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## Climate Change in the Northwest Territories



Office of the  
Auditor General  
of Canada

Bureau du  
vérificateur général  
du Canada

# Climate Change in the Northwest Territories

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## What we examined (see Focus of the audit)

According to the Northwest Territories Department of Environment and Natural Resources, the impact of climate change on the Northwest Territories is significant and widespread.

While the Northwest Territories is a small emitter of greenhouse gases, it is particularly vulnerable to the impacts of climate change. The Department has reported that the average surface temperature in the Northwest Territories has risen by about 2 degrees Celsius since the 1940s, compared with a 0.74 degree Celsius increase worldwide. In one area of the Northwest Territories, this increase has reached 3 degrees Celsius.

These impacts threaten the livelihoods of residents and way of life of communities, in particular Indigenous communities, many of which are remote. The Northwest Territories' efforts to adapt to climate change cover 33 communities that are spread over 1 million square kilometres.

This audit focused on whether the Department of Environment and Natural Resources and the Department of Infrastructure took adequate steps to meet their commitments to reduce territorial greenhouse gas emissions and to adapt to climate change impacts in the Northwest Territories.

## Why we did this audit

This audit is important because climate change significantly affects the Northwest Territories and the government needs to know what it has to do to adapt. Climate change is affecting wildlife, landscape, and critical infrastructure, as well as residents' food and fuel security, their traditional economy, and their ability to get in and out of their communities.

## What we concluded

We concluded that the measures taken by selected Government of the Northwest Territories departments were not adequate to fulfill the government's climate change commitments to reduce territorial greenhouse gas emissions and to adapt to climate change impacts in the Northwest Territories.

## What we found

### Leadership on climate change

Overall, we found that the Department of Environment and Natural Resources did not fulfill its leadership role and meet its commitments on climate change. The Department did not identify the risks to the Northwest Territories posed by climate change, establish a territorial strategy to adapt to climate change, or provide departments and communities with easy access to the information needed to take action to address climate change impacts.

Instead, Government of the Northwest Territories departments and communities pursued their own adaptation efforts. This resulted in a piecemeal approach to adaptation. Consequently, the government did not know whether the territory was doing enough to adapt to climate change impacts, whether the areas of greatest risk were being addressed, and whether the adaptation actions of one department or community had negatively affected another.

While the Department of Environment and Natural Resources focused its climate change efforts on developing greenhouse gas strategies, it did not set meaningful emission targets or focus on major emitters.

This is important because without a territory-wide focus on adaptation, clear leadership, strategic direction, and access to relevant climate change information, departments and communities will continue to face the severe and costly impacts of climate change on their own.

- **The Department of Environment and Natural Resources did not develop a territorial strategy to adapt to climate change**

**Recommendation.** The Department of Environment and Natural Resources should develop and implement a strategy outlining how the Northwest Territories will adapt to climate change. The strategy should

- include a territory-wide assessment of climate change risks;
- be developed with input from other territorial departments and residents;
- take into account regional diversity, current adaptation efforts, and existing knowledge of climate change impacts in the territory; and
- include indicators to facilitate tracking of climate change adaptation progress, a clear implementation plan, and provision for ongoing assessments and updates as adaptation needs evolve.

- **The Department of Environment and Natural Resources did not fulfill its commitment to provide departments and communities with information needed to take action on climate change**

**Recommendation.** To better support climate change information needs and adaptation decisions, the Department of Environment and Natural Resources should do the following:

- Identify the climate change information needs of Government of the Northwest Territories departments as well as those of communities.
- Provide departments and others with access to relevant climate change information to make informed adaptation decisions. This would include collecting new information, accessing information already available, and establishing mechanisms to house and share this information. The Department should work with other government departments, agencies, communities, and research institutions to identify existing climate change-related information.
- Monitor implementation of the Knowledge Agenda: Northern Research for Northern Priorities.

- **The territorial greenhouse gas strategy did not have a significant impact on reducing emission levels**

**Recommendation.** The Department of Environment and Natural Resources should

- develop a new greenhouse gas (GHG) strategy for the Northwest Territories that includes concrete actions for addressing GHG emissions, how the actions will address emissions, and the specific steps for their implementation; and
- actively monitor the commitments in its new GHG strategy and publicly report on progress made and results achieved on an ongoing basis.

**Recommendation.** In developing and implementing its greenhouse gas (GHG) strategy, the Department of Environment and Natural Resources should engage with stakeholders, including industry, to clearly identify commitments to address GHG emissions in each sector across the Northwest Territories.

- **The Department of Environment and Natural Resources did not address long-standing deficiencies affecting its leadership on climate change**

**Recommendation.** The Department of Environment and Natural Resources should consider options for how best to fulfill its responsibilities as the lead for climate change in the Government of the Northwest Territories. This could include

- considering what authority is needed, and
- identifying the resources needed to fulfill its responsibilities.

Some of these options could be considered as part of the Department’s development and implementation of a territorial climate change strategic framework.

## Adapting to climate change impacts

Overall, we found that the departments we examined were not doing enough to address climate change risks and adapt to the many diverse impacts on wildlife and buildings. While the Department of Environment and Natural Resources had set out protections for some vulnerable species, such as selected caribou species, it had no overall adaptation plan to better protect wildlife and help ensure that the areas of greatest risk were being addressed.

On the other hand, the Department of Infrastructure identified specific adaptation actions to protect public roads and buildings from the risks posed by climate change, but these were only routinely carried out for roads.

This finding matters because the impacts of climate change can be significant in many areas. For example, many residents of the Northwest Territories depend on wildlife for food and income, and wildlife has a high cultural value. The territory’s roads are critical to the economy and security, bringing in needed supplies to communities and businesses, and helping to manage the high costs of living in the north. Public buildings such as schools, hospitals, and health clinics provide critical services.

- **Departments did not take enough action to address climate change risks**

**Recommendation.** The Department of Environment and Natural Resources should identify and implement wildlife management actions to adequately adapt to climate change. This should include

- conducting an assessment of risk for its overall wildlife management strategy to ensure that all climate change risks to wildlife have been identified;
- collecting the information required to understand climate change impacts on wildlife, including the status of species in the territory;
- taking action to address the risks identified; and
- working to fulfill those commitments it had already identified as important to addressing climate change impacts on wildlife.

**Recommendation.** The Department of Infrastructure should consistently carry out those operational practices that it committed to in order to manage the impacts of climate change on public buildings.

**Recommendation.** The Department of Infrastructure should consistently carry out those operational practices that it committed to in order to manage the impacts of climate change on roads, in particular for the management of small culverts and ice roads.

## Entity Responses to Recommendations

The audited entities agree with our recommendations, and have responded (see List of Recommendations).

## Related Information

|                         |   |
|-------------------------|---|
| <b>Report of the</b>    | Auditor General of Canada   |
| <b>Type of product</b>  | Performance audit   |
| <b>Audited entities</b> | <ul style="list-style-type: none"> <li>• Department of Environment and Natural Resources</li> <li>• Department of Infrastructure</li> </ul> |
| <b>Completion date</b>  | 14 September 2017   |

|                       |   |
|-----------------------|---|
| <b>Tabling date</b>   | 18 October 2017   |
| <b>Related audits</b> | <ul style="list-style-type: none"><li>• Reports to the Northwest Territories Legislative Assembly</li></ul> |

## For more information

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