

# A CDSN workshop on a NATO Climate Change and Security Centre of Excellence

## WORKSHOP REPORT

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**CDSN**  
THE CANADIAN DEFENCE AND  
SECURITY NETWORK



**RCDS**  
RÉSEAU CANADIEN SUR LA DÉFENSE ET  
LA SÉCURITÉ

## Overview

The workshop was organized by the Canadian Defence and Security Network (CDSN) theme on climate security and NATO supported by Canada's Department of National Defence partnership network grant, Mobilizing Insights in Defence and Security (MINDS), from 2022 to 2025. It brought together diverse communities of interest in conjunction with the Canadian commitment to host a NATO Climate Change and Security Centre of Excellence (CCASCOE) to discuss action areas. The workshop was held on the 20<sup>th</sup> of March 2023, in Montréal. Around three dozen participants from the university, defence, industrial, and government sectors were distributed a CDSN Briefing Paper on CCASCOE and gathered in breakout groups corresponding to climate change and security agenda areas of focus. They also heard remarks from invited presenters in presence and virtually joining from COE located in Europe. The program offered two sets of breakout discussions with participants choosing between Agenda or Awareness in the morning session and Adaptation or Mitigation in the afternoon. Each group was moderated by recognized experts who lead participants in discussing identified questions. A quarter of those present were classified as emerging scholars, that is those pursuing university studies or recently graduated, evidencing this topic's salience among younger citizens. There was strong interest and active involvement in discussions by all students present indicating this agenda significantly mobilizes the next generation of security and defence scholars.

## Context:

NATO's core values include solidarity, burden sharing, standardization, interoperability, and clear rules of engagement. The recognition of climate change as a threat multiplier began with the Montréal Protocol (1987) and NATO CCMS studies<sup>1</sup> in opening remarks offered by Sherri Goodman, Chairperson of the Board, International Military Council on Climate & Security. That international public recognition led to NATO integrating climate change risk assessments into its 2010 Strategic Concept. However, it was not until 2021 NATO significantly increased its focus on climate change and security with a common agenda and action plan. As a 'newly' defined threat, climate change affects alliance planning and preparedness, particularly in the areas of humanitarian and natural disaster operations. Given climate change offers significant security challenges, NATO's adaptation at strategic, operational, and tactical levels could enable it to become a coordinating actor for best practices in the field, strengthening the Alliance.

In the spring of 2021, Allies collectively adopted the NATO Climate Change and Security Agenda and then the NATO Climate Change and Security Action Plan in which they committed to:

- Enhancing **awareness** and understanding of impacts and implication of climate change on security interest.

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<sup>1</sup> The NATO Committee on the Challenges of a Modern Society (CCMS) was one of several scientific committees created in the 1950s & 1960s. It began to take on issues associated with environmental aspects of defense operations and land use in the late 1980s. It was eventually merged with the Scientific Committee in 2006. According to the NATO archives, "it was a forum for the exchange of knowledge and experience on technical, scientific and environmental aspects of the social and environmental issues in both the civilian and military sectors in NATO countries." (See <https://archives.nato.int/committee-on-challenges-of-modern-society-ccms>).

- **Adapt** to climate change and its environmental impacts on military and defense activity.
- Contribute to the **mitigation** of climate change through tracking and assessing greenhouse gas emissions from military activities and installations.
- Enhancing climate change **outreach** and cooperation within the alliance and partners.

The complexity of climate change and the adoption of an aspirational collaborative NATO Action Plan facilitated the development of a sponsoring partner community to support the establishment of a NATO Centre of Excellence to support the Alliance's work in this area of future partner collaboration and cooperation. Those actions aligned with Canada's own defence, security, development, and foreign policy interests, so it has offered to invest in hosting and collaborating to establish a NATO Climate Change and Security Centre of Excellence (CCASCOE).

The 2022 Atlantic Alliance Strategic Concept reaffirmed its 2010 commitment and recognition that climate change is a cross-cutting issue affecting all its core tasks, including the essential tasks of defence and deterrence as well as cooperative security and crisis management. *Crises associated with climate change may be increasingly unpredictable, acute, and difficult to manage due to their effects access to strategic territorial and maritime areas.* Furthermore, the Russian invasion of Ukraine reinforced joint awareness of the necessity to reduce energy vulnerabilities and accelerate energy transition within partner states. The Climate Change and Security Impact Assessment (2022) offered groundwork. It described the effects of various climate-based hazards on NATO's: (1) strategic environment; (2) assets and installations; (3) missions and multidomain operations; as well as (4) resilience and civil preparedness. Further, that Assessment outlined proposed adaptation measures from NATO research studies and partner's best practices.

