



Fact Sheet

ENVISION: promoting inclusive conservation in protected areas

Case Study: Social learning about protected areas in the Denali Region of Alaska (US)



Our inclusive approach to conservation

Transforming visions into integrated protected area management strategies; improving biodiversity and human well-being



What is inclusive conservation?

Inclusive conservation is an approach for considering and balancing different visions for protected area management, which is thought to help achieve socially relevant, economically productive, and environmentally sustainable outcomes while enhancing the conservation status of protected areas.

The approach considers multiple visions for protected area management, assessing the consequences of each vision, collectively defining new visions through social learning, assessing uncertainty and building resilience, acknowledging power relations and rethinking governance, and informing both biodiversity and protected area management policy.

The ENVISION project

ENVISION aims to develop and test an inclusive conservation approach and to take part in critical discussions with policymakers in the context of global and regional biodiversity conservation frameworks. Project highlights are available on the PANORAMA – Solutions for a Healthy Planet platform, demonstrating key elements of advancing inclusive conservation approaches across four study areas.



The ENVISION project team in the Denali region is working with local communities to develop a shared understanding of visions for the future of protected areas in Interior Alaska. Public land management agencies in the US have traditionally focused most attention on understanding and enhancing visitor experiences, as well as working within the boundaries of individual protected areas. However, agencies are increasingly recognizing the importance of landscape scale conservation and engagement with adjacent stakeholders. The diversity of interest groups in local communities and contested histories of resource management create challenging contexts for in-depth engagement with residents from local to regional scales. Therefore, this project advances a process of “inclusive conservation” that involves proactive engagement and explicit consideration of the array of goals expressed by local communities. This fact sheet focuses special attention on social learning about protected areas as a process that enables residents to collectively define their futures and shift their values in response to deliberation.





From the European Union to the United States, biodiversity conservation and inclusivity continue to gain momentum as management objectives

Biodiversity currently ranks high in the international policy agenda, after decades of neglect. This is signaled by the recognition of a healthy environment as a human right by the United Nations Human Rights Council in early October 2021, and by processes related to the Fifteenth meeting of the Conference of the Parties to the UN Convention on Biological Diversity (CBD CoP15). Parties are expected to adopt a new post-2020 global biodiversity framework next May 2022 in Kunming, China¹. Until then, high-level commitments have been made to protect 30% of land and 30% of seas by 2030².

To achieve targets within the global biodiversity framework, inclusive approaches have been emphasized in the Kunming Declaration³, where ministers and heads of delegations have committed to “*enable the full and effective participation of indigenous peoples and local communities, women, youth, civil society, local governments and authorities, academia, the business and financial sectors, and other relevant stakeholders.*” Throughout the year of 2021, a series of policy commitments around biodiversity and climate change have also been made despite the challenges of the global COVID-19 pandemic. As the focus of ENVISION is protected areas across Europe and the United States, we highlight the following policies relevant to biodiversity, climate change and inclusive approaches:

- In July 2021, the European Commission launched the long-awaited “Fit for 55” package: proposals to make the EU’s climate, energy, land use, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030. In this context, the European Commission presented the “New EU Forest Strategy for 2030,” a flagship initiative of the European Green Deal.



The strategy will significantly help in reaching the EU's biodiversity objectives and greenhouse gas emission reduction target of at least 55% by 2030 and climate neutrality by 2050⁴.

