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# A preliminary dive into Canada's past and future crime landscape

*Notionally altering our national security and public safety*

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## **Abstract**

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The nature of crime is continually evolving, and as nefarious actors take advantage of emerging trends across the economic, political, environmental, social and technological landscapes the threats they pose become augmented. Within the Director General, Policy and Advice at Defence Research and Development Canada (DRDC) the Defence and Security Operations and Analytics team is currently undertaking a “Future of Crime” project. This preliminary Scientific Report provides a background of the study and its initial findings including the literature review and workshops summaries. The four main drivers of future crime—economic crisis, emerging technology, climate change and public health and social and political instability—are also discussed along with their respective sub-drivers. By providing these research findings the study aims to inform national security and public safety (NSPS) partners of appropriate next steps including revisiting department mandates and operationalizing foresight into processes and procedures.

## **Significance to defence and security**

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The technological, legislative and political environment in which crime occurs is constantly changing in Canada and abroad. There is an increasingly sophisticated nature of criminal networks and techniques that pose a threat to Canada’s national security and public safety (NSPS), and Canada’s economic well-being. This Report will provide stakeholders with a novel perspective on changes in the future crime environment, and several alternative future scenarios—and in turn, contribute to strategic investment planning and priority setting in both the national security and public safety domains.

## Résumé

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La nature de la criminalité est en constante évolution et, à mesure que des acteurs malveillants tirent parti des tendances émergentes dans les contextes économique, politique, environnemental, social et technologique, les menaces qu'ils représentent s'accroissent. Au sein du bureau du directeur général—Politiques et conseils, situé à Recherche et développement pour la défense Canada, l'équipe des Opérations et analyses de sécurité de la Défense entreprend actuellement un projet sur « l'avenir de la criminalité ». Le présent rapport scientifique préliminaire donne le contexte de l'étude et ses premières conclusions, y compris une analyse des documents publiés sur le sujet et des sommaires d'ateliers. Les quatre principaux facteurs de la criminalité future—la crise économique, les technologies émergentes, les changements climatiques ainsi que la santé publique et l'instabilité sociale et politique—sont également examinés, conjointement avec leurs sous-facteurs respectifs. En fournissant ces résultats de recherche, l'étude vise à informer les partenaires de la sécurité nationale et de la sécurité publique du Canada des prochaines étapes appropriées, y compris la révision des mandats du ministère et la mise en œuvre de la prospective dans les processus et les procédures.

## Importance pour la défense et la sécurité

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L'environnement technologique, législatif et politique dans lequel la criminalité se produit est en évolution constante, au Canada et à l'étranger. Les réseaux criminels et les techniques qu'ils utilisent sont de plus en plus sophistiqués et ils constituent une menace à la sécurité nationale et à la sécurité publique du Canada ainsi qu'au bien-être économique du Canada. Cette étude fournira aux intervenants une nouvelle perspective sur les changements dans l'environnement de la criminalité future, ainsi que plusieurs scénarios futurs de rechange, et contribuera à son tour à la planification des investissements stratégiques et à la définition des priorités dans les domaines de la sécurité nationale et de la sécurité publique.

# Table of contents

---

Abstract . . . . .	i
Significance to defence and security . . . . .	i
Résumé . . . . .	ii
Importance pour la défense et la sécurité . . . . .	ii
Table of contents . . . . .	iii
List of figures . . . . .	v
List of tables. . . . .	vi
Acknowledgements . . . . .	vii
1 Background . . . . .	1
1.1 Current and emerging trends . . . . .	1
1.2 The Future of Crime study methodology. . . . .	2
2 Future of Crime Project literature review . . . . .	3
2.1 Analysis of trends . . . . .	3
2.1.1 Disruptive events can trigger other disruptive events . . . . .	3
2.1.2 Insufficient communication and collaboration among national security and public safety partners lead to intelligence shortfalls . . . . .	4
2.1.3 Meeting recruitment ideals is an organizational obstacle . . . . .	4
2.1.4 Challenges in defending Canada’s borders and asymmetries in Canada-US responses . . . . .	4
2.1.5 The term “terrorism” and its political significance . . . . .	5
2.1.6 Social unrest has implications for policing and its perceived legitimacy . . . . .	5
3 Future of Crime project workshops . . . . .	6
3.1 The domains of crime. . . . .	6
4 Results: drivers of crime . . . . .	7
4.1 Economic crisis . . . . .	7
4.1.1 The concentration of wealth and rise in inequality threatens American’s social fabric . . . . .	7
4.1.2 Globalization threatens Canada’s economic sovereignty . . . . .	8
4.1.3 Globalization gives opportunities to organized crime . . . . .	9
4.1.4 Canada becomes increasingly urban and aged . . . . .	10
4.2 Emerging technology . . . . .	10
4.2.1 Advances in technology move faster than organizational readiness and capacity to respond . . . . .	11
4.2.2 Emerging technologies introduce novel security threats . . . . .	11
4.2.3 Legislation and policy hinder the ability of national security and public safety actors to take advantage of existing and emerging technologies . . . . .	12
4.3 Climate change and public health . . . . .	12
4.3.1 A more accessible Arctic invites layered security challenges . . . . .	13
4.3.2 The impact of infectious disease, addiction, mental health and other public health epidemics forces the Government to take pre-emptive measures to protect Canadians . . . . .	14
4.3.3 Shifting climate and environmental patterns threaten Canada’s natural resources and communities both domestic and global . . . . .	14
4.4 Social and political instability. . . . .	15

4.4.1 Online platforms present security challenges and threats to Canada’s national security and public safety. . . . . 16

4.4.2 Surging mistrust in our state by the Canadian public and international allies . . . 16

4.4.3 Unresolved Indigenous issues heightens animosity, threatens Indigenous communities and deepens mistrust in the state . . . . . 17

4.4.4 Growing ideological extremism drives division within Canada’s citizens and communities . . . . . 17

4.4.5 Shifts in the court of public opinion influence Canadian legislation . . . . . 18

5 Conclusion . . . . . 19

References . . . . . 20

Annex A Canada’s 2020 National Security Strategic overview’s main trends . . . . . 25

Annex B Royal Canadian Mounted Police 2020 environmental scan’s mega trends . . . . . 26

Annex C Drivers of Crime: A Mindmap informed by Brainstorming Session 2 . . . . . 27

List of symbols/abbreviations/acronyms/initialisms . . . . . 30

## List of figures

---

Figure 1:	Predictive analysis using historical and current events. . . . .	3
Figure 2:	Economic crisis sub-drivers. . . . .	7
Figure 3:	Emerging technology sub-drivers. . . . .	10
Figure 4:	Climate change and public health sub-drivers. . . . .	13
Figure 5:	Social and political instability sub-drivers.. . . .	15
Figure C.1:	Drivers of Crime: A Mindmap informed by Brainstorming Session 2 (1 of 4). . . .	27
Figure C.2:	Drivers of Crime: A Mindmap Informed by Brainstorming Session 2 (2 of 4). . . .	27
Figure C.3:	Drivers of Crime: A Mindmap Informed by Brainstorming Session 2 (3 of 4). . . .	28
Figure C.4:	Drivers of Crime: A Mindmap Informed by Brainstorming Session 2 (4 of 4). . . .	29

## List of tables

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Table 1:	Domains and category definitions. . . . .	6
Table A.1:	Canada’s 2020 National Security Strategic Overview’s main trends. . . . .	25
Table B.1:	Royal Canadian Mounted Police 2020 Environmental Scan’s mega trends.. . . .	26

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# 1 Background

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The technological, legislative and political environment in which crime occurs is constantly changing in Canada and abroad. There is an increasingly sophisticated nature of criminal networks and techniques that pose a threat to Canada's national security and public safety (NSPS), and Canada's economic well-being.

At the Centre for Security Science at Defence Research and Development Canada (DRDC CSS) we are mindful that for the foreseeable future, NSPS stakeholders will continue to be challenged by: hostile state actors; cyber oriented threats; space-based and other emerging harmful technologies; violent extremism and terrorism; border integrity and security; environmental and health security; as well as a myriad of national security priorities (money laundering and terrorist financing activities, human trafficking and migrant smuggling). All of these are on the horizon at a time when overall community confidence and trust in public safety and other institutions is waning [1], [2].

On the global scene, changes in social, technological, economic, environmental and political landscapes will contribute to the emergence of innovative criminal activities and resulting uncertainty in NSPS strategic responses. Emerging trends in crime are positioned to disrupt governments, economies, and societies, should legal frameworks, policies, and law enforcement capabilities not be in place to allow for agile, informed, and timely actions.

Strategic foresight has long been used by governments to explore key drivers of change and their likely implications on strategic plans and investments. Within the Directorate General Policy and Advice at DRDC CSS, the Defence and Security Operations and Analytics team is currently undertaking a "*Future of Crime*" study. The study involves consultations with key stakeholders, a comprehensive literature review, and structured workshops to explore the global crime environment and identify key drivers of change around crime and future considerations for law enforcement/NSPS partners. This Scientific Report uses preliminary results from this study to create awareness of future uncertainties and shocks and recognize long term opportunities.

## 1.1 Current and emerging trends

Canada's 2020 National Security Strategic Overview [3] highlighted the increasingly sophisticated nature of criminal networks and techniques that pose a significant threat to Canada's NSPS, and the implications for economic stability. The Report highlighted the following main trends: Hostile Activities by State Actors; Cyber, Space and Emerging Technologies; Countering Violent Extremism and Terrorism; Border Security; Environmental and Health Security; Crime-National Security Nexus; and connecting with Canadians (see Annex A).

Furthermore, the Royal Canadian Mounted Police (RCMP) released a 2020 Environmental Scan [4] which identified six mega-trends to guide their strategies and investments: the 4th Industrial Revolution; Protecting Human Rights; Climate Change; Demographics & Society; Trust, Confidence & Transparency; National Security & Transnational & Serious Organized Crime (see Annex B).

A number of these emerging threats, and investments and capability shortfalls were also acknowledged in the Liberal Government 2021 Budget [5]. Investments are being made to enable and accelerate Canadian research and strategies on artificial intelligence, quantum computing, space-based earth observations, and more. The budget has invested in many initiatives related to climate control, specifically around floods, wildfires, disaster response, northern territories, and northern infrastructures. The issues around Canada's housing crisis, homelessness, vulnerable and marginalized people, systemic racism, childcare, and aging population were also addressed with strategic investments.

Additional investments are being made to Public Safety Canada's cyber security and cybercrime survey program, acknowledging the continued need to assess emerging cyber security and ensure that the government can respond and protect Canadians and Canadian businesses [5].

Multiple initiatives are underway to support the modernization and enhancement of North American Aerospace Defence Command (NORAD), increasing Canada's contribution to North Atlantic Treaty Organization (NATO) and acting against money laundering and terrorist financing.

The RCMP Environmental Scan and Department of National Defence (DND) National Threat assessment coupled with the 2021 Budget identifies and substantiates a number of current and emerging trends for Canada's national security and public safety environment.

## 1.2 The Future of Crime study methodology

The Future of Crime study project is novel given the collaboration and focus on Canada's NSPS partners from the onset of the project to the final products. The three main goals of this project are:

1. Foster collaboration across NSPS stakeholders to identify trends and assess their implications on NSPS.
2. Inform technology innovation pathways for NSPS strategic planners.
3. Deliver timely, relevant and credible Strategic Foresight advice and knowledge to inform NSPS partners.

The Future of Crime study focuses on the NSPS landscape that translates into recognized and emerging criminality, directly impacting critical Government of Canada (GoC) partners. The key research questions this study addresses are:

1. What are the key drivers of change that will shape the future of crime out to 2040?
2. How could those drivers impact Canada's NSPS?
3. What are possible future crime scenarios?
4. What are the likely implications of the future of crime on NSPS emerging challenges?