## NATO Centres of Excellence (COE)

A COE is an international military organization serving to enhance the capability and capacity of its sponsors and the Alliance in an area of expertise. NATO and its allies can ask COE to undertake a particular work in a determined period by submitted request for support. Requests concerning assessment, evaluation, and cooperative expertise are possible.

There are 28 NATO-accredited COE and two in development: Space Centre of Excellence in France (Toulouse) and Climate Change and Security Centre of Excellence (CCASCOE) in Canada (Montréal). While COEs are accredited by Allied Command Transformation (Norfolk, Virginia, U.S.) and recognized as institutions providing specific benefit to NATO, COEs are owned and operated by a Steering Committee representing sponsoring nations as well as the framework (host) nation. These institutions tackle the Alliance's adaptation to the future through innovation of the warfare development command. The whole of the Alliance needs modifications and adaptations to act effectively in future environments affected by the disruptions and externalities of climate change.

## Climate Change and Security Centre of Excellence (CCASCOE)

This new institution aspires to be a platform for collaboration and exchange of various expertise. We welcomed Blair Brimmell, Interim Director of CCASCOE for contextual remarks.

<b>Expertise Area</b>	Help NATO, its allies, and global partners to understand and address climate change security implication on security.
<b>Framework Nation</b>	Canada
<b>Sponsoring Nation</b>	10 sponsoring nations at date
<b>Headquarters</b>	Montréal
<b>Operationality</b>	Fall 2023

CCASCOE offers activities across the four pillars and focalizes partner collaborative work on the NATO Climate Change and Security Action Plan framework helping to identify alignments with national initiatives, comparative advantages, and research capacities with a forum for future stakeholder coordination, knowledge and expertise transmission, and policy collaboration.

<b>CCASCOE four pillars</b>	<b>NATO Climate Change and Security Action Plan</b>
<ul style="list-style-type: none"> <li>- research and analysis</li> <li>- education and training</li> <li>- concept development and experimentation</li> <li>- doctrine development and standardization</li> </ul>	<ul style="list-style-type: none"> <li>- Awareness of the impact of climate change on security</li> <li>- Adaptation measure</li> <li>- Mitigation measure</li> <li>- Outreach Enhancement</li> </ul>

CCASCOE serves the NATO alliance and provides expert analysis and research to advise NATO on enhancing and developing its doctrine. Its role is to inform and advise while creating an environment for experts to coordinate and exchange knowledge, training, research, etc. It might contribute to policymaking if requested by NATO or members, but it is not primarily a policymaking institution. CCASCOE will undertake concept development, experimentation, war gaming, and simulation, which can be supported by Innovation and Technology hubs. For example, the Defense Innovation Accelerator for the North Atlantic, i.e., DIANA, within NATO could support dual-use technology experiments. Canada has a diverse range of technology hubs, including maritime and Arctic, to integrate into CCASCOE activities creating opportunities to highlight Canadian expertise in related research disciplines, relevant geographic regions, and tactical-operational capacities to Centre partners and the alliance for added value.

The institution is currently developing a year one program, which will be modest and scaled to establish a strong foundation. The program involves corporate, network building, and institution-building activities to identify partners, as well as map out needs and challenges. The themes for the program include cooperation, collaboration, outreach, and partnership, are crucial for the Climate Change and Security Centre of Excellence. However, CCASCOE will operate on a demand-driven basis, accepting requests for support from NATO, its partners, and others, to undertake specific work in its first-year program.

The CCASCOE aims to be a multisectoral institution forging partnerships with a variety of actors while keeping military and defense relevance at the heart of its work. It will involve a range of different kinds of scientists, academics, researchers, industry, and civil society connections. The centre should include diverse perspectives, particularly those affected differently by climate change and hopes to bolster security for several groups (i.e., Indigenous peoples, the vulnerable, women & children, etc.). The CCASCOE intends to establish direct ties with many

Indigenous groups and sub-federal governments to facilitate collaboration on research, as well as designing and delivering courses/trainings. The Centre will use digital tools to connect not only in person but also across the Atlantic and to the world. It hopes to foster partnerships and engagement among allies and global partners.

Finally, the CCASCOE intends to have a global approach, as security interests are not defined by the physical proximity to national borders or those of allies. The CCASCOE is in the building phase, and organizers are excited to learn from other NATO COEs to ensure CCASCOE best serves collective defence security interests and needs.

