

Understanding and Assessing Climate Change: Preparing for Nebraska's Future

2024 Climate Change Impact Assessment Report Chapter 11 - Indigenous People



Chapter 11

Indigenous Peoples

*Hank Miller and Martha Durr**

Corresponding author: mdurr@thenicc.edu

Key messages

1. Weather and climate impacts are disproportionately strong in Indigenous communities.
2. Adaptation work is taking place locally with Tribal-led efforts.
3. Self-determination, recognition of rights and sovereignty, and the ability to reclaim and/or reimagine culture are keys to success.

Introduction

Indigenous communities located in what is currently called Nebraska include the Sovereign Nations of Isanti Dakota (Santee Sioux Nation), Ponca (Ponca Tribe), Ho-Chunk (Winnebago Tribe), Umo^{ho} (Omaha Tribe), Sac and Fox Nation, and Ioway (Iowa Tribe of Kansas and Nebraska, 2024). Forced assimilation and relocation from traditional homelands, broken treaties, genocide, the spread of illness, boarding school atrocities, and a disproportionate percentage of missing and murdered Indigenous people have been and continue to be significant and generational stressors. The complete termination of the Ponca Tribe by the U.S. government occurred in 1966, and only in 1990 did the Tribe regain federal recognition (Grobsmith & Ritter, 1992). Ironically, Standing Bear—a Ponca—was held for trial near so-called Omaha in 1879 after trying to return his deceased son to their traditional home. He successfully argued to be recognized as a person with legal rights in his “I Am a Man” speech (Ponca Tribe of Nebraska, 2025). Communities on Indigenous lands across Nebraska are rural, generally with small populations, limited infrastructure, and an overall lack of financial resources.

Tribally owned land remains fragmented (Figures 11.1 and 11.2) because of historical land allotment and land use, primarily for agricultural-related practices.

Despite such immense hardships and systemic inequities, community resilience and reclamation of culture remain strong and are growing. Self-determination and governance, momentum toward Native Nation Building principles, tribal economic development, grounding in Indigenous Knowledge and values, and local educational opportunities are building and rising. For example, efforts underway with Ho-Chunk Incorporated (2024), founded in 1994, focus on shared Tribal priorities such as housing, education, jobs, youth, and elders. Within Nebraska, higher education through accredited Tribal colleges is available at Little Priest Tribal College and Nebraska Indian Community College (NICC), where certificates, associates, and now bachelor's degrees are offered in settings with a foundation of Indigenous core values. The student population has grown significantly at NICC, and college enrollment doubled from 2019 to 2023.



Figure 11.1. Native American land cessions via treaties in what would later become Nebraska. (Source: [NebraskaStudies.org](https://nebraskastudies.org), 2025)

