

# Permafrost Pathways Policy Convening

SEPTEMBER 26 - 27, 2022

SUMMARY REPORT

PERMAFROST  
PATHWAYS

## Overview of the Permafrost Pathways Project

Permafrost Pathways will fill critical gaps in our ability to track and forecast permafrost thaw and consequent carbon emissions, and work in partnership with scientists, Arctic residents, Indigenous knowledge holders, human rights experts, as well as state and national climate policymakers to harness these data to support Arctic community adaptation strategies, appropriate climate mitigation policy, and address the hazards of permafrost thaw.

**MONITORING AND MODELING:** Develop a coordinated pan-Arctic carbon monitoring network to fill critical data gaps and reduce scientific uncertainty around carbon emissions from permafrost thaw. Combine on-the-ground monitoring with high-resolution satellite observations and process modeling in a data-model assimilation framework for more accurate assessments of current and future carbon emissions from the Arctic.

**MITIGATION:** Unite new scientific data with policy, providing the international policy community with robust current estimates and future forecasts of Arctic carbon emissions and their impact on humanity's remaining carbon budgets to stay within critical global temperature thresholds. Engage with policymakers to promote understanding of the risks and human impacts of thawing permafrost and increase climate ambition for rapid reductions in fossil fuel emissions accordingly.

**ADAPTATION:** Combine monitoring and modeling tools with Indigenous Knowledge to assess current and future impacts of permafrost thaw, and work with an integrated network of Arctic residents, Indigenous leaders, scientists, and policy experts to co-create fair and equitable Indigenous-led adaptation action plans that respect and protect human rights and can be implemented at the local, regional, and national levels.

## Objectives of the Convening

- Share information about Permafrost Pathways' current activities and preliminary plans for the six-year span of the Audacious grant.
- Allow participants to offer their thoughts about the challenges and opportunities at the intersection of permafrost science and policy.
- Identify possibilities for connecting with, leveraging, and collaborating with other Arctic projects and organizations working on objectives that overlap with or are related to Permafrost Pathways goals.

## Opening Sessions Summaries

The opening sessions provided an overview of Permafrost Pathways and highlighted the roles of project partners, which included presentations by Tribal liaisons from the Alaska Native communities of Nunapitchuk and Kwigillingok. US Government officials including representatives from the White House (Arctic Executive Steering Committee), Department of State, Department of Interior (DOI), National Science Foundation (NSF), NOAA, and the Denali Commission, shared information about some of the existing federal permafrost projects and climate resilience and adaptation initiatives.

The opening sessions also provided an opportunity for all participants to give brief descriptions of their permafrost-focused interests and relevant work.

Key topics covered across all sessions included:

- The importance of improving permafrost science, closing existing data gaps, and facilitating international cooperation and collaboration.
- The need to incorporate the science of permafrost thaw into global climate models.
- Climate change forced relocation as a human rights issue and the need for a relocation governance framework so that federal government agencies have the funding and mandate to address this issue.
- Challenges of addressing regional impacts of permafrost thaw and policies.
- The significant work that is happening in the United States under the Biden administration related to assisting communities in addressing the impacts of climate change; several projects specific to Alaska were highlighted by attending officials.
- A number of ongoing permafrost-monitoring projects in Alaska and Canada offer promising opportunities to expand collaborations already underway.

## Breakout Session Summaries

### **Adaptation A: Identifying and prioritizing policy actions that advance adaptation to and resilience against impacts of permafrost thaw across the Arctic**

The ‘Adaptation A’ breakout held an extensive discussion focused on how Permafrost Pathways should position its adaptation/resilience-focused work within the broader landscape of existing efforts. This session highlighted actions already being taken that touch on community resilience and address permafrost thaw, although their foci may be quite diverse given the intersectional impacts of permafrost thaw (e.g., health, housing, water, community infrastructure, fisheries, disaster preparedness).

Some organizing principles that emerged from the discussion are worth careful consideration by Permafrost Pathways in managing work going forward:

- Centering the effort on northern communities and working closely with Indigenous knowledge holders to understand their priorities and build workstreams and advocacy around their needs.
- Engaging Indigenous Knowledge holders in the planning, implementation, and evaluation of Permafrost Pathways activities.

- Recognizing the diversity of the Arctic and the intersectionality of this work and engaging and identifying ways to support and amplify existing efforts (especially those that are community-driven and innovative).
- Acknowledging climate grief and building community capacity by engaging youth as community leaders and in developing and implementing elements of the project.

