



# Map. Connect. Adapt.

MOBILIZING KNOWLEDGE FOR  
NORTHERN COMMUNITY  
CLIMATE CHANGE ADAPTATION &  
FOOD SYSTEMS DEVELOPMENT

## *An Asset Inventory Mapping Project*

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](http://www.aicbr.ca/climate-change-and-food-systems-inventories)

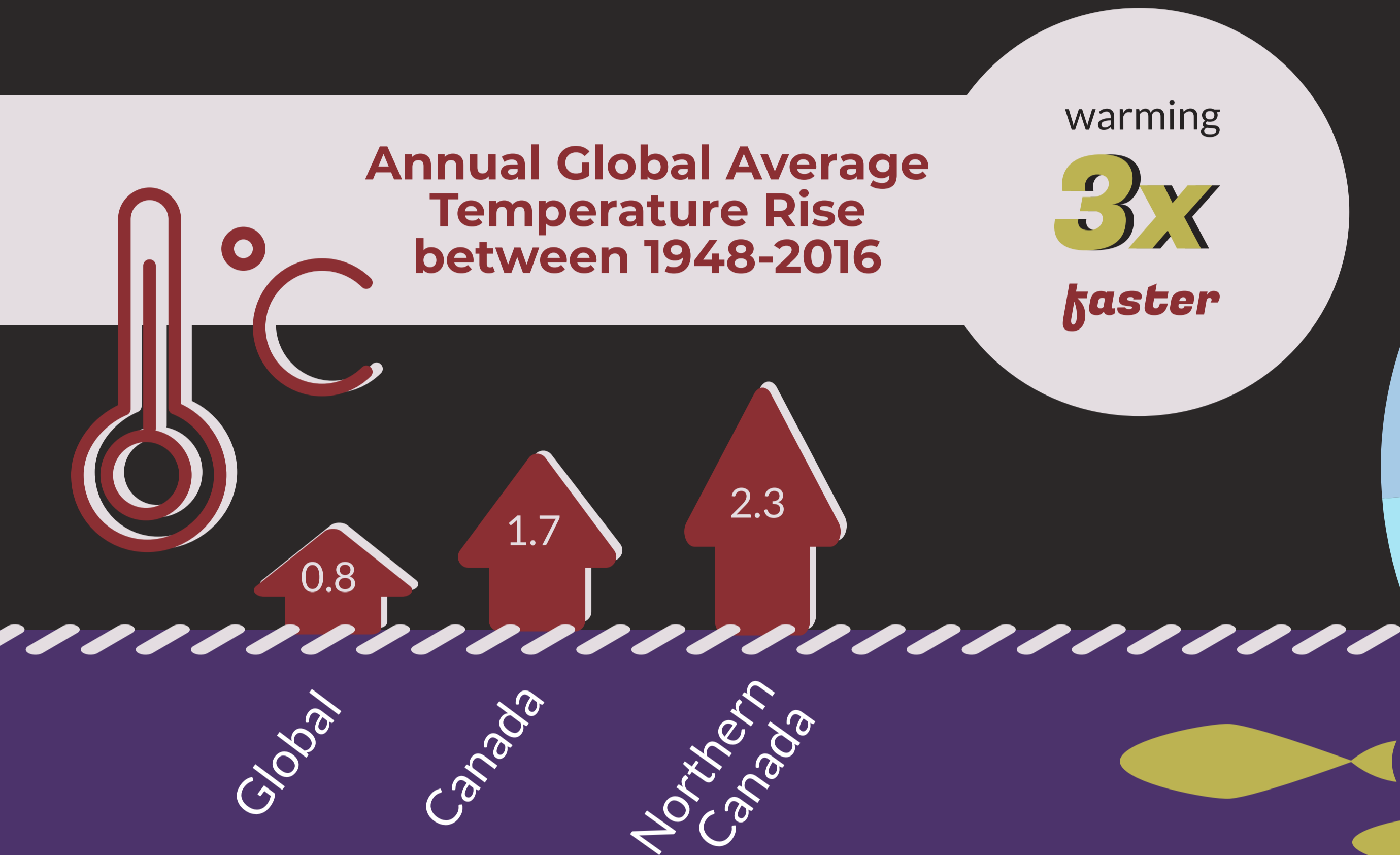
# Climate Change

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

### & CLIMATE IMPACTS ON FOOD SECURITY

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.

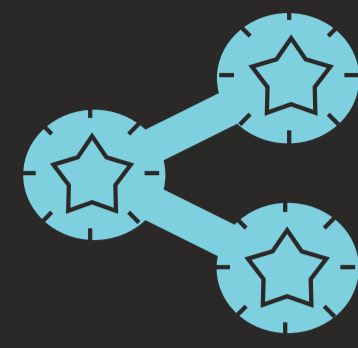


Communities across the North have expressed urgent concerns over the fragility of these systems and their impact on human survival as climate change progresses.

