



CLIMATE CHANGE AND FUTURES- BUILDING-BUILDING THROUGH DENE STEWARDSHIP CAMPS

Case Study Final Report
Canada

This research was conducted by:



This research was made possible with funding from:



MECCE
MONITORING AND EVALUATING
CLIMATE COMMUNICATION
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trauma stemming from colonization to deeply impact young people, including their wellbeing and future prospects.

In light of these realities, land-based stewardship camps reinforced for young people the importance of “paying respect to the land.” For young people in LKDFN, respect for the land is both a value and a practice, and respect is mutual: take care of the land, and it will take care of you. Spending time on the land provided them with a stronger sense of identity, as they felt more connected spiritually and emotionally. At land-based camps, CCE holistically incorporated practical skills, western scientific knowledge, language learning, and cultural practices, which young people understood as collectively supporting mutual aid within the community. Here, climate action is not an individual matter but a collective and community endeavour.

Land-based education is not a new mode of education; it is the way Indigenous communities have shared and developed knowledge for thousands of years. As a longstanding way of knowing and learning, land-based education holds great potential for learning in the face of climate change through increased understanding of the land as it changes due to warming temperatures, strengthening of Indigenous thought systems and land relations, and subsequently contributing to informed decision-making about the land.

CCE PROGRAM OVERVIEW

Łutsël K'é Dene First Nation (LKDFN) and Thaidene Nënë regularly host various camps that connect youth with Elders and harvesters and support young people's learning about the land. Especially in the face of climate change, which is causing changes to ice freeze-up and break-up, animal migration patterns, wildfires, and more, these camps are important for supporting young people's visions and preparedness for the future. Camps are also places to develop knowledge towards professional positions for youth as land guardians with Thaidene Nënë. These camps take ranging forms in accordance with specific locations, including a language and culture camp at Old Snowdrift, a community hunt and culture camp at ʔedacho Tué (Artillery Lake), a spring camp at Tsa Kuʔúze (Little Beaver Pond), and a youth canoe trip along the Snowdrift River. While climate change is not the explicit focus of all camps, they all inevitably address emergent climate realities as participants spend time on a climate-changing land.

Through an integration of skill-building and cultural healing via land-based learning and cultural exchange, these camps support holistic learning about climate change, while centering Dënesųtíné learners within their own communities, cultures, knowledge systems, and territories.

- **Cognitive development** is supported through technical skills learned in relation to both traditional knowledge and western scientific processes, contributing to a deep and integrative understanding of climate impacts on the local land.
- Through hands-on **technical training** that links to traditional knowledge, participants learn key skills for adaptation and research, including such skills as harvesting, navigation and safety, plant identification, genetic testing, and dendrochronology.
- Integrated with learning of technical skills are **Dënesųtíné language** learning activities about plants, animals, land, water, sacred sites, and place names, along with storytelling by Elders and families about the history of each region and concerns about shifts in the land, with particular attention to decline in caribou.

- Through the integration of technical learning with Elder storytelling, Dene games, and language learning, camps therefore also support **social-emotional learning** by connecting camp participants with one another across generations.

Practicing Dene culture together contributes to cultural revitalization and continuance even through profound ecological shifts. Situated on the Thaidene Nënë, this combination of cognition and social-emotional learning supports action, both for everyday survival and broader participation in co-management and governance processes that address climate change and biodiversity loss.

METHODS

The research questions that guided this study are:

1. What concerns and visions for a better future do young people have following land-based stewardship camps?
2. How does the holistic education provided through land-based stewardship camps contribute to young people's futures-building in the face of a shifting climate? More specifically, what activities have the greatest impact on youth?
3. What are the tensions and opportunities of educating young people about climate change through such stewardship camps?

The case study was carried out by one white, settler researcher under the guidance of and in partnership with Thaidene Nënë and LKDFN, following decolonizing research methods (Smith, 2021). Decolonizing methods call for settler scholars to engage in critical self-reflexivity, attuning to the functioning of the dominant epistemology and working to undermine colonial power imbalances to ensure the research is grounded in and contributes to the self-determination of LKDFN and its members. Members of Thaidene Nënë and LKDFN participated in designing and running the research, maintained control over any public communications, and were involved in the creation of this report. Research also followed OCAP principles in data collection and sharing; LKDFN and Thaidene Nënë maintain ownership, control, access, and possession of the research data.