The initial research comprises methods and analysis that engender an understanding of past and present criminal landscapes and NSPS actors in the Canadian context. This is essential to ensure not only the identification of basic or fundamental driving forces of the most likely future, but also the drivers of change that may lead to alternative future outcomes. Both qualitative and quantitative information was collected during this stage of the research. The identified drivers of change will be used in The Future of Crime study at a later stage to formulate potential future scenarios and will be assessed against the EPISTEL (economics, political, information, social, technological, environmental, and legal) domains.

Studies of similar statues, such as the 2020 RCMP Environmental Scan [3], that focus on past, current, and future trends were examined and referenced throughout this Report, and the results and analysis from such studies will be used to supplement our own analysis and facilitate scoping the areas of interest. Our study relied heavily on qualitative research with the completion of an extensive literature review and workshops held with DRDC and RCMP partners. Our current analysis will be further supplemented by expert briefings. The four phases of the research project are:

1. Phase 1 will aim to gain a better understanding of scope and domain for the study, and the critical stakeholders.
2. Phase 2 will execute the method of research and data analysis as prescribed in the research proposal.
3. Phase 3 will conclude with the publishing of the final study.
4. Phase 4, results will be presented to NSPS partners.

## 2 Future of Crime Project literature review

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In order to understand the past and present crime environment a comprehensive literature review was carried out. Primary and secondary sources, such as government documents, organizational publications, peer-reviewed articles, and international and domestic media reports were consulted. The literature was organized by its relation to historical events in Canada's NSPS domain, emerging trends and legislative and regulatory considerations.

A descriptive and diagnostic analysis of historical disruptive events and emerging crime was carried out to identify longer horizon trends in the field of crime. This informs the predictive analysis, which is being used to identify what is likely to happen given the knowledge obtained on previous and current trends. Certain predictions can be made based on clusters and tendencies observed from the analysis of historical disruptive events, the response from public safety partners, and impacts on EPISTEL domains.

It is important to note that the goal of this study is not to predict the future of crime. Rather, the goal is to offer decision-makers key insights and information on other plausible and unknown crimes and shifts to Canada's NSPS environment. A literature review was conducted to establish a baseline to identify and authenticate assumptions about the preferred and most likely future, see Figure 1.



*Figure 1: Predictive analysis using historical and current events.*

### 2.1 Analysis of trends

The literature review informed a trends analysis on Canada's past and present criminal landscape. Six major intersecting trends that will remain impactful for the future of crime were identified throughout our literature review.

#### 2.1.1 Disruptive events can trigger other disruptive events

A clear relationship exists between the occurrence of disruptive events and the scapegoating of minority groups. For example, after the 9/11 terrorist attacks, carried out by the Islamic terrorist group al-Qaeda, Muslim Canadians were subjected to harsh discriminatory experiences. Between September 2001 and September 2002, there was a sixteen-fold increase in hate crimes experienced by Muslim individuals or in Muslim places [6]. Notably, attacks against Muslim places of worship faced a sharp increase with twelve attacks occurring between September 11 and 15 November 2001 [7]. A similar phenomenon is unfolding today in relation to the Coronavirus Disease 2019 (COVID-19) pandemic. Since the pandemic originated in China, there has been an unfair blaming of Asian people. Hate crimes towards Asian Canadians have surged amidst the pandemic, with some major cities reporting 600 and 700% increases [8]. This trend highlights the layered security challenge posed by disruptive events as NSPS actors must work to protect against threat of the event itself as well as violence perpetrated in response to the event.

### **2.1.2 Insufficient communication and collaboration among national security and public safety partners lead to intelligence shortfalls**

Since its confederation Canada has experienced disruptive events that were augmented by a breakdown in intelligence, communication and response. The first of these occurrences were the Fenian Invasions (1866–1871), as Canadian officials found themselves dealing with a barrage of information and challenged in their ability to adequately decipher between fact and fiction [9]. Furthermore, communication between security agencies was inadequate and because each department was siloed, there was an absence of effective collaboration to address the threat. While the Dominion Police were created in the aftermath of this event, the issue of insufficient collaboration would persist within Canada’s national security nexus. Intelligence gaps were also noted during the Winnipeg General Strike, Air India attack, and 9/11, as Canada’s decentralized intelligence networks failed to adequately communicate anticipated threats. While following these events, efforts were made to reform Canada’s intelligence framework and capabilities, including the creation of the Canadian Security Intelligence Service (CSIS) prior to the Air India attack, [9] there are still indications that national security agencies struggle with the enigma of collaboration. This was illustrated by a 2011 case, in which the head of the Federal Bureau of Investigation’s (FBI) counterintelligence department informed the RCMP about a spy in the Canadian Navy that was known to CSIS, but the information was kept in-house [10]. Recognition of this problem within the intelligence community has led to projects to foster greater collaboration between the RCMP and CSIS in the past decade, [10] however, the results of such efforts remain to be seen. Failure to improve communication and collaboration may lead to a greater impact from future disruptive events such as a massive cyber-attack on critical infrastructure.

### **2.1.3 Meeting recruitment ideals is an organizational obstacle**

After the Air India Flight 182 attack, a Special Commons Committee was established. It determined that CSIS’s recruitment standards were insufficient and that the service needed recruits, “who can grasp the social, cultural, political and economic contexts from which the changing threats to the security of Canada emerge” [9]. Since then, NSPS agencies in Canada have made strides towards meeting recruitment ideals with recruits representing a more diverse range of backgrounds; however, shortfalls persist. Today, the Canadian public service faces challenges in recruiting cybersecurity talent. A 2018 study revealed that up to 1/3 of Canadian tech graduates are leaving the country for positions that offer more opportunities and higher wages, most of them moving to the United States (US) [11]. The number of cybersecurity positions that need to be filled has grown by 8,000 since 2016, with the demand for cyber talent increasing at roughly 7% per year [12], [13]. Having the right people recruited and retained in Canada’s NSPS agencies will continue to be a priority that is difficult to meet, but crucial in order to be prepared for the dynamic and complex nature of future crime threats.

### **2.1.4 Challenges in defending Canada’s borders and asymmetries in Canada-US responses**

With Canada’s land border with the United States stretching 8,891 km and a coastline spanning 202,080 km, Canada has one of the largest borders to defend and survey in the world [14]. While the United States has been a longstanding ally and poses no military threats to Canada’s national security, there are still many issues and considerations. During the aforementioned Fenian Invasions, a newly confederated Canada lacked the resources to adequately defend the southern border with the US to manage the oncoming threat. As climate change rapidly makes the Arctic more accessible to investment and exploration, this concern has resurfaced due to low Canadian presence in that region economically, militarily and demographically.

Canada has also been subjected to periods of “border thickening” in response to disruptive events. The 9/11 attacks are one example as the American government viewed the Canadian border as a security threat and actively encouraged Canada to take measures to enhance security at its border in order to maintain the free movement of people and goods [15]. The COVID-19 pandemic is another case study of the asymmetrical relationship between Canada and the United States concerning the border. At the time of writing, the Canadian land border is open to vaccinated American visitors, but the American land border is still closed to vaccinated Canadian visitors [16].

Moving forward disruptive events with transnational security implications may likely trigger another “thickening of the border” and it would behoove national security partners to prepare for disruptive events to avoid being seen as a security risk to our southern neighbour.

### **2.1.5 The term “terrorism” and its political significance**

The Air India Flight 182 bombing was not initially referred to as a terrorist attack by the Canadian government, with important implications for responding to the event. The bombing was understood as a foreign tragedy with foreign victims—despite 268 of the 329 passengers on board being Canadian citizens [17]. After 9/11 and the launch of the global “war on terror” there was a discursive shift surrounding the Air India attack with the government now referring to the event as an act of terror against Canada [17]. This had the impact of resituating the victims as Canadian and prompting the launch of a commission of inquiry. However, this highlights that it was 9/11 that ushered Canada in the era of terrorism rather than the Air India tragedy. Today, defining an event as an act of terror remains contentious. Domestic terrorism and violent extremism are distinct under Canadian law. However, right-wing extremists have shown an increasing ability to mobilize and commit or incite violence for political purposes, which aligns better with the definition of terrorism. The application of this designation is subjected to political forces resulting in the perpetrators of recent right-wing extremist attacks not charged with terrorism. However, the Government of Canada has started to label far-right groups as terrorist entities, including groups such as the Atomwaffen Division, The Base and Blood and Honour [18]. This indicates a potential shift in how terrorism is conceptualized in the modern era. Nevertheless, the rate, implications and discourse surrounding this shift may hinge on the occurrence of a disruptive event.

### **2.1.6 Social unrest has implications for policing and its perceived legitimacy**

While Canada has remained a relatively moderate country throughout most of its existence, there have been a few cases of societal unrest. The Winnipeg General Strike and the October Crisis are two notable cases that had major ramifications nationwide. However, such occurrences are not only confined to the past, they are also taking place in the present. In recent years, events including the Idle No More, Wet’suwet’en, Black Lives Matter, Fairy Creek and Every Child Matters protests have demonstrated a deep discontent in the society towards traditional security institutions for their past and present actions. While none of these movements have had the impact of the Winnipeg General Strike or the October Crisis, addressing and rectifying societal concerns will be crucial in order to prevent the occurrence of another disruptive event.

### 3 Future of Crime project workshops

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Future of Crime workshops were held on 5th and 25th August 2021, with participants reflecting a wide range of expertise, such as cyber and organized crime. These two workshops were attended by participants from DRDC and the RCMP. It is anticipated that a larger workshop will be held in the future with participants from other GoC departments (ranging from public safety, climate change, and health domains), academia, industry and international partners.

The purpose of these workshops was to explore the elements and drivers of crime, and the potential criminal acts resulting from them. The information derived from the workshops aimed to provide a visual diagram [see Annex C] of the domain of crime and to assist in scoping the Future of Crime study to determine what should be included and what should not be in it by assessing areas of high uncertainty and impact.

#### 3.1 The domains of crime

The information gathered from the preliminary literature review was used to frame the future of crime into four domains: Human Security, 4th Industrial Revolution, Organized Crime, and National Security. Definitions for each domain, as well as the definition used for crime, are outlined in Table 1.

*Table 1: Domains and category definitions.*

Crime	An act that breaks the law. However, given the fluid nature of crime, it can be understood as an ongoing process in which institutional stakeholders and public opinion reach agreement on what constitutes a violation of fundamental social values. As such, a crime is not simply an act, but it is judgment as well [19], [20].
Human Security	Freedom from fear, want and indignity. Encompasses the following insecurities: political, personal, community, food, health, economic and environmental [21].
4th Industrial Revolution	The exponential changes introduced by the most recent technological leap, characterized by a blurring of cyber and physical spaces. It is a transition from the era of the third industrial revolution (computerization), occurring due to the adoption of the internet of things (IoT) and the breakthroughs in advanced digital production technologies including artificial intelligence (AI), three dimensional (3D) printing and cloud computing [22].
Organized Crimes	Any enterprise made up of three or more persons in or outside Canada whose main purposes and activities include the facilitation of one or more serious offences for the material benefits for some or all members of the group [23].
National Security	The governmental responsibility to protect its citizens' rights and freedoms. The Government of Canada considers keeping Canadians safe through counterterrorism, security screening and protecting critical infrastructure as its primary role in maintaining national security [24].

