



Anishinabek
Nation



Climate Change and Food Security Study:

A Multi-Region
Vulnerability
Assessment for
Adaptation and
Resilience-Building
Using Traditional
Knowledge

**Prepared by First Peoples Law
for Anishinabek Nation**

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Southwest Region
September 2022

Aamjiwnaang | Chippewas of Kettle & Stony
Point | Chippewas of the Thames | Munsee-
Delaware Nation

Climate Change and Food Security: A Multi-Region Vulnerability Assessment for Adaptation and Resilience-Building Using Traditional Knowledge

Regional Summary Report (September 2022)

SOUTHWEST REGION

Aamjiwnaang First Nation
Chippewas of Kettle & Stony Point First Nation
Chippewas of the Thames First Nation
Munsee Delaware Nation

Region-Specific Vulnerabilities

- The Southwest Region contains significant industrial activity and urban development
- First Nations located in this Region are exposed to substantial amounts of industrial waste and pollution
- This pollution issue is expected to intensify the effects of climate change on food security/sovereignty
- Local Anishinaabe reported to Anishinabek Nation the extensive impacts of climate change on their food systems and culture that they experience. They report that climate change is affecting every aspect of traditional Anishinaabe life.

Climate Change Impacts Reported Using Traditional Knowledge from Preexisting Projects

Anishinaabe in the Southwest Region have reported impacts of climate change on traditional food systems in previous studies and reports.

- A member of **Aamjiwnaang First Nation** is advancing a traditional food legal action to challenge Ontario's lack of action on climate change, on the basis that it breaches their right to life, liberty and security of the person; this member was concerned about not being able to learn and practice their culture due to the impacts of climate change
- Members of Aamjiwnaang First Nation who live on reserve are eating less traditional wild foods collected from the land
 - Members have also expressed sadness when describing how they were not able to practice their traditions or teach their culture to youth because they felt their traditional foods were no longer safe, because of pollution
- Concern with consuming traditional wild foods in the Southwest Region is supported by evidence showing high levels of contaminants in biological samples provided by members of Aamjiwnaang First Nation
 - For example, one study detected elevated levels of mercury in biomarkers (i.e., hair, blood and urine) from Aamjiwnaang First Nation members
- Members of the **Chippewas of the Thames First Nation** reported that they avoid consuming traditional wild foods because of environmental contaminants released by industrial activity

“There’s so much pollution in the water and on the earth and in the air. You gotta really think about it, is it really healthy for me to be eating so much of this natural source of food that our people used to live on?”

- Indigenous woman living in the Southwest Region

Traditional Knowledge About Climate Change Impacts Collected by Anishinabek Nation

Anishinabek Nation interviewed two Elders from the Southwest Region about changes they have observed to traditional food systems, and that appear to be caused by climate change. The Elders reported impacts on every aspect of the Anishinaabe way of life:

- Elder of ***Chippewas of the Thames First Nation***:
 - There are significant changes have been observed over the past 10 years
 - There are many new species in the area, including: possums, black bears, wolves, and cougars
 - Rabbits (*waabooz*) have declined in abundance by about 90% over the past four years, possibly because of an increased coyote population
 - Berries were once plentiful but are now scarce
 - The quality and abundance of nuts used by his community (e.g. hazelnuts, walnuts, hickory nut, etc.) have changed
 - Hickory nuts are traditionally used for high heat cooking and smoking food. The building of a road removed many hickory trees
 - Hickory nuts have small holes, likely from new insects
 - The community used to be active in agriculture about 150 years ago: russet apple orchards were maintained and provided a reliable source of food
 - When the Elder was growing up, every home had a garden where families would grow their own food; gardening is not as common today
 - When the Elder was growing up, people fished all year round, for any types of fish, as fish made up the majority of the community’s diet; community members no longer catch and eat fish like they used to: today the community mostly eats only pickerel
 - People do not want to eat fish from the Thames River now because of its pollution
 - Transmission of traditional knowledge has changed: it was the responsibility of the fathers and uncles to teach youth about hunting, planting, and fishing, and youth would go speak with Elders about traditions; this custom is not seen today, and the Elder believed the community lost some traditional knowledge as a result
- Elder of ***Munsee-Delaware Nation***:
 - The Elder’s family farmed during his childhood, but today, much of these lands are leased to local farmers for cash crop production
 - The Emerald Ash Borer attacks white ash and oak leaves
 - It is not safe to drink or eat fish from the Thames River anymore due to pollution; instead, the Elder has to travel to Kettle Point on Lake Huron to fish
 - The Elder explained that because black squirrel, deer, and wild turkey drink from the Thames River, he does not eat their meat anymore; this has caused a diet shift away from meat to corn and other foods

