Guide to Integrating Climate Change Considerations into Government of the Northwest Territories Decision-Making Instruments

November 2020

Government of
Northwest Territories

If you would like this information in another official language, call us.
English

Si vous voulez ces informations dans une autre langue officielle, contactez-nous.
French

Kīspin ki nitawihtīn ē nīhīyawihk ōma ācimōwin, tipwāsinān.
Cree

Tłı̨chǫ yatı k'ę̀è. Dı wegodı newǫ dè, gots'o gonede.
Tłı̨chǫ

ʔerıhtł'ís Dëne Sųłıné yatı t'a huts'elkër xa beyáyatı theɔą ɔat'e, nuwe ts'ën yółtı.
Chipewyan

Edı gondı dehgáh got'ı̨e zhatıé k'ę́é edatł'éh enahddhę nıde naxets'é edahłí.
South Slavey

K'áhshó got'ı̨ne xədə k'é hederı ɔedı̨htl'é yerınıwę nídé dúle.
North Slavey

Jii gwandak izhii ginjìk vat'atr'ijąhch'uu zhit yinohthan jì', diits'àt ginohkhìi.
Gwich'in

Uvanittuaq ilitchurisukupku Inuvialuktun, ququaqluta.
Inuvialuktun

ᑕᒃᑯᐊ ᑎᑎᖅᑲᐃᑦ ᐱᓕᒍᐃᕆᑦ ᐃᓄᒃᑎᑐᓕᖅᑭᓗᒃ, ᐅᐸᑦᑎᓵᓄᑦ ᐅᖅᑲᓕᔪᓐᓇᖅᑐᑎᑦ.
Inuktitut

Hapkua titiqqat pijumagupkit Inuinnaqtun, uvaptinnut hivajarlutit.
Inuinnaqtun

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PURPOSE

This document provides Government of the Northwest Territories (GNWT) departments with a guide to completing the Climate Change Factors section of Executive Council and Financial Management Board decision papers, submissions and legislative proposals.

PROCESS

Completing the Climate Change Factors Section

To ensure meaningful analysis and accuracy of the Climate Change Factors section, the ENR Climate Change and Air Quality (CCAQ) Unit serves a central advisory and coordinating function for all GNWT departments.

The Unit is responsible for responding to and liaising directly with GNWT departments to provide advice and guidance in completing the Climate Change Factors section while developing GNWT decision-making instruments. The Unit is also responsible for supporting and liaising with Cabinet Secretariat, Management Board Secretariat, and the Legislative Coordinator in the assessment of decision-making instruments, in respect of climate change considerations.

Departments should follow the process as set out below to complete the Climate Change Factors section of GNWT decision-making instruments:

i. **Originating department** considers the Climate Change Assessment Questions (pg. 4) during early stages of drafting the decision proposal* to determine possible climate change considerations to discuss with ENR CCAQ**;

   * Not all decisions will have climate change considerations. Should the originating department believe with a high degree of certainty that climate change is not a factor in their proposed decision, they may decide not to engage ENR. It should be noted by departments that Central Agencies may still contact ENR during the assessment process to confirm that climate change is not a factor, which could result in unanticipated delays.

   ** When an originating department conducts interdepartmental review on a submission, it is reasonable to expect that ENR will provide relevant information on climate change considerations through this process. Departments must exercise discretion to determine if additional follow-up is needed prior to submitting to Central Agency.

ii. **Originating department** contacts ENR CCAQ to discuss the nature of the initiative, proposal summary and recommended decision to determine climate change considerations;

iii. **ENR CCAQ** will advise the originating department on possible considerations and recommend other resources to consult, as necessary;

iv. **Originating department** completes the Climate Change Factors section based on advice provided by ENR CCAQ and other identified resources, if applicable, and submits completed decision-making instrument to Executive Council or Financial Management Board, respectively.

v. **Cabinet Secretariat, Management Board Secretariat, or the Legislative Coordinator** seeks the advice of ENR CCAQ, as deemed necessary, during the development of the Assessment of the decision-making instrument to:

   a. Confirm there are no climate change concerns;

   b. Confirm the Climate Change Factors section is accurate and thorough analysis was carried out; or

   c. Seek clarification, or additional advice or guidance in respect to climate change considerations related to the initiative, proposal summary and recommended decision.

vi. **ENR CCAQ** will advise on possible considerations and recommend other resources to consult, as necessary;

vii. **Cabinet Secretariat, Management Board Secretariat, or the Legislative Coordinator**, respectively, completes the Assessment.