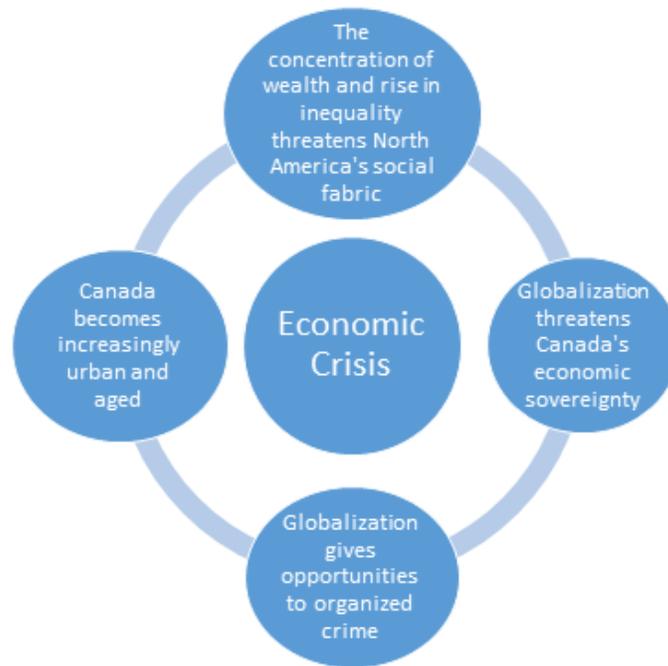
The main goal of the workshops was to engage participants in a structured and facilitated brainstorming session. The first session ran a half day with two breakout sessions, with each participant able to contribute to two topics. The second session ran a full day with each participant attending four breakout sessions, and contributing to all four topics.

## 4 Results: drivers of crime

During the discussions, participants in both workshops identified viable drivers of crime. These drivers of crime were noted as a necessary starting point in establishing and identifying criminal elements, acts and actors, now and in the future. The initial drivers, sub-drivers, and their connections—informed by the outcomes of the second brainstorming session—were displayed in a mind map (see Annex C). A follow up analysis of these findings conducted by the Defence and Security Operational and Analytics team resulted in the refinement of the drivers of crime. The domains of crime were categorized by these four final drivers: economic crisis, climate change and public health, emerging technology, and political and social instability.

### 4.1 Economic crisis

See Figure 2, Economic crisis sub-drivers.



*Figure 2: Economic crisis sub-drivers.*

#### 4.1.1 The concentration of wealth and rise in inequality threatens American's social fabric

Capitalism, which brought about privatization, and placed profits and wealth in the hands of individuals other than the crown and the aristocrats, was further accelerated during the first industrial revolution. Since the mid to late 18th century, we have seen capitalism as an economic benefit creating wealth and prosperity, innovation, and a competitive marketplace. On the other hand, capitalism has created a disproportion of wealth, with the richest 1% of the world's population owning 43% of the world's wealth that resulted in greater inequality and damage to our society, amongst other effects [25]. The world's economic shifts observed now, the changes in demographic values and beliefs, as well as the rapid advances in technology have given a rise to the idea "after capitalism" by some futurists, which postulates that capitalism will end and there will be an emergence of an alternative system. Futurist Dr. Andy Hines Associate Professor and Program Coordinator at the University of Houston has been conceptualizing the topic of "after capitalism" since 2012, and has since scanned and written articles on what the future sociological, political and economic world could look like without capitalism [26].

With recent developments in science and technology, more specifically automation, there are concerns and considerations about the role of human workers in the future workforce. During the COVID-19 pandemic, there has been a climb in businesses and governments using AI technology to perform a work task that was once carried out by a human worker. Aggregated data by Statistics Canada suggest that 10.6% of Canadian workers were at high risk of automation-related job transformation in 2016, while 29.1% were at moderate risk [27]. Although the data for 2021 is not available, we can assume that with the advances made in technology and job shifts during the pandemic, these numbers are in fact higher. This type of job transformation can lead to major sociopolitical inequalities; conversely, it can also lead to efficiencies, innovation, and can address human resource shortages. Law enforcement also faces challenges and opportunities when it comes to automation of jobs. For example, if the potential formation of an elite class drives the rest of the population to hostile protests and engagement in criminal activities, it may test the strength of Canada's social and political order and may pose a challenge to law enforcement. At the same time, while there is a pressure for an increase of RCMP's numbers, the number of applicants to the RCMP has gone down [28]. This human resource challenge can be solved by automating certain jobs within law enforcement. Furthermore, the use of AI to process increased information available during an investigation can lead to better efficiency in convictions [28].

As inequality becomes more prevalent in Canada, the ratio of marginalized Canadian citizens would increase, which would make Canada more vulnerable to violent radicalization and extremism. In oppressed communities, mainly within the large urban areas, people are more susceptible to being victimized and recruited into local gangs and terrorist groups. An increase in exploitation of the most vulnerable threatens Canada NSPS, magnifies the rate of incarceration, and strains our already overcrowded prison system. Moreover, incarceration of gang or terrorist groups' members generates an even larger threat since in the prisons, these members are likely to recruit individuals without previous affiliation as new radicals and terrorists, thus contributing to more violent attacks to Canada's NSPS [29].

If, hypothetically, an elite group in Canada rises to power, there is possibility for disregarding laws that aim to punish those who commit a "white collar crime." Although the direct results of white collar crimes typically are non-violent, the ripple-effect could have a devastating effect on our economy and become the originator of violent acts, due to possible further alienation of the rest of the population.

North America's economy is still in a period of transition, therefore, a consideration should be given to the economic threats to Canada's NSPS, and their implications.

#### **4.1.2 Globalization threatens Canada's economic sovereignty**

An emerging trend for economic downturn in Canada can be anticipated given a number of signals and predictive indicators that have been documented and referenced during our research, such as the pandemic, political instability, new world leaders, and either the collapse or acceleration of globalization.

The concern over Canada's economic sovereignty in our increasingly globalized world is sparking apprehension in policy makers and citizens alike. The COVID-19 pandemic has brought many challenges and uncertainty about the future, while new world leaders like China are increasingly asserting their influence on the international scene, driven by the country's rapid economic growth. This trend is transpiring alongside political instability in our southern neighbour and largest trading partner, the United States. Furthermore, as tensions rise between China and the West, there has been increasing pressure on American allies to take an assertive stance against China. This has ranged from large-scale decoupling with China, currently occurring in Australia, to the more balanced approaches being taken by Germany and Canada [30], [31], and [32]. China's role as both a 5G leader and "the world's factory" makes these decisions incredibly complex [33], [34]. Now more than ever, the interconnected nature of the Canadian supply chain within the greater web of global trade has been laid bare and as other world leaders come to this realization concerning their own countries, conversations have begun regarding nationalizing supply chains. Notwithstanding the direction Canada and other major economies take on this issue, the future of globalization will be fraught with challenges and difficult choices.

Beyond supply chain concerns, discussions on Canadian economic sovereignty must also take into consideration foreign direct investment. As one of the world's most stable democracies, Canada is a highly attractive country for foreign investment. However, the effects of this phenomenon have implications across every aspect of Canadian society. Prior to the 2021 federal election, Adam Vaughan, a Liberal Member of Parliament (MP) working in the ministry responsible for housing, admitted that Canada is “a very safe market for foreign investment, but not a great market for Canadians looking for choices around housing” [35]. As a result, during the campaign, every major party made commitments to address foreign investment in housing [36]. As we slowly transition to a post-pandemic world and pursue economic recovery, with real estate comprising a vital component in nationwide spending, such decisions made to assuage societal worries may involve economic concessions.

Among all these issues, climate change may pose the greatest threat to Canadian economic sovereignty in the 21st century. Rising temperatures and natural disasters will have aftershocks both domestically and internationally with the potential to cause unprecedented, forced migration and considerable damage to critical infrastructure. Countries, provinces, and cities could also experience a downgrade in their credit scores as they become increasingly risky areas of investment due to their climate vulnerabilities [37]. The World Economic Forum has already forecasted that credit scores encountering “climate induced downgrades would add \$137–205 billion to countries annual debt service payments by 2100” [37].

#### **4.1.3 Globalization gives opportunities to organized crime**

The global flow of goods has opened borders and increased the international connectivity of supply chains. These economic shifts have created opportunities for organized crime. Transnational organized crime knows no borders or rules. It is an ever-changing industry and continues to adapt to markets and create new forms of crime. It involves all serious profit-motivated criminal actions of an international nature where more than one country is involved, and undermines the economic, social, cultural, political, and civil development of societies around the world [38].

The trafficking of goods and people, propelled by globalization, is closely intertwined with organized criminal activity. The increasing vulnerability of Canada's northern border, (discussed in Section 4.3.1), presents new opportunities for trafficking, and thus for organized criminal activities. For example, advances in 3D printing and the effects of climate change will introduce economic incentives for the trafficking of certain goods by organized crime. According to some, lenience on organized crime in Canada also makes it an attractive country for mobster and cartel activity. Indeed, a former Drug Enforcement Administration (DEA) agent part of the task force tracking El Chapo noted the cartel leader's “deep infiltration” in Canada, taking advantage of Canada's tolerance [39]. In other words, Canada's expansive border, coupled by a lack of policing resources, increases our vulnerability to organized economic crime.

The intertwining of Canada's economy with the global economy also has implications for transnational organized crime. The ability for organized crime groups to infiltrate global supply chains has been witnessed during COVID-19 with the proliferation of counterfeit health goods [40]. Canada's real estate market has also proven to be ripe for the laundering of money by organized criminal groups. A confidential police study of over 1,200 luxury real estate purchases in British Columbia revealed that over \$1 billion was laundered through the real estate market in 2016 [41]. Much of this activity was linked to a Chinese-based gang profiting enormously from fentanyl-trafficking: The Big Circle Boys. A globalized economy will continue to influence the economic incentives for profit-motivated criminal activity with serious impacts on Canadian NSPS.

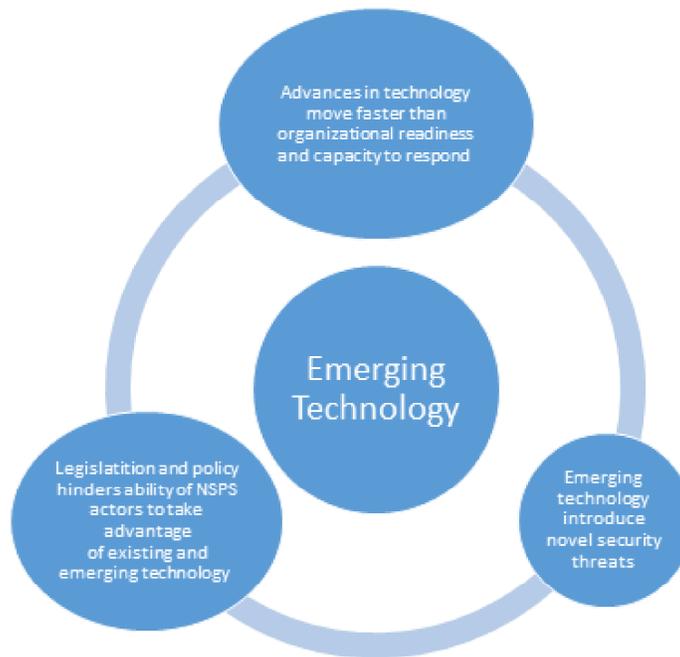
#### 4.1.4 Canada becomes increasingly urban and aged

Canada has a population that is becoming increasingly urbanized, which has important implications for crime and policing. The steady incline in Canada’s urbanization has been observed over time: in 2011 18.9% of people lived in rural areas, which is marginal compared to 1861 when 84% of people lived in rural areas. The migration of people from rural to urban areas occurred mostly from the early 1900’s to mid-1900 [42]. This historical shift, attributed to the economic downturn in the era of the Great Depression and the influx of immigrants that settled mostly in the cities, is driving forces that remain prevalent in the 21st century. The concentration of people in urban centres introduces logistical challenges for police forces including the policing of mass protests and other large gatherings, as well as the complications of mass urban evacuations in the event of a natural disaster or terrorist attack. Moreover, a dispersed population in rural regions obstructs the ability for police to respond rapidly to emergency calls [43].

Another demographic shift underway in Canada is its population aging. Due to the baby boom post World War II (WWII), the percentage of Canada’s population over the age of 65 has been steadily on the rise. In 2020, 17.5% of the population was over 65 and it is projected that this number will rise to 25% by 2060 [44]. Older adults are particularly vulnerable for certain crimes. In 2018, 1/3 of victims older than 65 were victimized by a family member [45] highlighting their risk for family violence. With COVID-19 sparking concerns on rising rates of domestic violence under lockdowns and stay-at-home orders, specific attention must be given to the victimization of older adults. Furthermore, financial scammers often specifically target older targets in fraud and confidence schemes.

