

# A report from JCAR to inform the ICARP IV Process

## **Topic Area 3: Understanding the Vulnerability and Resilience of Arctic Environments and Societies and Supporting Sustainable Development**

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Japan Consortium for Arctic Environmental Research (JCAR) published “Long-term Plan for Arctic Environmental Research (JCAR, 2024)” with its Executive Summary (JCAR, 2024) that includes research priorities from the viewpoints of Japanese Arctic research communities. Here, from the Executive Summary (JCAR, 2024), we have extracted, edited, and added elements that the Japanese research community could contribute significantly to the implementation of priority studies for the next decade related to “Topic Area 3: Understanding the Vulnerability and Resilience of Arctic Environments and Societies and Supporting Sustainable Development” of ICARP IV. We note that some comments from JCAR members were reflected in this document.

Impacts of recent Arctic warming, permafrost degradation, coastal landform changes, and/or coastal erosion on the Arctic residents are quite important and these issues should be continuously studied. Comparisons in terms of indigenous knowledge, history, and culture are crucial for the sustainability of environmental resources under current climate change. It is thus necessary to create and strengthen a database of the knowledge obtained from researchers focusing on the Arctic region and to integrate these with social, cultural, and economic analysis. Additionally, developing a sustainable Arctic observation network with indigenous people is important. Thus, researchers should demonstrate how observations are essential for their lifestyle and the Arctic environment.

It is also important to detect pollution and health issues in the Arctic region. Therefore, research on the risk assessment on the environmental pollution and disasters associated with economic development should be also included in the future research framework of IASC. In this context, evaluating Arctic commercial activities and gas-oil industry’s influence on the traditional subsistence activities are one of the next research targets in the IASC community. Especially, conducting interdisciplinary anthropological studies on health science and environmental policy, local health, and

other issues related to waste management are needed. Finally, investigating indigenous well-being and ethnicity related to war, conflicts, and collaboration should be also included in the future research framework.

Submitted together with:

JCAR (2024): Executive Summary of Long-term Plan for Arctic Environmental Research.

References:

Japan Consortium for Arctic Environmental Research (2024). Executive Summary of Long-term Plan for Arctic Environmental Research. <https://www.jcar.org/e/longterm/>

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