

A report from JCAR to inform the ICARP IV Process

Topic Area 5: Co-Production and Indigenous-led methodologies

25 February 2024

Prepared by Hiroyuki Enomoto

Arctic Environment Research Center, National Institute of Polar Research, Tokyo, Japan

Contact: enomoto.hiroyuki@nipr.ac.jp

Japan Consortium for Arctic Environmental Research (JCAR) published “Long-term Plan for Arctic Environmental Research (JCAR, 2024)” with its Executive Summary (JCAR, 2023) that includes research priorities from viewpoints of Japanese Arctic research communities. Here, from the Executive Summary (JCAR, 2023), we have extracted, edited, and added key elements related to “Topic Area 5: Co-Production and Indigenous-led methodologies” of ICARP IV.

Summary of back-ground, current activities and gaps, and future recommendation:

Theme Ethnic Culture and Identity

There have been many field-based anthropological research on the indigenous peoples in the Eurasian and American Arctic. They have been comprehensive, aligning with Western anthropological theory while uncovering unique ethnographic insights. Research on the ethnic culture and identity of indigenous peoples in the North American and Greenlandic Arctic regions have investigated topics such as subsistence activities (hunting, fishing, and gathering), food sharing and distribution, human-animal relationships, rituals, religion, song and dance, and indigenous knowledge. In particular, the research has explored hybrid economic systems blending subsistence and market (wage-earning) activities. Studies also examine the migration of Arctic indigenous people to cities and towns in the USA, Canada, and Denmark due to economic globalization and their lifestyles in cities.

Further approaches:

Investigating the diverse impacts of social media usage on their societies is another vital research topic. In contrast, primary research on indigenous Arctic peoples of the Eurasian continent includes studies on residential patterns and ways of life, subsistence culture centering on reindeer herding, clothing, food, housing, their worldview, and spiritual culture. Many research studies have focused on reindeer herding, complex subsistence systems, and shamanism, among others. Some scholars explore the dynamic of culture and permafrost related to Climate Change. However, little research has investigated fishing, despite it being a critical food acquisition activity for these people. Studies in

both regions reveal commonalities, including the food cultures characterized by high protein and high fat intake, reciprocal relationships between humans and animals, and animistic worldviews. The limited number of younger researchers specializing in Arctic indigenous research underscores the urgent need for worldwide recruitment and training.

Research priorities include:

- Evaluating the Arctic commercial fishery and gas-oil industry's influence on the traditional fishery culture of the Eurasian Arctic.
- Conducting interdisciplinary anthropological studies on health science and environmental policy, local health, and other issues related to waste management.
- Analyzing the transformation and re-interpretation of traditional culture in the context of social media and youth culture.
- Examining indigenous and local societal changes, tourism, and migration in East Asia
- Investigating indigenous well-being and ethnicity related to war, conflicts, and collaboration.

Indigenous languages

It is necessary to recognize that the decline of indigenous languages is not only an issue for the communities that speak them but also a crisis for all of humanity. Engaging in the documentation, preservation, and succession of indigenous languages as a stable, long-term project is essential.

The research priorities listed below have been highlighted for more than 20 years and are still unresolved. Immediate action is needed to address these issues.

Research priorities:

- Research and information sharing of unpublished materials: In addition to field research, there is an urgent need to survey and share unpublished materials stored in research institutions and researchers' private archives (in Russia and Japan).
- Establish international research collaboration: It is essential to collaborate with Russian researchers to investigate Russian materials.
- Construction of a digital archive: Since most of the audio and video materials collected in the past have not been made public, opening these materials to the public as a digital archive to facilitate access is necessary.
- Cooperation with indigenous communities: It is important to collaborate with community members, train researchers from indigenous communities, and establish a system for language succession.
- Development of researchers: Developing researchers and providing them with stable employment is a critical issue to ensure long-term continued research.

Social sciences

Politics

The nexus of indigenous peoples and governance: Indigenous peoples have been subject to both state inclusion and exclusion since the 18th century when colonialism reached the Arctic. Considering this history, especially in the post-Cold War world, the symmetry between indigenous peoples and the state, referred to as recognition, renewal, and reconciliation, has become the subject of debate. However, limited empirical research exists on the policy implementation stage. The most fundamental task is overcoming this status quo through empirical research using primary sources. We need to unravel our fixed-thinking attitudes, and searching for possible alternatives between indigenous knowledge and scientific knowledge, and view them relationally.