#### 4.2 Emerging technology

See Figure 3, Emerging technology sub-drivers.



*Figure 3: Emerging technology sub-drivers.*

### **4.2.1 Advances in technology move faster than organizational readiness and capacity to respond**

Emerging technologies pose a series of opportunities and challenges for the Canadian government and its citizens. The dual-use nature of these technologies, acting as tools to either benefit or harm societal welfare, will continue to have a push-pull factor that will influence public discourse. While technological advances are changing the way Canadians live, work, and interact with each other, information and communications technologies (ICT) along with their related functions have become a crucial element of Canadian critical infrastructure. As such, they have also become a high-value target for nefarious actors and protecting them is paramount to maintain economic stability and sovereignty while also preserving trust in the state.

From a national security standpoint, the speed at which technology is advancing has become a deep concern as government agencies attempt to address the evolving threat landscape. Both the frequency and magnitude of cybercrime have increased exponentially in the past decade. While cybercrime has registered thousands of reported incidents in Canada for almost a decade now, only in recent years has public investment to address the issue increased exponentially. Budget 2018 has pledged \$201.3 million over 5 years and \$43 million per year after that to address cybercrime, including initiatives like funding for the Canadian Centre for Cyber Security and the creation of the National Cybercrime Coordination Unit [46]. Although, the capital available to government agencies to address cybercrime has dramatically increased, it has happened probably a decade overdue. The RCMP's National Cybercrime and Fraud Reporting System will not be operational until at least 2023, six years after the RCMP's Director General for Federal Policing Cyber Operations publicly expressed concerns regarding a resource shortfall to tackle cybercrime [47].

Unlike traditional security threats like terrorism, attribution has proven to be intrinsically difficult in the cyber realm with hostile states often operating via sponsored, yet legally unaffiliated hackers. Due to the dependence of other critical infrastructure sectors on ICT, including energy and utilities, finance, health, water and manufacturing, cyber-attacks have increasingly shown an ability to threaten key segments of the economy with deep societal implications. In 2021 alone, North America has suffered major cyber-attacks on meat plants, a water treatment plant, an oil pipeline, and hospitals to name a few. The economic toll from cyber-attacks has already far surpassed that of all terrorist attacks combined [48]. Both the opaque nature in which cyber criminals operate and the embryonic state of norms in the cyber realm create difficulties in holding offenders accountable and retaliating if necessary. The traditional rules of deterrence and compellence as understood in other fields of warfare barely apply in the field of cyberspace.

### **4.2.2 Emerging technologies introduce novel security threats**

With the rapid re-emergence of the space industry as an area of increased investment by public and private entities, conversations concerning resources, cooperation, legislation, and militarization in space have also been amplified. With Canada spending the least on space exploration among the group of eight (G8) countries in actual dollars and the second lowest per-capita [49], the country must be cautious not to lose a seat at the table in what is shaping up to be a crucial era of research and development in space. Quantum computing is another field that will have serious national security implications and is experiencing aggressive investment from states and corporations alike. The ability for quantum computers to decrypt data and facilitate espionage has long been considered to be decades away as it was believed that a quantum computer would need one billion qubits to perform that job. However, a recent report has demonstrated that such decryption capabilities could be accomplished by a quantum computer with 20 million qubits [50], making such a feat possible far sooner than previously expected.

Criminal organizations have also maximized the use of new technologies to augment their abilities, including the usage of online fraud, ransomware, malware and extortion as highly profitable enterprises. These crimes pose serious risks to every stratum of Canadian life, from hospitals losing access to patient files due to a ransomware attack to a loved one falling victim to a Canadian Revenue Agency (CRA) email scam. While such crimes will almost certainly remain pertinent threats, emerging fields such as synthetic biology and 3D printing will open new avenues to be exploited by criminals. With these technologies criminals can produce, for example, illegal gene-editing kits, synthetically produced drugs, 3D printed drugs and 3D printed firearms and firearms components.

A proactive response from federal agencies will prove crucial for both the larger national security concerns, like space exploration and quantum computing, and the more narrow threats, resulting from budding science spheres like 3D printing and synthetic biology. The incredible proliferation of cybercrime this century has demonstrated that in the domain of emerging technologies what may begin as a nascent problem can grow exponentially to become a threat that cannot be contained by our national security partners. For government actors to achieve a strategic advantage, working alongside academia and industry will be a necessary component.

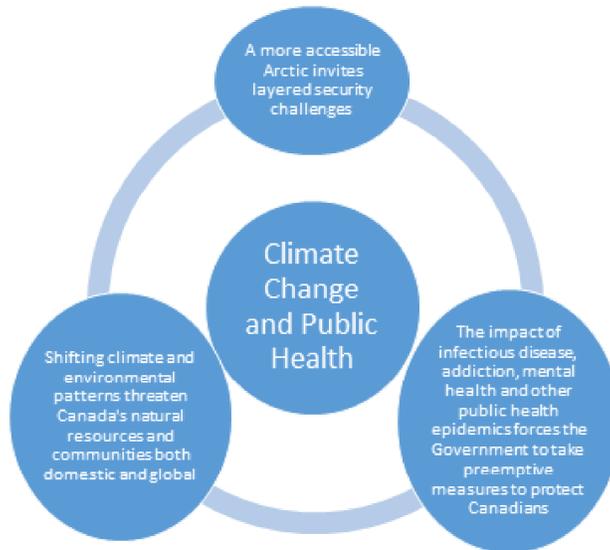
#### **4.2.3 Legislation and policy hinder the ability of national security and public safety actors to take advantage of existing and emerging technologies**

As societal values shift, legislation is often slow to follow. This is particularly true in the field of emerging technologies. While the use of the internet and social media has become ubiquitous elements of life for most Canadians, there have been increased calls to provide greater privacy online. However, this benefit to the consumer may come at the price of limiting surveillance opportunities for law enforcement. A key example of this is the RCMP's use of Clearview AI's facial recognition which was deemed to have violated the Privacy Act [51]. With the possibility of mass surveillance growing in scope, there has been societal pushback. Citizens in Toronto recently expressed deep privacy concerns regarding a project by Sidewalk Labs, a subsidiary of Alphabet, to transform 12 acres of the downtown waterfront into a sensor-laden smart city. This all comes amidst a national conversation on big-tech companies and their data collection, particularly where it is stored, how it is protected, and most importantly who it is shared with. Thus, even when technological capabilities exist to mitigate crime, shifting societal norms and legislation may encroach against it.

Beyond legislation, political will and adequate investments are crucial elements that will be required for law enforcement to take advantage of emerging technologies. Even when legislation does provide space for law enforcement to utilize newer capabilities in facial recognition, augmented reality and other technologies, insufficient funding has the potential to prevent national security partners from modernizing their departments and training programs.

### **4.3 Climate change and public health**

See Figure 4, climate change and public health sub-drivers.



*Figure 4: Climate change and public health sub-drivers.*

### 4.3.1 A more accessible Arctic invites layered security challenges

As the environment and our natural resources continue to evolve because of climate change, and global warming continues to impact our Arctic, making it more accessible, our security will be tested. As the Arctic becomes more inhabitable and thinning ice opens the Northwest Passage, nation states and tourism are rushing into Canada's Arctic region causing a greater call for government action by advocacy groups and civil society. All these challenges can be overcome by benefiting from cutting edge science and technologies.

The North American and Arctic Defence and Security Network (NAADSN), funded by the DND, addresses three core policy challenges—Defence in the Arctic, NORAD modernization and the future of North American defence, and the evolving role of major powers in global strategic competition. A few key outcomes from the Network's activities are: to increase Canadian Armed Forces (CAF) presence in the Arctic, examine and anticipate emerging threats, and assess and consider changes in the global security environment and major competitors, particularly with Russia and China [52]. Additionally, in anticipation for an increase in inhabitants and tourism in the Arctic, and potential opportunities for other nation states to cross the Canadian border through the Arctic, there is increased need for intelligence, surveillance and first responders.

Increased movement through Canada's North creates emerging threats to NSPS, with northern Indigenous communities being exposed to potential trafficking of their people, tourist related crimes, trafficking of illegal items, and poaching, thus, threatening their livelihood. Furthermore, given the threats to Canada's sovereignty in the Arctic and the present geopolitical issues in the region, the Government of Canada is being urged by the public, academia and the NSPS community to anticipate these threats and invest in science and technology that can assist CAF and first responders, so that they can efficiently and effectively respond to the emerging threats.

### **4.3.2 The impact of infectious disease, addiction, mental health and other public health epidemics forces the Government to take pre-emptive measures to protect Canadians**

Lyme disease is a serious and debilitating bacterial infection that can result from the bite of an infected tick. In 2009, there were 144 cases of Lyme disease reported in Canada, while in 2019, this number increased to 2,636. Although most cases are being reported out of the provinces of Manitoba, Nova Scotia, Ontario, and Quebec, all provinces of Canada are experiencing an increase. This moot disease is on the rise, and it is believed by many Canadian scientific and medical professionals to be underreported. As estimated by Dr. Vett Lloyd and Dr. Ralph Hawkins, only between 3 and 4% of Lyme disease cases are being documented in Canada. This situation is worrisome to the scientific and medical field professionals given the importance of early treatment for Lyme disease [53]. Lyme disease is only one of the diseases that have the potential to become a serious growing and recognizable threat to the health of Canadians.

With Canada reporting record numbers of opioid deaths, and increase in emergency calls and hospitalizations, medical communities across our nation are urging Governments at all levels to do more. This increase is fuelled by both illegal and prescription opioid use, with fentanyl and analogues contributing to the rise in opioid-related deaths. In 2017, the number of deaths from accidental overdoses for the most common categories of substances, including opioids, narcotics, and hallucinogens, and for the category that includes unspecified drugs, was reported as 2,705 in total, while in 2020, the number of deaths was 3,255. Although this increase in accidental overdoses can be partially attributed to the pandemic, nevertheless, there has been an upward trend for the past decade.

There has been a lot of progress in Canada to recognize, inform and support mental health and social well-being. Mental health is affected by a few factors in daily life, including stress resulting from work and relationships. According to the Canadian Mental Health Association, 1 in 5 people in Canada personally experience a mental health problem or illness and by age 40 and about 50% of the population will have or have had a mental illness. The RCMP has reported that in 2018 they had responded to more than 118,323 mental health calls, compared to 51,910 calls in 2017, which represents an approximate increase of 127% [54]. The number of mental health calls has been increasing steady over the past 10 years, with a significant jump noted from 2017 to 2018 [55]. The response to mental health calls by first responders, continues to be questioned by the public and there are growing concerns by Canadians to reform our police services. These concerns are also being raised by parliamentary officials and there are plans to create a new independent commission that oversees complaints made about officer conduct and services of RCMP and Canada Border Services Agency (CBSA) officers.

As a result of the COVID-19 pandemic, which is still soaring globally, pushing countries to 3rd and 4th waves of infectious outbreaks and to economic downturns, the world is at a juncture when capabilities and investments in emergency response and preparedness should be modified and improved using lessons learned from each wave. These outcomes can be then interpreted and adjusted to address the 21st century epidemics challenge Canada is facing, alongside the challenge from other infectious diseases, addiction, and mental health.

### **4.3.3 Shifting climate and environmental patterns threaten Canada's natural resources and communities both domestic and global**

Melting glaciers poses a new threat to public health and security. The research in this area is relatively nascent, but scientists who are studying glacier ice and the level of contaminated microbes and viruses in it recently found genetic codes for 33 ancient viruses when they analyzed a 15,000-year-old ice. These viruses are noted to thrive in extreme weather and some could still infect modern organisms [56]. Thus, exposure to frozen viruses from over a millennium ago affects Canada's health and security posture, and poses an immediate risk to northern Indigenous communities.

