



NWT Climate Change Strategic Framework

Backgrounder

INTRODUCTION

Climate change is one of the most serious environmental, economic and political challenges of our time and is an important issue to NWT residents. The Government of the Northwest Territories has committed to develop a climate change strategy that takes northern energy demands and the cost of living into account. It will reflect commitments to reduce greenhouse gas emissions, explore carbon pricing systems and how to develop local alternatives such as hydro, biomass, wind and solar.

Despite its abundant natural resources, the Northwest Territories (NWT) depends heavily on imported fossil fuels to meet its energy needs. This results in significant per-capita greenhouse gas emissions and high costs in our

communities. The NWT is warming at a rate four to five times faster than global averages and this is causing significant changes in the natural environment. These changes include thawing and degradation of permafrost, shorter winters, longer and drier summers, shrinking sea ice and coastal erosion, and is resulting in impacts on water quality and quantity, species, ecosystems, the health and well-being of residents, Aboriginal cultures, infrastructure, buildings and some economic activities. Risks to economic, social and cultural values in our communities will intensify if climate change continues to affect our ability to maintain our traditional pursuits and lifestyle.

The GNWT is actively working on climate change at a national and territorial level.

Pan-Canadian Framework for Clean Growth and Climate Change

Last December, the nations of the world met in Paris and adopted a new global agreement to address climate change. In March 2016, Prime Minister Trudeau invited the Premiers of Canada, including NWT Premier Bob McLeod, to a First Ministers Meeting. This meeting resulted in the Vancouver Declaration. It recognizes all provinces, territories and the federal government are responsible for taking action on climate change. The Declaration also sets in place an agreement amongst governments to develop a pan-Canadian framework for clean growth and to address climate change. Four federal-provincial-territorial working groups were established to begin implementation work. The NWT is actively participating in all four groups. Reports of the working groups will be made public in September and provided to First Ministers in October. It is expected that the pan-Canadian framework will be completed and published by December 2016.

NWT Climate Change Strategic Framework

The NWT Climate Change Strategic Framework (the Framework) will act as a road map for our efforts during the next five to ten years as we continue to deal with the impacts of climate change. The Framework will rest on three key pillars.

- *Knowledge* – increasing our knowledge of and understanding the rate and extent of changes in the environment and what these changes may mean in terms of impacts and opportunities.
- *Resilience and Adaptation* – using knowledge to improve our ability to prepare for and withstand impacts from climate change or find ways to adapt to changes that may be unavoidable.
- *Economy, Innovation and Emissions* – using best practices and innovation to grow and diversify the NWT economy, while reducing our reliance on imported fossil fuels and production of greenhouse gas emissions.

NWT CLIMATE CHANGE STRATEGIC FRAMEWORK

Rationale

A comprehensive NWT Climate Change Strategic Framework must:

- Determine how the NWT can contribute to Canada's efforts to address climate change (through the pan-Canadian framework);
- Replace and build upon the NWT Greenhouse Gas Strategy (which expired on March 31, 2016) in order to continue reducing greenhouse gas emissions through energy efficiency and adoption of renewable and alternative energy; and
- Better prepare the NWT to adapt to climate change impacts by improving monitoring, planning, coordination and implementation.

Approach

Scoping work to identify an approach for developing the NWT Climate Change Strategic Framework is ongoing. Key aspects include:

- *Building on existing strategies and initiatives* – numerous strategies laying out key goals and objectives related to the economy, the environment and our well-being already exist. To the extent possible, the NWT Climate Change Strategic Framework will reflect and build upon this work.
- *Public engagement* – the GNWT will engage with Aboriginal governments and organizations, federal and GNWT departments, regulatory boards and agencies, industry, NGOs, municipal and community governments and NWT residents throughout the development of the NWT Climate Change Strategic Framework.
- *Key linkages* – the NWT's greenhouse gas emissions are almost entirely (~96%) due to combustion of fossil fuels for transportation, space heating, industry and electricity generation. Along with the NWT Climate Change Strategic Framework, the GNWT is developing a new NWT Energy Strategy. The Energy Strategy will focus on energy supply and use in the NWT, including electricity, renewable and alternative energy, heating, transportation and energy efficiency. The GNWT will ensure development of the NWT Climate Change Strategic Framework and the NWT Energy Strategy complement each other to ensure economic, social and cultural needs are met without compromising the ability of future generations to meet their needs.