This report shares findings in narrative form where possible, seeking to respect youth contributions and report information that is relevant to LKDFN. Further, the report zeroes in on how land-based climate education can further self-determination, with a specific focus on the intersection of climate change and colonialism. While land-based education is heavily theorized, qualitative research with participants is still only emergent, and this case study offers the perspectives of six young people about the value of land-based education in addressing climate change.

The research questions were addressed through a two-day, interactive workshop hosted in the Lockhart Hall in LKDFN from May 22-23, 2024. The original plan was to host the camp on the land, but ice on the lake prevented travel. Workshop activities carefully attended to young people's stories about their experiences to directly inform the case study and future land-based camps. During the interactive workshop, participants shared stories, documented their knowledge themselves, and discussed what they wanted to share with the organizers of future land camps, as well as future potential participants at land camps (see Annex). Their discussions and deliberations were audio recorded and illustrated by Dene artist Cody Fennell. Artwork was a way to holistically express young people's knowledge in a visual format that can be displayed in LKDFN. The artwork is included in this report.

Six young LKDFN members between the ages of 18-30 participated in the study, four men and two women, all of whom had attended land-based camps (e.g., caribou camps, canoe trips, culture camps, etc.). The workshop was also attended by Cody Fennell, the Dene illustrator documenting youth discussions, and Laura Jane Michel, the LKDFN archivist, who took photos, provided logistical support, and participated in the discussions. The young people have given permission for us to use their names in this report, and you will see their words attributed to them by name.

FINDINGS

Most Important and Interesting Findings

The case study highlights the learning experiences of young adults in land-based stewardship camps that address climate change through Indigenous knowledge. As McDonald (2023) shares in her Yellowhead Institute Special Report, “Indigenous Land-Based Education in Theory and Practice,” many organizations that deliver land-based programs, including stewardships camps, do not have sufficient funding nor resources to evaluate land-based programs “to determine if and how they are reconnecting people to the land” (p. 8). Further, due to ongoing colonial approaches to research, participant experiences are insufficiently attended to, as “Indigenous people’s stories are often implicitly positioned as anecdotes rather than legitimate knowledge that should inform policy” (p. 8).

Further, even where research related to land-based education through stewardship camps does exist, it is often centered on the interface between Indigenous knowledge and western science in confronting climate change, specifically in relation to food security, resource management (Parlee et al., 2021), and wellness (Ollier et al., 2020). While these findings are also important, stewardship camps have not been robustly studied for their impacts on youth climate learning, wellbeing, capacities, and visions for the future (McDonald, 2023, p. 12).

By attending to the concerns of young people about climate change and listening to their stories about how land-based stewardship camps have impacted them, this case study highlights specific ways that participants reconnect to the land and Dene knowledge systems.

“The land is a powerful place for us. You have to be mindful of where you are. There’s a lot of things that happen throughout the years, throughout the generations. And they have to pay respect to the creator and the land that he made for us, that he provided for us. And like especially the caribou, the animals, the land, the water. ‘Cause everything that was made was so that we can live in harmony and coexist in this great balance of life. And it’s important that we respect the ways that we were taught and how the land works and how we can respect all the areas. Because so much happened that predates before we even can remember.” – Dacho

While this report details various ways that land-based stewardship camps contributed to climate learning, central to young people’s experiences was learning to “pay respect to the land,” a phrase that they repeated often and became the title of the mural that is a visual summary of this case study. For the young people, respect is both a value and a practice. It involves everything from cleaning up after yourself to ensuring against over-harvesting. Respect also involves repaying the land through prayer, spruce boughs, and tobacco offerings. In the face of climate change, paying respect means learning to “read the land” and adapt to changes by learning from Elders’ stories and archives of Dene knowledge. Camps helped young people read the land and learn to care for it.