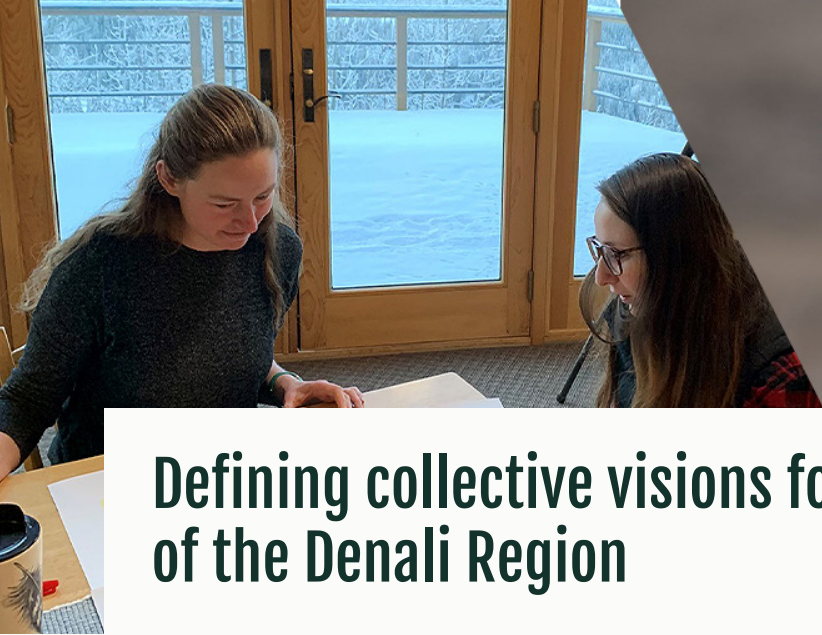
- The IUCN World Conservation Congress in Marseille in September 2021 brought together civil society, indigenous peoples and states to set the global nature conservation agenda. One of the main results of the Congress was the adoption of several resolutions aiming to protect Europe's natural environment. These resolutions will also have an impact beyond Europe and will shape negotiations on the global biodiversity framework during the second part of the CBD CoP15.
- In the United States, the Great American Outdoors Act, passed by the US Congress in 2020, enabled national parks and other federal lands to repair and upgrade vital infrastructure and facilities, protect resources, and enable increased access for all visitors⁵. The funds will provide \$9.5 billion to the National Park Service (NPS) over 5 years for repairs. The Act also provides \$4.5 billion over 5 years to support locally requested and led conservation and outdoor recreation projects across the US. These include local parks, conservation areas, rivers, trails, and wildlife habitats and creating recreational opportunities for future generations. All these projects are required to use an inclusive planning approach.
- The US public land management agencies have had policies encouraging community involvement in park and recreation planning projects for several decades. Recent Presidential Executive Orders and Memos have strengthened and clarified those policies. For example, the current Administration issued an Executive Order on advancing racial equity and support for underserved communities. This directed federal agencies to make sure there were no potential barriers that underserved communities and individuals may face to enroll and have access to benefits and services⁶.
- The Order on Racial Equity also directs federal agencies to have a systematic approach in the decision-making process for all individuals regarding their inclusion in federally funded programs. These would include Black, Latino, Indigenous and Native American persons, Asian Americans and Pacific Islanders and other people of color, religious minorities, LGBTQ+, people with disabilities, living in rural areas and adversely affected by poverty⁷.



- In 2021 a Presidential Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Relationships was issued with the intent to prioritize regular, meaningful, and robust federal consultation with Tribal Nations⁸. In response to the requests of Indigenous Peoples and other citizens, the current Administration restored the original size of three Native American National Monuments in Utah, a wildlife refuge in the Arctic and a Marine National Monument near Hawaii after those sites had been severely reduced by the previous administration.
- One highlighting from hundreds of examples of federal assistance provided by parks to communities, is the collaboration between the National Park Service's Recreation, Trails and Conservation Assistance (RTCA) program and the Mountain Maidu Tribe in developing a cultural park in the Sierra Nevada Mountains of California⁹. The Mountain Maidu people had been displaced for more than a century from their ancestral home. The Maidu Summit Consortium asked the National Park Service RTCA program to help develop a conceptual plan for their ancestral homeland that would welcome visitors while protecting special cultural sites. After many collaborative public meetings with the Tribe and community members, the plan was completed and implemented.

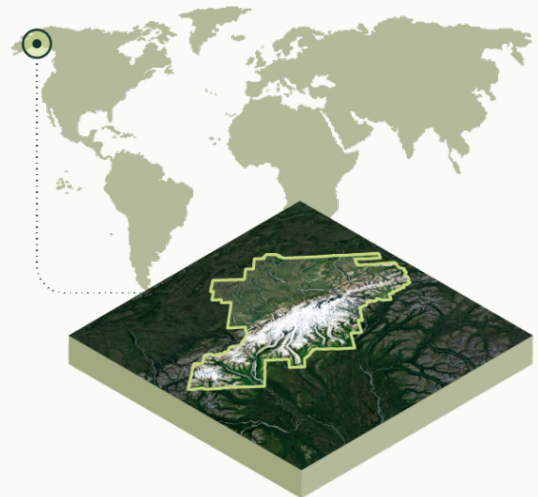
Given these policy developments, there are exciting opportunities to further develop scientific approaches to envision options for the future management of protected areas across the United States in ways that account for Indigenous and local knowledge systems, as well as academic expertise. Taking the example of the Denali region in Alaska, this fact sheet outlines the role of social learning as a process to enable residents to collectively define their futures and shift their values in response to multi-stakeholder deliberation about protected areas management.