### **Objectives of the workshop.**

The workshop sought expert advice and points of view in order to:

- Gain perspectives on the pressing needs in climate and security to determine the best means for the CCASCOE focusing on NATO Climate Change and Security Action Plan framework.
- Gather information and insights from established COE, both accredited by NATO and external to the IO, about their operation, structure, and functions. The aim is to identify and understand the best practices, challenges, and opportunities existing within those institutions to inform the development of a new COE in Canada. This information offers a framework for the CCASCOE that is efficient, effective, and aligned with NATO's overall objectives.

### **COEs best practices and lessons learned.**

Experts from COEs shared the institutional framework of their respective Centres, offering best practices and lessons to the audience. We invited experts from Centres of Excellence affiliated with NATO and those external to the IO to ensure a variety of expert reflections.

#### **a) European Centre of Excellence for Countering Hybrid Threats (a non-NATO COE).**

The Hybrid Threat COE is an independent institution in Helsinki created through an informal agreement between sponsoring partners under alignment with NATO and EU decisions. That is, it is not part of the NATO structure and does not have NATO accreditation, but cooperates closely with NATO at different levels (HQ, strategic command, and operational). It is not part of the EU structure either but its experts draw on eight European states and the U.S. There is some national legislative law regulating the work, but it is also based on an international arrangement, i.e., a Memorandum of Understanding first signed by nine countries in 2017. As of March 2023, 33 countries are signatories of said MOU. It facilitates strategic level dialogue, research, training, consultations and conducts practical training exercises aiming to improve readiness to counter hybrid threats. Aside from enlarging to more state partners, the Centre's permanent staff more than doubled over this period.

Both EU and NATO member states can participate in this Finnish-located Centre centralising the thirty-three participants developing its strategic guidance. The COE has a steering board, work plan, and annual planning cycle. The financial allocation for its establishment is supported by participating states, but the host country pays a bit more comparatively.

The COE aims to increase awareness among practitioners, policymakers and the broader public about hybrid threats, and how societies’ vulnerabilities can be exploited in hybrid operations, and to share best practices on hybrid threats. It operates, almost fully, on non-classified basis and open sources enabling it to reach a broader audience. However, the COE do not have access to all classified materials. The Hybrid COE focuses on long-term trends and patterns in the threat environment and the support participating states in strategy development and legislation updates.

The Hybrid COE is a multidisciplinary and civilian organization but there is military and defense expertise at its core. Indeed, the Hybrid COE brings together different types of experts, people with different backgrounds from different ministries, think tanks, academia, and private sectors at strategic levels. The current team includes 40 people from 16 nationalities. Its structure offers:



Three main lines of effort are identified: threat characteristics, actors, and vulnerability identification. The COE is focusing about 95% of its work on Russia and China alongside some specific geographic areas, i.e., the Arctic. The agenda of topics for further COE improvement include developing a long-term vision, further work measuring and assessing impact (both qualitative and quantitative impact, performance, and effectiveness measurement).

**Identification of keys for success include:**

- Having a **diverse team** and **identifying early the key areas of required expertise**.
- Establishing **impact assessments** combining qualitative and quantitative aspects as well as **performance and effectiveness measurements**.
- Having a **long-term executive** (e.g., two consecutive mandates of 4 years) to ensure continuity, contribute to a solid establishment and enable the pursuit of long-term projects.

## b) Strategic Communications Centre of Excellence (a NATO accredited COE).

The Strategic Communication Centre of Excellence (STRATCOM COE) is a successful COE created in 2014 with Latvia as the framework host nation. Remarks were offered from a partner state representative with several years of experience at the Riga-based COE.

Points highlighted about COE success from STRATCOM's experiences:

- **Establishment of an early presence:** Stakeholders should explain the COE's relevance for the NATO community and partners to receive the injection of extra investment and resources (political, diplomatic, defence and financial) from the framework host nation government to facilitate its establishment. Additional strong intellectual and epistemic investments enable a COE to attract knowledgeable staff early and thus establishing a solid presence and reputation.
- **Diversified staff:** The Centre must bring in technical experts from various countries, expertise, and sectors (military, civilian, government, diplomat, etc.). Diversification is the key for building a strong team with diverse views to take on complicated issues.
- **Geographical location of Centre:** The COE host must select a relevant place, accessible for the international community, able to host large-scale conferences, attract expertise, staff, etc.
- **Flagship event:** The COE should organize a high-value event (e.g., Riga STRATCOM dialogue 2023 brings together 1000 people; registration booked to capacity within 24 hours of opening.)
- **Ambition for change and impact driven:** The COE should have the ambition of impacting NATO nations by focusing on the Centre's leadership to ensure proper motivation and relevant support by the nations to ensure the retention of COE'S freedom of maneuver and actor autonomy rather than become controlled directly by NATO HQ.
- **Build key relationships** with multiple types of actors.
- **Aim for quick success** through establishing an early presence and promoting the COE mission.

