

Road Transport is the Main Source of Environmental Pollution

Shukurov Nuritdin Rakhimovich

Candidate of Technical Sciences, Associate Professor Academy of the Ministry of Internal Affairs of the Republic of Uzbekistan

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Annotation: Recently, the most pressing problems of megacities is air pollution by road transport, as one of the most important elements of the functioning of the city. The article discusses the causes of air pollution by road transport, as well as ways and measures to reduce the concentration of harmful substances in the atmosphere.

Keywords: environmental protection, road transport, sources of air pollution, automotive fuel, dust, exhaust emissions.

Introduction

At present, in the context of scientific and technological progress and the intensification of industrial production, the problems of environmental protection have become one of the most important national tasks, the solution of which is inextricably linked with the protection of human health. For many years, the processes of environmental degradation were reversible. affected only limited areas, individual areas and were not of a global nature, therefore, effective measures to protect the human environment were practically not taken. In recent years, irreversible changes in the natural environment or dangerous phenomena have begun to appear in various regions of our planet. In connection with the massive pollution of the environment, the issues of its protection from regional, intrastate have grown into an international, global problem. All developed countries have identified environmental protection as one of the most important aspects of humanity's struggle for survival.

The advanced industrial countries have developed a number of key organizational, scientific and technical measures for environmental protection. They are as follows: identification and assessment of the main chemical, physical and biological factors that adversely affect the health and performance of the population, in order to develop the necessary strategy to reduce the negative role of these factors; assessment of the potential impact of toxic substances polluting the environment in order to establish the necessary risk criteria for public health; development of effective programs to prevent possible industrial accidents and measures to reduce the harmful effects of accidental emissions on the environment. In addition, of particular importance in environmental protection is the establishment of the degree of danger of environmental pollution for the gene pool, in terms of the carcinogenicity of some toxic substances contained in industrial emissions and waste. Systematic epidemiological studies are needed to assess the risk of mass diseases caused by pathogens contained in the environment. [1].

The natural environment, which is a combination of its natural components (atmospheric air, surface and ground waters, soils, subsoil), landscapes and objects that determine the conditions of human life, the habitat of animals, plants and other living organisms.

Pollution of the natural environment is an increased content in it of physical, chemical or biological reagents that are not characteristic of this environment, introduced from outside, the presence of which leads to negative consequences. Emissions and discharges are the main sources of air, water and soil pollution on a regional and global scale.

The assessment of the state of the environment is carried out by summarizing and analyzing successive observations (periodic and current), the direction and intensity of changes, comparing the obtained indicators with

the standards for the qualitative state of the environment and taking into account possible environmental damage [2].

In recent years, air pollution in Uzbekistan has become a pressing problem. Air pollution occurs throughout the year, but especially becomes more acute in autumn. A long period of absence of precipitation, weak winds, temperature inversion contribute to the stagnation of atmospheric air, create conditions for the accumulation of pollutants.

Air pollution with dust in the Republic is associated not only with natural features (dry climate, sandy and loamy soils), but also with anthropogenic pollution (vehicle emissions, industry, construction, thermal power plants). Low ventilation of the atmospheric space in the city of Tashkent, congestion of roads with urban transport, large-scale construction, as well as cutting down trees, lack of widespread watering of lawns and highways - all this combination of meteorological conditions and anthropogenic load leads to high air pollution [3].

Road transport emits 200 pollutants into the air, including carbon monoxide, aldehydes, soot, nitrogen oxides. Accumulating in the surface layer (human breathing zone), these substances react under the action of ultraviolet rays, becoming the starting products for the formation of new, sometimes even more toxic compounds.

Currently, there are about 4 million cars in Uzbekistan, of which 44% run on gasoline, 12% on diesel fuel, and 43% on gas fuel. More than 91% of greenhouse gas emissions from transport come from road transport. These cars emit an average of 1.3 million tons of harmful substances per year, which is 63% of the total emissions. In Tashkent, this figure reaches up to 88%. [4]

On the scale of Uzbekistan, the total amount of emissions is more than 2 million tons, of which 60% is accounted for by road transport, which is more than 3 times higher than the standards set in developed and developing countries [5].

As a result of the daily increase in the number of cars, emissions in 2022 increased by 26 thousand tons compared to the previous year. Such an increase in emissions is due to a number of factors, fuel quality, insufficient use of public transport by the population, use of their own car, car owners' inattention to the technical parameters of their vehicle.

As of January 1, 2023, the number of cars in Tashkent amounted to 562.1 thousand units.

According to the Tashkent city department of ecology and environmental protection, the volume of pollutant emissions into the atmospheric air in the city of Tashkent last year amounted to about 426,000 tons. At the same time, the share of road transport accounted for 395 thousand tons, or more than 90% of emissions [6].

Conclusion

To reduce the amount of harmful emissions, the country's authorities are taking the following measures: annually, under the program of the month "Clean Air", at all points of the road patrol service of the republic on the central streets, special equipment will carry out environmental monitoring of the amount of harmful substances emitted into the atmosphere by motor vehicles running on gasoline, diesel fuel, compressed natural and liquefied gas; increase the number of electric vehicles for personal use of citizens; increase the number of buses and electric buses, which will serve to reduce emissions of toxic substances into the air, since these types of public transport are considered environmentally friendly.

In addition, due to the long absence of precipitation and a large anthropogenic load in the city, it is necessary to pay more attention to watering and cleaning roads, measures to reduce the dust content of construction sites, and timely garbage collection. To improve air quality in Tashkent, it is necessary to take additional measures to green and beautify the city.

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