Defining collective visions for the future of the Denali Region

The ENVISION project team in the Denali region is working with local communities **to develop a shared understanding of visions for the future of protected areas in Interior Alaska**. Public land management agencies in the US have traditionally focused most attention on understanding and enhancing visitor experiences, as well as working within the boundaries of individual protected areas. However, agencies are increasingly recognizing the importance of landscape scale conservation and engagement with adjacent stakeholders. The diversity of interest groups in local communities and contested histories of resource management in Alaska create challenging contexts for in-depth engagement with residents from local to regional scales. Therefore, this project advances a process of “inclusive conservation” that involves proactive engagement and explicit consideration of the array of goals expressed by local communities. This fact sheet describes social learning as a process that enables residents to discuss the future of protected areas.



Region: West and North America

Ecosystems:

- Boreal Forest
- Taiga and Tundra

Governance type: Formal and informal regulations govern management of resources around Denali protected areas, including property and/or access rights to land, legislative arrangements, treaties, customary laws, and informal social norms. Organizations from multiple sectors are involved in decision-making, particularly community-based coalitions, boroughs, federal and state agencies, Indigenous corporations, local businesses, assembly members, tourist lodges and businesses, local government/legislatures, churches, energy industry, Native Villages, and Tribal Councils.

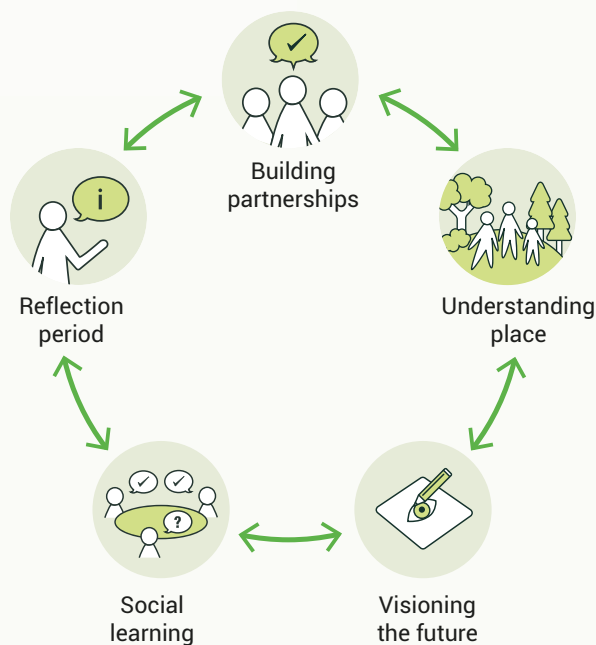
Challenges:

- Climate change
- Large-scale development
- Unplanned growth, and representation in decision-making.



The ENVISION project team has been conducting research with communities in the Denali region since 2018. The primary goal has been to build knowledge of how residents can learn from and adapt with one another in response to landscape change, as well as identify the most effective pathways for rural communities to preserve the desired character of places. The team has embarked on multiple phases of the research process that:

1. Built partnerships through the establishment of an **Executive Committee and other entities** to guide the research process.
2. Identified the reasons why residents are connected to places.
3. Visioned for the future to understand both **drivers of change** and tradeoffs made among competing growth scenarios.
4. Created a **social learning** process to advance conservation outcomes such as shifts in multi-level values; and
5. Reflected on research results through outlets such as a newsletter series, webinars, listening sessions, presentations, and more (see Figure 1).



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Figure 1: Cyclical research process of learning about the Denali region from local communities

This research process has highlighted the importance of defining collective understandings of regional landscape change that apply to resource management decision-making including individuals, community, borough, state, and federal organizations.





The Denali region

The Denali region is located in the center of Interior Alaska and includes several communities, scenic landscapes, sites of cultural history, extensive natural resources, recreational opportunities, and mining, oil and gas, and industries tied to military bases. Within this region is Denali National Park and Preserve, home to the highest peak in North America (Mt. Denali: 6,914 m). The case study engages multiple communities in the Denali region, including **Nenana, Anderson, The Stampede, Lake Minchumina, Healy, McKinley Park, Cantwell, Talkeetna, and Trapper's Creek** (see Figure 1). Immediately surrounding the east side of the park's boundary is the Denali Borough, incorporated in 1990 and comprised of four recognized communities: Anderson, Healy, McKinley Park/Village, and Cantwell. The borough expands across 12,000 square miles and is home to about 1,900 year-round residents.

