feedback loops that interlink them (Orru et al. 2017), but also to enhance global equity. Moreover, alongside improving global coverage of aerosol monitoring, the HAWC mission will also augment the limited geographic range of ground-based monitors, which are both sparsely located and insufficient in terms of spatial coverage (Anenberg et al. 2020; Holloway et al. 2021).

The HAWC satellite data will be crucial for informing policy making, enhancing public outreach, and ultimately improving global health outcomes (de Sherbinin et al. 2014). Additionally, by addressing gaps in current monitoring systems and providing data for tracking air quality, weather events and climate trends, the HAWC mission will enhance emergency response mechanisms to environmental disasters, forecast disease vectors and mitigate respiratory health risks — thereby strengthening societal resilience against climate change (Sayyed et al., 2024). In this manner, the HAWC mission can advance global public health and environmental justice in tandem.

The HAWC Mission and SDG 13: Climate Action

Improving the accuracy of global climate models is imperative for predicting future climate scenarios and assessing the potential impacts of policy measures. Data produced by the HAWC mission can support SDG 13 in response to climate extremes, including wildfires, floods and drought. In addition, given that aerosol and cloud properties constitute key sources of uncertainty in predicting future climate and ecosystem health (Boucher et al. 2024), the HAWC mission would address critical questions about how aerosols and clouds affect precipitation

patterns, the global energy balance and the thickness of the ozone layer. Enabling accurate measurements of aerosols and clouds would support the development of models and mitigation strategies to lessen the impact of climate change on communities worldwide. Moreover, the collected data would provide invaluable insight into the effectiveness of human interventions in the climate system through geoengineering and solar radiation management (ibid), as well as activities leading to the emission of heat-trapping aerosols.

Moreover, the HAWC mission would support international efforts to institute standards for the global dissemination of, and open access to, satellite Earth observation data, which are required to track progress toward climate goals (Kaleagasi et al. 2022). Standardizing the dissemination of satellite data ensures that data from diverse sources are compatible and can be integrated seamlessly, thereby enhancing the global scientific community's ability to monitor and address climate change. Open data policies are essential for fostering transparency and collaboration among researchers, policy makers and the public, as well as enabling individuals and institutions in both developing and developed countries alike to access, analyze and utilize data to inform evidence-based decisions and achieve sustainable development (Kavvada et al. 2020). The integration of standardized statistical systems, spatial data infrastructures and statistical and geospatial agencies that are subject to open data policies is thus crucial for leveraging data in support of the SDGs (Andries et al. 2022). Finally, the HAWC mission can support the assessment of progress toward international climate treaties such as the Paris Agreement (IPCC 2022).

A Global Gift Focusing on Key Governance Areas

The HAWC mission has the potential to advance several SDGs, especially SDG 3: Good Health and Well-being and SDG 13: Climate Action. However, this potential is not guaranteed. To ensure that the data gathered from the HAWC mission are applied responsibly and effectively in future health and climate policy development, it is recommended that Canada, through a collaboration between GAC and the CSA on the HAWC mission, presents a gift that benefits the world from both a scientific and developmental standpoint. This gift exceeds GAC's purview but should be advocated by GAC on the global stage. By working with the CSA, GAC should establish a global platform to provide worldwide access to the data collected through the HAWC mission — the Space

Agency Data Index (SADI). To be fully effective, the SADI should prioritize the implementation of data governance, multi-stakeholder governance and multi-level governance frameworks. This three-pronged approach, based on evidence from prior satellite Earth observation strategies, would facilitate the promotion of global and domestic best practices aligned with the SDGs.

Data Governance

The HAWC mission and subsequent gifted SADI will necessitate meticulous attention to data governance practices throughout its data collection, analysis, processing and dissemination phases (Cooper 2018). Effective, participatory data governance mechanisms maintain the integrity and reliability of the information gathered, which will ultimately support more accurate and timely weather predictions. Data from the HAWC mission should be made fully accessible to all through the SADI, encouraging effective and comprehensive study across various scientific and policy-making communities. Providing open access to the SADI should encourage collaboration among researchers and ensure that policy makers have access to the latest and most accurate information for informed decision-making (Reichmann and Wieser 2022). It should also promote inclusivity and support more effective data applications, preventing marginalization (Barbero and Richards 2022).