As climate control becomes a priority for governments at all levels around the world, New Zealand, Australia, and the United States, have reported to United Nations (UN) officials that they have already begun to formulate a position on how to identify climate refugees and the protection and what support they could provide to them to date. On the other hand, Canada’s policies on refugee admissibility due to climate remains vague. At present, there are no reports that commit the Government of Canada to define who constitutes climate change refugees. The World Economic Forum defines climate refugees as migration and cross-border mass movements of people caused partly by weather-related disasters [57]. In 2019, the five countries with the most people displaced by disasters were India (5,018,000), Philippines (4,094,000), Bangladesh (4,086,000), China (4,034,000), and the United States (916,000) [57]. In addition to the weather-related disasters being considered in obtaining climate refugee status, there are also other factors, such as the political and security instability of the refugees’ country of origin. With an increase in weather-related disasters, including rising sea levels, drought, forest fires, Canada’s NSPS can be expected to respond and act to migration and mass-movement of people, both refugees and within Canada’s communities, more profoundly in the near future.

Given that Canada is a country rich with natural resources, which contribute significantly to its total wealth and economic prosperity, in foresight, the global effects of climate change could bring new threats to Canada’s NSPS. For example, a foresight scenario could envision that Canada becomes a target of other nation states or non-state actors looking to loot essential natural resources, such as fresh water and forestry, or could become the victim of economic disparity if it is not able to exploit the resources it has. Furthermore, there is an accelerated need for Canada to innovate and explore other earth material and minerals Canada has to offer, such as rare earth elements (REE). REE is used in a variety of industrial applications, including electronics, clean energy, aerospace, automotive and defence, with China being the largest producer of REEs, accounting for over 60% of global annual production, followed by the United States, Burma, Australia and India [58]. According to Natural Resources Canada (NRCAN), Canada, however, has some of the largest known reserves and resources of REE [58]. If able to produce them, it can reinforce our economic sovereignty and potentially boost Canada’s international profile.

#### 4.4 Social and political instability

See Figure 5, Social and political instability sub-drivers.



*Figure 5: Social and political instability sub-drivers.*

#### **4.4.1 Online platforms present security challenges and threats to Canada’s national security and public safety**

The number and nature of social media platforms have proliferated since the creation of Facebook in 2004. Besides serving as a form of social interaction, they are also at the core of the security threat posed by the dissemination of mis/dis/mal-information [59]. While misinformation is false, it is not created to intentionally inflict harm. The distribution of misinformation on social media escalated during the COVID-19 pandemic with the circulation of false information regarding the nature of the virus, the effectiveness of preventative measures, and the safety of the vaccine. This epidemic of misinformation has posed a serious obstruction to government efforts to combat COVID-19. Disinformation is also false information, but it is posted with the intent to cause harm. The security threat presented by disinformation was illustrated in the 2016 US election, when Facebook became a platform for election interference with targeted disinformation campaigns sponsored by foreign adversaries. The threat of disinformation is heightened when considered alongside emerging AI techniques, such as deep fakes. Malinformation, on the other hand, is information that is true, but wielded to inflict harm. It encompasses complex legal challenges resulting from phenomena, such as revenge porn and cyberbullying.

Social media and other online platforms—such as search engines, apps, and websites—allow for the mass collection of personal data by the Canadian government, foreign state actors, and non-state actors such as private corporations. Companies, such as Alphabet, Facebook and Amazon, have long practiced mass data collection on consumer/client behaviour in order to customize their services. While this has been generally accepted by the public, security concerns surround the ability of foreign adversaries to use social media and apps as tools for surveillance. These concerns have been raised regarding the Russian developed app, Faceapp, and China’s viral social media platform, TikTok. However, Canadian NSPS actors looking to collect personal data face ethical and legal constraints, such as the Canadian Privacy Act, that foreign and private platforms are not restricted by.

Online platforms also provide new avenues for radicalization, gang recruitment and organized crime activity. An emerging field of research highlights how Canadian gang members and drug dealers are importing street codes into the virtual world of new media platforms [60]. Further, the online activity of extremists suggests increasing intersections between hate crime and online platforms. The online activity of nefarious actors as well as the dissemination of mis/dis/mal-information raises pressing questions on government vs. company responsibility for the regulation of cyber threats on social media.

#### **4.4.2 Surging mistrust in our state by the Canadian public and international allies**

Diminishing trust in the Canadian state by its citizens introduces security challenges [61], [62]. While Canadians historically have maintained a high degree of trust in their government and its police, this trend witnessed a long-term decline starting in 1970. A slight rebound in public trust during the 2000s has been severely compromised by the COVID-19 pandemic, with just 41% of Canadians expressing a high degree of trust in the federal government [61]. Trust in police among Canadians also diminished amid anti-racism protests sparked by the murder of George Floyd by police officers in Minneapolis [62]. Mistrust in police and their ability to protect visible minorities introduces challenges to NSPS agencies. These are particularly acute in the policing of protests. If the legitimacy of the state and its security apparatus is called into question, the latter’s ability to act swiftly and confidently to maintain public safety and order is hindered.

A lack of confidence in the Canadian state can also be found among our international allies. Canada’s loss of its United Nations Security Council Seat bid brought to light Canada’s diminishing power on the world stage. Once viewed as a trusted and reliable middle-power, Canada’s allies are increasingly wary of our reluctance to respond, contribute and invest in global security matters, and to appropriately handle sensitive information. Canada’s most recent exclusion from a strategic defence partnership between the United Kingdom (UK), US and Australia signals that our vague China strategy, and what is perceived as “free rider” behaviour in security and intelligence partnerships, are unappreciated by our allies [63]. Losing the confidence of crucial allies challenges Canada’s ability to collaborate on evolving international threats, impeding defence preparedness.

#### **4.4.3 Unresolved Indigenous issues heightens animosity, threatens Indigenous communities and deepens mistrust in the state**

Historical and emergent issues affecting Indigenous communities in Canada have gone unresolved and threaten the security of these communities. The legacy of Residential Schools continues to profoundly affect Canadian Indigenous people. Intergenerational trauma caused by Residential School experiences have been linked to higher suicide and addiction rates, as well as physical health impacts including higher rates of chronic and infectious diseases [64]. The recent identification of unmarked graves at Residential Schools across Canada highlights the need for the implementation of the Truth and Reconciliation Commission’s 94 “calls to action.”

Poor physical and mental health rates among Indigenous communities in Canada are compounded by poor living standards on most reserves. Lack of access to clean drinking water, overcrowded housing, housing in need of repair, as well as high costs of living in Northern communities impact public health within these regions. These forces, coupled by a lack of employment opportunities within reserves, drive youth outmigration. Foster care practices, now under reform, are another mechanism by which youth are removed from their communities. Processes that disconnect indigenous youth from their communities contribute to the youth seeking a sense of belonging and becomes a driving force in their involvement in street gangs [65].

The socioeconomic factors that have been noted, alongside systematic issues within policing practices, result in heightened interaction between police and Indigenous individuals. Indigenous peoples remained overrepresented in correctional institutions with Indigenous adults accounting for 31% of admissions in provincial/territorial custody and 29% of those admitted to federal custody, despite only representing 4.5% of the Canadian adult population [66]. Indigenous individuals, especially women, are also disproportionately represented as victims of crime. This was evident in the final report published by the National Inquiry into Missing and Murdered Indigenous Women and Girls which outlined 231 “calls to justice” [67].

Inadequate government responses to this array of issues, and its role in new issues such as those that sparked the Wet’suwet’en solidarity protests, can serve to deepen mistrust in the state.

#### **4.4.4 Growing ideological extremism drives division within Canada’s citizens and communities**

Populism, the political ideology that looks to empower “the people” in the face of powerful elite, has been on the rise globally. This phenomenon has coincided with growing polarization in North America as right-left and rural-urban divides become more pronounced. The forces of populism and polarization were encapsulated in the 2016 election of US President Donald Trump and have only been exacerbated by the pandemic. These effects have been felt in Canada as well. In the most recent federal election, the People’s Party of Canada—a party that propagates populist rhetoric—captured over 5% of the vote, a significant jump from the 1.6% of national votes it secured in the 2019 election [68].

Already divided, Canada’s society is at risk of further social fractions due to ideological extremism. Hate crimes, ideologically motivated violence, and domestic terrorism are related to numerous complex factors. COVID-19 has demonstrated the ability of disruptive events to influence these factors with growing online right-wing extremism, surging reports of Anti-Asian hate crimes, and extremists capitalizing on the pandemic to raise money, encourage violence and attract followers [8], [69], and [70]. Research conducted on the impact of the “refugee crisis” in Germany found that the influx of immigration served as a trigger for hate crimes [71]. This relationship has important implications as political instability abroad and the effects of climate change could lead to higher rates of refugees coming to Canada. The violence perpetrated by right-wing extremists also has legal implications as such crimes are largely tried under hate speech legislation rather than being designated as terrorism offences, which impacts significantly the degree of punishment [72]. To combat further divisions within the Canadian public, it is pertinent that the complex determinants of extremism are addressed.

The political and social divisions in Canada are further exposed by the rise and proliferation of social movements. Mass mobilization surrounding social and political ideas have remained peaceful in Canada, with the majority of activism occurring online. With the economic recession expected to follow COVID-19 pandemic, and the resulting deepening of inequalities, it is likely that social and political movements will become more widespread [73]. It is even possible that mass movements—and fringe political groups—could revert to violent extremism.

#### **4.4.5 Shifts in the court of public opinion influence Canadian legislation**

The evolution of laws in Canada largely reflects the evolution of social values. The Canadian legal system emulates evidence-based decision-making in its creation and utilization of legislation; however, it is not immune to the court of public opinion. This relationship between the legal courts and public opinion reflects the definition of a crime as an act that the public and institutional stakeholders share sufficient agreement on its violation of values [20]. The influence of shifting values on legislation can be witnessed in the evolution of several Canadian laws, including laws around sex work, abortion, the legalization of marijuana, and environmental laws.

The law is rarely a proactive tool, and thus, legislation surrounding novel crimes is adopted slowly. Instead, old laws are applied to new crimes, or new laws are created in the wake of a disruptive event. Lastly, it is tempting to assume that progress is linear, however, other democratic nations have witnessed the repeal of progressive laws. For example, Texas recently passed restrictive abortion legislation that bans abortions after 6 weeks of pregnancy [74]. There are also contemporary Canadian political parties that advocate for the revisiting of firearms, abortion, and environmental legislation. Increasingly polarized views on these legal topics introduce uncertainty on how laws will evolve in Canada.

## 5 Conclusion

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The main purpose of the Future of Crime study is to provide NSPS agencies with a novel perspective on changes in the future crime environment, and alternative future scenarios. In turn, it aims to contribute towards strategic investment planning and priority setting in both the national security and public safety domains. The goal of this Report is to identify basic or fundamental driving forces that suggest the most likely future and potential drivers of change that may lead to alternative future outcomes.

The information presented in this Report has alluded to political and social considerations including the emerging climate and public health crises, alongside economic and technological advancements and threats. Consecutively, it provides insight into the changing nature of crime. All of the drivers and subdrivers of crime mentioned in this Report operate at a transnational scale, heightening the scope of the threat. As these drivers continue to develop in real time, the ability of NSPS agencies to respond will be hampered if there is no consideration given for the emerging threats, or no action being taken. The information provided in this Report allows for future considerations on not only strategic and capability investments, but also on mandates, communication networks with other government departments and a reconceptualization regarding the nature of public safety. While the research for the Future of Crime study identified plausible drivers of future crime, the continuation of this work must address the future of policing.