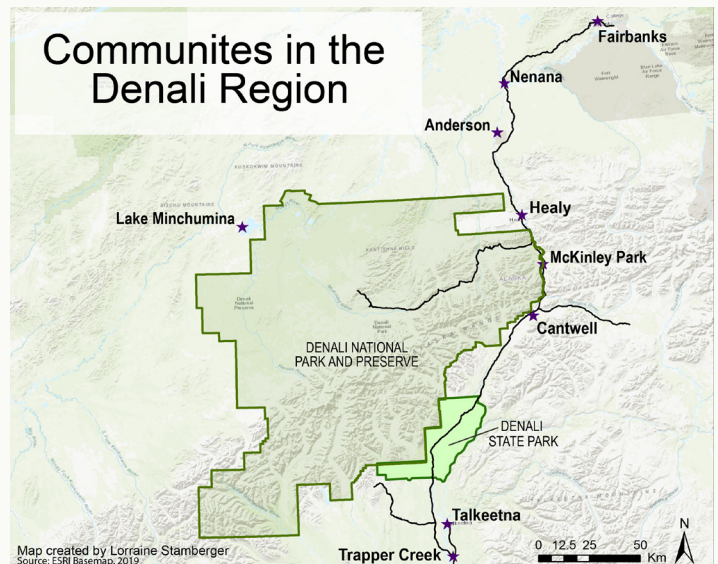


Figure 2: Communities located in the Denali region

Denali Protected Areas

- **Denali National Park and Preserve** is located in the Interior of Alaska and is managed by the US Department of Interior. Spanning over six million acres, this protected area encompasses mountains and glaciers, alpine tundra and boreal forests, wetlands, and Mt. Denali. Numerous scenic resources, intact ecosystems, high air quality, and over 300 documented cultural sites and paleontological resources are protected within the park.



Denali was the first national park established to protect wildlife and the region is home to a vast array of unique flora and fauna including charismatic species such as *Alces alces* (moose), *Rangifer tarandus* (caribou), *Ursus arctos* (grizzly bear), *Ovis dalli* (Dall sheep), and *Canis lupus* (Wolf). Abundant wildlife in the region attracts visitors from around the globe who come to observe these species in an ecologically intact environment. If people wish to travel into the heart of the park beyond mile 15 of a 92.5-mile road, these activities require a transit service, operated by the Park's concessionaire Joint Venture (Aramark & Doyon Inc.).

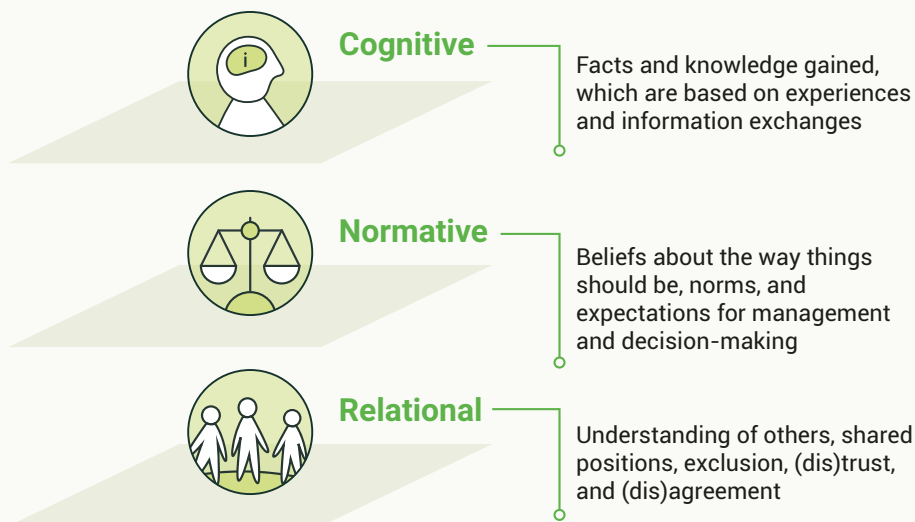
- **Denali State Park** is managed by the Alaska state government. The park was established in 1970 and shares a western boundary with the Denali National Park and Preserve. Visitors to the region participate in a wide range of activities. Wilderness recreation activities such as mountaineering and backpacking are of particular importance, alongside more common activities including hiking, camping, and viewing wildlife.