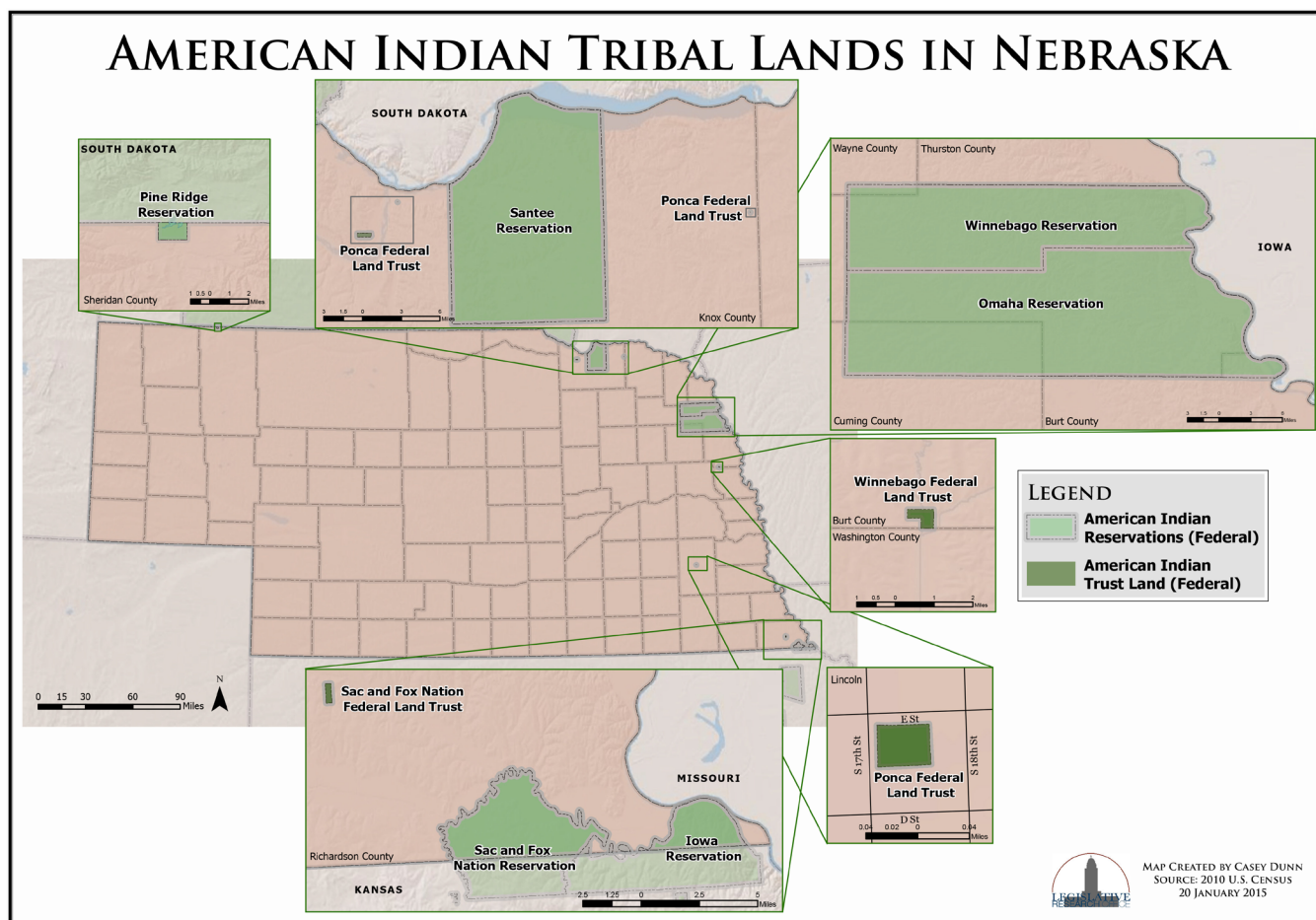


Figure 11.2. American Indian tribal lands in Nebraska. (Source: Nebraska Legislature, 2015)

Climate assessments and impacts

Our global and regional climate assessments—including physical science, societal impacts, adaptation planning, and mitigation strategies—have not always included Indigenous voices and worldviews. However, recent efforts are making considerable strides for meaningful inclusion of disenfranchised perspectives, notably the *Status of Tribes and Climate Change Report* (Status of Tribes and Climate Change Working Group, 2021). This resource describes the unique and specific impacts felt by tribes. It provides examples of community responses and actions through the lens of relationality with the natural world, respect for traditional knowledge, practices and governance, and environmental and social justice. Specific impacts and solutions are meticulously outlined in the areas of ecosystems and biodiversity, air, water, health and well-being, economic development, energy and a just

transition to renewables, cultural resources, emergency management, protection-in-place and community-led relocation, solid waste, and emerging topics.

Climate and weather hazards impacting Indigenous communities in Nebraska include the rising frequency and severity of extreme events such as heat stress, heavy precipitation, drought, high winds and storms, and increased overall variability (Knapp et al., 2023). These hazards are expected to continue and magnify for the foreseeable future, regardless of the climate pathway forced upon Indigenous people by the actions or inaction of others (USGCRP, 2023). Such weather extremes pose unique challenges for small, low-resource, and generally isolated rural Indigenous communities (Whyte et al., 2023). For example, the March 2019 flood event resulted in historic and long-

lasting implications for many communities across the region. The village of Santee, with a population of less than 1,000 and the critical community services for the Santee Sioux Nation, was left stranded, without access to and from town. Residents experienced power outages and no potable water long after floodwaters receded (Abourezk, 2019). Severe weather leading to heavy rain and flash flooding in May 2019 resulted in a state of emergency for the Sac and Fox Nation when their buffalo farm was completely inundated, buildings across the Reservation were flooded, and roads were closed (Chavez et al., 2023). Unusual warmth during the loway Powwow has resulted in health implications for community members, and highly variable temperatures during the 2022 spring severely impacted 33% of their beehives (Iowa Tribe of Kansas and Nebraska, 2024). Due to shifts in the timing of weather or biological events, ceremonial practices for Native communities are being impacted, leading to cultural disruptions. Heat and drought stress have combined to increase wildfire occurrence and potential across much of Turtle Island (North America). This leads to more days with poor air quality impacting communities (Status of Tribes and Climate Change Working Group, 2021). Tribal environmental departments are implementing air quality sensors while notifying and educating the community on risks and mitigation strategies.

The health of Indigenous people and the environment are increasingly at risk due to climate change stressors (Whyte et al., 2023). Compounding environmental hazards include underlying stressors of negative health outcomes, higher-than-average poverty, traditional and nutritious food insecurity, historical and current institutional barriers, and unsustainable environmental practices primarily for non-Tribally controlled resources. In Santee, elevated and unsafe levels of manganese (more than 50 times the safe limit) in the town's drinking water have resulted in a no-drink order for nearly five years (Herbers, 2024a). Boiling the water only results in higher concentrations of manganese. Though not directly tied to climate change or the 2019 flood, this environmental problem is caused by naturally occurring manganese in a deep aquifer, which compounds stressors from weather and climate extremes. Research has shown that nearly half of Sovereign Nation communities in the United States do not have access to clean water or sanitation. Through

the Santee community's tireless efforts to shed light on this issue, progress is being made to fund the \$53 million solution of a pipeline to a South Dakota water district. This increases resiliency and water security in the face of increasing extremes (Beach, 2024b).