NSPS agencies in Canada are already fraught with challenges. In addition to trying to keep pace with traditional crimes, including sex trafficking and theft, dealing with resource shortfalls and recruitment and retention issues, there are numerous other barriers that complicate day-to-day operations. Regardless of these challenges, the danger of the emerging threats outlined in this Report, poses a degree of pertinence that cannot be ignored. History has shown us that disruptive events that we are not adequately prepared for can cause aftershocks within society and weaken public trust in the security apparatus. Foresight provides a framework to avoid such outcomes and contributes towards a preferred future. It is important to appreciate that a range of futures are plausible, but by preparing for a range of scenarios, strategic and operational shocks can be avoided.

For foresight to contribute to increased preparedness and capacity building within NSPS agencies and policing, it has to become prioritized and this can only be accomplished through operationalization. Foresight can become operationalized by incorporating it into the decision-making of every NSPS agency and major police department. This does not mean simply checking off a box on foresight at the end of a project, rather, it calls for involving foresight within strategic planning and policy at every step of the process. It also involves the understanding that foresight is an iterative procedure, constantly scanning and analysing changes on the horizon of the threat landscape allowing stakeholders to retain a strategic advantage—as long as the appropriate adjustments are continually made. The Future of Crime study aims to be the beginning of this process, but it remains essential that foresight work does not end alongside the conclusion of this project.

## References

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- [1] Graves, F., (2021). “Polarization, Populism, and the Pandemic: Implications for Canadian Outlook on the World.” In *Political Turmoil in a Tumultuous World*, ed. Cham: Palgrave Macmillan, pp. 165–188.
- [2] Berthiaume, L., (2020). “Trust in Canadian police drops amid George Floyd protests: poll.” *Global News*, <https://globalnews.ca/news/7070091/trust-in-police-poll/>, (Accessed date: 16 June 2020).
- [3] Department of National Defence, (2020). National Security Strategic Overview. Government of Canada.
- [4] Royal Canadian Mounted Police, (2020). Environmental Scan.
- [5] Department of Finance Canada, (2021). Federal Budget 2021. Government of Canada. <https://www.budget.gc.ca/2021/home-accueil-en.html>, (Accessed date: 16 September 2021).
- [6] Nagra, B., (2018). “Securitized Citizens: Canadian Muslims’ Experiences of Race Relations and Identity Formation Post-9/11.” Toronto: University of Toronto Press.
- [7] Helly, Denise. “Are Muslims Discriminated Against in Canada Since September 2001?” *Canadian ethnic studies* 36, no 1 (2004): pp. 24–47.
- [8] Liu, S., (2021). “Reports of Anti-Asian hate crimes are surging in Canada during the COVID-19 pandemic.” *CTV*, <https://www.ctvnews.ca/canada/reports-of-anti-asian-hate-crimes-are-surging-incanada-during-the-covid-19-pandemic-1.5351481>, (Accessed date: 17 March 2021).
- [9] Whitaker, R., Kealey, G. S., and Parnaby, A., (2012). “Secret service: Political policing in Canada: From the Fenians to Fortress America.” Toronto: University of Toronto Press.
- [10] Bronskill, J., (2021). “RCMP, CSIS Modelling New Collaboration Efforts on Lessons Learned from Britain.” *Global News*, <https://globalnews.ca/news/7695582/csis-rcmp-collaboration/>, (Accessed date: 14 March 2021).
- [11] Spicer, Z., et al. (2018). “Reversing the Brain Drain: Where is Canadian STEM Talent Going?” Brock University, [Online]. <https://brocku.ca/social-sciences/political-science/wpcontent/uploads/sites/153/Reversing-the-Brain-Drain.pdf>, (Accessed date: 16 September 2021).
- [12] Johnson, T., (2019). “New Report Introduces Innovative Framework to Grow Canada’s Cyber Talent Supply.” *Deloitte Canada*, <https://www2.deloitte.com/ca/en/pages/pressreleases/articles/report-introduces-framework-to-grow-canadas-cyber-talent-supply.html>, (Accessed date: 11 March 2019).
- [13] Rashotte, R., (2021). “The Critical Shortage of Cybersecurity Expertise.” *Policy Options*, <https://policyoptions.irpp.org/magazines/july-2019/the-critical-shortage-of-cybersecurityexpertise/>, (Accessed date: 28 March 2021).
- [14] Central Intelligence Agency, (2021). “The World Factbook.” Central Intelligence Agency. <https://www.cia.gov/the-world-factbook/countries/canada/>, (Accessed date: 28 September 2021).
- [15] Central Intelligence Agency, (2021). “The World Factbook.” Central Intelligence Agency. <https://www.cia.gov/the-world-factbook/countries/canada/>, (Accessed date: 28 September 2021).

- [16] Aziz, S., (2021). “Canadian Snowbirds Concerned as U.S. Land Border Closure Drags On.” *Global News*, <https://globalnews.ca/news/8206851/canada-snowbirds-covid-us-border-measures/>, (Accessed date: 27 September 2021).
- [17] Seshia, M., (2012). “From Foreign to Canadian: The Case of Air India and the Denial of Racism.” *TOPIA: Canadian Journal of Cultural Studies*, vol. 27, pp. 215–231. <https://doi.org/10.3138/topia.27.215>.
- [18] Public Safety Canada, (2019). “Currently Listed Entities.” Government of Canada. <https://www.publicsafety.gc.ca/cnt/ntnl-scrtr/cntr-trrrsm/lstd-ntts/crrnt-lstd-ntts-en.aspx>, (Accessed date: 27 September 2021).
- [19] Law Commission of Canada, (2004). “What is a Crime?: Defining Criminal Conduct in Contemporary Society.” Vancouver: UBC Press.
- [20] Sandberg, S. and Fondevila, G., (2020). “Corona crimes: How pandemic narratives change criminal landscapes.” *Theoretical Criminology*, doi:10.1177/1362480620981637.
- [21] United Nations, (2016). “Human Security Handbook.”
- [22] Schwab, K., (2016). “The Fourth Industrial Revolution: what it means, how to respond.” *World Economic Forum*. <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>, (Accessed date: 28 September 2021).
- [23] Government of Canada, “*Criminal Code*.” RSC 1985, c. C-46.
- [24] Public Safety Canada, (2021). “National Security.” *Government of Canada*. <https://www.publicsafety.gc.ca/cnt/ntnl-scrtr/index-en.aspx>, (Accessed date: 28 September 2021).
- [25] Credit Suisse, (2020). “Global Wealth Report 2020.”
- [26] Hines, A. (2022). “After Capitalism.” *Hinesight...for Foresight*. [Online blog]. <https://www.andyhinesight.com/tag/after-capitalism/>, (Accessed date: 13 June 2022).
- [27] Frenette, M. and Frank, K., (2020). “Automation and Job Transformation in Canada: Who’s at Risk?” *Statistics Canada*. <https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2020011-eng.htm>, (Accessed date: 16 September 2021).
- [28] Royal Canadian Mounted Police, (2020). “Integrated Assessment of Regular Member Recruitment.” Government of Canada. <https://www.rcmp-grc.gc.ca/en/integrated-assessment-regular-memberrecruitment>.
- [29] Wilner, A., (2010). “From Rehabilitation to Recruitment.” The Macdonald-Laurier Institute for Public Policy.
- [30] Westcott, B., (2021). “China’s “Political Pressure” on Australian Economy Isn’t Working, Treasurer Says.” *CNN*, <https://www.cnn.com/2021/09/06/economy/australia-china-economytrade-intl-hnk/index.html>, (Accessed date: 6 September 2021).
- [31] Casey, R. (2021). “In Germany, Debate on Trade with China Grows as Merkel Nears Exit.” *Al Jazeera*, <https://www.aljazeera.com/news/2021/9/17/in-germany-debate-on-trade-with-chinagrows-as-merkel-nears-exit>, (Accessed date: 17 September 2021).

- [32] National Post View, (2021). “NP View: Canada Is Soft on China and the U.S. Knows It.” *National Post*, <https://nationalpost.com/opinion/np-view-canada-is-soft-on-china-and-the-u-s-knowsit>, (Accessed date: 26 September 2021).
- [33] The Economist, (2020). “China Is the World’s Factory, More than Ever.” *The Economist Newspaper*, <https://www.economist.com/finance-and-economics/2020/06/23/china-is-the-worldsfactory-more-than-ever>, (Accessed date: 23 June 2020).
- [34] Strumpf, D., (2020). “U.S. vs. China in 5G: The Battle Isn’t Even Close.” *The Wall Street Journal*, <https://www.wsj.com/articles/u-s-vs-china-in-5g-the-battle-isnt-even-close-11604959200>, (Accessed date: 9 November 2020).
- [35] Todd, D., (2021). “Douglas Todd: Canadian Real-Estate Market Better for Foreign Investors than Locals, Admits Housing Secretary.” *Vancouver Sun*, <https://vancouver.sun.com/opinion/columnists/douglas-todd-canadian-real-estate-market-better-for-foreigninvestors-than-locals-admits-housing-secretary>, (Accessed date: 15 April 2021).
- [36] Hughes, S., (2021). “How the Three Top Federal Parties Plan to Tackle Canada’s Housing Crisis.” *Financial Post*, <https://financialpost.com/news/election-2021/how-the-three-federalparties-plan-to-tackle-canadas-housing-crisis>, (Accessed date: 9 September 2021).
- [37] Reuters Staff, (2021). “Study: Global Warming Could Cut 63 Countries’ Credit Ratings.” *World Economic Forum*, <https://www.weforum.org/agenda/2021/04/global-warming-countries-credit-ratingseconomics/>, (Accessed date: 6 April 2021).
- [38] United Nations Office on Drugs and Crime, (2021). “Transnational organized crime: the globalized illegal economy.” <https://www.unodc.org/toc/en/crimes/organized-crime.html>, (Accessed date: 16 September 2021).
- [39] Russell, A., (2019). “El Chapo’s Sinaloa Cartel Made Nearly \$3M a Day in Canada, Former DEA Agent Claims.” *Global News*, <https://globalnews.ca/news/4829936/el-chapo-sinaloa-canada-deaagent-claims/>, (Accessed date: 9 January 2019).
- [40] INTERPOL, (2020). “Global operation sees a rise in fake medical products related to COVID-19.” *INTERPOL*, <https://www.interpol.int/en/News-and-Events/News/2020/Global-operationsees-a-rise-in-fake-medical-products-related-to-COVID-19>, (Accessed date: 19 March 2020).
- [41] Cooper, S., Bell, S., and Russell, A., (2018). “Fentanyl: Making a Killing.” *Global News*, <https://globalnews.ca/news/4658157/fentanyl-vancouver-real-estate-billion-moneylaunders-police-study/>, (Accessed date: 26 November 2018).
- [42] Martel, L., (2018). “Canada goes urban.” *Statistics Canada*. <https://www150.statcan.gc.ca/n1/pub/11-630-x/11-630-x2015004-eng.htm>, (Accessed date: 28 September 2021).
- [43] Nelson, J., (2020). “High rural crime rates and slow emergency response times leave Alberta residents feeling vulnerable.” *The Globe and Mail*, <https://www.theglobeandmail.com/canada/alberta/article-where-s-a-cop-when-you-need-one/>, (Accessed date: 24 January 2020).
- [44] Employment and Social Development Canada, (2014). “Action for Seniors report.” *Government of Canada*. <https://www.canada.ca/en/employment-social-development/programs/seniors-action-report.html>, (Accessed date: 28 September 2021).