# Asset inventory maps help to...



compile information on food systems and climate change initiatives, services and entities



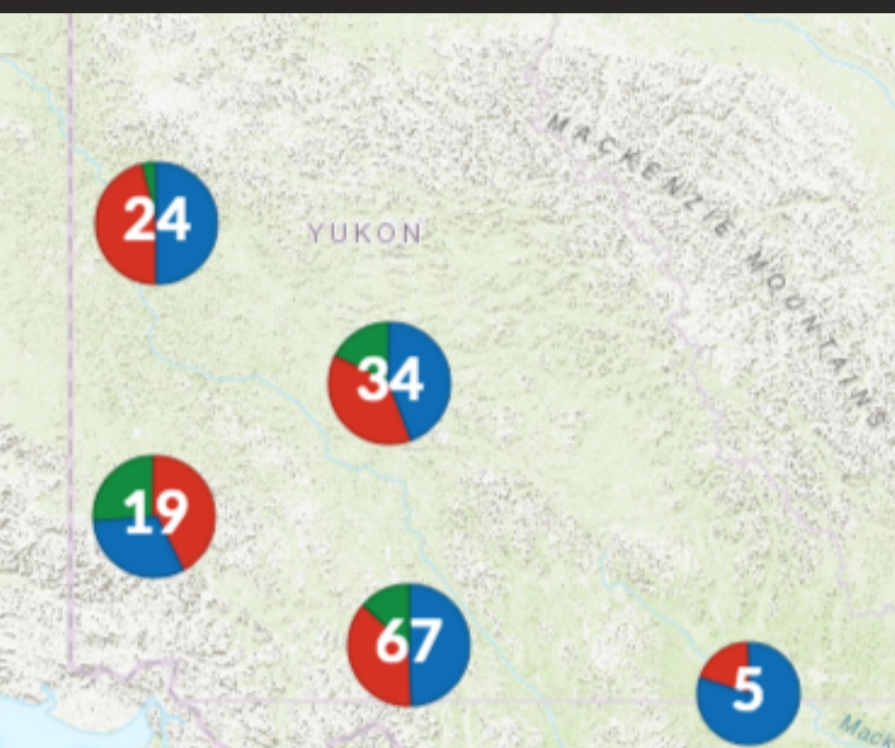
strengthen partnerships and promote knowledge sharing



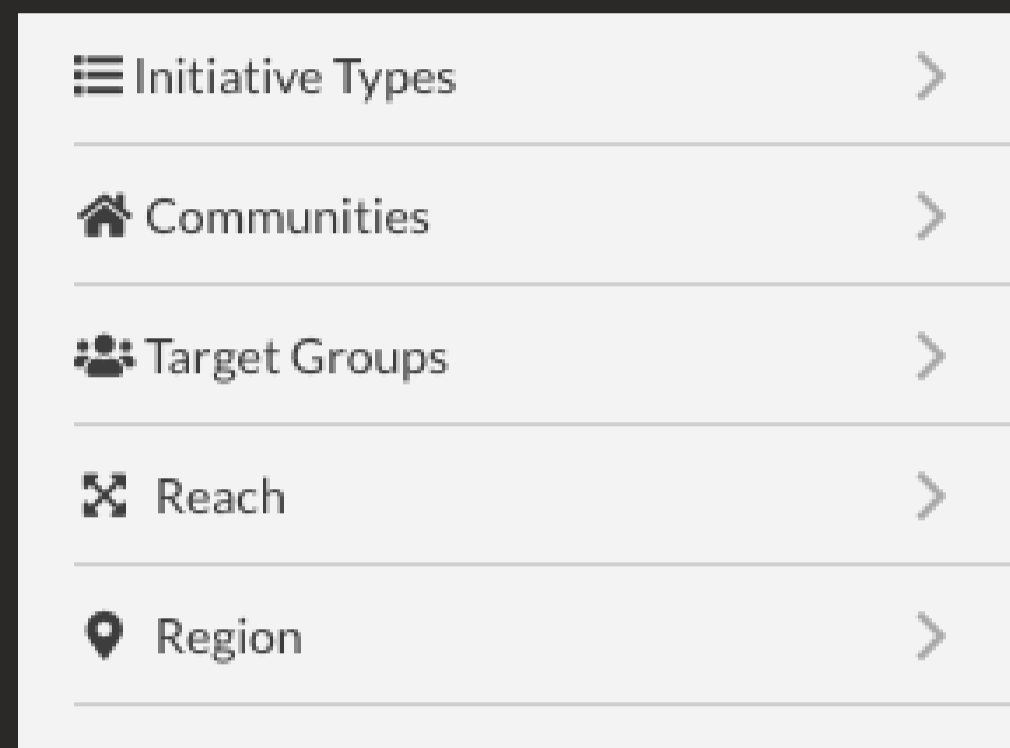
highlight promising practices in order to better inform policy and program development



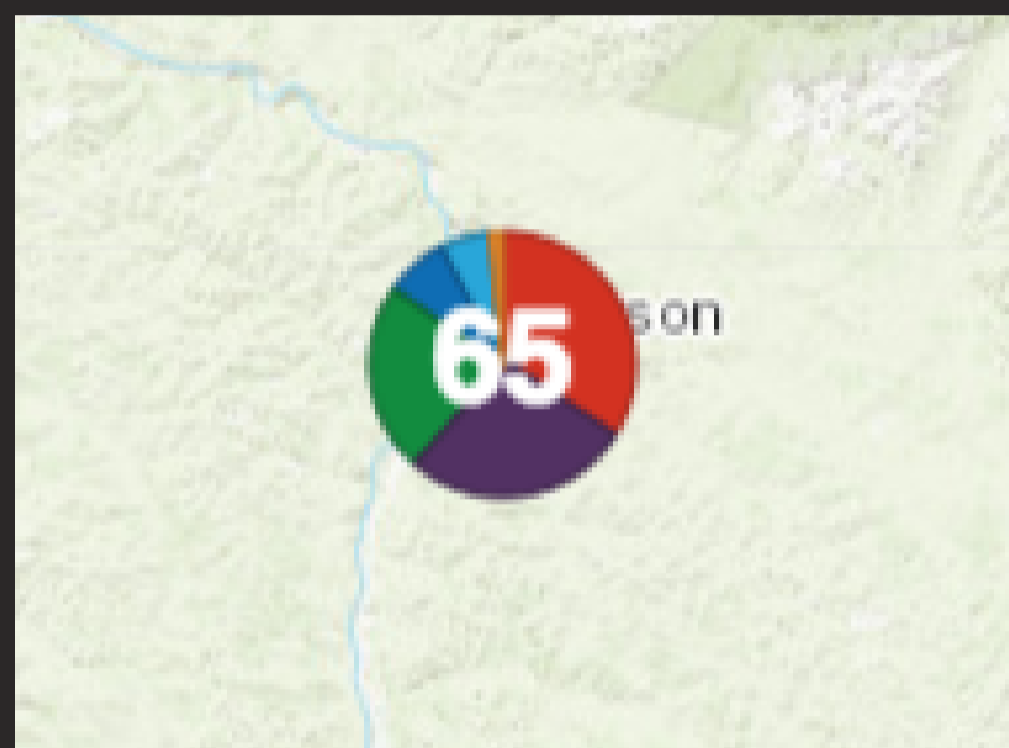
inspire community action for food system development as a way to adapt to and mitigate against climate change



