Co-production of environmental education material "Permafrost and Culture"

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The Arctic has been facing enhanced climate change with intensified warming trend for the recent decades. Understanding the impact of the climate change on human societies in the Arctic/North emerges urgent importance from the standpoint of sustainability of the local population and indigenous culture. Based on the long-term collaborative researches between Japan and Arctic countries, in particular Siberia in Russia, interdisciplinary outcomes combining between natural sciences and social/humanitarian sciences have potential importance to introduce structured knowledges on present situation and future direction of environmental changes in the Arctic to local population. As for this challenge, the new collaboration has been conducted to compile an educational textbook entitled “Permafrost and Culture”. In this book, particular attention is paid to the Sakha (Yakut) people living in the Republic of Sakha (Yakutia), Russia. The life of the Sakha people is closely connected with permafrost. Scientific data clearly show that permafrost thawing resulting from climate change causes acute issues on a pan-Arctic scale. Although many published scientific papers confirm what is really happening in local communities inhabiting permafrost zones, the general public receives insufficient information on this. While climate change is a global phenomenon, it often manifests itself in regional and local natural disasters, so it is extremely important to consider it from a regional perspective. Focusing on regions and conducting a detailed study of individual specific situations allows us to discover the interconnections and attain a more accurate global picture of the changes that are occurring. This book was originally published in Russia under the same title and has been translated into English to expand the readership. The content is based on results of two international research projects, ArCS: Arctic Challenge for Sustainability (September 2015 to March 2020) and ArCS II:Arctic Challenge for Sustainability II (June 2020 to March 2025), which were jointly supported by the Ministry of Education, Culture, Sports, Science and Technology of Japan. In addition, this activity is supported by JSPS KAKENHI Grant Number JP19H00556 “Co-production of permafrost degradation impact assessment for permafrost environmental utilization and conservation” and Joint Russia and Japan bilateral project in JST-SICORPS (2019-2021) “ARCTIC Hydrological Cycle CHanges: Impacts on environment sustainability and natural resources (ARCTIC-CHI)”

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