Inclusive conservation in action: social learning about protected areas

Engaging residents in participatory research can link decision-making to local perspectives and facilitate shifts in values and preferences among all stakeholders including individuals and groups of residents, researchers, and managers. This project aimed to document these changes through facilitated interactions – **a process known as social learning**. Specifically, social learning is defined herein as a group-based process of behavioral adaptation that occurs through interactions between actors in a social network whereby knowledge is exchanged and **situated within communities of practice** and then **adopted by individuals**. Social learning can result in cognitive changes (i.e., knowledge of other perspectives), normative changes (i.e., standards or expectations), and relational changes (i.e., community building; see Figure 3).



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Figure 3: Three dimensions of social learning that were recognized and examined in this research



Multi-level values understood through social learning

Public engagement through participatory processes, such as learning from deliberation about protected area management, is shaped by the values of people involved in conversations. There are many kinds of values, and this project distinguished among three described below. These three types of values varied in “psychological stability” defined as the mental state or quality of continuance without change. Stable values are resistant to change and will likely stay the same over longer periods of time. This project sought to understand how these three types of values changed over time when stakeholders were engaged in deliberation and learning about protected areas in the Denali Region (see Figure 4).

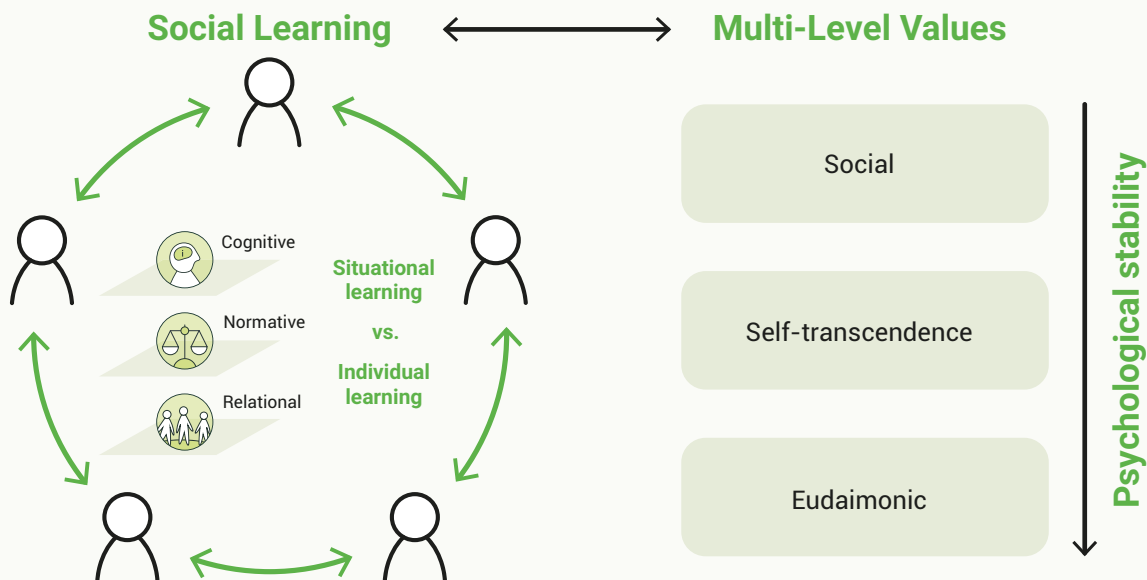


Figure 4: Conceptual framework that linked three dimensions of social learning that existed at individual and group levels with three types of values that varied in psychological stability

- **Social values**

Place-based qualities that provide benefits to society and can be aggregated at the group level. These are values associated with different environments that readily change with new information. Several examples include aesthetics, recreation, and economic benefits that people derive from their interactions with landscapes.



- **Self-transcendence values**

Guiding principles in life that serves as modes of conduct for behavior. These values are specific to individuals and are formed early in life and through acculturation. Examples include generosity, altruism, or being environmentally oriented.

- **Eudaimonic values**

Enduring and core beliefs about human well-being and quality of life. These kinds of values are most stable and reflect long-term principles such as autonomy, self-actualization and excellence.

The goal of the ENVISION project in Denali is to establish a process for advancing inclusive conservation that reflects multiple viewpoints on the future of protected area management in Interior Alaska, particularly through the use of social learning as a tool to connect decision-makers and local communities in discussions about landscape change surrounding protected areas.