## **Adaptation B: Policy actions for environmentally threatened communities - Alaska Native-led case studies from Western Alaska**

The Adaptation B breakout focused on two of the tribal partners for Permafrost Pathways as case studies, and, using that lens, explored the many barriers facing communities that are directly affected by thawing permafrost. This discussion allowed for a deeper exploration of the limitations of the current US laws, policies, and programs focused on disaster relief and community relocation. Through conversations involving participants from federal agencies, this breakout group was able to unpack a number of new federal programs and grant opportunities in development and mapped how these efforts in combination could best address the needs of the Tribes engaging in Permafrost Pathways.

A few key findings include:

- Tribes have an urgent and pressing need to begin the process of relocation and adaptation since permafrost thaw is not a problem of the future—it is impacting their communities right now.
- It is challenging to navigate the many overlapping federal programs that exist to help communities in addressing permafrost thaw and other climate impacts. Many Tribes are without reliable internet access and may not have the technical expertise required to effectively piece together programs across agencies to address their needs.
- The government agencies that participated in this convening play a critical role in helping Tribes navigate bureaucracy and secure technical assistance for infrastructure repair and community relocation; however, they currently lack the resources necessary to fully assist Tribes who are facing this growing crisis.

## **Mitigation: Incorporation of permafrost emissions in national and global emission targets**

The mitigation breakout focused on the intersection of permafrost science and global mitigation policy, and more specifically on how Permafrost Pathways can infuse ongoing climate-policy discussions with the latest science in a way that is additive and impactful. The session began with a discussion of the opportunities and some limitations of the Intergovernmental Panel on Climate Change (IPCC) and United Nations Framework Convention on Climate Change (UNFCCC) processes. The discussion also addressed the challenge of developing a strong, engaging, actionable message regarding permafrost emissions; in particular how to overcome the psycho-social barriers inherent in adding more bad news on the rate of emissions from permafrost thaw to an already overwhelming climate change discussion. Multiple potential collaborators were identified as allies in this effort.

Identified key approaches to overcoming the challenges noted above include:

- Improving the state of the science, in particular improving the representation of permafrost emissions

in the climate models used by the IPCC.

- Directly positioning scientific outputs to inform policy, primarily through awareness raising and engagement with decision-makers.
- Targeting UNFCCC inventory and accounting systems that currently exclude emissions from permafrost.

## Next Steps Identified

There was broad agreement that this convening successfully amplified voices of Tribes that are among those most affected by permafrost thaw and delivered insights and updates from those who are leading responsive interventions across the federal government. The convening also brought together many potential collaborators who are working on issues of Arctic adaptation, resilience, and mitigation and identified more opportunities for engaging with Permafrost Pathways. Upon consideration of future action, conference attendees highlighted the following actions and approaches that Permafrost Pathways could take:

- Contribute to identification and collation of information about the various funding opportunities and programs that currently exist to assist Tribes in addressing the challenges of permafrost thaw in Alaska. Efforts to better map this landscape may be informed through the following actions:
  - Showcasing or centralizing resources that are designed to assist Tribes seeking relocation assistance, and assisting other potential collaborators who are already doing similar work.
  - Identifying policy priorities that seek to resolve funding gaps and other challenges identified by workshop participants, including insufficient funding for relocation efforts, limited coordination across existing programs addressing permafrost thaw and other climate impacts, and lack of continuity in federal leadership.
- Continue to organize and moderate discussions with Alaska state and federal agencies to propose a clear and standardized process for selecting relocation sites for communities, such as Kwigillingok and Nunapitchuk, who are imminently threatened by climate hazards.
- Hold a future convening in Alaska to demonstrate increased attention and awareness of the on-the-ground impacts of permafrost thaw, signal recognition of local leadership and Indigenous knowledge in co-producing adaptation strategies, and to center the discussion around needs and priorities of communities driving this work.
- Incorporate a youth leadership development aspect into this project to empower young people to be spokespeople on these issues.
- Identify opportunities to better include industry and private sector involvement in future discussions on policy solutions.
- Provide a platform for launching new opportunities for cooperation and collaboration with international permafrost efforts. Work with the broader community to aggregate data and disseminate outcomes so that progress made by Permafrost Pathways is shared across a wide range of sources.