Development Process and Timeline

The NWT Climate Change Strategic Framework will use ideas and input from several sources, including:

- *Pan-Canadian Climate Change Framework* – while not yet complete, the priorities and actions established in the pan-Canadian framework will provide context and opportunities for the NWT to include in the Framework.
- *Analysis and collaboration* – climate change is a complex topic that touches on almost all aspects of northern life, ranging from environmental changes to species, ecosystems, infrastructure, the economy, the health and well-being of residents and culture. Almost all GNWT departments and agencies are involved in addressing the impacts of climate change. Knowledge, input and ideas from government, NGOs and other stakeholders will be gathered and considered in drafting the NWT Climate Change Strategic Framework.
- *Public engagement and input* – public engagement to identify climate change concerns and priorities for action is important to drafting the Framework. Key engagement activities will include this Backgrounder, a survey, fact sheets, written submissions, and stakeholder and regional meetings.

The NWT Climate Change Strategic Framework will be developed during this fall and winter. It will be finalized in spring 2017.

KEY ELEMENTS OF THE FRAMEWORK

As noted, the NWT Climate Change Strategic Framework will reflect, and build upon, other relevant GNWT strategies and initiatives. In particular, the GNWT has started to develop a new NWT Energy Strategy. There are key linkages between the NWT Climate Change Strategic Framework and the NWT Energy Strategy in areas such as emissions targets, the development of renewable energy technologies, and energy conservation and efficiency improvements.

Key elements of the NWT Climate Change Strategic Framework may include:

Vision and Goals

A vision to address climate change should be inspiring and provide clear direction on what the territory would like to achieve in the short and long term.

Our climate change vision may or could include:

- Enhance knowledge and understanding of climate change.
- Develop know-how and tools to increase resilience to climate change impacts.
- Limit or reduce the damages and costs of climate change impacts on the NWT, including ecosystems, infrastructure, and human health and well-being.
- Use innovation to strengthen and diversify the economy, while reducing GHG emissions.
- Work collaboratively with communities, other governments, industry and non-governmental organizations to identify and implement climate change solutions.

Clear, measurable goals will follow a vision statement.

Pillar #1: Knowledge

The Northwest Territories is warming at a faster rate than most places in the world due to global climate change. This intense warming, combined with our cold climate and northern ecosystems, means climate change impacts are being felt more strongly and more rapidly in the NWT. This accelerated warming is resulting in numerous changes in the environment, including:

- Melting glaciers and ice sheets;
- Rising sea levels, warming oceans and coastal erosion from increased wave action;
- Thawing and degradation of permafrost, resulting in impacts to infrastructure, biomes and landscapes;
- Changing species' diversity, ranges and populations, and the introduction of new species to the NWT, including the threat of new viruses and pests;

- A slow decline in annual precipitation levels, leading to drier conditions and the increased frequency and severity of forest fires; and
- Changes in ecosystems due to warmer climates, migration of animals and plants, and changes in the land, such as permafrost thaw.

Many of these changes have serious potential implications for ecosystems, species, the economy, infrastructure, Aboriginal cultures, and the health and well-being of NWT residents.

To prepare for climate change impacts, it is necessary to monitor changes, carry-out research in priority areas, access traditional and local knowledge, create capacity within communities and develop adaptation tools.

Ongoing discussions are required to identify climate change research gaps and priorities, build effective partnerships and improve information sharing.

Pillar #2: Resilience and Adaptation

Effort and investment will ensure NWT ecosystems, infrastructure, communities and cultures are resilient and prepared for future changes.

