

INFLUENCE OF TRANSPORT VEHICLES ON LIVING ORGANISMS

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Annotation. This article presents the effect of motor vehicles on living organisms, its mechanism, released chemicals, and ways to reduce their damage indicators.

Key words. Ecology, chemicals, traffic, CO₂, Pb, Zn, biodiversity, global environmental problems, waste.

It is known that the rapid development of scientific and technical achievements and, therefore, the rapid increase in the demand for industrial and agricultural products, as a result of the increase in the number of humanity, are causing a number of environmental problems at the global level. In particular, as a result of the negative impact of vehicles on the atmosphere, the amount of various harmful gases such as carbon oxide, nitrogen oxide, sulfur oxide, and heavy metals increases.

Atmospheric air is polluted by industrial enterprises, which even the most modern gas purification facilities cannot clean. The air is even polluted by the exhaust fumes from vehicles. For the cities of Uzbekistan, this indicator is 53%. Scientific studies on plant zoning based on the level of resistance to heavy metals and pesticides were conducted in Korea. Types and types of trees are recommended depending on the level of resistance to the amount of pollution in different environmental conditions. As a result of the scientific research of K. Wark and S. Warner, it was determined that fruit trees are a source of cleaning the soil from heavy metals. For example, peaches have been found to absorb and transform up to 25% zinc (Zn) and nickel (Ni) as well as organic pollution and radionuclides. According to R.A. Babayans, 75-100% of oak, sycamore, birch and oak trees at a distance of 2-2.6 km from the large chemical plant, while apple,

willow, jasmine, and poplar leaves are 30-75%. damaged up to The role of tree and shrub species in gas-air exchange is not the same. If we consider the air purification efficiency of a common fir tree to be 100%, then it is 164% for black, 254% for large-leaved linden, 450% for oak, and 691% for berlin poplar. Long-term exposure to pollutants causes early leaf drop, impaired or early flowering, maturation of reproductive structures, and delayed fruit set.

The composition and quality of atmospheric air is more affected by the following pollutant factors:

Carbon oxides: carbon dioxide - CO and carbon dioxide - CO₂ (50% of waste);

Sulphur oxides: SO₂ and SO₃ (16%);

- Volatile organic compounds (VOCs): methane - CH₄, benzene, chlorofluorocarbons (15%);

- Nitrogen oxides: NO, NO₂ (14%);

- Suspended particles: dust, soot, asbestos, lead salts, tar, sulfuric acid H₂SO₄, oil, etc. (5%);

- Thermal radiation;

- Noise - surans.

According to the latest data, it has been determined that there are more than 500 organic compounds in the exhaust gases released into the atmosphere only by the internal combustion engines of vehicles.

The results of tests on the main streets of Andijan city

Experience points	Dust	Sulphur	Nitrogen dioxide	Pharmaldehyde	Lead
P-1	0,27mg/m ³	0,067mg/m ³	0,36mg/m ³	0,062mg/m ³	0,0011mg/m ³
P-2	0,14mg/m ³	0,086mg/m ³	0,33mg/m ³	0,064mg/m ³	0,0013mg/m ³
Fixed rate	0,5mg/m ³	0,5mg/m ³	0,085mg/m ³	0,035mg/m ³	0,0015mg/m ³

As a test, chemical substances released from vehicles were studied and analyzed in some cities of Andijan region.

According to the World Health Organization, air pollution causes 6.5 million deaths every year. The urban atmosphere is the result of a mixture of chemicals released by humans. Chemical substances, in turn, affect our environment. Atmospheric pollutants accumulate in densely populated areas due to transport, private residential buildings, production or commercial activities. As they accumulate, pollutant sources play a role in damaging water, soil, and vegetation, and affecting climate and visual air quality. In urban conditions, 80% of the emissions from burning fuel can directly affect human health. The release of pollutants from vehicles and industrial enterprises into the atmosphere causes various diseases. Pollutants accumulate in brain tissue, skin, liver, pancreas, produce protein in urine and increase blood pressure. It causes swelling of the lungs, inflammation of the respiratory tract, disorders of the nervous-vascular system, eye damage and other diseases. In addition, nitrogen oxides burn the leaves of plants, corrode metal equipment, and have a negative impact on the national economy. The leaves and cells of plants that absorb such pollutants in the air begin to die. The water absorption mechanism of your trees will fail and the leaves will fall. The tips of the plant dry up. The increase in the amount of various gases in the air increases the effect of the "Warm Effect" on global environmental problems. Cars are a major contributor to urban air pollution, accounting for 70-80% of urban air pollution.

In short, motor vehicles emit various harmful chemicals into the environment depending on the type of fuel and energy. As a result, ecosystems suffer serious damage. Biodiversity of vegetation and animal world is decreasing. It causes serious diseases in humans. In particular, the incidence of tumors in the human body, inflammation of the respiratory tract, gynecology and various diseases in children is increasing.

In order to reduce the damage of these motor vehicles to the external environment, it is necessary to pay attention to the following.

- Greening of vehicles;
- Adapting and placing the number of plants on city streets depending on their design and bioecological characteristics;
- Breeding of noise-reducing tree species and applying them to residential areas;
- Propagation of conifers and broad-leaved trees based on the characteristics of streets, which have phytoncide properties that reduce harmful substances in the atmosphere;
- wide use and implementation of technologies that assess the environmental condition of the territories;

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