

Ecological problems in KMAA

Vocabulary.

1. Enormous - громадный
2. Environment - среда
3. Pipeline – трубопровод
4. Corrosion - коррозия
5. Intersect - пресечение
6. Thermokarst - термокарст
7. Sinkholes - воронки
8. Surface - поверхность

Ecological problems in KMAA

The Khanty-Mansi Autonomous Okrug is one of the most dynamically developing regions of Russia, with a huge and diverse natural resource potential. The environmental situation in the district is formed under the influence of the factor of the impact of the national economy on the environment, and most of the damage is caused by the oil and gas production complex, which is the basis of the district's economy.

During its existence, the oil and gas production complex has caused enormous damage to the environment: tens of millions of tons of oil have been dumped in the environment, hundreds of hectares of land have been alienated and violated, — hundreds of billions of cubic meters of associated petroleum gas have been burned on torches, many hunting grounds, deer pastures, rivers, lakes have lost their economic significance, the level of fish has decreased several times.

In addition, the electric power industry, pipeline transportation of hydrocarbon raw materials, and the timber industry have a negative impact on the environment.

The main types of negative impact of GRES on the environment are: atmospheric air pollution, thermal pollution of water bodies, noise pollution from operating units, death of fish entering water intake structures.

Almost all the hydrocarbon raw materials produced in the Khanty-Mansi Autonomous Okrug are transported through pipelines. A whole network of oil and gas pipelines runs through the territory of the district. The total length of the main lines is 9 thousand kilometers. The negative impact of pipeline transport on environment is quite large and diverse. The most significant damage to the environment is caused by accidents on product pipelines. The main cause of accidents is metal corrosion. The places where pipelines intersect with water bodies pose a special danger of environmental pollution. During the laying and reconstruction of pipelines, engineering and geological conditions change, thermokarst processes increase, subsidence and sinkholes form, waterlogging processes are activated. As a result of the destruction of natural habitats and disruption of migration routes, the number and species composition of the world decreases.

The timber industry has a negative impact on forest ecosystems: the soil cover is disturbed, the hydrological regime of rivers and lakes changes, the territory is polluted with abandoned wood, the number and species composition of the animal world changes.

1. Ecological state of atmospheric air

The state of atmospheric air in the autonomous district is assessed as unfavorable. In recent years, the Khanty-Mansi Autonomous Okrug has been ranked first in the Russian Federation in terms of emissions of pollutants into the atmospheric air from stationary sources. The largest contribution to atmospheric pollution is made by enterprises of the oil and gas industry. They affect the atmosphere by organized and unorganized emissions of pollutants and greenhouse gases. Atmospheric air pollution by enterprises of the oil and gas complex occurs by the release of chemical compounds of seven pollutants: nitrogen dioxide and oxide, suspended substances (inorganic dust), soot, sulfur dioxide, total hydrocarbons and carbon monoxide. The greatest environmental danger is the burning of associated petroleum gas on flares that consume oxygen and pollute the atmosphere with nitrogen and sulfur oxides.

2. Ecological state of water bodies

The surface waters of the Autonomous Okrug are experiencing a powerful anthropogenic load associated with the active development of the infrastructure of Cities and the largest oil and gas production complex in Russia in recent decades.

As a result of the technogenic impact on the water bodies of the Autonomous Okrug, the state of surface water bodies of the Autonomous Okrug, the state of surface waters is characterized as unfavorable. Thus, the Ob River in the areas within the autonomous Okrug belongs to the category of "dirty". The Irtysh River belongs to one of the most polluted water bodies that require priority implementation of environmental measures. Many rivers of the KMAA belong to the categories "very polluted" and "dirty". Contamination of water bodies situation in the district. In order to change the extensive type of economic development that has developed in the previous decades and the transition to environmentally safe sustainable management, it is necessary to greenize the oil and gas production and other industries through the consistent implementation of technological, managerial and economic solutions that allow scientifically justified regulation of technogenic impact on the natural environment.

Questions.

1. What are the main ecological problems?
2. What is the main source of air pollution in KMAA?
3. How can soil be polluted?