Depending on the scope and scale of potential considerations, **Departments should anticipate up to 7 work days to consult ENR CCAQ**, depending on the scope of the issue and decision**.** If the linkage to climate change is limited, this turnaround time could be as short as 3 days.

It is strongly recommended that climate change be considered early in the process, and that CCAQ also be contacted early to provide advice or resources. Doing so will reduce the amount of time needed later to complete the climate change consideration section of the decision-making instrument.

Analysis and Considerations

The Climate Change Factors section should clearly describe at a high-level how the proposal has considered climate change implications, including the GNWT's ability to meet its climate change goals (pg. 7).

Climate Change Assessment Questions

- Will the proposal advance any actions in the CCSF Action Plan?
- Will the proposal significantly impact the NWT's GHG emissions?
- Will the proposal improve knowledge of climate change impacts?

- Will the proposal improve management and adaptation to climate change impacts that are already occurring, or are reasonably foreseeable?

Table 1 can be used to support departments in demonstrating how climate change has been considered within the analysis of the decision-making instrument.

Table 2 provides a listing of other GNWT resources that can assist departments in understanding climate change considerations as part of this analysis.

Examples:

Decision that **would not** include climate change factors:

The Department of Lands routinely submits decision papers for issuing government reserves that provide a land base for government users and projects. In this case, it is not the establishment of the reserve itself that triggers climate change considerations, but rather, the *use* of the land that triggers the climate change consideration and lens. In this instance, it not anticipated that GHG emissions for reserve creations or other land dispositions would be covered in the associated decision paper.

In this case, it would be sufficient to state, *"There are no climate change implications associated with this decision."*

Decision that **would** include climate change factors:

Executive Council approval of an Agriculture Strategy Action Plan

In this case, the climate change considerations could be summarized as: *"The Department has consulted with Environment and Natural Resources (ENR) to determine that the recommended decision directly supports Action Item 3.8c and the Action Area – Protecting and Supporting People by increasing local food security and food production in the Climate Change Strategic Framework Action Plan. ENR advised that this decision will have neither a positive, nor negative impact on GHG emissions, but does improve knowledge of climate change impacts related to country food-related research including climate change impacts to community food security. Improving our knowledge of how climate change and food security, in conjunction with increasing training and education, will build community resilience to the impacts of climate change.*

BACKGROUND

Key Climate Change Concepts

Climate change can have wide-ranging, severe impacts to the natural environment, human health, public safety, culture and heritage, infrastructure, and the economy. For example, in the NWT, we are projected to experience climate change impacts, such as more frequent and intense forest fires, that have consequences for a variety of aspects, including:

- Social (such as impacts of air quality on human health);
- Environmental (such as loss of habitat); and
- Economic (such as loss of land available for development and loss of tourism revenue due to closed roads or facilities).

Adaptation means changing activities and adjusting behaviour in response to a changing climate.

Climate change is a long-term shift in weather conditions identified by changes in temperature, precipitation, winds, and other indicators. Climate change can involve changes in average conditions, both in variability and intensity.

Climate projections are an important consideration for decision making and help anticipate how the future climate will be. Climate projections are made using various models and applying current and future GHG emission scenarios.

Greenhouse gases (GHGs) are gases in the Earth's atmosphere that trap heat and increase Earth's temperature. Although, GHGs occur naturally, human activity has exacerbated the release of these gases.

Greenhouse gas sinks are natural systems (oceans, soils, and forests) that absorb and store carbon dioxide (CO_2) from the atmosphere, impacting GHG concentration levels in the air, and supporting climate change mitigation. Protecting forested landscapes or tree planting are examples of maintaining greenhouse gas sinks.

Mitigation means reducing or preventing the release of GHGs into the atmosphere.

Weather is an everyday atmospheric condition of a particular region, and can be measured through temperature, humidity and wind speed, among other factors.

NWT GHG Emissions

Although the NWT's GHG emissions are very low relative to larger provinces, like Ontario or Alberta, our per capita emissions (amount of GHG emissions per person) are among the highest in Canada, largely due to heating and power generation needs.

Most human caused GHG emissions in the NWT come from fuels used for generating electricity, space heating, transportation and industry:

- **50% from Industry** – includes GHG emissions from heat, electricity and vehicles from mining, oil and gas, and other Industry facilities (GHG Reporting Program).
- **35% from transportation** – includes GHG emissions from domestic aviation, rail transportation, marine transportation and road transportation.

- **10% from community heating** – includes GHG emissions generated from fuels consumed by commercial and institutional buildings and residential housing.
- **4% from community electricity** – includes emissions from power generation in diesel communities.
- **1% from "other" activities** – includes GHG emissions from the treatment and disposal of wastes, such as landfills, biological treatment of solid waste, incineration and open burning of waste, and wastewater treatment and discharge.