By prioritizing the implementation of proper data governance mechanisms, the HAWC mission can significantly enhance the ability to predict and respond to extreme weather events. Accurate weather predictions are vital for mitigating the adverse effects of these events, protecting lives and property, and enabling the efficient allocation of resources during emergencies. Moreover, reliable data supports long-term climate research, helping to shape effective environmental policies and strategies that address the causes of climate change.

Multi-stakeholder Governance

GAC's gift should adopt a multi-stakeholder framework to ensure that the HAWC mission's data is used to create an environment conducive to Earth observation data applications, directly supporting SDG 3 and SDG 13. This approach bridges the gap between sectors — including industry, academia, governments and Indigenous communities — to promote participatory knowledge production, encourage whole-of-society collaboration and reinforce Canada's comprehensive engagement strategy in satellite Earth observation (Anenberg et al. 2020; CSA

2022b). For example, capacity-building initiatives, such as providing training and resources to stakeholders, have been proven to optimize the application of Earth observation data for health and climate initiatives — particularly within developing countries (Kavvada et al. 2020). Public engagement is vital: fostering awareness and participation from the public can encourage citizen science projects, in-situ networks and community-based monitoring efforts (ibid). Equitable access to satellite data is also imperative, particularly for underrepresented groups such as Indigenous communities, ensuring they can both benefit from and contribute to these advancements (Barbero and Richards 2022). By integrating a multi-stakeholder governance model into the SADI, GAC and the CSA can create a cohesive and inclusive framework that maximizes the benefits of the HAWC mission, ensuring that it effectively supports SDG 3 and SDG 13 both within Canada and abroad.

Multi-level Governance

Actionable policy changes that result from the collaboration between the CSA and GAC on the HAWC mission will depend on reconciling the varying roles of the municipal, provincial and federal governments in Canada as well as the interactions of the Canadian government on the international level. Climate reduction strategies in Canada depend on city leadership, as 80 percent of Canadians live in urban populations containing most of the infrastructure (Johnston 2022). However, Canadian municipalities rely on the governing standards decided at the provincial and federal levels. For example, acting on flooding issues engages the municipal level to implement road, housing, land use and emergency management policies, but the provincial level is responsible for public health and the natural resources ministries (Cappell 2022). Municipalities require local exposure data and funding capacities from the provincial and federal governments (ibid). The gifted global data repository would help to facilitate multi-level cooperation.

Beyond Canadian intergovernmental collaboration, the transboundary nature of the satellite mission emphasizes the need for GAC to leverage Canada's position as a member of the World Meteorological Organization (WMO) to ensure that globally, SDG 3 and 13 can be met from the data retrieved from the HAWC mission. In the case of hydrometry, intergovernmental cooperation and innovative collaboration between members of the WMO have enabled more comprehensive and actionable global approaches to managing water resources and water-related disasters (Dixon et al. 2022). Furthermore, the Global Framework for Climate Services (GFCS) led by the WMO

was created to address the SDGs' challenges and to transfer climate data into informed decision making and policy development (Giuliani et al. 2017).

Recommendations

GAC's contribution to the global data repository, or the SADI, should include three actionable steps to ensure adherence to effective data governance, multi-stakeholder governance and multi-level governance frameworks:

Create a National Earth Observation Data Training Program: GAC can promote a multi-stakeholder approach to leveraging future big data of the Earth's atmosphere by implementing a nationwide capacity-building initiative about the proposed SADI that educates and empowers local stakeholders. The technical expertise required for satellite Earth observation for health and climate often creates a gap between data production and use, requiring collaborative approaches for actionable environmental and public health knowledge (Anenberg et al. 2020). Building upon the intrinsically collaborative nature of the HAWC mission, GAC and the CSA should implement a National Earth Observation Data Training Program comprised of online and in-person training modules on satellite Earth observation data, its applications and analysis tools, with specialized content that focuses on the SADI and the SDGs. Partnering with universities, technical agencies and local communities, the program would deliver training sessions and offer certifications. Community workshops in various regions, especially those with limited access, would be organized with local experts to tailor content to specific needs. Furthermore, as an accessible online platform, the SADI website would provide training resources, tutorials and forums for continuous learning, available in multiple languages. Funding and resources, such as software licenses and technical support, would be allocated to local initiatives that demonstrate innovative data uses in support of the SDGs. The SADI and its associated training program would enhance local capacity, increase stakeholder collaboration and empower communities to make data-driven decisions, ultimately serving to strengthen Canada's position as a global leader in sustainable development.

