

Panel discussion on the future prospect of Arctic research

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We will have a panel discussion on “Future of Arctic research”. This theme addresses the prospect of Arctic research in general. Taking the implementation cycle of research projects and changes in domestic and international situations of society into consideration, we will broadly discuss the overall picture and future prospects of Arctic research. Following the short presentations by the three panel members, the panel will have discussion.

Moderator Hiroyuki Enomoto (NIPR)

Explanation of the background and purpose of this panel.

Panel members:

Takashi Yamanouchi (NIPR)

Progress of Arctic research in Japan and JCAR

In Japan, a new initiative was started by NIPR under the Ministry of Education, Culture, Sports, Science and Technology (MEXT) as the Green Network of Excellence Program (GRENE) Arctic Climate Change Research Project in 2011. At the same time, the Japan Consortium for Arctic Environmental Research (JCAR) was established in the Arctic research communities. JCAR summarized the “Long-term Plan for Arctic Environmental Research” in 2014 and partly updated it in 2018. After the GRENE Arctic, the Arctic Challenge for Sustainability Project (ArCS; 2015-2020) was conducted, and now the next Arctic project, ArCS II (2020-2025) is ongoing. During these stages, JCAR had a symposium on the Arctic future research and submitted the recommendations to MEXT in 2019. JCAR started full updating of the “Long-term Plan for Arctic Environmental Research” in 2020 and plan to complete it in a few years. This will be useful to discuss future Arctic research projects. The presentation will introduce previous efforts and the future plan of “Long-term Plan for Arctic Environmental Research”. This can be is also available for synchronizing with the next long-term international planning ICARP IV (The fourth International Conference on Arctic Research Planning).

Hajime Yamaguchi (Univ. of Tokyo)

Japan’s new icebreaking research vessel plan

An icebreaker-type Arctic research vessel has been under consideration by MEXT and JAMSTEC since 2016. This year they have been working on a basic design of the vessel and its operation after the vessel’s performance evaluation and the investigation on the ice navigation support system. Also, in September of this year, the MEXT submitted a budget request for the construction of the vessel to the Ministry of Finance.

On the other hand, JCAR held the Arctic research planning workshops twice in 2018 as an academia side activity, strongly recognizing the need for an icebreaking research vessel for the Arctic. Then, a proposal document to construct a new icebreaking research vessel was submitted to the MEXT. In parallel to the governmental actions, JCAR formed "Arctic Research Vessel Utilization Planning Working Group" in February of this year. After several meetings and an open workshop, the working group created and released a usage plan under cross-disciplinary collaboration with a view to about 10 years after the start of service. My presentation will introduce these discussions.

Hajo Eicken (International Arctic Research Center, University of Alaska Fairbanks)

International Perspectives on Achievements and Further Potential of Japanese Arctic Research

Over the past decade Japanese researchers and scientific institutions have made a major leap forward in collaborative Arctic research focused on pressing issues of relevance to the global community. The progression from the Arctic Climate Change Research Project of the Green Network of Excellence Program (GRENE) to the Arctic Challenge for Sustainability Project (ArCS I and II), along with complementary efforts in satellite remote sensing and other government institute and university-led research projects, has continued to raise Japan’s Arctic research profile. The co-hosting of the Third Arctic Science Ministerial (ASM-3) by Japan and Iceland in 2021 is a recognition of these achievements. The structure and consultative long-term planning

of Japan's Arctic research, along with research infrastructure and international partnerships have positioned Japan to make major contributions to science in the North in coming decades. In my remarks, I will provide a brief perspective on where this potential for major contributions may be best applied in terms of urgent research needs. As a non-Arctic country with a strong research presence in the Pacific Arctic sector, Japan's scientific contributions may in particular help address urgent questions concerning transformational change in the Bering, Chukchi and Beaufort Seas and the adjacent landmasses. Building on Japan's Arctic Policy, and drawing on ASM-3 deliberations, Japanese researchers and scientific institutions can be particularly effective by tying into bilateral and multilateral partnerships. Assuming a co-leadership role in international programs such as the Sustaining Arctic Observing Networks (SAON) initiative may present an avenue for greater leverage of Arctic research contributions by Japanese scientists.

Discussions and Q&A from audience

Questions for each presentation

Discussions on Japanese Arctic research movement, international collaboration.