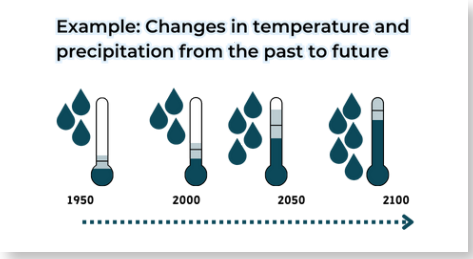
Getting started with Western science-based climate data for the North

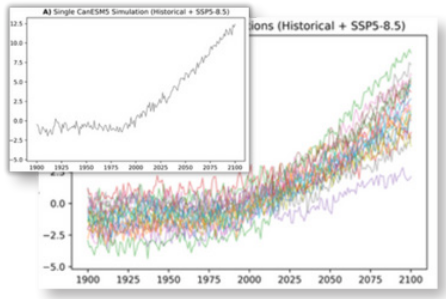
Future Planning

Using future projections could benefit community adaptation, risk reduction strategy, infrastructure longevity, and financial efficiency.



Uncertainty

Climate projections include uncertainty based on natural variability, climate models, and emissions scenarios. No single model is the best, to provide a picture of possible future climates, it is recommended to use several models.

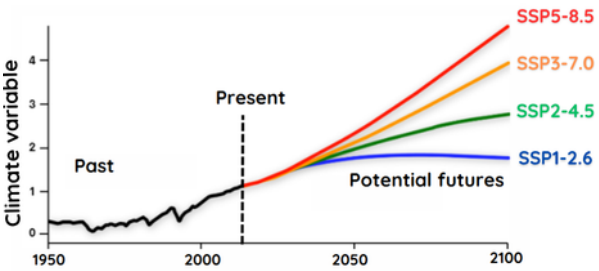


A single projection shows natural variability (left), a whole group of models can provide a better range of uncertainty due to both natural climate variability and model differences (right).

Northern Canada is experiencing, and will continue to experience, significant impacts from climate change. Climate data projections help for planning (e.g., ice road integrity).

Multiple futures

Use a range of future emissions scenarios when planning and decision making to assess a wider range of risks and outcomes pertaining to a project.



Scenarios used to model possible futures are based on different emissions levels.

Weather ≠ Climate

Climate operates on a much longer timescale than weather. Use climate data from ten to thirty-year averages to show long-term, future climate conditions rather than short-term weather variations. Weather operates on an hourly to daily scale versus climate operates on a thirty year scale.

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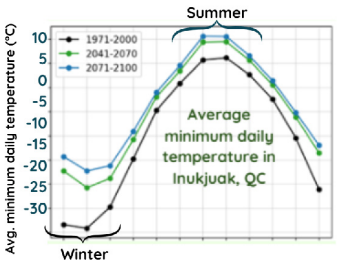
Seasonal changes

Consider seasonal changes and how they may differ from annual changes, to provide additional insight to the changing climate.

Example: Daily minimum temperatures have increased more in the winter than in the summer in Inukjuak, QC.



Climate data does not explain everything. It is equally important to consider the knowledge and lived experiences of Indigeous and local people to see the full picture.

Bigger picture

Understand the interactions between climate variables and consider several of them together to create a more comprehensive picture of anticipated changes in climate.

Using indices together can provide more insight than alone. For example, temperature and precipitation can give insight about ice formations.

Current updates

Climate datasets and projections are always being developed and improved. Staying updated with robust and relevant climate data can help with risk assessments and decision making.

CanDCS-M6 data provides local future projections in a range of emissions scenarios.

ClimateData.ca

Northern communities can benefit from accessing localized future projections using the M6 climate dataset!

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