EXPLORE



FILTER



COUNT



IDENTIFY



LEARN

## Northern Food Systems Inventory



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

## Yukon Climate Change Inventory



The Yukon Climate Change Inventory Map categorizes asset information based on 3 theme areas across the Yukon.

Northwest Territories

Nunavut

Yukon

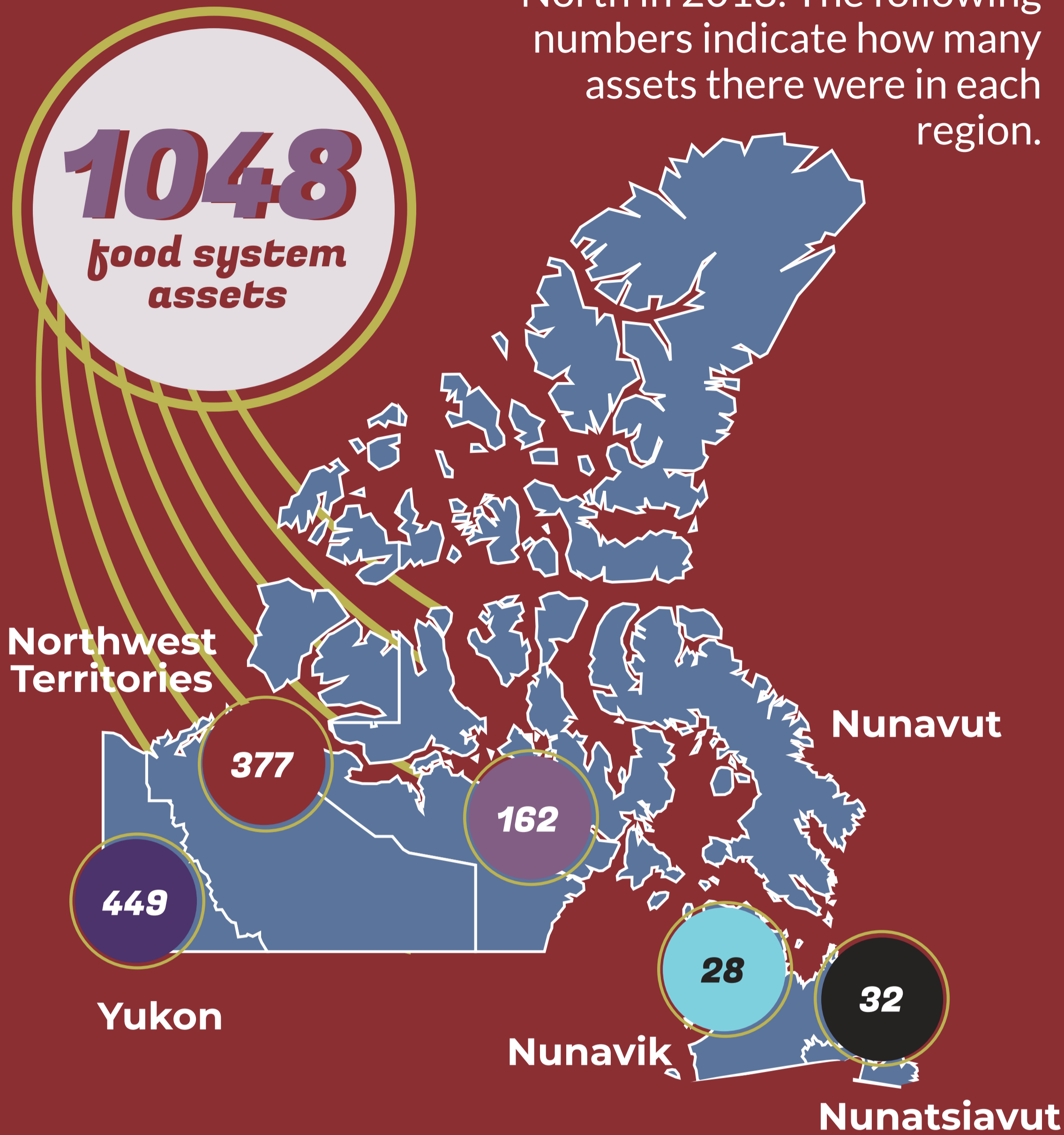
