The Northern Food Systems Inventory Map and the Yukon Climate Change Inventory Map (created in 2018) act as a repository for the many assets (i.e. initiatives, services and entities) across the North that relate to food systems and climate change. The maps are a tool for connecting communities, practitioners, researchers, and policy makers to opportunities, knowledge, innovation, and resources for community-level adaptation and action.

www.aicbr.ca/climate-change-and-food-systems-inventories
Climate Change

Climate change is considered one of the greatest threats to our survival on this planet and the North is warming faster than any other place on earth, changing the health of society and ecosystems in significant ways.

Over the last half a century, the average annual temperature in northern Canada increased by 2.3°C (with a range of 4-6°C average rise in the winter). This is roughly three times the rate of the rest of the world.

What has resulted is a reduced snowpack, unreliable precipitation patterns, a decline in key traditional food species, more adverse weather events and natural disasters, rapidly melting glaciers and sea ice, thawing permafrost and sinking infrastructure, as well as changes to [sea and fresh] water temperature, levels and quality.

Indigenous communities are amongst those most affected by these rapid changes.

Northern Food Systems

The issues of northern food insecurity and climate change are inextricably linked and highly complex. Northern food systems are made up of a mix of market, locally produced and harvested traditional foods, with a heavy reliance on southern routes of distribution. However, traditional food species and traditional harvesting practices are being threatened by climate change and food transportation/distribution systems are increasingly vulnerable to the impacts of natural disasters and unpredictable weather.

Communities across the North have expressed urgent concerns over the fragility of these systems and their impact on human survival as climate change progresses.
Asset inventory maps help to...

- compile information on food systems and climate change initiatives, services and entities
- highlight promising practices in order to better inform policy and program development
- strengthen partnerships and promote knowledge sharing
- inspire community action for food system development as a way to adapt to and mitigate against climate change

Northern Food Systems Inventory

- Production & Harvesting
- Processing & Storage
- Distribution & Exchange
- Food Coordination, Policy & Networks
- Transportation
- Consumption
- Food Waste

There are 8 food system themes and 3 climate change themes.

Yukon Climate Change Inventory

- Adaptation
- Mitigation
- Monitoring

There are 3 climate change themes.

The Northern Food Systems Inventory Map categorizes asset information based on 8 theme areas across 5 northern regions.

The Yukon Climate Change Inventory Map categorizes asset information based on 3 theme areas across the Yukon.
A total of 1048 food systems assets were captured in the North in 2018. The following numbers indicate how many assets there were in each region:

- Northwest Territories: 377
- Yukon: 448
- Nunavut: 162
- Nunavik: 28
- Nunatsiavut: 32

A total of 178 climate change assets were captured in the Yukon in 2018.

**Reach**

refers to where the activities are applicable to within the study regions. Only those assets which have a northern base are included on the maps. For example, a federal program’s activities apply to communities across Canada so its reach is national; while a program that is only in one community and is led and developed by the community, is community-level in its reach.

**Structure**

refers to governance (i.e. who is involved in leading the asset.)

- Government: 40%
- Community/NGO: 22%
- Business: 30%
- Research Organization: 3%
- Informal/Ad-hoc: 3%
- Networks: 1%
- Other: 1%

- Pan-Northern: 40%
- [Territory/Region]-Wide: 6%
- Community-Level: 55%

- Government: 37%
- Community/NGO: 4%
- (2%) Business

*51% of partnerships involved some level of government; 30% involved research organizations.*
Almost half of the 178 climate change assets captured in the Yukon had a primary theme of adaptation (47%), followed by mitigation (37%) and monitoring (16%). About a quarter of assets (24%) however had crosscutting themes, meaning they could be described as having at least one or more secondary themes; for example, a land guardians program could be described as a monitoring asset primarily, however, the program also has adaptation components.

Most action is community-level in reach
Of the community-level assets, 51% were mitigation, 32% adaptation and 17% monitoring. Community-level action included renewable energy projects (mitigation), vulnerability assessments and hazard mapping (adaptation), as well as key species monitoring (i.e. moose, salmon, caribou), among others.

Climate change’s impacts are local. Thus local capacities must be strengthened in order to act and adapt.
Common success factors (top 6)

- Access to healthy (and local) foods
- Education/skills building
- Community-supported/driven
- Dedicated staff/volunteers
- Participants enjoy
- Addresses need

Common challenges (top 5)

- Lack resources/capacity (non-$) 52=N=14
- Funding issues 38=N=9
- Not accessible 36=N=8
- Cost prohibitive 34=N=6
- Unable to meet demand 32=N=4

Assets identified success factors: 152
Assets identified challenges: 41
Mapping assets is a way to build a more comprehensive picture of the many diverse activities and entities active in the Yukon and across the North. It is also a way to identify strengths and where further work may be needed to promote sustainable northern food systems development as a means for adapting to climate change.

MAP. CONNECT. ADAPT.

Learn More: https://www.aicbr.ca/food-systems-knowledge-products

To learn more about Yukon climate change and Northern food systems assets, read the full analysis report on AICBR’s website.