The GNWT also tracks its **corporate GHG emissions**. For example, heating and electricity in schools, hospitals and other government buildings, as well as fuel used for ferries, barges, medevacs, fighting fires, chartered planes, vehicles, and government travel, all contribute to GHG emissions and are included in a corporate GHG emissions report.

GNWT Approach to Addressing Climate Change

In general, the GNWT's approach to addressing climate change includes both mitigation efforts (reducing or preventing GHG emissions released into the atmosphere), and also adaptation opportunities (adjusting and responding to a changing climate).

GNWT climate change goals

1. Transition to a lower carbon economy
2. Improve knowledge of climate change impacts
3. Build resilience and adapt to a changing climate
4. Cross-cutting goal: Leadership, communication and capacity-building
5. Cross-cutting goal: Economic impacts and opportunities

Mitigation

Mitigation, in the context of climate change, means reducing or preventing the release of GHGs into the atmosphere. Mitigation can include: using new technologies and renewable energy sources, making older equipment more energy efficient, and changing management and program delivery practices or behaviour to reduce or eliminate emissions. Overall, mitigation aims to reduce the causes of climate change.

Transitioning to a lower carbon economy is the lead responsibility of the Department of Infrastructure through implementation of the Energy Strategy and *Energy Action Plan*, and is also supported by the Department of Finance's implementation of the carbon tax, which has sector-specific GHG reduction targets.

The Energy Strategy's GHG emissions reduction goals are to:

1. Reduce GHG emissions from electricity generation in diesel powered communities by an average of 25%;
2. Reduce GHG emissions from transportation by 10% per capita;
3. Increase the share of renewable energy used for space heating to 40%; and
4. Increase residential, commercial and government building energy efficiency by 15%.

Mitigation should be considered and incorporated into decision-making to support a reduction in GHG emissions in order to reach our emissions reduction targets. Mitigations may include supporting the use of energy efficient technologies, undertaking energy retrofits, and increasing the production and transmission of renewable and alternative energy to replace diesel use. The Energy Strategy acknowledges that energy sustainability is not only related to reducing environmental impacts – including the urgent need to address climate change – but is also about local job creation, economic development, and local self-sufficiency. Accounting for climate change in GNWT decisions will help us strategically assess the impact of decisions in advance and improve accountability.

Adaptation

Adaptation involves modifying decisions, activities and ways of thinking to adjust and respond to a changing climate. Building resilience to climate change focuses on ways to withstand the climate-related changes that are occurring or are yet to come**.**

Through the CCSF, the GNWT has committed to the following adaptation-focused goals:

- Improving knowledge of the climate change impacts occurring in the NWT; and
- Building resilience and adapting to a changing climate.

The NWT is already experiencing changes in average temperature, shifts in the seasons and an increasing frequency of extreme weather events and other climate change impacts, such as thawing permafrost. If adaptation and resiliency efforts are delayed while climate change accelerates, there will be more negative impacts to our society, environment and economy.

Adaptation should be considered and incorporated into decision-making to ensure systems for transportation, power and communication, water and sanitation, and other important infrastructure like health centres, schools and community facilities are resilient to a changing climate. A changing climate may also present opportunities for future economic activity in the NWT, which GNWT departments should consider during program delivery decision-making, priority setting, and the

development of strategies. For example, shortened ice road seasons may reduce economic viability in areas, and expanded growing seasons may enhance opportunities for food security and small-scale farming. A changing climate can also influence human health and how we respond. For example, an expected increase in the frequency of severe smoke events due to wildfire could inform health facility planning and decision-making on program and service delivery.

Table 1. How to assess climate change considerations in GNWT decision instruments

Assessment Question	Things to demonstrate	More information
1. Will the proposal advance any actions in the CCSF Action Plan?	If yes, identify the action number.	This will be a clear driver to identify and describe in the proposal.
	State how the decision will support the action.	For example, Executive Council approval of an Agriculture Strategy Action Plan directly supports Action Item 3.8c and the Action Area – Protecting and Supporting People by increasing local food security and food production.
2. Will the proposal significantly impact the NWT's GHG emissions?	I. Increases GHG emissions II. Decreases GHG emissions III. Does not affect GHG emissions For I, if the proposed decision is expected to significantly increase GHG emissions, describe if/how GHG emissions are being mitigated. For II, if the proposed decision is expected to significantly decrease GHG emissions, describe how. For III, simply state that the decision will have neither a positive, nor negative impact on GHG emissions.	Consider and articulate if the proposal has the potential to **directly or indirectly** affect either: • **Natural** emissions (such as forest fires, release of methane), or • **Human caused** emissions (such as burning of fossil fuels or using alternative technology to reduce use of fossil fuels) Consider and describe at a high-level the **timing/lifespan/source** of the anticipated GHG emissions reductions or increases, keeping in mind that the decision may have numerous components over its lifespan that impact GHG emissions. Examples of direct GHG emissions reductions could be a proposal to undertake energy retrofits or pursue clean energy development projects (such as hydro or wind). Many proposals may indirectly impact GHG emissions. Have these impacts been considered?