- Wild plums, apples, and elderberries are difficult for the Elder to find lately, but he continues to pick wild strawberries and black caps; he also collects medicines to treat chest colds
- The community's water table is not able to keep wells functioning, as groundwater has dried up; there has not been enough rain to replenish the ground water

"I'd really like to be able to practice my culture and traditions, but with climate change that's becoming an issue."

- Member of Aamjiwnaang First Nation

Anishinabek Nation also surveyed three people from the Southwest Region's member First Nations, and an individual from a Walpole First Nation, a nearby community that may offer insight for the Southwest Region. Survey respondents reported concerns about the interactions between high levels of pollution and climate change on their traditional food systems.

- We cannot eat fish from the lake or river because of pollution
- Fish that Aamjiwnaang members catch are often deformed or have growths
- Erosion of the shoreline and the integrity of the ground and infrastructure are other concerns for some Anishinaabe living in the Southwest Region
- Warmer temperatures, less snow
- A member of Aamjiwnaang reported that their community has a false sense of security because of access to grocery stores

Preliminary Recommendations for Adaptation and Resilience-Building

For all Anishinabek Nation Regions, it will be important to support efforts to reconnect with or reinforce regionally-based traditional livelihoods and food systems by honouring Treaty relationships and applying Anishinaabe culture, language, and practice.

This could include:

- Documenting local and traditional knowledge about climate change impacts and responses
- Distributing Reports to Member First Nations, and encouraging discussion on best practices and programs for adaptation or resilience-building
- Offering tailored support for each Region, or each First Nation
- Engaging with Ontario and Canada on shared responsibility for environmental stewardship and the need to support food systems as an element of the Treaty relationship

For the Southwest Region specifically, adaptation and resilience-building could focus on:

- Interactions between the impacts of climate change and urbanization/industrial development
- Opportunities for gardening and agricultural activity, particularly using greenhouses or hydroponics, that address soil contamination concerns

- Engaging with Ontario/Canada and industry to reduce the impacts of climate change and industrial activities
- Developing food programs tailored to urban First Nation people

Recommendations from Anishinaabe of the Southwest Region

Elders and survey participants recommended several initiatives for climate change resilience, including:

Members of *Aamjiwnaang First Nation*:

- Aamjiwnaang has a great environmental program but there are more than 70 refineries in the region, which is detrimental to the Aki/mother Earth; the government needs to improve emission standards
- Community education on plants, animals, and insects, and reconnecting with the land
- Establish a law on behalf of the land, with real accountability by those who harm the land
- Our First Nation leaders should be included in work determining environmental standards (e.g., emissions, water quality, etc.) with Ontario and Canada
- Training in gardening, composting, soil enrichment
- Develop a community *mandaumin* (corn) farm

Elder of *Chippewas of the Thames First Nation*:

- Education for community members on gardening, cooking, making fire, and the locations of springs that are far from agricultural fields so the community knows of clean water sources
- We have to teach non-Indigenous people that the Earth must be taken care of
- Revive traditional practices including:
 - Showing respect for trees, plants, fish and animals when we harvest them by putting tobacco down
 - Involving youth in traditional practices for experiential learning

Elder of *Munsee-Delaware Nation*:

- Promote canning food and growing your own gardens; provide educational programming for members to help them learn about and adopt canning/gardening
- Political leaders should issue statements about climate change to raise awareness