

ENVISIONING A CLIMATE CHANGE-PROOF FUTURE

The memories of our culture are at stake

The effects of climate change impact families devoted to traditional livelihoods in Qaanaaq. With snow, ice, and winds becoming less predictable, hunting areas and days are declining, and flora and fauna migration routes are changing.

Dog sled: used for hunting and tourism

Dog sleds have been an integral part of the Inughuit traditional lifestyle. However, the number of dog-sled rides has decreased in favor of the snowmobile. While the dog sleds have historically served for hunting, they have also become a tourist attraction, providing a new source of income.

Cruise tourism in the northern most town of Greenland

Due to limited flights arriving in Qaanaaq, the number of tourists who can stay for several days to experience the local lifestyle and area is restricted. Instead, several large cruise ships arrive during the summer months, flooding the town with tourists for a couple of hours. Unfortunately, this influx does not lead to any positive spill-over effect on the local economy.

SUPPORTING HERITAGE AND THE ENVIRONMENT THROUGH LOCAL COMMUNITIES

New policies and investment incentives should encourage the profitability of traditional fishing and hunting activities by promoting an industry based on local species and ancestral techniques. Additional subsidies or programs to revitalize the region should help guarantee income during non-fishing and hunting months.

DEVELOPING A SUSTAINABLE TOURISM INDUSTRY FOR ALL

Local hunters cooperatives and local restaurateurs should manage tourism activities by themselves getting most of the profit. The right blend of regulations and incentives can discourage low-engagement tourism facilitated by transatlantic cruise ships and encourage sustainable tourism that respects and appreciates the culture and traditional lifestyles of the community.

LEARN MORE



LICCI is a European Research Council (ERC) funded project aiming to bring Indigenous and local knowledge to climate change research. Visit the project website for more details and research results.
www.licci.eu

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Credit: Leneisja Jungsberg

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Local Indicators of
Climate Change Impacts



Inughuit, Qaanaaq Northwestern Greenland

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Historically a fishing and hunter-gatherer community, many Inughuit have now transitioned to wage labour professions. However, in both cases, the impacts of climate change are severe and pose a challenge to their daily lives. Changes in the duration and quality of sea ice have significant implications for traditional livelihoods activities, mobility, and their local economies.

Credit: U.S. Geological survey IBCAO Terrametrics

INUGHUIT COMMUNITY OF QAANAQ

Qaanaaq, known as the hunters/trappers town, has a population of over 600 people that originally migrated from Canada around 1100 CE.



Wage labour (steady income.)



Fisher/hunter (seasonal income.)



ACTIVITIES

Many Inughuit still engage in traditional activities that supplement income and preserve their identity and heritage.



Fishing: Greenland halibut, Artic char, and whales.



Hunting: seals, polar bears, musk ox, walrus.



Gathering: berry and plant picking.

TERRITORY AND CLIMATE

Cold tundra CLIMATE

Changes in the climate



-20 °C to -30 °C, avg. winter, polar nights
14-20°C, avg. 24-hour daylight

The Arctic has warmed nearly four times faster than the globe in the last 40 years.



Polynya: open sea surrounded by sea-ice, from October to June.

Increased wind storms and decreased snowfalls.

Reduced duration of the polynya. Melting and retreating of glaciers.

ACCESS TO NATURAL RESOURCES

Changes in the territory



Water supplied from the river and the sea-ice.



Polynya offers abundant wildlife and is a traditional hunting area for local communities. See-ice is a ground for hunting, fishing, and transport.



Garden angelica, blueberries and blackberries.

Houses are prone to deformations due to permafrost thawing. Unpredictable sea-ice duration and extent pose risks to wildlife and people.

The disappearance of polynya alters species composition, including the appearance of cod and capelin, and has led to the arrival of tourist cruises to the detriment of short-term traditional tourists.

VOICES OF LOCAL KNOWLEDGE

Climate change is not the primary driver of change in Qaanaaq. The lack of economic support from the Nuuk government regarding transportation and social services is adversely impacting this community. Additionally, the lack of housing causes challenges especially for newcomers and to some extent hinders the development of sustainable tourism.



Credit: Leneisja Jungsberg

"Wind is warmer and there are more mosquitoes because they have longer breeding seasons."

"I see more landslides today than before. Water is coming out from the mountains behind Qaanaaq town."

"Safe sea-ice appears later. Now there can be open water until January."

"Polar wolves are closer to town."



Credit: Leneisja Jungsberg

"It's better and cheaper with a snowmobile than sledding dogs."

"My entrance door doesn't close any more. Houses are damaged by the melting of the permafrost but we don't get enough support."

Demographic
changes

Climate
Change

Economic
policies



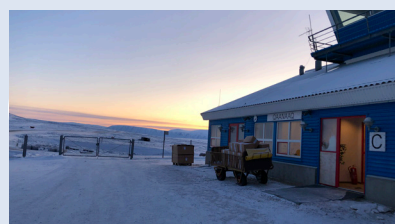
Drivers of change



Credit: Leneisja Jungsberg

"Youngs have to move away to pursue education and work, and to keep the town attractive we need hotels and fish factories."

"We need doctors and a hospital, teachers and a school...to keep our village alive."



Credit: Leneisja Jungsberg

IMPACTS ON LIVELIHOODS AND CULTURE



Credit: Leneisja Jungsberg

Fishing and hunting are now more common leisure activities

Inughuit's traditional way of life included fishing and hunting, but the younger generation now leans towards wage labor due to changing conditions and opportunities, while still engaging in hunting and fishing recreationally.



Credit: Leneisja Jungsberg

Keep the sled from falling

Reduced snowfall affects dog sled performance and raises injury risks. Dogs become burdensome as their costs outweigh their benefits for subsistence activities, leading more residents to choose snowmobiles.



Credit: Leneisja Jungsberg

Water, a costly resource even if surrounded by it

In summer, town water is sourced from the river and reservoirs are filled for extended supply. In winter, ice from the frozen sea melts in a water plant. Unpredictable ice conditions complicate the operation and may cause shortages.