Psychosocial Aspects

"When we were first taught about climate change, we were just kids... And now we are watching it unfold in front of us. It's not a good feeling." – Dacho

Many participants expressed deep concern for the future of their community, which combined fears about climate change with recognition of intergenerational trauma stemming from colonization. Based on stories from their Elders and their experiences on the land, young people were familiar with various climate impacts in their region, including lower water levels, increased fires, invasive species, declining caribou, thinning ice, and changing seasons. These changes create dangerous conditions for travelling on the ice and difficulties harvesting. The young people understood these changes as impacting their community's entire way of life. As "Caribou People," they wondered who their community would become if the caribou migration left their region. They expressed fear for subsequent generations, who may not have the same experiences and practices that were important to them.

Their concern for future generations was compounded by a very deep concern for youth inheritance of intergenerational trauma and neglect in their small community, stemming from colonial histories. As young people face the momentous task of addressing intergenerational trauma, they have few healthy ways to spend their time. The participants articulated how young people have "nothing to do" and "no way to remove this internal feeling that they are so caught up with all the time." As a result, young people are prone to getting "angry and upset, and they break things."

"I felt more connected with my mind and my body when I was out on the land. And when I got disconnected with the land I felt like I didn't know who I was. So that's what the camps did to me. It made me feel like I was more of a bigger person." – Madison

In the face of these challenges, land camps held great spiritual and emotional value for all participants. Even though they expressed deep concern about the changes they were seeing in the land, as well as a deep sense of colonial neglect, the young people shared repeatedly the benefits of spending time on the land, including feelings of peace and serenity. Land camps helped them feel more connected with the land, and this connection translated into their everyday lives. Following the camps, they described how they would find opportunities to get out on the land when life became overwhelming – whether by harvesting with family members or simply walking or driving out of town for a bit of peace. Spending time on the land helped them feel spiritually integrated, giving them a stronger sense of identity. The land was a place for prayer – and prayer was a way of responding to climate realities and other struggles. They understood the connection with the land to be mutual; if they cared for the land, the land would care for them in return.

Action-learning Aspects

It is "nice" just feeling helpful. Like a sense of purpose. Knowing that your work contributes to other people. Makes you feel good. Makes you feel like you are part of a whole." – Ashton

Youth participants had a strong sense that action on climate is needed. Based on their experiences with camps, young people shared the importance of action through mutual aid, or helping one another. Hands-on learning is central to the land camps, and youth share their favorite activities, including learning how to fix fishnets, collect wood, harvest, and make traditional food. Some had learned skills of western science, such as reading tree rings for wildfires and other impacts (dendrochronology) and reading roots for shifts in caribou migration. Young people did not categorize or separate different types of learning and clustered practical skills for survival with scientific learning, as well as with cultural activities such as drum-making and storytelling. Through

their participation in various activities, they saw themselves not only as learners but also as teachers, expressing how it is “nice to know you are passing on the teachings too,” as Dacho shared. By learning a holistic range of skills for community survival and cultural maintenance, youth developed confidence, a strong sense of purpose, and an understanding that they were part of a whole. The skills they learned help them fulfill their responsibility to respect the land and protect the water - responsibilities that the young people share are held by all people. In fact, they underscored that action is not an individual matter but a collective and community endeavour.

*Does the program or initiative address climate **justice** or other social justice issues that intersect with climate change? If so, how?*

“It’s a sad reality because a lot of cities don’t take climate change seriously because it’s not affecting them how it’s affecting us.” - Robin

While Dene people are not significant contributors to climate change, they face profound climate-induced changes to the land – to seasonal patterns, water levels and water temperatures, erosion, and migration patterns – resulting in significant impacts on culture, spirituality, food sovereignty, and more. Further, colonial processes, including the Indian Residential School system, natural resource extraction through diamond mines, and colonial conservation practices that curtail Dene stewardship practices like caribou harvest, have compounded climate impacts by limiting Dene sovereignty and eroding the basis of Dene life and cultural continuance. In this context, education for climate justice means not only addressing climate change but also indigenizing and decolonizing the structure and relationships of education.