Planning and resilience activities

Community-led and culturally focused climate resilience planning and activities are taking place. For example, the loway Tribe has recently developed a Pathways to Climate Resilience guide. The recommendations include eight priority areas and six climate resilience strategies (Iowa Tribe of Kansas and Nebraska, 2024). The guide's interconnected themes weave food sovereignty, public health, biodiversity, water, and a regenerative economy with elders and youth participation and arts and culture. Furthermore, the Tribe was awarded the Center of Excellence in Regenerative Native Agriculture, has established a free-trade zone in cooperation with Native-owned operating partner Ayittatoba, and has created a Tribal national park (Iowa Tribe of Kansas and Nebraska, 2024). The Santee Sioux Nation has directed the production of a comprehensive Tribal hazard mitigation plan. By outlining specific weather and climate hazards and risks, the Nation is better positioned to implement preparedness actions and apply for disaster-related funding. The Winnebago Tribe's Ho-Chunk Inc. is a leading entity in community economic development. Traditional foods are planted and harvested using culturally considerate practices. This contributes to food sovereignty, workforce development, and cultural education, leading to increased resilience.

Movements toward Indigenous land return (recognition of historical treaties and sovereignty) are growing and ultimately rooted in climate justice. In what was termed a "historic moment for the Winnebago Tribe" by Chairwoman Victoria Kitcheyan, approximately 1,600 acres of land were transferred back to the Tribe after illegal seizure by the U.S. Army Corps of Engineers in the 1970s. The Winnebago Land Transfer Act, introduced by U.S. senator Deb Fischer (R-Neb.), was signed into law in 2024 (Herbers, 2024b).

Climate mitigation often involves energy transition from fossil-based fuels to renewables, which can require land-use conversion (Chapter 6). The benefits and consequences of renewable energy sources must be considered, and implications for Indigenous Peoples must be included, a concept termed a just energy transition (Chapter 12). Tribally owned and operated energy assets exist locally, and opportunities to fund renewable projects such as solar are on the rise. In 2022, the NICC installed solar arrays at their Macy, Santee, and South Sioux City campuses using Nebraska-based GC ReVolt. The capacity meets 35% of energy requirements for colleges.

Weather and climate impacts are disproportionately strong in Indigenous communities (Whyte et al., 2023). Adaptation work is taking place locally through Tribal-led efforts. Self-determination, recognition of rights and sovereignty, and the ability to reclaim and/or reimagine culture are keys to success. Learning from Indigenous knowledge systems and co-creation of local resilience strategies built on reciprocity offer solution pathways.

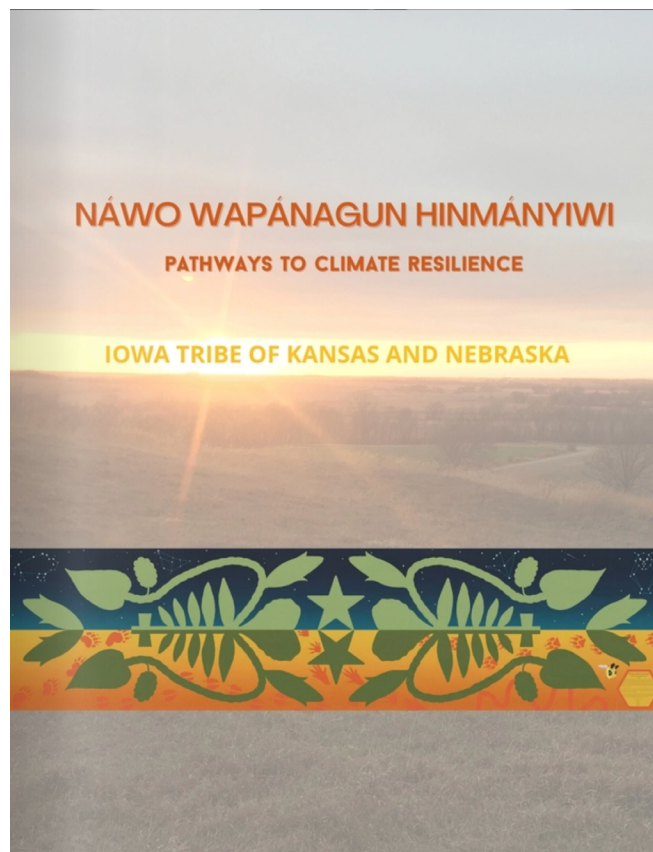


Figure 11.3. Pathways to Climate Resilience guide
(Source: Iowa Tribe of Kansas and Nebraska, 2024).