- [45] Savage, L., (2019). “Section 3: Police-reported family violence against seniors in Canada, 2018.” *Statistics Canada*. <https://www150.statcan.gc.ca/n1/pub/85-002-x/2019001/article/00018/03-eng.htm>, (Accessed date: 28 September 2021).
- [46] Public Safety Canada, (2018). National Cyber Security Strategy: Canada’s Vision for Security and Prosperity in the Digital Age.
- [47] Solomon, H., (2021). “New RCMP Cyber Co-ordination Unit Won’t Be Fully Operational until 2023.” *IT World Canada*, <https://www.itworldcanada.com/article/new-rcmp-cyber-co-ordinationunit-wont-be-fully-operational-until-2023/416561>, (Accessed date: 29 May 2021).
- [48] Panetta, A., (2021). “The U.S. Now Likens Cyberattacks to Terrorism. Here’s What That Could Mean.” *CBC News*, <https://www.cbc.ca/news/world/us-cyberattacks-ransomwear-computershackers-1.6054114>, (Accessed date: 5 June 2021).
- [49] Senger, E., (2018). “Is Canada’s space program slipping out of orbit?” *Maclean’s*, <https://www.macleans.ca/society/science/is-canadas-space-program-slipping-out-of-orbit/>, (Accessed date: 10 December 2018).
- [50] Emerging Technology from arXIV, (2019). “How a quantum computer could break 2048-bit RSA encryption in 8 hours.” *MIT Technology Review*, <https://www.technologyreview.com/2019/05/30/65724/how-a-quantum-computer-could-break-2048-bitrsa-encryption-in-8-hours/>, (Accessed date: 30 May 2019).
- [51] Office of the Privacy Commissioner of Canada, (2021). “News Release: RCMP’s Use of Clearview AI’s Facial Recognition Technology Violated Privacy Act, Investigation Concludes.” *Government of Canada*, [https://www.priv.gc.ca/en/opc-news/news-and-announcements/2021/nr-c\\_210610/](https://www.priv.gc.ca/en/opc-news/news-and-announcements/2021/nr-c_210610/), (Accessed date: 10 June 2021).
- [52] North American and Arctic Defence and Security Network, (2021). “About Us.” <https://www.naadsn.ca/about-us/>, (Accessed date: 24 May 2021).
- [53] Lloyd, V. K., and Hawkins, R. G., (2018). “Under-detection of Lyme disease in Canada. In Healthcare.” *Multidisciplinary Digital Publishing Institute*, vol. 6, no. 4, pp. 125.
- [54] Tunney, C., (2020). “RCMP says members have responded to more than 88,000 mental health calls this year.” *CBC News*, <https://www.cbc.ca/news/politics/rcmp-mental-health-calls-1.5783529>, (Accessed date: 30 October 2020).
- [55] Royal Canadian Mounted Police, (2020). “RCMP Occurrence Report.” *Government of Canada*. <https://www.rcmp-grc.gc.ca/transparenc/police-info-policiers/calls-appels/occurrence-incident-eng.htm>, (Accessed date: 8 March 2022).
- [56] Bressan, D., (2021). “Glacier Ice Reveals Previously Unknown Viruses.” *Forbes*, <https://www.forbes.com/sites/davidbressan/2021/07/21/melting-glaciers-reveal-previously-unknownviruses/?sh=1df3945b1604>, (Accessed date: 21 June 2021).
- [57] Ida, T., (2021). “Climate refugees—the world’s forgotten victims.” *World Economic Forum*, <https://www.weforum.org/agenda/2021/06/climate-refugees-the-world-s-forgotten-victims/>, (Accessed date: 18 June 2021).

- [58] Natural Resources Canada, (2021). “Rare earth elements facts.” Government of Canada. <https://www.nrcan.gc.ca/our-natural-resources/minerals-mining/minerals-metals-facts/rare-earth-elementsfacts/20522>, (Accessed date: 24 May 2022).
- [59] Kujawski, M., (2019). “Misinformation vs. Disinformation vs. Mal-information.” [Online blog]. <https://medium.com/@mikekujawski/misinformation-vs-disinformation-vs-mal-informationa2b741410736>, (Accessed date: 28 September 2021).
- [60] Urbanik, M. and Haggerty, K. D., (2018). “It’s Dangerous”: The Online World of Drug Dealers, Rappers and the Street Code.” *The British Journal of Criminology*, vol. 58, no. 6, pp. 1343–1360. <https://doi.org/10.1093/bjc/azx083>.
- [61] Graves, F., (2021). “Polarization, Populism, and the Pandemic: Implications for Canadian Outlook on the World.” In *Political Turmoil in a Tumultuous World*, ed. Cham: Palgrave Macmillan, pp. 165–188.
- [62] Berthiaume, L., (2020). “Trust in Canadian police drops amid George Floyd protests: poll.” *Global News*, <https://globalnews.ca/news/7070091/trust-in-police-poll/>, (Accessed date: 16 June 2020).
- [63] Carvin, S. and Juneau, T., (2021) “Canada’s exclusion from ‘Three Eyes’ only confirms what was already the case.” *The Globe and Mail*, <https://www.theglobeandmail.com/opinion/articlecanadas-exclusion-from-three-eyes-only-confirms-what-was-already-the/>, (Accessed date: 17 September 2021).
- [64] Wilk, P., Maltby, A., and Cooke, M., (2017). “Residential schools and the effects on Indigenous health and well-being in Canada—a scoping review.” *Public health reviews* vol. 38, no. 1, pp. 1–23.
- [65] Sinclair, R., and Grekul, J., (2012). Aboriginal Youth Gangs in Canada:(de) constructing an epidemic. First Peoples Child and Family Review: An Interdisciplinary Journal Honouring the Voices, Perspectives, and Knowledges of First Peoples through Research, Critical Analyses, Stories, Standpoints and Media Reviews, vol. 7 no. 1, pp. 8–28.
- [66] Malakieh, J., (2020). “Adult and youth correctional statistics in Canada, 2018/2019.” *Government of Canada*. <https://www150.statcan.gc.ca/n1/pub/85-002-x/2020001/article/00016-eng.htm>, (Accessed date: 8 March 2021).
- [67] National Inquiry into Murdered and Missing Indigenous Women and Girls. *Reclaiming Power and Place*. June 2019. Available at: <https://www.mmiwg-ffada.ca/final-report/>, (Accessed date: 16 September 2021).
- [68] Hristova, B., (2021). “Rise in People’s Party support ‘very concerning’ even if its future is uncertain, expert says.” *CBC News*, <https://www.cbc.ca/news/canada/hamilton/ppc-results-1.6183876>, (Accessed date: 8 March 2022).
- [69] Thompson, E., (2021). “Canadian right-wing extremism increased online during the pandemic, report says.” *CBC*, <https://www.cbc.ca/news/politics/right-wing-extremism-report-1.6108958>, (Accessed date: 20 July 2021).
- [70] Bell, S., (2020). “Neo-Nazis, extremists capitalizing on COVID-19, declassified CSIS documents say.” *Global News*, <https://globalnews.ca/news/7501783/neo-nazis-extremists-capitalizingcoronavirus-covid-19-csis>, (Accessed date: 6 December 2020).
- [71] Piatkowska, S., Hövermann, J. A., and Yang, T., (2020). “Immigration Influx as a Trigger for Right-Wing Crime: A Temporal Analysis of Hate Crimes in Germany in the Light of the ‘Refugee Crisis’.” *The British Journal of Criminology* vol. 60, no. 3, pp. 620–641.

- [72] Nesbitt, M., (2021). “Violent crime, hate speech or terrorism? How Canada views and prosecutes far-right extremism (2001–2019).” *Common Law World Review* vol. 50, no. 1, pp. 38–56.
- [73] Pinckney, J. and Hidalgo, E. D., (2021). “2021 Will See More Global Protest: Can It Remain Peaceful?” *United States Institute of Peace*, <https://www.usip.org/publications/2021/01/2021-willsee-more-global-protest-can-it-remain-peaceful>, (Accessed date: 10 December 2021).
- [74] Reuters, T., (2021). “Texas passes one of the most restrictive abortion laws in the U.S.” *CBC News*. <https://www.cbc.ca/news/world/texas-abortion-law-1.6033453>, (Accessed date: 8 March 2022).

## Annex A Canada's 2020 National Security Strategic Overview's main trends

*Table A.1: Canada's 2020 National Security Strategic Overview's main trends.*

<p><b>Hostile Activities by State Actors</b></p> <ul style="list-style-type: none"> <li>• Foreign Interference and Espionage</li> <li>• Economic-Based Threats</li> </ul> <p><b>Cyber, Space and Emerging Technologies</b></p> <ul style="list-style-type: none"> <li>• Cyber Security</li> <li>• Artificial Intelligence (AI)</li> <li>• Encryption</li> <li>• Quantum</li> <li>• Distributed Ledger Technologies and Digital Currencies</li> <li>• Remotely-Piloted Systems</li> </ul> <p><b>Countering Violent Extremism and Terrorism (CVET)</b></p> <ul style="list-style-type: none"> <li>• Ideologically Motivated Violent Extremism (IMVE)</li> <li>• Religiously Motivated Violent Extremism (RMVE)</li> <li>• Politically Motivated Violent Extremism (PMVE)</li> <li>• Counter-Terrorism</li> </ul>	<p><b>Border Security</b></p> <ul style="list-style-type: none"> <li>• Biometrics</li> <li>• Securing the Traveller Regime</li> </ul> <p><b>Environmental and Health Security</b></p> <ul style="list-style-type: none"> <li>• Climate Change</li> <li>• Natural Disasters</li> <li>• Public Safety and Security Prevention and Preparedness</li> </ul> <p><b>International Partnerships</b></p> <p><b>Crime – National Security Nexus</b></p> <ul style="list-style-type: none"> <li>• Money Laundering and Terrorist Financing</li> <li>• Human Trafficking</li> <li>• Migrant Smuggling</li> </ul> <p><b>Connecting with Canadians</b></p> <ul style="list-style-type: none"> <li>• Government Review, Transparency and Accountability</li> <li>• Diversity and Inclusion</li> </ul>
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## Annex B ROYAL Canadian Mounted Police 2020 Environmental Scan’s mega trends

*Table B.1: Royal Canadian Mounted Police 2020 Environmental Scan’s mega trends.*

<p><b><u>The 4th Industrial Revolution</u></b>                  Innovation is driving emerging technology at unprecedented rates with individuals gaining ever-expanding access to these advancements. Technology is becoming increasingly connected, merging the digital and physical realms in new ways that uniquely enable both law enforcement and criminals.</p>	<p><b><u>Protecting Human Rights</u></b>                  Human rights issues have come under increasing public attention and have been the subject of highly visible legal proceedings. In response to this societal focus, the Government of Canada and its police services strive to protect the most vulnerable from harassment, violence and infringements on their human rights.</p>	<p><b><u>Climate Change</u></b>                  Climate change has grown to be one of the most significant threats to environmental sustainability. Public awareness of and involvement in this crisis has manifested in protests around the world, while parts of the globe navigate environmental disasters, record heat waves, melting ice caps, flooding and extensive forest fires.</p>
<p><b><u>Demographics and Society</u></b>                  An aging demographic and a mobile global immigrant population continue to change the social structures of Canadian society. With five generations currently comprising the Canadian workforce, the requirements and demands of the public have never been more diverse.</p>	<p><b><u>Trust, Confidence and Transparency</u></b>                  Political pressures, social change and a more vigilant and involved public have impacted the trust that Canadians have for their police forces and all levels of government. Changing perceptions have created the requirement for increased transparency and openness on the part of our public institutions.</p>	<p><b><u>National Security and Transnational and Serious Organized Crime</u></b>                  Ideologically motivated extremism, foreign actor interference and the increasingly transnational nature of organized crime continue to influence Canada’s national security posture. Groups whose interests are harmful to Canada and Canadians represent a complex and ever-evolving threat.</p>