A social learning program was implemented by the ENVISION research team through an online discussion forum. Two research objectives focused on understanding:

1. How community deliberation facilitated social learning; and
2. How multi-level value shifts related to social learning through deliberation.

All interactions took place via the Denali Discussion Forum, which was a website created for residents to deliberate on their visions for landscape change. Recruitment took place during a mixed-mode survey of all residents in the study region in summer 2020. This resulted in 35 residents who participated in all phases of the research process split between three smaller groups. Residents were provided a \$100 incentive for their participation. A series of “meet and greet” focus groups were held at the beginning of the program in December 2020. The Denali Discussion Forum was administered over a five-week period in January-February 2021, and a final webinar was held in April 2021. Residents then completed the same questionnaire that was administered one year earlier, in addition to responding to questions about their involvement in the program.



To better understand the process for deliberation, residents were organized into three subgroups defined by their value profiles. Group A residents were clustered together because they had weak values related to environmental protection and the well-being of others, yet reported the most concern about inclusivity in decision-making. Group B had the strongest environmental values and strong social cohesion. Group C was mixed, in that it included a blend of people with different value profiles so we could test whether homogeneous or heterogeneous groups were more likely to learn from one another. Each group was also purposively modified to include the perspective of at least one Alaska Native.

Each week of the Denali Discussion Forum, participants were provided with a prompt and then asked to (1) post a response to the prompt and (2) respond to the comments from other participants to generate group discussion. The research team then summarized the conversations at the end of each week and provided summary documents to the participants for feedback. The weekly discussion prompts were based on the following topics:

1. Benefits and threats of the Denali landscape,
2. Public land management priorities,
3. Their personal values and the ways these values influenced views on public land management;
4. Their reflections on what was learned over the course of the social learning program.

Results from the first two weeks are shown in Figure 5. Numerous, inter-related concerns about the benefits, threats, and management actions in the region were highlighted by residents. Specifically, the main benefits identified were related to wildness and natural beauty, an Alaskan way of life, and sense of community. The primary threats were climate change, tourism, and development and growth. The management actions that could be taken in response encompassed concerns and recommendations for how to transform the decision-making process in ways that were more inclusive of residents' preferences for the future.