Innovative solutions, drawing on traditional, local and scientific knowledge, are critical to meet this challenge and take advantage of new opportunities.

Priority areas for discussion include:

- Monitoring programs;
- Protecting and managing species and ecosystems;

- Increasing the resiliency of critical infrastructure such as transportation, energy and communications systems, and all community infrastructure and buildings;
- Increasing support and adaptive capacity to help communities respond to impacts and opportunities;
- Minimizing potential impacts on human health and well-being by addressing contaminants, disease prevention and mental health; and
- Protecting and preserving cultural and heritage assets, sites, skills, etc.

Pillar #3: Economy, Innovation and Emissions Reduction

Effective April 1, 2014, authority and responsibility for public lands and resource management in the NWT devolved from the Government of Canada to the GNWT. This allows the NWT to make decisions on the development of natural resources, while maintaining ecosystem integrity and biological diversity.

In recent years, the size of the NWT economy has ranged from \$3.4 to \$3.8 billion. Key sectors in the economy include mining, oil and gas extraction, public administration, construction, wholesale and retail trade, transportation and services. Opportunities to diversify the economy include tourism, agriculture, commercial fishing, manufacturing and fur harvesting.

NWT greenhouse gas emissions vary from year to year, but tend to average around 1,500 kilo-tonnes (Kt). Almost all of the annual emissions (~96%) are from burning fossil fuels. Given the size of the resource development sector and its use of fossil fuels at remote sites, the NWT's total annual emissions vary directly with changes in this sector. Other significant uses of energy and sources of emissions include transportation, space heating and electrical generation.

To reduce NWT greenhouse gas emissions, we must begin transforming our economy to be less reliant on fossil fuels. This is a large-scale undertaking that will require time and federal funding support, but the NWT does have an abundance of available renewable energy sources, and a long history of innovation and adaptation. The challenge is to improve energy efficiency and the use of renewable and local energy, while maintaining overall economic growth, keeping the cost of living from increasing and maintaining reliability of energy systems.

Priority areas for discussion include:

- Incorporating climate change considerations in environmental impact assessments and regulation of resource development projects;
- Using innovation and new technology to build local economies, improve energy use and supply in communities, and reduce greenhouse gas emissions and cost of living; and
- Exploring whether carbon pricing is an effective and appropriate emissions mitigation tool for the NWT;
- Setting appropriate emissions reduction targets (short-term and long-term), reflecting NWT economic and environmental objectives, and making a meaningful contribution to national and international efforts to reduce emissions.

PUBLIC ENGAGEMENT

The GNWT is doing joint public engagement on the NWT Climate Change Strategic Framework and the new NWT Energy Strategy.

- Information about the NWT Climate Change Strategic Framework is available at www.enr.gov.nt.ca/programs/nwt-climate-change
- Information about the NWT Energy Strategy is available at www.nwtenergy.ca

Survey

A climate change survey has been developed to get feedback on key NWT climate change questions. The survey can be found at www.enr.gov.nt.ca/programs/nwt-climate-change and will remain open until October 31, 2016.

Submit Your Comments

ENR want to hear from you. Written comments received will be posted to the ENR climate change website. All stakeholders are encouraged to share their thoughts and opinions on the Climate Change Strategic Framework.

Comments can be sent by:

- Email: climatechange@gov.nt.ca with “WRITTEN SUBMISSION” in the subject-line;
- Mail: Climate Change Unit, Environment and Natural Resources, Government of the Northwest Territories, Box 1320, Yellowknife, NT X1A 2L9

Stakeholder Meetings

Meetings will be organized with stakeholders and interested parties to discuss specific topics and obtain feedback on the NWT Climate Change Strategic Framework.

Regional Meetings

ENR and PWS will host engagement meetings in the five regional centres (Inuvik, Norman Wells, Fort Simpson, Fort Smith and Yellowknife) in October and November 2016.

Contacts

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