

THE DISTINCTIVE FEATURES AND PERSPECTIVE FORECAST OF ECOLOGY IN THE SIBERIAN SECTOR OF THE ARCTIC BASIN

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In the conditions of the Arctic, ecological situations are determined by the total impact of earth, cosmic and anthropogenic factors on nature, which relative role in various regions, is different. In Western Siberia, economical activities are deciding, and in Eastern Siberia, the role of geological and landscape-climatic processes is relatively increased. The cosmic factors manifest there approximately in an equal degree.

The possibility of migration of toxic elements in three surroundings - by air, surface waters and underground fluids - is substantiated. On the territory of Siberia, there are West Siberian, Tungus and Leno-Vilyui hydrogeological basins. Underground waters in these basins move towards the Arctic Ocean. This determines a regional direction of underground fluid migration. Surface (river) waters move in the same directions in Siberia and air mass moves along the Verkhoyansk Range and the Ural mountains. Hence, there are grounds to fear that the arctic coast of Yakutia may be subjected to the intensive impact of toxic products of anthropogenic activities including long-living underground radionuclides (with a half-life period of up to 24 thousand years) from underground nuclear explosions. Sea currents and coast winds can carry pollution to remote areas of Russia and other countries, which adjoin the Arctic basin. The latter prompts the necessity to conduct complex studies of the problem under international co-operation. This is the urgent and primary task and the duty of mankind before future generations and arctic and northern nature.