Land-based programs designed by LKDFN and Thaidene Nënë centre Dene students within their own community, culture, knowledge system, language, and territory, in the midst of the climate realities the community is facing. Altogether, the young people described how what they learned from the camps will support them not only to survive but to *live*.

Cultural and Regional Contexts

“Our way of life is just going to change. We won’t be able to live how we are supposed to be living. Like apparently we are called ‘Caribou People,’ but how can we be called Caribou People if there aren’t any caribou around?” - Madison

Land-based education is intended to be shaped by cultural and regional contexts, and the land camps described in this case study are designed by and for Dënesųłíné or Caribou People on a changing land. The land camps hosted by LKDFN and Thaidene Nënë are directly shaped by Thaidene Nënë’s vision (<https://www.landoftheancestors.ca/our-vision.html>) for strengthening Indigenous leadership and governance, fostering Dënesųłíné language and culture, building community capacities, and maintaining ecological and cultural integrity into the future.

While organizers have their own vision for land-based camps, youth participants were given the opportunity to describe how they would design a “dream camp,” and their design reflects their cultural and regional context. At their camp would be 40-50 people including Elders, youth, a “couple of cool foramen,” helpers, and workers to cut the brush as they traveled. All would participate according to their growing abilities, where young children would do simpler tasks like splitting wood or retrieving water. If a person did not know how to participate or did not possess key skills – they would learn. “Total immersion” was central to their camp design, where all people would learn “language, meanings, things, respect.” Learning to “walk in two worlds” would be part of this immersion, as camp participants would learn about science as well as Dene knowledge. The point

would be for people to grow in strength and resilience in the face of adversity, such as those caused by climate change and colonialism. At the same time, participants would have a lot of fun. Youth would design a camp that included playing Dene hand games and spending time relaxing by the water.

Influence of Indigenous Knowledges

“I don’t learn from my peers. I learn from my Elders and parents. I’m still learning.” – Dacho

The vision for Thaidene Nënë is for: “members to be strong in our Dënesųłiné language and way of life so that we can continue to care for Thaidene Nënë, as we have always done, long into the future.” This vision guides the development of land-based stewardship programs. Everything in the camps is shaped by Dene ch’anié, the all-encompassing knowledge that informs Dene ways of being.

Elder knowledge is central to young people’s memories of the camps, and Elders are always present at the camps as central teachers, sharing oral knowledge and stories. Youth shared the importance of immersive language learning but also recommended translators for those who cannot yet understand the language. For the youth, learning the language is inherent to learning about climate change and the land.

Elders’ historical knowledge is also central to learning to read the land. As Ashton described, “Elders talk about how it used to be, the ice used to be thicker, there used to be caribou crossing right in front of here.” By listening to Elders, the youth develop stronger knowledge of how the land is changing due to climate change.

Geography and Places

Indigenous communities would most benefit from learning about this case study, regionally, nationally, and internationally. At the regional level of the Northwest Territories, over half the population is Indigenous, and many communities already run a variety of land-based camps. This case study could offer these communities insight into youth experiences with land-based camps, especially in relation to climate change. This case study may benefit such governing bodies as it holds implications for Indigenous governance and self-determination, as described below. A number of Indigenous Governments operate in the Northwest Territories (i.e. Akaitcho Territory Government, Dehcho First Nations, Gwich’in Tribal Council, Inuvialuit Regional Corporation, Northwest Territory Métis Nation, Sahtu Secretariat Incorporated, and the Tłı̨chǫ Government). Further, some communities maintain governing powers, such as the Kát’odeeche First Nation, Salt River First Nation, Acho Dene Koe First Nation and Fort Liard Métis Local #67, and the Délı̨ne Got’ı̨ne Government.

By extension, the case study holds significance for Indigenous communities across Canada and globally who are interested in developing land-based climate change education, at the intersection of climate impacts and colonization in their own contexts. While the camps run in Thaidene Nënë would not be replicated in these other contexts, each Indigenous nation and/or community could conceptualize land-based climate education in relation to their lands, knowledge systems, and goals.