Nunavik

Nunatsiavut

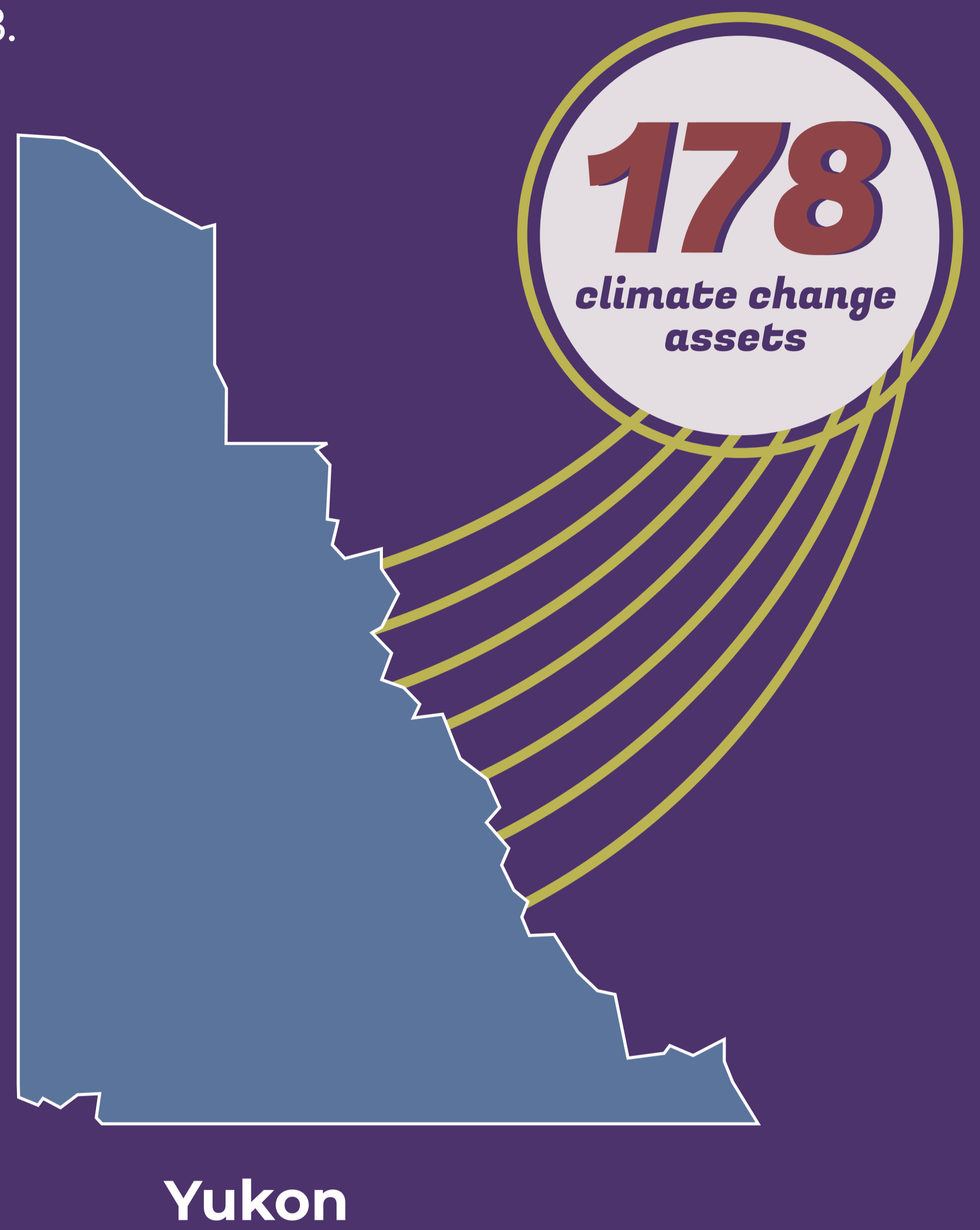
# Assets

include **entities**, like farms, shops and grocery stores, **services**, like utilities and transport services or one-off events/campaigns, and **initiatives**, like food/nutrition programs, policy, funding or research initiatives and networks.

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.