During the question-answer session, the following **priorities for a newly established organization** were outlined by panelists:

- **Outreach** to the relevant population on the added value of the COE for the country.
- The understanding and capacity to **demonstrate the COE's added value** (compared to national and international initiatives). It comes from a horizontal side of things, that is understanding the comprehensive nature of the threats and trying to harness a comprehensive approach from the stakeholder countries to combat those threats collaboratively.
- Creating a well-designed institutional structure but preserving opportunities for the adaptation and future development of the structure to future needs.

## Perspectives and needs in Climate Change and Security:

### a) Common Agenda on climate security

Participants discussed the importance of defining climate security. Climate change is a large and encompassing topic. There is much NATO and CCASCOE could and should address, however, given limited resources, participants highlighted the need for NATO to identify key research areas for focus. Participants also argued CCASCOE should not be the only NATO-affiliated body addressing the concerns of climate change and security.

Participants raised concerns over the legitimacy of NATO as an actor in the climate change and climate security spheres. While participants agreed NATO does have a role to play within the climate change sphere, they acknowledged the potential for questions around whether NATO should take on this role. In anticipation of those arguments, the participants affirmed NATO's legitimacy as an actor in the global response to climate change. Some highlighted the fact NATO member states account for a large portion of global GHG emissions and NATO is aware the militaries of its most powerful partners are large emitters of GHGs. Participants also suggested CCASCOE lean into its identity of a NATO-accredited institution, rather than a NATO body.

### b) Awareness of climate change and security

Participants discussed CCASCOE's role in raising climate change and security awareness. The following elements were discussed:

- **Defining terms:** Defining terms regarding climate security and requirements for addressing those issues. The connection between climate change and security is no longer up for debate, but there is a need to define what is meant by climate security. CCASCOE is given a role to play in helping to create definitions in areas such as how climate change overlaps with space or maritime jurisdiction, and what constitutes energy security. The acts of commonly defining said terms using a NATO 'vernacular' and discourse appropriateness/legitimation is closely tied to raising awareness and sharing information with the public.

- **Curating information:** CCASCOE has a role in improving the quality and accessibility of information for defence and security purposes. The CCASCOE can collect information, tools, and best practices from allies and develop a more usable toolbox for nations requesting climate change information/analyses for decision-making or operations. Additionally, CCASCOE can act as a curator of information in the field of strategic communication, consolidating and providing trustworthy information to interested parties. Overall, CCASCOE has a vital role in raising the quality of accessible and usable information for defence and security purposes.

- **Analysis framework:** Climate change is challenging traditional risk analysis. Climate change is not a single threat but rather a multiplier of existing threat vectors, and said threats vary in location and level of analysis. Given said complexities, it was suggested CCASCOE have a potential role in helping to develop an appropriate analytical framework across the levels of actors and governance.

- **Platform for exchanges and collaboration with shareholders across different sectors:** CCASCOE can utilize the expertise and networks of existing COEs while also creating a community to reach



a more diverse audience to engage on climate change and security issues. To achieve this, the COE should produce unclassified work on climate change and security, such as analysis, research, training, education, and workshops to attract civil society partners and industry stakeholders to engage with the COE. This would keep CCASCOE informed about NATO and national requirements and provide policymakers with relevant information. Cooperation with the EU and other organizations offers a multi-institutional coordinated approach to addressing climate change and security issues. Connections with actors from the Global South can be established through regional organizations, such as the African Union, Arab League, and Asian organizations; it may be easier to collaborate with through their respective capacities to transmit climate change expertise onto their regions rather than with each country bilaterally.

- **Prioritization:** CCASCOE prioritize raising awareness since climate change involves many issues. It influences military equipment procurement as well as geopolitical interests. The agenda prioritization must be framed in the short-term emergency to shift the perception that major actions to mitigate climate change are to be taken by (or passed to) future generations.

- **Index creation or database:** Sponsor nations are interested in the strategic implications of climate change in particular regions, i.e., Mediterranean Sea, Arctic. Allies should support the creation of a climate change threat index (or database) to raise public awareness, advance the development of national adaptation and mitigation policies, and track progress towards compliance.