Establish a Global Data Governance Committee: To optimize the utility of data derived from the HAWC mission and ensure their accessibility on a global scale, robust data governance mechanisms surrounding the SADI are indispensable. It is recommended that GAC establish a dedicated committee to enforce data governance mechanisms as regards the SADI and forge partnerships with international organizations boasting open-data

repositories and data sharing networks, such as the WMO, Group on Earth Observations and the United Nations's Systematic Observations Financing Facility. This committee should also use the Canadian Open Government Registry/Portal to facilitate further data exploration and accessibility for researchers and policy makers.

The committee's mandate would be to uphold data governance principles by ensuring high-quality data, transparency in data sharing and responsible data stewardship. This includes the timely updating of data, adherence to ethical and quality standards, elimination of data withholding practices and mitigation of dissemination biases concerning the HAWC and AOS data. By facilitating broader access to this data, scientists, policy makers and researchers worldwide would be empowered to conduct comprehensive analyses and drive innovation, thereby enhancing weather forecasting capabilities and disaster preparedness. Establishing such a committee under the auspices of GAC aligns with the objectives outlined in Canada's Strategy for Satellite Earth Observation (CSA 2022b), providing a reliable framework for effective stewardship in extreme weather prediction.

Promote Intergovernmental Cooperation: Intergovernmental collaboration, both nationally and internationally, is required to translate data from the HAWC mission and the SADI into viable climate policies, considering the varying capacities of different levels of government. Nationally, Canada should nominate a table of members from the municipal, provincial and federal governments to create an action plan to downscale global climate data practices and projects such as the proposed SADI. An intergovernmental table with a clear plan can boost Canada's position as a climate leader (Johnston 2022). This action plan should ensure that municipal governments have the resources and funds to effectively implement climate strategies in response to the data collected from the HAWC mission.

Internationally, Canada must promote further intergovernmental collaboration between the WMO members and the GFCS concerning the HAWC mission to advance Canada's global position as a leader in achieving the SDGs. By cooperating with the members of the WMO and leveraging existing international climate data frameworks that prioritize the SDGs, such as the GFCS, Canada can ensure that the SADI results in actionable global policies that target the achievement of health and well-being, and climate action worldwide.

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Addressing the Intangibles Revolution: Strategic Policy Considerations for Canada

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Issue

Given the absence of a holistic strategy to guide Canada's technology sector, the country faces challenges in innovation, growth, and research and development, all of which continue to limit the sector's international competitiveness.

Overview

Leveraging opportunities and mitigating risks associated with the development of Canada's emerging technology[15] sector requires the support of a cross-government policy framework capable of navigating a profoundly changed world of data-driven and digitalized "intangibles."

Canada's current technology initiatives, such as the Strategic Innovation Fund, suggest that resources supporting the development of emerging technologies have been concentrated toward private corporations (Champagne 2023). Consequently, crucial sectors such as higher education, agriculture, oil and gas, transportation and health have been overlooked (Wayner et al. 2020). Evidently, there remains a need for a comprehensive strategy that addresses gaps in policies that neglect resources, research and development, and practical skill building within these sectors. A strategic approach

taken to bolster Canada's global standing in innovation and technology competitiveness would require more comprehensive support for key industries and addressing technological challenges across the board. In this context, this policy brief proposes the following three areas of focus:

- Acknowledging that the lack of a comprehensive approach to Canada's global position in emerging technologies is hindering its competitiveness in the global economy and its capacity to foster the expansion of current technology ventures.

- Attracting talent acquisition and retention to support the development of emerging technologies poses an additional hurdle, particularly in the face of talent shortages. For instance, notable companies such as Google and Meta have expressed gratitude to Canada for supplying them with numerous senior leaders.