Cross-cutting subjects

Indigenous Peoples' Rights and Movements

Indigenous peoples of the Arctic have become an integral part of policy decisions related to the Arctic. For example, the six Arctic indigenous peoples' organizations are permanent participants at the Arctic Council, a forum that seeks to promote cooperation, coordination, and interaction among Arctic states on common Arctic issues, and have a significant influence on the Council's activities. It is important to review the current state of research on rights and movements, who have become nonnegligible actors in the Arctic, and further outline future research agenda.

The priority topics include:

First, the role played by Arctic indigenous peoples' organizations, particularly the Sami Council and the Inuit Circumpolar Council (ICC), in the drafting of the United Nations Declaration on the Rights of Indigenous Peoples (hereinafter the UN Declaration), and in the establishment and practice of international organizations related to indigenous peoples.

Second, studies in the field of cultural anthropology on how indigenous peoples, being most vulnerable to the effects of climate change, have adapted to environmental changes by changing their cultures and means of living, etc. Furthermore, the research in the field of international law to examine the significance of the human rights approach to climate change in the context of the Paris Agreement and the related UN meetings, advocated by indigenous peoples in the Arctic, and the role played by it.

Third, examine the process by which the Ainu people were officially recognized as indigenous, and the "Ainu Policy Promotion Act" was enacted in Japan and how the UN Declaration is respected in the international forest certification system. The developments regarding the recognition of the Ainu people as an indigenous minority in the Russian Federation.

Research priorities:

- In future studies, while paying attention to how the UN Declaration will be institutionalized and implemented in the Arctic, it is necessary to review the possibilities and challenges of UN activities

by indigenous peoples to date, and to study other Arctic indigenous groups besides the Sami and Inuit, that have not been focused on till date.

- Future studies should clarify the Arctic's uniqueness, through comparative research with indigenous peoples' organizations around the world. They should also focus on the distinction between local communities and indigenous peoples in the United Nations Framework Convention on Climate Change (UNFCCC) regime.
- For future studies, it is essential to build and expand research networks that can collaborate with the Ainu, for making research fair to indigenous peoples.

Natural Resource Development and Adaptation to Disasters

In the Arctic region, human activities adapt to the various constraints of the cold environment, from subsistence use of the natural environment to the development of mining resources. However, the foundation of these activities is being shaken from the ground up by catastrophic events associated with climatic and environmental changes progressing throughout the Arctic region. Adaptation of resource development and livelihoods to environmental changes is in the phase of shifting awareness and activity patterns that will lead to social implementation, requiring further accumulation of integrated knowledge through interdisciplinary collaboration based on clarification of actual conditions and future projections.

The status of research and future long-term research strategies for the high priority and noteworthy events.

- (1) Changes in ground-bearing capacity for urban and settlement structures in permafrost zones: Warming and thawing of permafrost, which is widely distributed in the Arctic region, reduces the ground-bearing capacity of cities and infrastructure and causes significant damage due to heterogeneous subsidence of the terrain, making sustainable development difficult. Detecting topographic displacement by satellites is effective in assessing the vast area, and analysis on the circum-Arctic scale is necessary in conjunction with future projections of permafrost thawing.
- (2) Coastal erosion and flooding: Coastal erosion in the Arctic Ocean and along the coasts of rivers is progressing significantly due to sea ice reduction and permafrost thawing, and the actual situation is being clarified on the circum-Arctic scale. Understanding of flood occurrence and damage is not fully understood, and localized information on local communities is lacking. In the future, in addition to wide-area assessments based on meteorological and oceanographic observations and satellite data analysis, detailed collaborative research on the impacts on local communities about their livelihoods will be necessary.
- (3) Use of ice on rivers and lakes and its sustainability: Rivers, lakes, and seawater surfaces that freeze in winter are used in various ways by human activities. Ice roads are a vital winter transportation infrastructure, but engineering knowledge of their vulnerability to climate change

remains limited. In addition, changing traditional subsistence activities, such as winter under-ice fishing, is an essential socio-cultural issue. These are considered research issues that should be treated as applications and practices of climate adaptation.

(4) Risks of environmental pollution and disasters associated with economic development: Environmental pollution accompanies resource development in the Arctic region and has the potential for a wide range of impacts due to accidental incidents. Combined pollution and disasters can significantly impact the very survival and livelihoods of the inhabitants, including indigenous peoples, who use the surrounding natural environment. There are still few examples of studies on environmental pollution and disaster risk, and integrated studies are needed on the relationship between environmental conservation and possible disasters in economic development and accident response.

Research Priorities with

- A combined satellite remote sensing and field verification study of changes in the ground-bearing capacity of urban and settlement structures in the permafrost zone
- Study on coastal erosion and riverine flooding by estimating erosion rates and flood impacts around settlements.
- Engineering assessment and social anthropological research on the use and sustainability of river and lake ice concerning the duration and intensity of its availability.
- Research on the risk of environmental pollution and disasters associated with economic development, including assessment of disaster occurrence and pollution spread and its impact on indigenous peoples' use of natural resources.