# Annex C Drivers of Crime: A Mindmap informed by Brainstorming Session 2

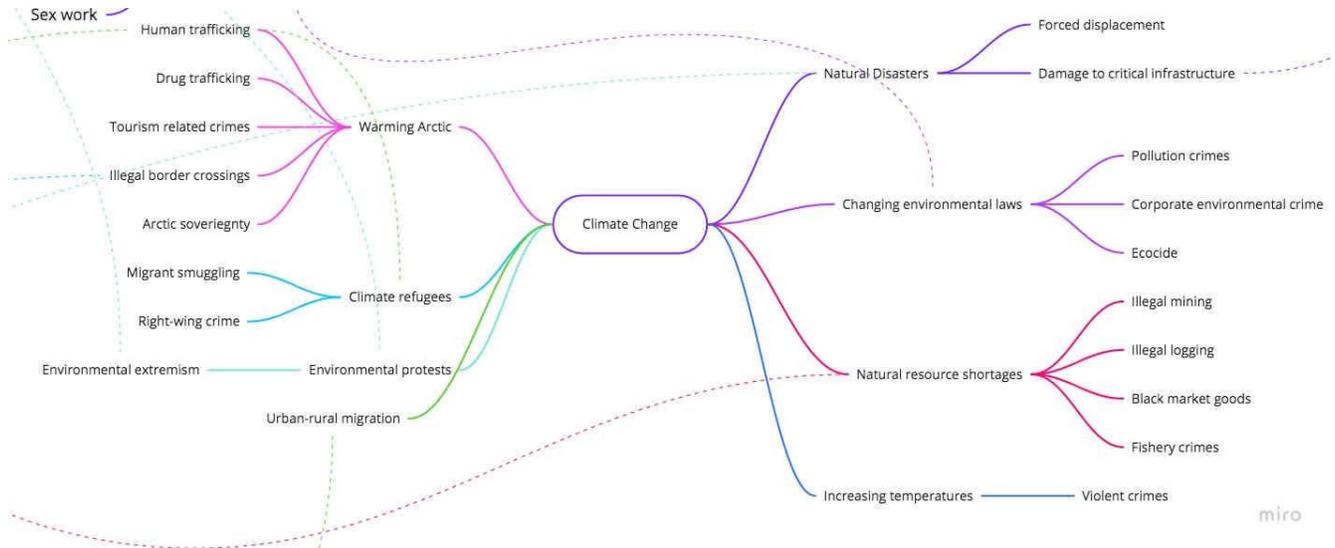


Figure C.1: Drivers of Crime: A Mindmap informed by Brainstorming Session 2 (1 of 4).

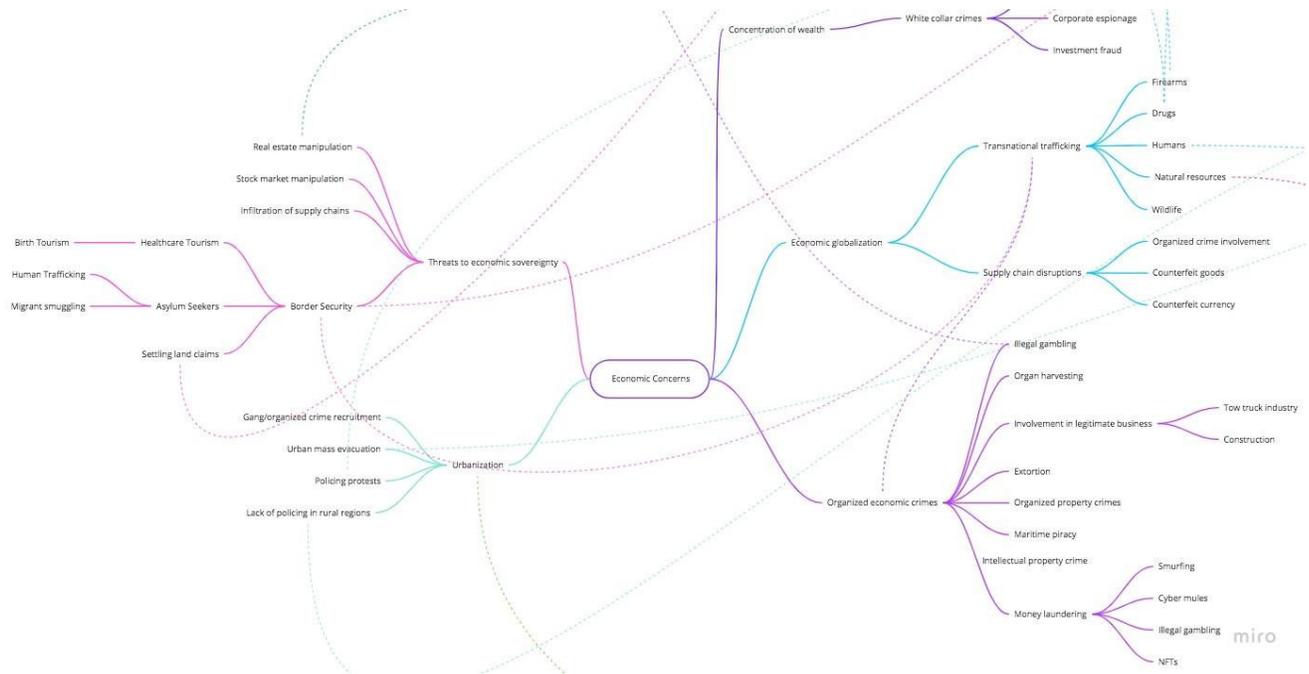


Figure C.2: Drivers of Crime: A Mindmap Informed by Brainstorming Session 2 (2 of 4).



Figure C.3: Drivers of Crime: A Mindmap Informed by Brainstorming Session 2 (3 of 4).

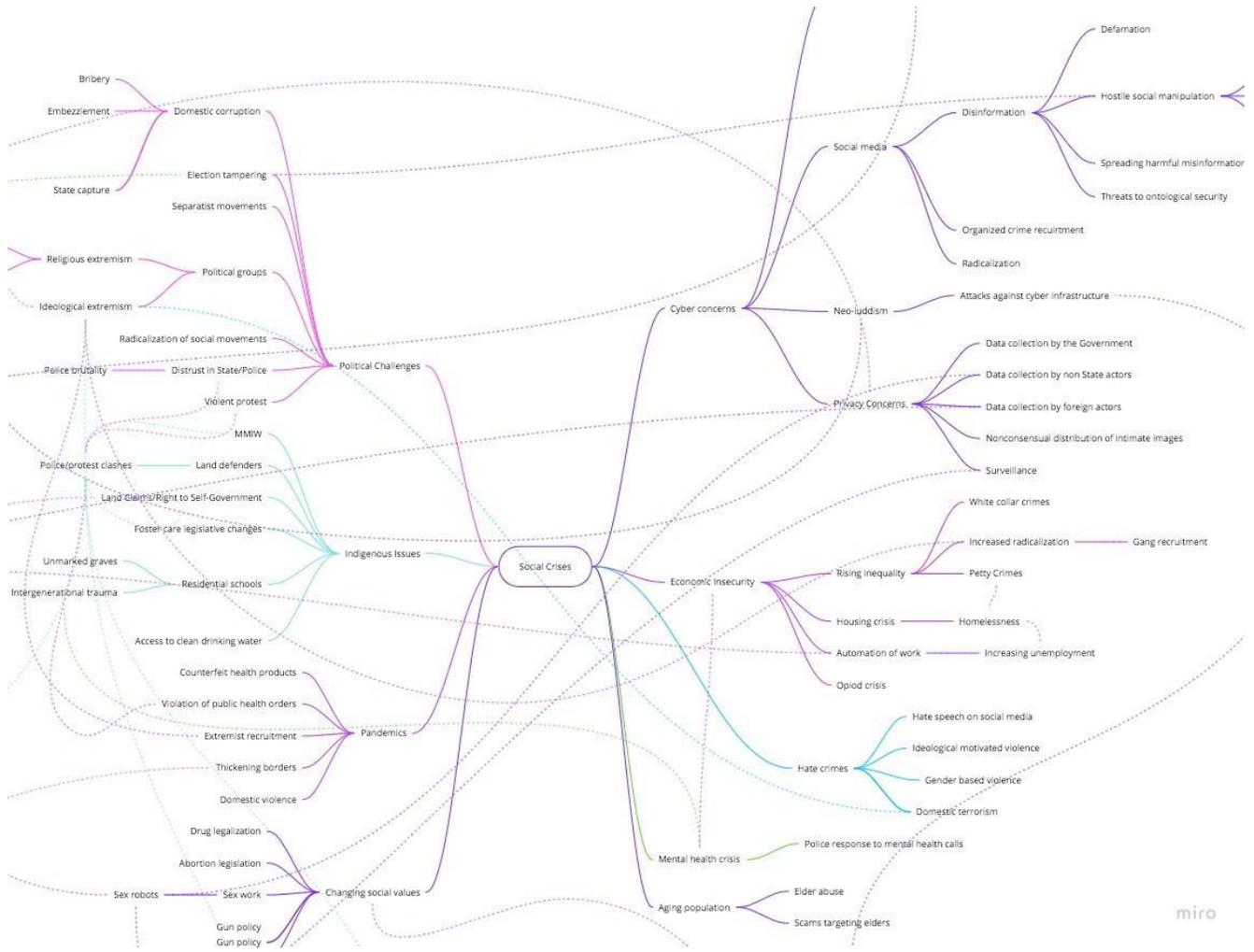


Figure C.4: Drivers of Crime: A Mindmap Informed by Brainstorming Session 2 (4 of 4).

## List of symbols/abbreviations/acronyms/initialisms

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AI	artificial intelligence
3D	three dimensional
CAF	Canadian Armed Forces
CBSA	Canada Border Services Agency
COVID-19	Coronavirus Disease 2019
CRA	Canadian Revenue Agency
CSIS	Canadian Security Intelligence Service
CSS	Centre for Security Science
CVET	Countering Violent Extremism and Terrorism
DEA	Drug Enforcement Administration
DND	Department of National Defence
DRDC	Defence Research and Development Canada
EPISTEL	economics, political, information, social, technological, environmental, and legal
FBI	Federal Bureau of Investigation
G8	group of eight
GoC	Government of Canada
ICT	information communications technologies
IMVE	ideologically motivated violent extremism
IOT	internet of things
MP	Member of Parliament
NAADSN	North American and Arctic Defence and Security Network
NATO	North Atlantic Treaty Organization
NORAD	North American Aerospace Defence Command
NRCAN	Natural Resources Canada
NSPS	National Security and Public Safety
PMVE	politically motivated violent extremism
RCMP	Royal Canadian Mounted Police
REE	rare earth elements
RMVE	religiously motivated violent extremism
UK	United Kingdom
UN	United Nations
US	United States
WWII	World War II

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The nature of crime is continually evolving, and as nefarious actors take advantage of emerging trends across the economic, political, environmental, social and technological landscapes the threats they pose become augmented. Within the Director General, Policy and Advice at Defence Research and Development Canada (DRDC) the Defence and Security Operations and Analytics team is currently undertaking a “Future of Crime” project. This preliminary Scientific Report provides a background of the study and its initial findings including the literature review and workshops summaries. The four main drivers of future crime—economic crisis, emerging technology, climate change and public health and social and political instability—are also discussed along with their respective sub-drivers. By providing these research findings the study aims to inform national security and public safety (NSPS) partners of appropriate next steps including revisiting department mandates and operationalizing foresight into processes and procedures.

La nature de la criminalité est en constante évolution et, à mesure que des acteurs malveillants tirent parti des tendances émergentes dans les contextes économique, politique, environnemental, social et technologique, les menaces qu'ils représentent s'accroissent. Au sein du bureau du directeur général—Politiques et conseils, situé à Recherche et développement pour la défense Canada, l'équipe des Opérations et analyses de sécurité de la Défense entreprend actuellement un projet sur « l'avenir de la criminalité ». Le présent rapport scientifique préliminaire donne le contexte de l'étude et ses premières conclusions, y compris une analyse des documents publiés sur le sujet et des sommaires d'ateliers. Les quatre principaux facteurs de la criminalité future—la crise économique, les technologies émergentes, les changements climatiques ainsi que la santé publique et l'instabilité sociale et politique—sont également examinés, conjointement avec leurs sous-facteurs respectifs. En fournissant ces résultats de recherche, l'étude vise à informer les partenaires de la sécurité nationale et de la sécurité publique du Canada des prochaines étapes appropriées, y compris la révision des mandats du ministère et la mise en œuvre de la prospective dans les processus et les procédures.