Influence of the Case Study on Conceptualizations of Quality CCE

“Although educational interventions address the interconnected sociocultural, political, and economic elements of climate change, many scholars question the extent to which climate change education, as it stands, fully addresses the deep colonial–capitalist roots of the climate crisis, particularly because education itself relies on these same colonial–capitalist foundations and is impacted by neoliberal policies. Furthermore, despite increased interest in climate change education, many youth remain marginal to the conversation because research is still largely situated in the Global North, to the exclusion of many young people’s realities and reflecting the ongoing coloniality of knowledge production (de Sousa Santos, 2007; Tlostanova & Mignolo, 2012) within education.” (Karsgaard & Shultz, 2022, p. 8)

The most significant contribution of this Case Study to LKDFN and Thaidene Nënë’s approach is the insight it provides into youth perspectives. Having time and resources to support careful attendance to the stories and experiences of young people can inform future camps, as planning responds to how they are thinking and feeling about climate change, along with how stewardship camps most profoundly affect them.

Findings from this case study fundamentally shift how quality CCE is conceived in comparison with mainstream climate education research. Grounded in Indigenous knowledge, land-based stewardship camps – whether run within or beyond formal, colonial schooling – offer holistic learning about climate change that is directly connected with community and involves paying respect to the land. As seen from the findings described above, young people integrated their understanding of climate impacts with colonization and effects of intergenerational trauma. In this context, their climate learning was integrative across emotional, embodied, community-based, practical, and action-oriented spheres, simultaneously addressing climate and colonial impacts. This learning took place outside of a classroom – on the land and water – beside campfires, in canoes, in the bush – and as young people listened to stories, harvested fish and caribou, played hand games, learned their language, and contributed to the wellbeing of their community. This learning was not dictated by formal curriculum, structured by a clock, assessed with exams, informed by teacher quality standards, or monitored using success metrics. Instead, it was grounded in Dënesųłiné ways of knowing and being, which affected all aspects of education: goals, locations, roles, modes, organization, and expressions of learning.

Implications and Impacts of the Case Study at Different Levels

Based on youth experiences shared in this case study, there are a number of implications across scales.

Locally, land-based stewardship camps support intergenerational Indigenous knowledge sharing as communities face climate changes. They also foster youth learning about climate change in ways that support youth employability and contribute to youth wellbeing, particularly in contexts where young people face intergenerational trauma and struggle to imagine their futures. As an example, a former camp participant named Dacho is now employed in Thaidene Nënë by Parks Canada as an Operations Trainee, where he hopes his skills will contribute to preserving his people’s lands and resources for future generations (see <https://www.landoftheancestors.ca/trainees.html>). While camps may look different in various localities, structured in relation to the knowledges of various Indigenous nations and led by local Indigenous leaders, land-based stewardship camps may have similar benefits in other local spaces.

Regionally and nationally, land-based stewardship camps can foster youth and community knowledge of climate change towards informed decision-making and Indigenous sovereignty. Thaidene Nënë's governance model, whereby the Dënesų́łné are primarily responsible but work in conjunction with the Government of the Northwest Territories and Parks Canada, provides an example for how governance and education can work in a nation-to-nation relationship. The Government of Canada, as a signatory of the UN Declaration on the Rights of Indigenous Peoples, and in response to the Report of the Royal Commission on Aboriginal Peoples (RCAP) and the Truth and Reconciliation Commission (TRC)'s Calls to Action, states that it upholds Indigenous self-determination and self-government. Details can be found on the Government of Canada's page, "Principles respecting the Government of Canada's relationship with Indigenous peoples" (<https://www.justice.gc.ca/eng/csj-sjc/principles-principes.html>). By fostering youth and community knowledge about climate change, land-based stewardship camps can support Indigenous communities to exercise their rights and take an active and informed role in advocacy and decision-making that supports their survival, dignity, and wellbeing.

Regionally and nationally, formal education systems could learn from the camps run by Thaidene Nënë to inform land-based climate learning. Formal education systems are already beginning to integrate land-based climate education (Ximiq & Gunn, n.d.), in keeping with ongoing efforts for reconciliation. For example, the Yukon Territory, located in Canada, has created an interdisciplinary science and language-arts-based climate unit grounded in Indigenous knowledge (Yukon, 2017), and Nova Scotia is currently piloting a new course on Netukulimk, the Mi'kmaw concept of sustainability. The youth perspectives shared in this case study can directly inform formal education moving forward. Specifically, the young people's experiences demonstrate how land-based education can work against problematic appropriation or exploitation of Indigenous knowledge via its use-value for dominant groups. Instead, land-based climate change education can be situated within the community and directly benefit Indigenous youth.

