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Social consequences of climate change in the Arctic towns

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Climate change in the Arctic is noticeable and affecting the well-being of the population. The health and emotional state, food and water availability, livelihoods are on the threat. The towns are particularly sensitive to climate change. Their population and infrastructure density is exceptionally high, and temperature fluctuations, as well as extreme weather events, have an exceptionally strong impact on air and water quality, health and other components of human well-being. At the same time, urban communities in the Arctic, especially in industrial development zones, represent a little-studied area in this case.

The report presents the interdisciplinary study results concerning the climate change consequences for the population of Russian Arctic industrial developed areas. The study carried out in Murmansk Region which is a highly industrial and highly urbanized region that is completely included in the Arctic zone of the Russian Federation. Qualitative methods were used; in-depth (more than 50 questions) interviews were conducted with residents of several towns in the region. The study showed corresponds between the subjective perceptions of climate change by urban residents of the Murmansk Region with objective data on meteorological parameters changes. The surveyed urban residents feel changes in health and environmental management practices, and many respondents associate these changes with climate fluctuations. Such a phenomenon as the destruction of infrastructure (residential, public and industrial buildings, roads, energy infrastructure) due to climate change has not been identified. Concerns have been raised about the potential impact of climate warming on the ability to have a decent job due to reduced employment in some industries (such as energy).

The results obtained contribute to a better understanding of the social consequences of climate change in the Russian Arctic. This is important for adaptation actions development.