- **Undertake creative approach to raise awareness:** France's Red Team<sup>2</sup> defense initiative was mentioned as a creative approach to raising awareness and training military personnel using fictional scenarios as an inspiration for a potential program of work for this Centre.

Participants debated bridging military and private sectors to spur more R&D around green technology and NATO DIANA. Views on involving established companies in the process were mixed, with some seeing them as more impactful than start-ups in dealing with climate change. Others viewed the involvement of start-ups more favorably since they may be perceived favorably by civil society whose collaboration is necessary on related issues. Government funding policies were criticized for hindering start-ups' progress in commercializing one person claimed. However, this COE's mandate is too narrow to promote R&D and green technology as it focuses on researching security issues within NATO and its impact on NATO transformation. It was suggested by others that particular issue remains beyond the scope of this COE's aims and is more of a private sector or government policy concern.

### c) Adaptation Measures for climate change and security

Participants discussed adaptation measures CCASCOE can undertake. The discussion concluded the COE should focus on awareness and understanding of the greatest challenges at the early years before moving towards adaptation and mitigation goals. Climate change brings new

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<sup>2</sup> From France's defense innovation agency, it engages science fiction and creative writers alongside military experts to imagine the potential future threats to the country (e.g., imagining an energy security disaster requiring collective decarbonization), see <https://redteamdefense.org/en/meet-the-red-team>.

topics and complementary legal frameworks will delay in tackling some of those topics. It is necessary to remain aware of threats/delays and actively monitor them through adjusting action plans and resource allocations. Furthermore, large climate change events requiring a military response might be exploited by foreign entities, so NATO partners must be prepared to deploy resources, or adjust accordingly. Thus, there exists a need for 'forward deployment adaptation' studies when it comes to climate crisis responses by NATO.

The discussion highlighted the need for adaptation measures to go beyond the military and incorporate climate change into a strategic level and operationalize in a way so as to not solely focus on climate change to reduce the challenges faced by national structural, bureaucratic, and political constraints. For example, framing climate adaptation measures in northern regions (of Canada) in terms of community economic development, so policies can serve multiple purposes, encourage innovation, and remain resilient to government changes in national capitals. Infrastructure investment should be multipurpose rather than 'climate-change demand' driven which enable better outcomes. CCASCOE success is linked to its contribution to the goals of NATO's strategic transformation and its support of the implementation of the Alliance's Climate Change Security Action Plan.

#### d) Mitigation issues concerning climate change and security

Participants argued climate security can be understood in two parts

- **Resilience:** Climate change impacts the resilience and readiness of NATO militaries, infrastructure, and equipment. NATO needs to prepare for the consequences of climate change and adapt its infrastructure in order to mitigate the impacts of climate change on readiness. Furthermore, in order to contribute towards the mitigation of climate change, NATO and member states militaries need to reduce their environmental footprints (militaries are currently very large emitters of Greenhouse Gases (GHGs)). Finally, future procurement should be green. Specifically, participants discussed the need for NATO to invest in green infrastructure and revamp existing infrastructures that are inefficient, dated, and lack modernization.
- Participants emphasized the need to ensure interoperability while accounting for the fact climate change impacts distinct geographic and strategically essential regions in different ways.

2. **Impacts on the security environment:** Climate change is recognized as a **threat multiplier**. Climate change impacts the global security environment.

Participants identified that, to date, NATO's work around climate change has centered on the first part (resilience). Given the severity of the security consequences of climate change, participants argued NATO and CCASCOE should also concern itself with the second part (impacts of climate change on the security environment). However, participants also acknowledged the limits of its current programming, political, and financial resources.

## Conclusions

This workshop offering insight to CCASCOE stakeholders brought together over three dozen individuals to discuss some of the important challenges confronting Canada in its goal to establish a NATO Centre of Excellence. Invited speakers from two established Centres of Excellence in Europe, one NATO accredited on Strategic Communications and the other, a European Centre on Hybrid Threats, offered experience-based lessons and shared insights. Their comments and suggestions were presented directly to DND and GOC stakeholders in the room creating a direct transfer of knowledge and networking opportunity.

This was a wonderful opportunity to connect an existing defense and security community around the NATO institutional innovation of a Centre of Excellence to be hosted in Canada and reiterate public and academic support of the initiative while advancing on pragmatic issues and networking with experienced colleagues with experiences from European based COE. The discussions from the 2023 workshop will contribute to future policy papers: one on the CCASCOE common agenda and another on CCASCOE funding and sponsors.

### About the authors:

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