Internationally, knowledge development about climate change through land-based education could support community advocacy regarding climate policy in international fora. Young people have much to contribute to discussions on climate change, and some youth from the region, including one from LKDFN, have shared their knowledge at the United Nations Conference of the Parties (COP) on Climate Change (MacKay et al., 2020). Land-based CCE could further boost youth advocacy and participation in global governance.

Scaling and Applicability of the CCE Initiative to Other Contexts

Land-based education is not a new mode of education; it is the way Indigenous communities have shared and developed knowledge for thousands of years. Unlike western models of place-based education, land-based education is grounded in a fundamentally different worldview, where Indigenous knowledges are central and Indigenous knowledge holders guide the learning (McDonald, 2023; Tuck et al., 2014). As a longstanding way of knowing and learning, land-based education holds great potential for learning in the face of climate change by through increased understanding of the land as it changes due to warming temperatures, strengthening of Indigenous thought systems and land relations, and subsequently contributing to informed decision-making about the land, for instance through the governance of Thaidene Nënë.

Rather than thinking about land-based climate change education as *scalable*, this case study thinks about it as *translatable*. Land-based education is grounded in place, along with the local ways of knowing and being that are connected with that place. Findings from this case study could be explored in local contexts and considered in relation to local knowledge systems and ecologies.

Further, in settler colonial contexts such as Canada, the United States, Australia, New Zealand, and others, land-based education can strengthen Indigenous self-determination in the face of historic and ongoing colonial injustices, including through education (McDonald, 2023). As a result, there is “potential for Indigenous-led land-based programming to effect social change for the benefit of all people and living beings in the context of reconciliation and global climate justice” (McDonald, 2023, p. 5).

APPENDIX A. WORKSHOP STRUCTURE

Day One

Interactive mapping: using large poster paper, participants will use words/phrases (English and Chippewyan) and pictures to map/diagram:

1. Collective map: experiences of climate change in LKDFN. Collectively considering climate change helped set the context for the conversation. It also helped us see how participants understood climate change in their community. Prompts:
 - a. What changes do you see in the land?
 - b. What changes do Elders, harvesters, teachers, or other community members tell you about?
 - c. When you think about climate change where you live, what kinds of changes most concern you for the future and why?
2. Collective map: camp activities. Mapping helped activate participants’ memories of the camps and provided a comprehensive picture of what happened at the camps.
 - a. Draw on the map of Thaidene Nēné which camps you attended. Tell the group a bit about these camps.
 - b. What activities were part of your camp (e.g. water monitoring, story sharing, language activities, caribou harvest)?
 - c. Do any of these connect to climate change? How?
 - d. What learning experiences at the camp stood out to you the most and why? How did they make you feel?

Day Two

Small group knowledge sharing and master graphic: youth reflected on the Day One discussion and consolidated their thinking about the roles of camps for youth, especially considering climate change.

1. Imagine your dream camp and describe it.
 - a. If you could design a camp that best helps other youth prepare for the future, what would it look like?
 - b. Where would you be? Who would be there? What would you do? Why?
2. Brainstorm master graphic with Cody Fennel, to share with other youth the value of land camps. Following the workshop, Cody will finalize the graphic.
 - a. If you were to design a piece of artwork that captures everything we have talked about this week, what would it look like?

NOTE: The workshop was intended to take place on the land in Thaidene Nēné at the Snowdrift Cabin, but ice break-up on the lake prevented travel, so the camp was hosted in town. To have a shared experience on the land, Thaidene Nēné and LKDFN invited us to spend the afternoon at the Hide Camp, where community members were setting up for a Dēnesųtiné language camp. We spent the afternoon cleaning and eating fish, chatting with community members, enjoying the land, and getting to know one another.