



NWT Climate Change Assessment

Core Resilience Values to Climate Change in the NWT

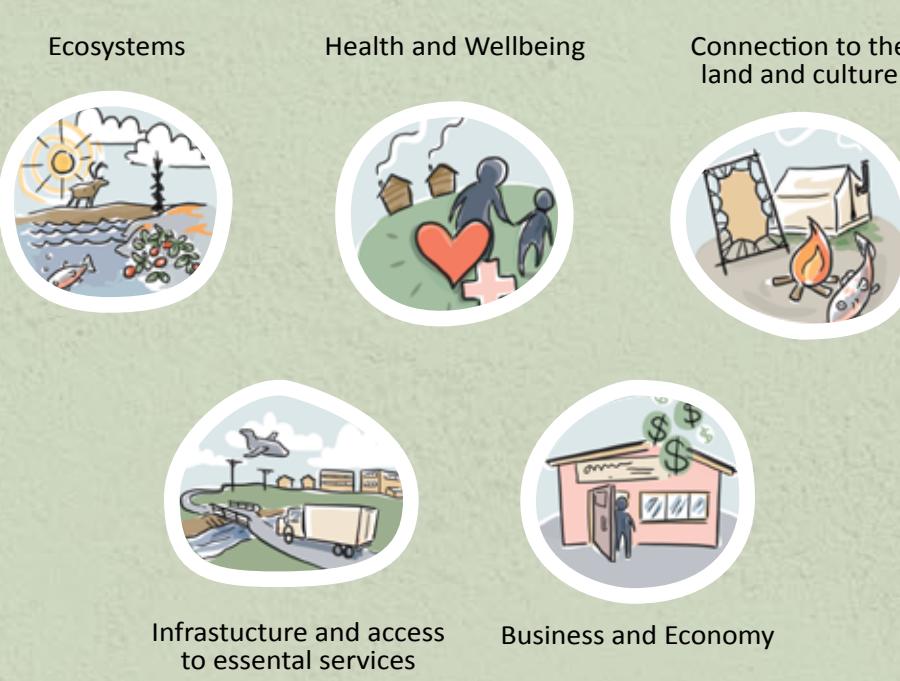
The Assessment adopted a values-based approach, focusing on the experiences and perspectives of those most affected by climate change.

This assessment determined that there are 5 core resilience values that matter most to residents for increasing resilience* and adapting to a changing climate in the NWT.

The NWT core resilience values provided a framework for assessing the impacts of climate hazards and for identifying the most concerning climate risks—those that have the highest potential to compromise or threaten climate change resilience in the NWT.

*Resilience refers to the capacity to recover quickly from difficulties.

Core Resilience Values:



What were the Key Climate Hazards Identified?

Seven key hazard categories were identified through the project.

For each category of hazard, both historical climate trends and future changes were considered.



How did we identify the key risks?

Experts and NWT residents worked together on the following steps to determine the key risks to NWT resilience values:



Step 1: Developed Climate Risk Scenarios for each hazard

Step 2: Calculated the Climate Risk Scoring

Step 3: Determined the Climate Risk Score by ranking the scenarios

Data limitations and more details on the methodology are summarized in the long version of the Assessment.



Summary of Key Risks to NWT Resilience Values

Risks to ecosystems (Land, Water and Wildlife)

- Permafrost thaw is changing NWT landscapes.
- NWT biodiversity is impacted.
- The quality and quantity of surface and groundwater is changing.
- Longer and intense wildfire seasons are likely to alter NWT landscapes.
- Permafrost thaw and longer wildfire seasons are likely to increase carbon dioxide emissions from the landscape.

Risks to health and well-being

- The safety and well-being of many NWT communities is threatened by flooding and wildfires.
- Climate change is affecting physical health conditions for some NWT residents.
- Climate change is threatening the mental well-being of some NWT residents.
- Climate change is increasing food insecurity challenges in the NWT.

Risks to connection to the land and culture

- Less predictable weather and ice conditions are affecting people's ability to access the land safely.
- Climate change is having a profound impact on Indigenous knowledge, culture, and identity.
- Culturally important places and heritage sites are being threatened by thawing permafrost, wildfires, erosion, sea-level rise, and flooding.

Risks to infrastructure and access to essential services

- Supply chains in the NWT are being disrupted as the impacts of climate change intensify.
- Shoreline infrastructure and buildings will likely be at risk from more rapid erosion processes and flooding.
- Increasing extreme weather events, changes in precipitation, and in some cases, changes in soil conditions bring new risks that need to be considered when building, maintaining and operating infrastructure.

Risks to business and economy

- The high cost to adapt and respond to climate change and climate-related disasters can cause financial losses or constraints for governments, businesses, and residents, affecting economic resilience in the NWT.

Vulnerabilities exacerbated by climate change

- Cross Cutting Vulnerability themes were also identified, such as, resource, labour, and capacity shortages, unequal impacts on certain communities and groups, and a lack of climate data.

ACTIONS ADVANCING RESILIENCE IN THE NWT

Climate Risks to Ecosystems

ONGOING ACTIONS:

GNWT collaborates with Communities, ENGO's, Industry, and Indigenous Governments and Indigenous Organizations to establish, manage and monitor a network of protected and conserved areas in the NWT. As part of land use planning, these areas provide refuge for increasingly threatened species and ecosystems, and greater resilience to a changing climate.

Indigenous Protected and Conserved Areas (IPCA's) are lands and waters where the primary role in protecting and conserving ecosystems is through Indigenous laws, governance, and knowledge systems. Culture and language are fundamental to these areas.

Northern Voices, Northern Waters: NWT Water Stewardship Strategy is a made-in-the-North strategy developed collaboratively with water partners in the NWT. Some actions in the action plan address the impacts of climate change on NWT water systems.

The GNWT Purple Air initiative provides access to data on air quality to inform communities during wildfire season.

GNWT works with NWT communities to review and update their emergency plans and offer community emergency planning workshops to all community governments.

GNWT developed the Emergency Management Organization (EMO) Portal for community governments to access all tools and templates to assist with community emergency management, such as a Community Package as well as an updated template for a Community Emergency Plan.

A partnership between the NWTAC and the GNWT obtained federal funding for the 29 fire-prone communities to create fuel breaks and implement fire fuel reduction strategies.

The NWT Climate Change Youth Council were directly involved, and the NWT Climate Change Youth Council provided guidance throughout the project. The NWT Risk and Opportunities Committee, youth, students, experts and educators, the NWT Climate Change Youth Council were directly involved, and the NWT Climate Change Youth Council provided guidance throughout the project.

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