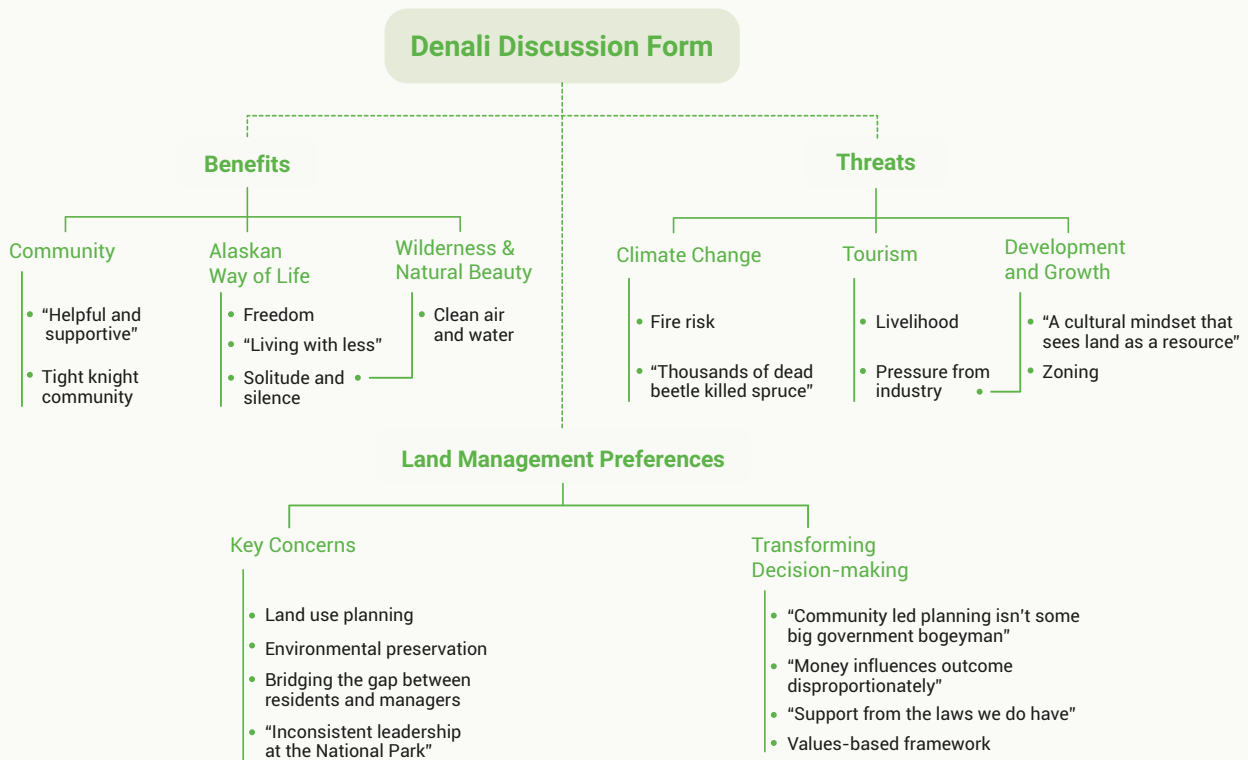


Figure 5: Results that emerged from a content analysis of all text generated during the Denali Discussion Forum

Three types of social learning – cognitive, relational, and normative – were examined using the text generated during online forum that spanned 460 posts. Findings indicated that participants primarily learned through relational exchanges based on an understanding of others, followed by normative and cognitive learning (see Figure 6).

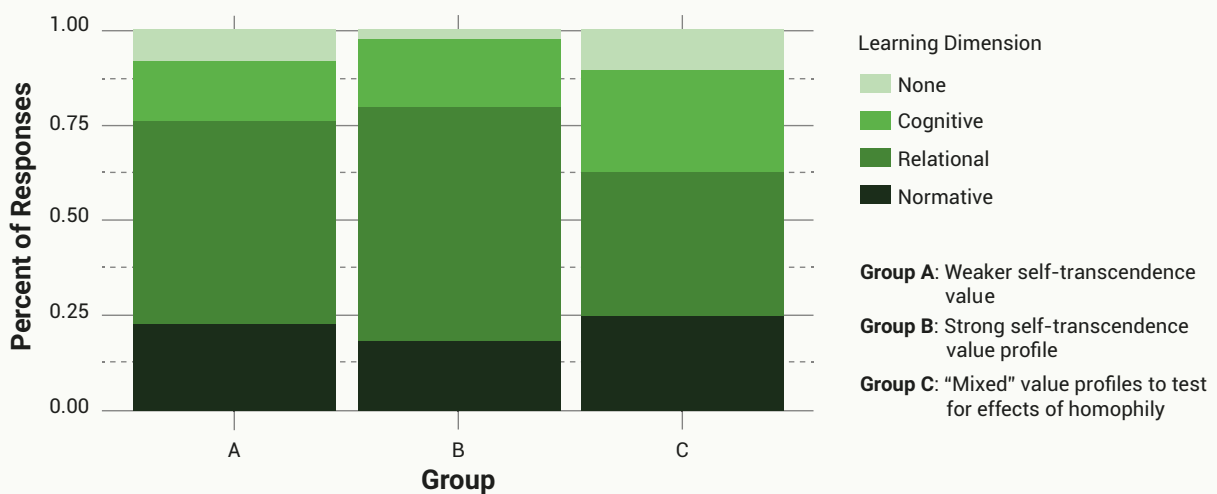


Figure 6: The types of learning that occurred across three subgroups of participants



Most participants reported they learned something new, and just a few indicated otherwise. Participants who did indicate that their knowledge increased were most likely to be concerned about planning and regulations undertaken by neighboring communities, trail designation, as well as the processes and scope of public land management in the region.

Reflections around normative learning had a large amount of variation between individuals, largely depending on previous experiences engaging in civic processes related to public land management. For these experienced individuals, the discussion fortified perspectives that transforming participatory processes of public land management was slow, yet worthwhile goal. In contrast, participants who had not been as engaged in land management efforts previously pointed out the development of expectations on how management may improve. Nearly 90% of participants indicated that the creation of a shared sense of purpose in the discussion forums was the reason for the relational learning.

We tested how shifts in multi-level values were related to social learning that occurred through deliberation. A piecewise Structural Equal Model (SEM) was estimated to test the relationships between social learning and multi-level value shifts. The presence or absence of learning across three dimensions of cognitive, relational, normative were derived from qualitative codes and compiled into a variable called Learning Types, which accounted for moderate degrees of variance in social learning at individual and group levels. Social learning among individuals (i.e., individual learning) and groups (i.e., situated learning) was measured as part of the survey questionnaire administered at the end of the discussion forum. These results are shown by the conditional R-squared values of 0.26 for Situated Learning and 0.21 for Individual Learning.