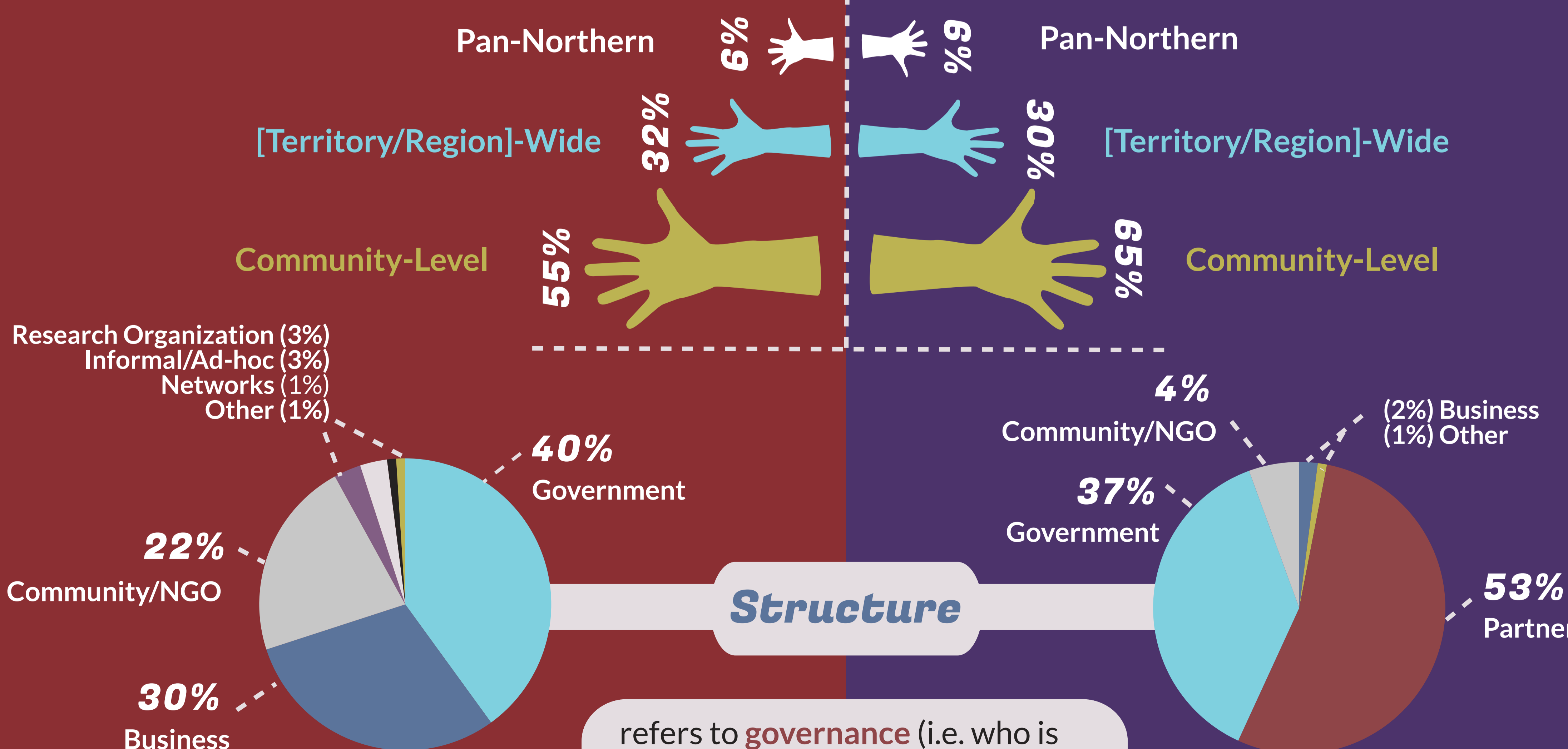


A total of **178** climate change assets were captured in the Yukon in 2018.



## Reach

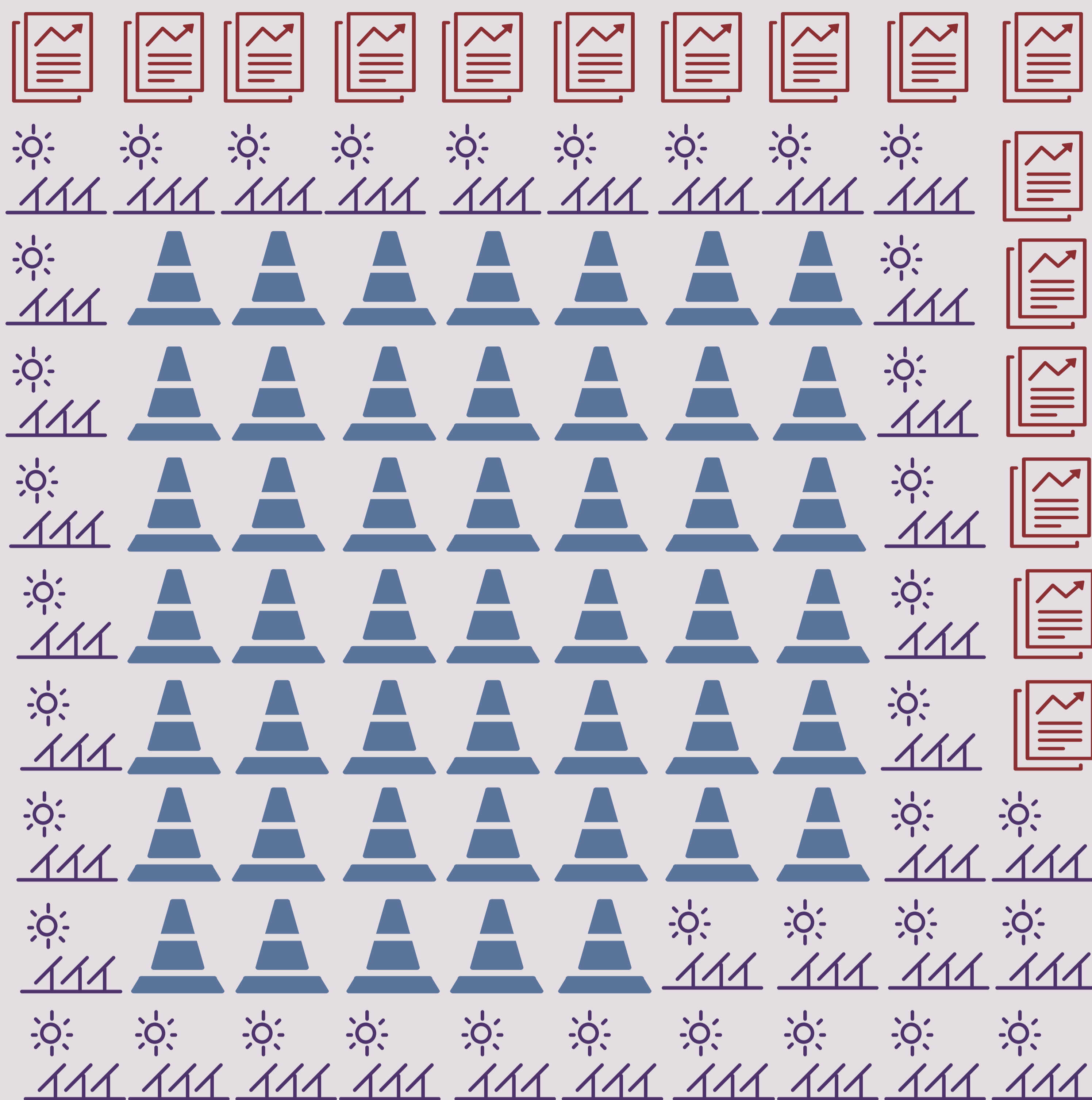
refers to where the activities are applicable to within the study regions. Only those assets which have a **northern base** are included on the maps. For example, a federal program's activities apply to communities across Canada so its reach is national; while a program that is only in one community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



\*51% of partnerships involved some level of government; 30% involved research organizations.

