



Department of National Defence and Canadian Armed Forces (DND/CAF) Climate Resilience and Environmental Sustainability Science & Technology Strategy – CRESST

Science and technology (S&T) is essential to provide the technological and knowledge advantage necessary in preparing for the risks posed by climate change and developing environmentally sustainable operations. The CRESST identifies ways in which S&T efforts can help DND/CAF achieve its climate and environmental ambitions.

“Climate change is changing the context in which DND/CAF operates. With the CRESST, we aim to inform and enable DND/CAF in delivering the S&T needed to face environmental challenges, while remaining steadfast in its commitment to achieve its mandate.”

Dr. Jaspinder Komal

Assistant Deputy Minister (Defence Research and Development Canada)

GUIDING PRINCIPLES

1. Prioritize operational capabilities which must be maintained and/or enhanced while pursuing and implementing environmental research and sustainability solutions.
2. Support targets and commitments outlined in the [departmental sustainable development strategy](#) and [Canada’s defence policy](#), as well as coordinating with other internal environmental, defence, safety and security policies and direction.
3. Align with Government of Canada policy related to the environment and climate change, in particular the [Greening Government Strategy](#), [Canada’s Arctic and Northern Policy Framework](#), [Federal Sustainable Development Strategy](#), [Climate Science 2050](#) and the [Pan-Canadian Framework on Clean Growth and Climate Change](#).
4. Align with the [Defence Open Science Action Plan](#) and open science principles – people, transparency, inclusiveness, collaboration, and sustainability – where possible to solve the complex issues related to the environment and security research, while also properly safeguarding research, innovation and related partnerships.

Encompassing a long-term perspective, the CRESST provides a guide towards opportunities for collaborative partnerships, knowledge exchange, and targeted defence research within three strategic objectives set in the context of defence and security:

STRATEGIC OBJECTIVE 1:

Conduct research to enable climate change mitigation and environmental sustainability

Includes areas such as power and energy transition, pollution reduction, mitigation of environmental impacts, and informing procurement.



STRATEGIC OBJECTIVE 2:

Assess challenges, risks, and opportunities associated with the environment and climate change

Includes examining the impact on DND/CAF activities and forecasting energy needs and costs.



STRATEGIC OBJECTIVE 3:

Conduct research to support climate change adaptation and resilience

Includes focusing on technologies, methods and practices for adaptation, as well as Arctic-specific requirements.



Foundational levers are supporting activities that are needed to help address existing institutional barriers and enable the S&T efforts.

Partnerships

Climate literacy

Human resources

Informing future programs

Work under the CRESST will also consider existing efforts underway within DND/CAF, across government, as well as in collaboration with both domestic and international partners. It will assess the S&T needs to address gaps in DND/CAF environmental considerations, prioritizing areas of strategic importance to inform new research activities and leveraging breakthrough S&T solutions or improvements to recalibrate as needed. This will help DND/CAF to continuously improve its environmental sustainability, while simultaneously preparing to meet the growing challenges of climate change.