- Addressing how the current sector-specific approach to technology innovation underscores the necessity for a comprehensive strategy that harnesses the Canadian emerging technology sector's full potential across all domains.

Background

The transition to a digitally driven economy in Canada has gained prominence, with a recent parliamentary focus on bolstering public institution-building to enhance international competitiveness and capture wealth in the global knowledge-based economy (Piovesan et al. 2019). However, experts and innovators have expressed concerns over Canada's slow movement in this arena, attributing it to

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15 Defined as critical and emerging innovations of products spanning across multiple industries within the public and private sector characterized for their rapid development and having lasting economic, social and political effects (Health Canada 2014).

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the absence of a cohesive strategy to support the flourishing of a knowledge-based economy (Nicholson et al. 2009). The shift from a traditional production-based model to one driven by knowledge and digital advancements underscores a global trend toward prioritizing national technological developments over transnational collaboration. While initiatives such as the Canada National Quantum Strategy and Pan-Canadian Artificial Intelligence Strategy have been implemented to support technology businesses and research, they often focus on specific sectors or technologies, neglecting broader growth opportunities within the Canadian technology ecosystem (Trudeau 2024). Moreover, Canada continues to grapple with a talent shortage in technology, hindering the sector's growth and diminishing its global standing (Mahboubi 2022). Reports indicate significant challenges in attracting and retaining individuals with digital skills, particularly in critical areas such as artificial intelligence and cyber security (Canadian Centre for Cyber Security 2023). Addressing this talent gap is critical for federal and provincial initiatives aimed at technology growth and to support Canada's ability to innovate, scale and compete internationally.

Opportunities

A cursory examination of Canada's technology ecosystem exposes several opportunities. One notable shortfall is the presence of numerous sector-specific policies and regulations, but in the absence of any cohesive overarching policy or strategy to guide and promote innovations (Leroux 2020). Amid these circumstances, four opportunities are identified.

Higher Education

In higher education, policies appear to concentrate on external opportunities, which risks sidelining internal innovation and research initiatives crucial for propelling technological advancements (Statistics Canada 2022). This regulatory gap is further compounded by the insufficient bolstering of national IP (intellectual property) frameworks, which are imperative for incentivizing innovation and guaranteeing creator rights.

Strategic Alignment and Standard-setting

Strategic alignment ensures that all initiatives, goals and efforts towards overarching objectives and priorities are maximized across various stakeholders. This benefits Canada by efficiently allocating resources and promoting inter-agency collaboration among various Canadian ministries and international partners, all working towards shared visions and objectives.

Standard-setting must be incorporated into the alignment as the global economy becomes increasingly interconnected and reliant on digital technologies. It establishes a common baseline of expectations, guidelines and protocols within the technology sector for technical, data, security, ethics, compliance and industry or sector-specific standards. This effort promotes uniformity, interoperability, innovation, trade, collaboration and fair competitiveness. Moreover, it gives businesses the confidence to invest in new technologies and enter new markets, driving economic growth and competitiveness.

The International Organization for Standardization (ISO) and the Institute of Electrical and Electronics Engineers (IEEE) are crucial for international standard-setting because they provide globally recognized frameworks and guidelines that ensure quality, safety, interoperability and efficiency across various industries. Within the ISO, Canada is represented by the Standards Council of Canada, which considers Canadian interests in developing international standards across various sectors, including technology and environmental management. IEEE Canada is part of Region 7 of the global IEEE organization. IEEE Canada supports the advancement of technology by organizing conferences, publishing research and providing professional development opportunities for Canadian engineers and technologists.

In alignment with the Indo-Pacific strategy, there is a heightened emphasis on bolstering supply chain resilience and fostering innovation in the digital economy. Canada's shift from being a net importer to a leader in IP is crucial for reinforcing its economic stability and competitiveness on the global stage.

Canadian IP Rights

Prioritizing IP is critical. In contrast to its international peers, Canada has a net balance of payments deficit (receipts minus payments) on charges for using IP that has grown over the last two decades (Government of Canada 2024). The lack of attention to IP rights poses a significant hurdle to innovation. A consequence of this is seen within the agricultural sector and the investment and development of biotechnologies, which could leverage Canada's global position in technology and agriculture.