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

## Types of climate change assets captured in the Yukon (%)



### Adaptation (47%)

refers to the actions taken to *limit our vulnerability or adjust to the impacts* of climate change (i.e. not necessarily dealing with root causes of those impacts)

### Mitigation (37%)

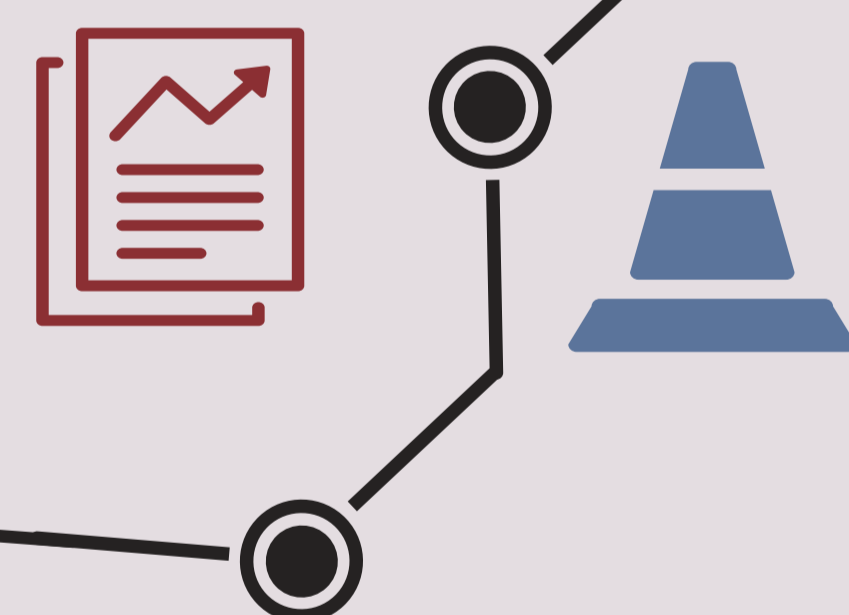
refers to the actions taken to *reduce the severity* of climate change (i.e. dealing with the root causes)

### Monitoring (16%)

refers to the actions taken to *understand our changing climate and its impacts* (i.e. watching our climate and environmental systems)

Themes were used to categorize the assets according to their main activities.

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

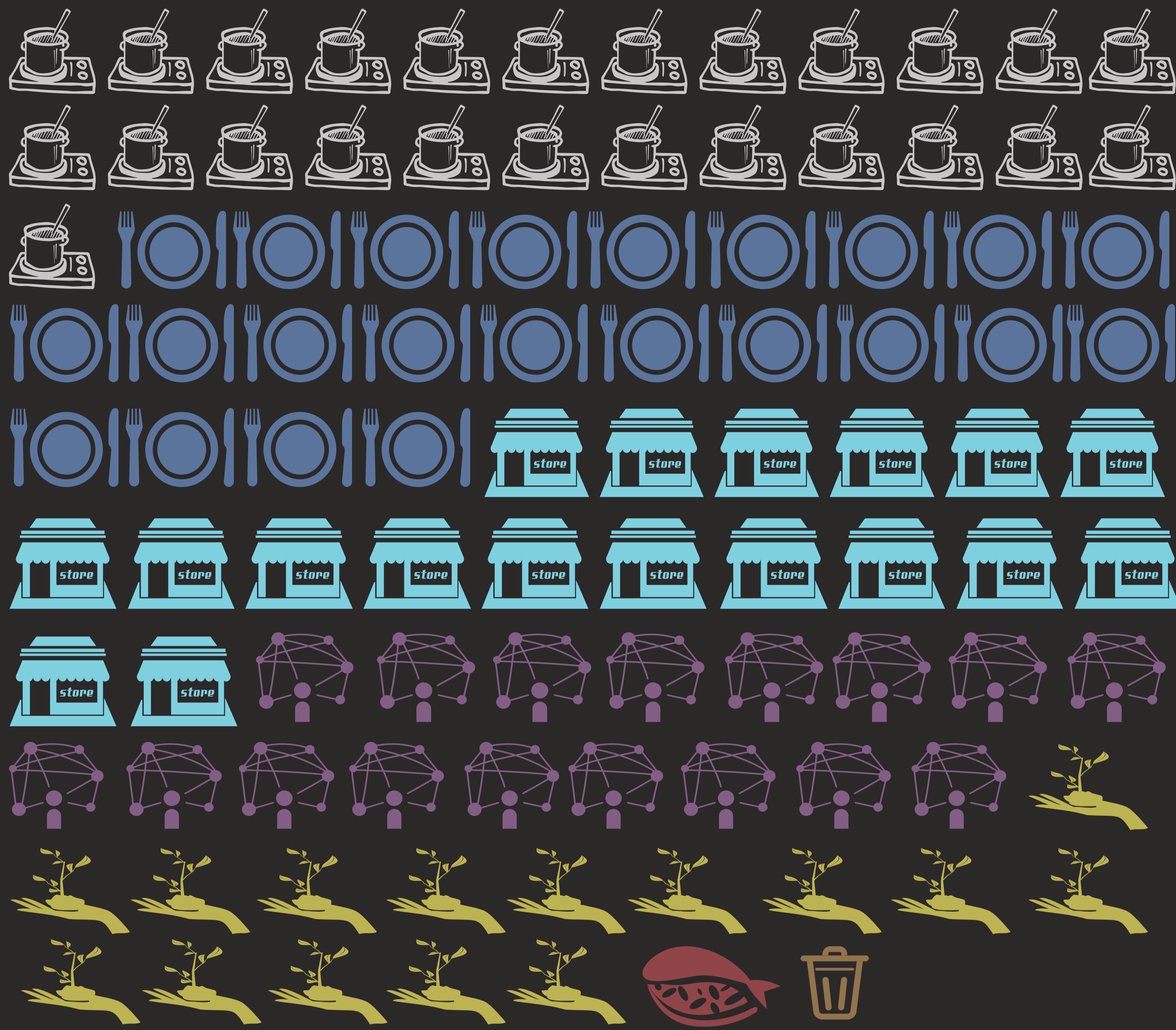
Of the community-level assets, **51%** were mitigation, **32%** adaptation and **17%** monitoring. Community-level action included renewable energy projects (*mitigation*), vulnerability assessments and hazard mapping (*adaptation*), as well as key species *monitoring* (i.e. moose, salmon, caribou),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