Social learning at the respective group and individual levels accounted for different degrees of variance in the shifts that occurred to three types of values (i.e., what we call “multi-level values”). That is, we used survey data collected before and after the discussion forum to measure multi-level value shifts. Specifically, we calculated the distance for each participant between their pre-and post-forum responses in multivariate space for social, self-transcendental, and eudaimonic values using Euclidean distance. Participants who ranked the value items as less important post-forum had lower, negative values, whereas participants who ranked the value items as more important post-forum had higher, positive values. Some participants responses did not shift between the two surveys (see Figure 7).



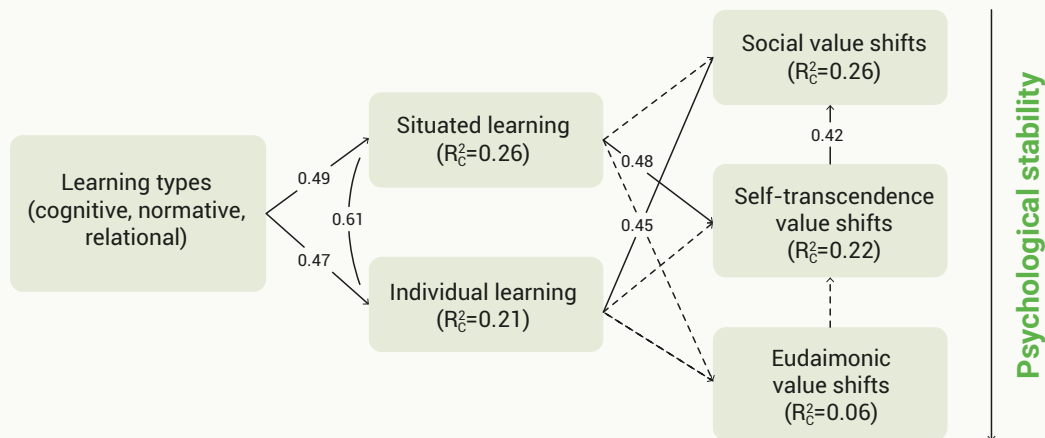


Figure 7: Path model of the relationship between multi-level value shifts and social learning. Black arrows show significant effects and dashed arrows show hypothesized effects that were unsupported by the model results. Standardized path coefficients are reported, along with R^2 values for the final model.

Learning for individuals and situated within broader communities of practice was found to be positively related to multi-level value shifts. Social learning at individual and group levels, in turn, accounted for different degrees of variance in the shifts that occurred to three types of values, or multi-level values. Additionally, shifts in broader self-transcendental values were positively associated with changes to more specific social values. The changes that were observed in the multi-level values shifts were in accordance with psychological stability, as hypothesized. That is, eudaimonic values changed the least in response to social learning because it is most psychologically stable ($R^2_c = 6\%$), self-transcendence values changed more ($R^2_c = 22\%$), and social values changed the most because these values are least psychologically stable, most malleable and subject to change based on new information about landscape change ($R^2_c = 26\%$).

This project showed that social learning occurred over the course of the Denali Discussion Forum and was primarily attributed to the knowledge shared by others (i.e., relational). The study also highlighted that multi-level values can shift as a result of social learning. This promising aspect of the results is informative for decision-makers who are interested in deepening community engagement for long-term conservation of protected areas and their surrounding communities.



Through work with community partners, this project developed collective and co-created knowledge from visions for the future of public lands challenged by several drivers of landscape change. Though social learning does not resolve tensions or conflicts, these findings clearly delineate the mechanisms by which learning occurs in relation to the value positions of a variety of stakeholders. In doing so, social learning forums hold promised to expand the range of issues in which there is a shared understanding of priorities for the sake of inclusive conservation.



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Case study contact

Carena van Riper, Associate Professor, University of Illinois, cvanripe@illinois.edu

William Stewart, Professor, University of Illinois, wstewart@illinois.edu

Photo credits

Carena J. van Riper, Dave Alexander & Neil Blake

Research staff, students, and collaborators

Riley Andrade, Post-doctoral Research Fellow

Dana Johnson, Research Assistant

Evan Salcido, Research Assistant

Devin Goodson, Research Assistant

Ruth Colianni, Research Technician

Erik Johnson, National Park Service

Amy Craver, National Park Service

Rose Keller, Norwegian Institute for Nature Research



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