Assessment Question	Things to demonstrate	More information
		For example, a proposal to create a conservation area, or protect forests or other habitat, is likely to reduce GHG emissions by storing carbon that would otherwise be transferred to the atmosphere. For human caused GHG emissions, identify the source of GHG emissions change (such as from transportation, industry, heating, and/or electrical generation).
3. Will the proposal improve knowledge of climate change impacts?	If yes, describe what knowledge is being gained or gap is being filled. If no, state that the decision does not result in additional knowledge of climate change impacts.	Climate change impacts can include the costs, risks and vulnerabilities of climate change. Impacts can disrupt business operations, cause property damage, disrupt supply changes and infrastructure leading to increased costs of maintenance and materials, and raise prices. For example, projects that include a monitoring or research component could contribute to our understanding of climate impacts (i.e., liquefied natural gas (LNG), biomass projects, strategic education or Polytechnic decisions). Consider how this knowledge will be captured and shared (e.g., publication, online). • Contact the Climate Change and Air Quality section at ENR for assistance, if required.
4. Will the proposal improve management and adaptation to climate change impacts that are already	Describe how the proposal will help us adapt/build resiliency to current and future adverse climate change impacts.	Consider what the future climate conditions in the area of your project could be. Building resiliency and adaptation to climate change is most evident in infrastructure projects, but it is also important to consider how programs, action plans,

Assessment Question	Things to demonstrate	More information
occurring, or are reasonably foreseeable?		policy frameworks and other operations may provide opportunities for resiliency building and adaptation. For example, resiliency can include governance mechanisms that account for uncertainty and are flexible, allowing climate change to be considered. This includes measures that will increase social or educational capacity to adapt such as training programs or measures to increase food security. Economic development includes new economic opportunities that climate change may bring (e.g. longer growing season enhancing agriculture and forestry, longer summer tourism season, longer marine shipping season). Note: Some GNWT adaptation projects abide by national codes and standards that take into account the impacts of climate change. This would be worth noting.

Table 2: Other Resources

Additional resources are available, for general interest, or should ENR-CCAQ or Central Agency require specific additional information about how climate change impacts or is impacted by your proposed decision.

Department	Topic	Contact information
ENR	Climate Change – general	climatechange@gov.nt.ca For climate predictions or data: • See the Climate Atlas of Canada • See Climate Data for a Resilient Canada To support adaptation in decision-making it is useful to undertake a risk assessment. Two common ones are below: • Public Infrastructure Engineering Vulnerability Committee has developed a tool for accessing the climate change risk of infrastructure • Climate Lens Assessment (often used for federally funded infrastructure projects.) To pursue a climate lens assessment, contact CCAQ to determine feasibly.
	Forestry and wildfire	Contact information to be provided
	Knowledge Agenda	Contact information to be provided
	Traditional Knowledge	Contact information to be provided
	Wildlife	Contact information to be provided
	Water	Contact information to be provided
	Conservation	Contact information to be provided
ECE	Archaeology	Contact information to be provided

Department	Topic	Contact information
	Heritage	Contact information to be provided
	Education	Contact information to be provided
ITI	Permafrost	Contact information to be provided
	Agriculture & Food security	Contact information to be provided
	Economic development	Contact information to be provided
INF	Engineering	Contact information to be provided
	Building Code & standards	Contact information to be provided
	Energy & GHG mitigation	GHGGrant@gov.nt.ca To describe potential emissions mitigation actions for your proposal: • See the GHG Program Guide for Government (pg. 7) for advice on reducing emissions. For additional optional guidance, the Energy Division of the Department of Infrastructure can provide advice on external resources that can be called upon, and methods that can be used to measure/estimate/calculate human caused GHG reductions related to a project.
Lands	Land use planning	Contact information to be provided
MACA	Community infrastructure	Contact information to be provided
	Community planning	Contact information to be provided
HSS	Human health impacts	Contact information to be provided