**Climate change's impacts are local. Thus local capacities must be strengthened in order to act and adapt.**

# 65%

(or n=115) of all assets were locally-based and initiated

# Types of food systems assets captured in the map (%)



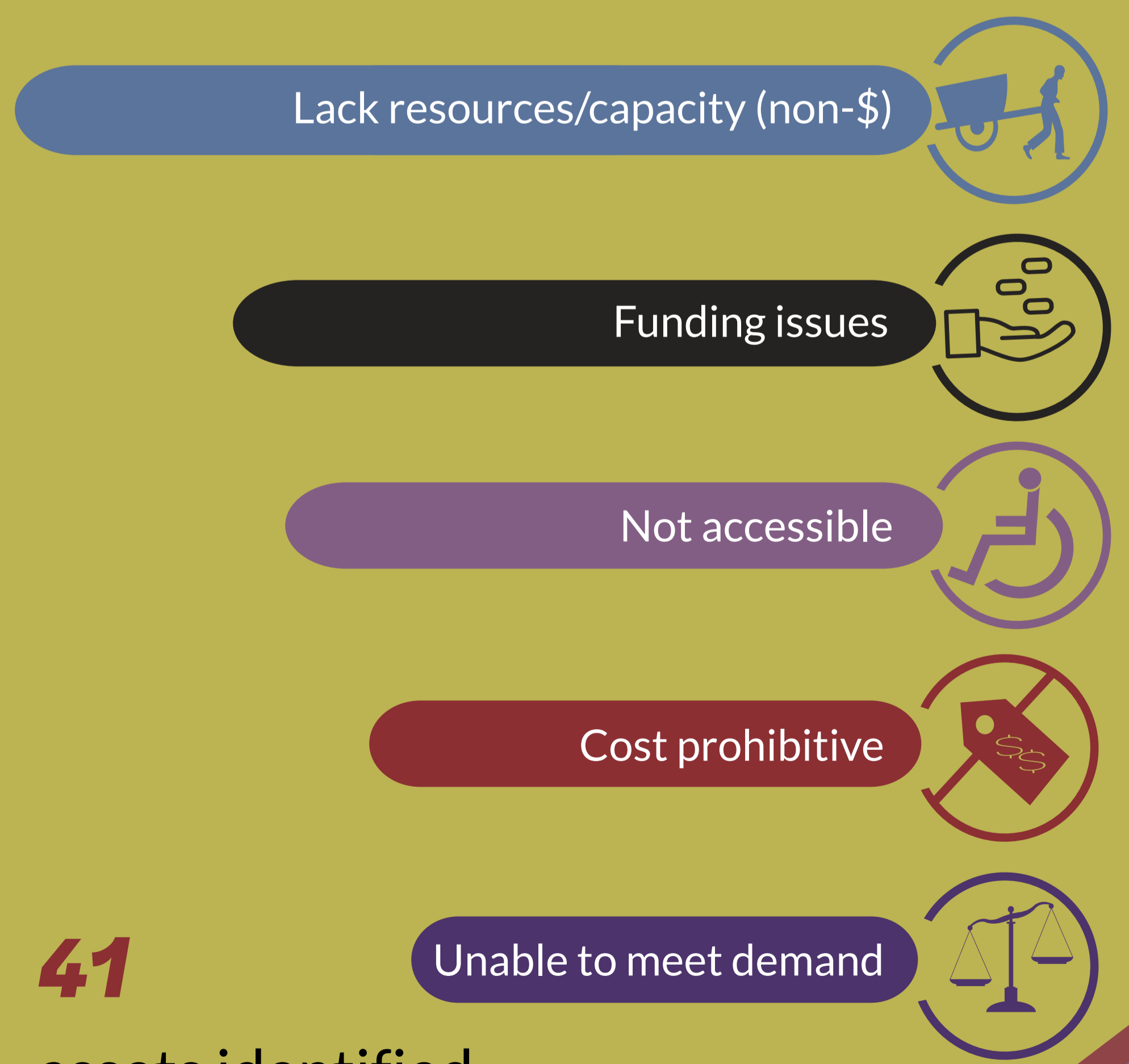
- Food Skills, Knowledge & Culture (25%)
- Consumption (23%)
- Distribution & Exchange (18%)
- Food Systems Coordination, Policy & Networks (17%)
- Production & Harvesting (15%)
- Processing & Storage (1%)
- Food Waste (1%)
- Transportation (0%)