Capital Investments

Canada could mitigate the "brain drain" and address skill shortages by creating a more appealing environment for

technology professionals. Strategic capital investment gains that foster innovation hubs provide competitive salaries and offer advanced training programs are needed. By supporting domestic firms and facilitating the growth of transitional Canadian companies, Canada can ensure these firms and sectors have the resources and infrastructure needed to thrive. Canada can also cultivate a robust ecosystem that not only attracts but also retains top-tier talent, thereby bolstering its overall technological competitiveness on the global stage.

In summary, Canada lacks an official all-encompassing national strategy to guide its technological advancements. Considering the importance of positioning the country within the global technology landscape and recognizing that technology will drive economic growth, foster innovation and catalyze job creation across diverse sectors, not filling this current strategic void poses significant risks to the Canadian economy's short and longer-term resilience.

Recommendations

Canada should adopt a strategy as a foundational framework to advance Canadian growth, address current issues and capitalize on opportunities. This strategy could address current shortfalls and encompass various vital areas for Canada to advance its technological innovations and collaborate on the global stage. The proposed strategic technology framework should include the following four key pillars to address vital areas crucial for Canada's advancements in the digital landscape.

Pillar 1: Fostering Innovation

This pillar emphasizes enhancing international collaboration by positioning the country as an appealing destination for innovators. This involves forging partnerships with the global research and investment communities and safeguarding Canada's IP rights. For example, Britain shares similar challenges with Canada in the post-Brexit era and significantly focuses on technology in its foreign and security policies. Given Canada and Britain's mutual trust and reliability, both countries can collectively leverage their strengths to enhance their global influence. Like-minded bilateral and coalition-based efforts like these could highlight progressive thinking regarding innovation governance and management.

Canada should promote a patent collective that fosters innovation and collaboration among businesses, researchers and institutions. A patent collective is a consortium of organizations that pool and share their patents to facilitate access to technology, reduce litigation risks and promote innovation within a specific industry or field.

The current federal budget does not address the failures of innovation policy and only addresses capital and inputs. Canada is missing out on the advantages of innovation; to harness these benefits, it is essential to strengthen and promote IP rights. By participating in a patent collective, Canadian companies can strengthen their domestic and international competitive position. Promoting a patent collective can drive economic growth by boosting the innovation ecosystem. It can help to commercialize new technologies rapidly and effectively, leading to job creation and economic activity.

Pillar 2: International Standard-Setting

To influence standards development, ensure active participation of national representatives in international standardization bodies such as the ISO and the IEEE. In addition, Canada must incorporate international digital standards into national regulatory frameworks to ensure compliance and interoperability. Standards will contribute to market expansion, allowing Canadian companies to easily enter new markets where these international standards are required, expanding their global footprint. By incorporating these standards, Canada fosters an environment that encourages innovation and technological growth.

Setting robust standards is integral to supporting supply chain resilience. With clear guidelines for data protection, cyber security, and IP rights, Canada can mitigate risks and vulnerabilities within its supply chains. This ensures continuity of operations and minimizes disruptions, particularly in times of crisis or uncertainty.

Pillar 3: Promotion and Protection of Technology

Canada should prioritize risk management, promote innovation, safeguard digital security, and protect current technology, especially cyber security. Canada can follow the United States and European Union approach and use policy tools such as monitoring supply chains, risk screening and stress tests. Current risk management fails to address critical sectors. Frameworks must be adopted that encourage regular risk assessments across all critical sectors, including cyber security, health care, energy and finance. A comprehensive framework for these sectors would integrate quantitative risk models and qualitative evaluations to assess vulnerabilities and threats accurately. Facilitating partnerships between the government and the

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private sector to share threat intelligence is also crucial. This includes setting up centralized platforms, such as information sharing and analysis centres, where real-time data on emerging threats can be exchanged.