Living environment and security - Changes in the Arctic environment for people living there -

Rapid warming and environmental changes in the Arctic region are demanding changes in the lives of people who have long lived in the region by adapting and utilizing the environment. These drastic changes are also creating various social problems in the region. There are challenges of Arctic environmental change from the perspective of the people living in the Arctic.

"Food": Issues related to food in the Arctic region, including issues related to fisheries, livestock and agriculture as industries, as well as those related to "food sovereignty", as the unique systems and cultures of Arctic residents and indigenous peoples. The distribution and abundance of fish species and marine mammals in the oceans, as well as those in terrestrial vegetation and riverine fisheries, have undergone drastic changes in recent years, with direct implications for the food industry and the diets of indigenous people. The multifaceted study and analysis of possible countermeasures is of great importance as a future cross-disciplinary research topic.

"Water Resources and Water Use": The state of water resources in the Arctic environment, and the

different forms of water use and the impact of environmental change on them. It was pointed out that the annual precipitation in the Arctic region is similar to that in the semi-arid region. The water resources are mainly secured by snowfall and river water (ice) in the cold season. From a social anthropological perspective, there are different patterns of water use adapted to each region of the Arctic. The impact of recent warming and permafrost degradation on water resources is an important research issue from a hydro-climatological perspective, and comparisons in terms of indigenous knowledge, history and culture are crucial for the sustainability of water resources and water use under climate change.

"Pollutants and health effects": Pollution specific to the Arctic region and the most pressing issues, including plastics. Although international regulatory efforts are underway in some areas, the lack of observational data is still a problem, and much research is needed, including an assessment of human health risks. It is suggested that pollution and health issues to be included in the future research topics in combination with various environmental studies. It is necessary to design research studies that meet the needs of the region, including methods for releasing and sharing data.

Cross-cutting: Summary and Implications

The Arctic is at the forefront of environmental change due to rapidly rising temperatures; it is also a region where approximately four million people, including indigenous peoples, live. Inevitably, the various impacts of changes in the natural environment on human society are the subject of research. Arctic research has focused on themes that delve into each subdivided research field. In addition, the Arctic research based often for study on global warming led to a heavier focus on Science, Technology, Engineering and Mathematics (STEM)-oriented research themes. In recent years, however, Arctic scientific community has recruited, promoted, and encouraged cross-disciplinary research. The results of these efforts are gradually emerging.

With regards to the future of Arctic research, three types of efforts are required. The first is to continue ongoing efforts to gather information and examine the impacts of various internal (domestic) and external changes. Examples include the role of UN activities and international norms on indigenous rights and movements, climate change, UNFCCC and their impacts on indigenous organizations, the Ainu Policy Promotion Act of 2019 as well as the UN Declaration on the Rights of Indigenous Peoples.

The second necessary effort is to fulfill information and knowledge gaps. There are people with Ainu ethnic identity in Russia but our knowledge of them is limited. We can consider building research networks that enable cooperation with Ainu people in Japan and abroad. Our knowledge of winter roads engineering has not kept pace with the development of transport infrastructure with regards to ice roads in the Arctic. In collecting data, the authors call for closer cooperation with residents and careful consideration in selecting target areas of study. This is particularly the case with the ground

bearing capacity of structures in cities and settlements in the permafrost zone.

The third type of effort required is to further improve the transdisciplinary, comprehensive aspect of Arctic research. The practice of trans-disciplinarity is essential in understanding environmental security, including pollution, food, and other scarce resources like water in the Arctic. Overall, all discussions expressed concerns about recent changes in the international political situation, which has distorted international research exchanges and may have long-term consequences. Last but not least, the significance of gender should be mainstreamed throughout the Arctic research.

Observation and research centers

It is necessary to collaborate with the local community from the research planning stage, while taking into consideration the local community. In the Arctic region, where many people live, there is a need for researchers to deepen their expertise based on their academic interests, as well as to accumulate diverse expertise on social issues and conduct observations and surveys with consideration for the local community. The formation of overseas observation centers in the future will require collaboration not only among researchers and research institutions, but also in consideration of the local communities.

Submitted together with:

JCAR (2023): Executive Summary of Long-term Plan for Arctic Environmental Research.

https://www.jcar.org/longterm/executive_summary20240109.pdf

References:

Japan Consortium for Arctic Environmental Research (2023). Executive Summary of Long-term Plan for Arctic Environmental Research.

Japan Consortium for Arctic Environmental Research (2024). Long-term Plan for Arctic Environmental Research. [in Japanese]