## Common success factors (top 6)

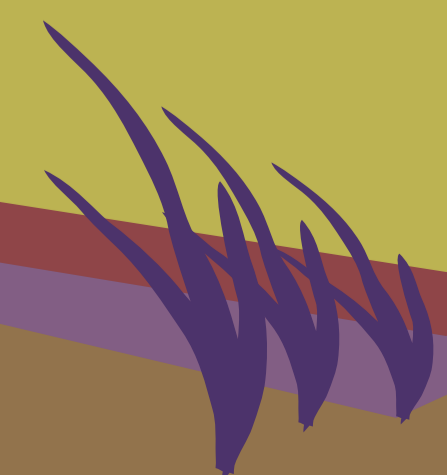


**152**  
assets identified  
success factors

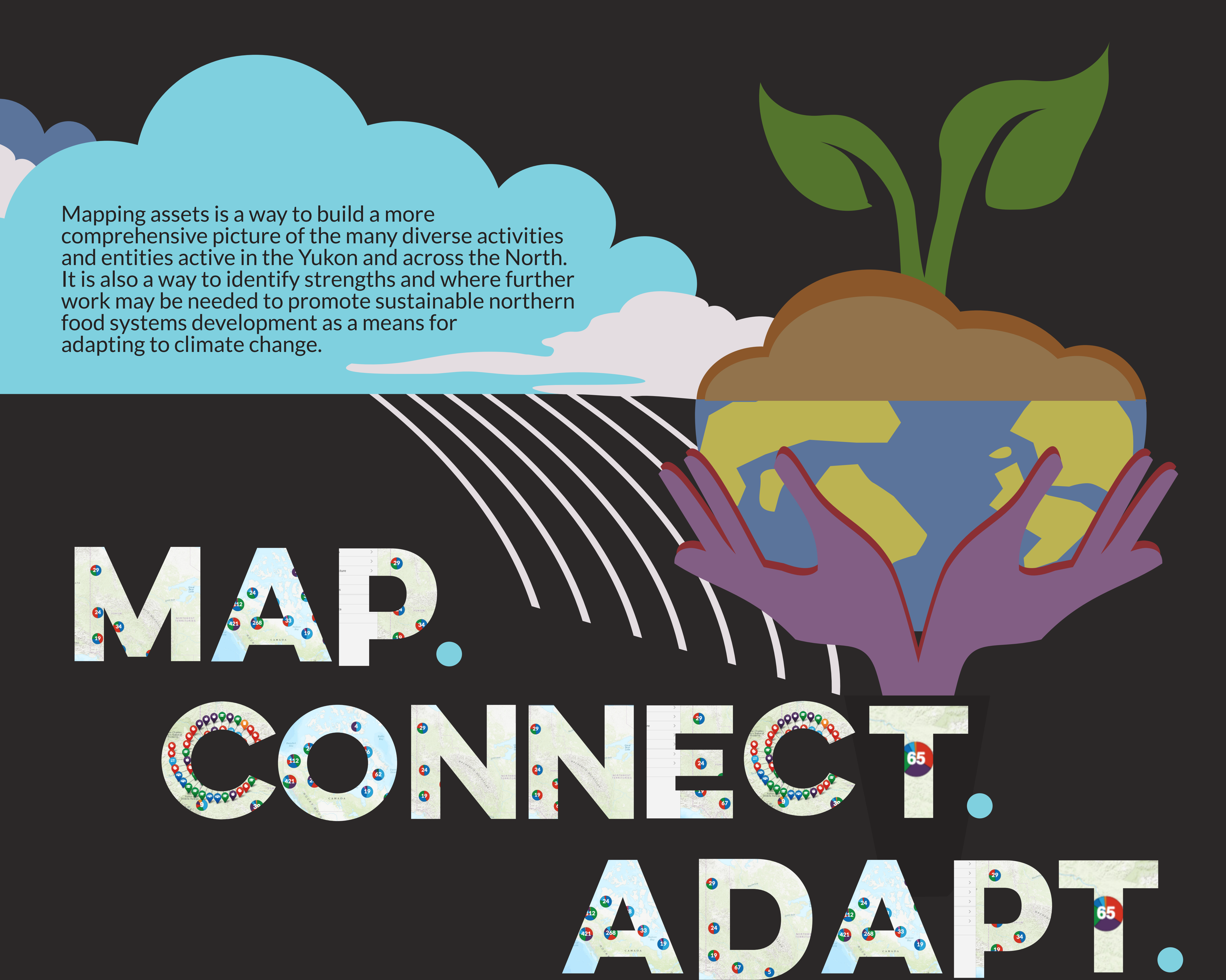
## Common challenges (top 5)



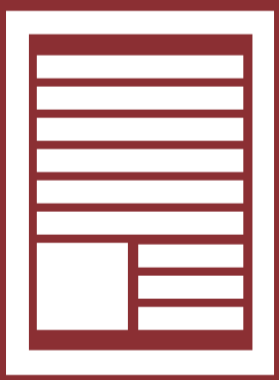
**41**  
assets identified  
challenges



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.



Arctic Institute of  
Community-Based Research  
For Northern Health and Well-Being

**Yukon**

This project is a collaboration between the **Arctic Institute of Community-Based Research** & **Yukon Government's Agriculture Branch**

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