GAC should work alongside Canada's Advisory Council on AI to create and mandate training programs for cyber security and national security personnel. Promoting digital literacy and safe practices is essential, as the security of technology is intrinsically linked and depends on the security of its users. The Canadian Centre for Cyber Security (2023) Learning Hub is the source of cyber security and communications security training for Government of Canada employees.

GAC should expand the Learning Hub's training offerings to include digital literacy skills and internet safety. In addition, GAC is encouraged to promote public-private partnerships and dialogue so corporations can access and benefit from safe practices training. GAC should also express a commitment to continual oversight and framework adoption in training programs to address emerging technology trends and threats.

The standards established in Pillar 2 are foundational for achieving these objectives. This underscores the significance of effective risk management, necessitating understanding the elements requiring mitigation within an intangible marketplace.

Pillar 4: Inclusivity

This pillar prioritizes those already within the technology sector and incoming talent. One example is investing in higher education programs focusing on technological skills and development opportunities to prepare students for jobs. A fundamental weakness for Canada is the lack of partnerships between the government and universities that are job-focused rather than academia-focused.

The federal government should support skill-building programs in the technology industry to improve students' job readiness by establishing bridging programs, innovation hubs and funding technical programs. Thus, the support for the sector should be more explicit and blatant, facilitating government-to-government and researcher-to-researcher exchanges, demonstrating faith in provincial governments and universities to drive progress. This investment assists incoming technology leaders in acquiring the necessary education and skills to contribute significantly to their fields and continue knowledge sharing and collaboration.

Recruitment and staffing practices must be improved for those already in the workforce to enhance expertise and representation in talent retention and attraction. This includes efforts to expand bilingualism services, ensuring that diverse voices are heard and represented. Government funding and grants should be allocated to organizations and institutions to develop and enhance language services. Funding can be used for hiring multilingual staff, training, and procuring translation and interpretation technologies.

This interconnected approach fosters growth and resilience, facilitated by the standards established in Pillar 2, which enable international collaboration and cooperation. By prioritizing inclusivity, Canada acknowledges its diverse population and ensures that talent and policy reach every corner of the country. This reinforces the strategy's overarching structure, linking inclusivity to Pillar 1 by incentivizing engagement and making Canada a more attractive destination for supporting new ideas and innovation.
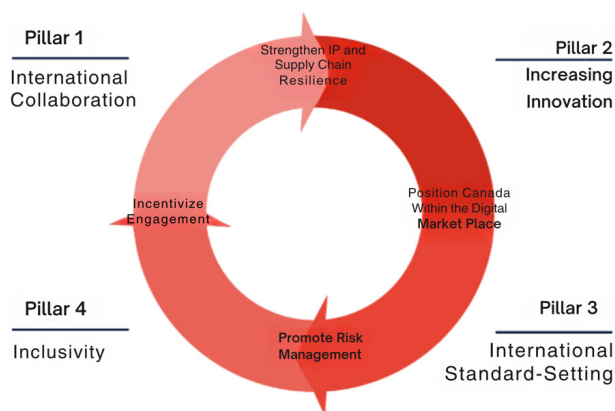
Source: Image created by Jessica Stewart and Iman Abrahim.

In conclusion, the proposed technology strategy framework for Canada, encompassing the aforementioned four key pillars, offers a robust foundation for national growth and global collaboration. Each pillar is mutually reinforcing, creating a dynamic and interconnected system. Pillar 1 of international collaboration enhances Pillar 2 of increasing innovation by facilitating global partnerships and resource sharing, accelerating the development of new technologies and strengthening IP rights and supply chain resilience. Pillar 2 supports Pillar 3 of international standard-setting by enabling Canada to shape global standards, making Canadian innovations more competitive internationally and positioning Canada prominently within the digital marketplace. Pillar 3 boosts Pillar 4 of inclusivity by establishing clear guidelines and best practices, creating

a secure and reliable digital environment, and ensuring that all participants, including marginalized groups, can safely engage with and benefit from technological advancements. Pillar 4 strengthens Pillar 1 by positioning Canada as a leader in equitable development, attracting global partners and incentivizing their engagement. The proposed technology strategy offers Canada a clear pathway to address challenges, capitalize on opportunities and lead technological advancements, shaping the nation's innovative digital future.

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