

THE EFFECT OF THE GROWING NUMBER OF CARS ON THE ECOLOGY.

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Annotation

Today we cannot do without transport. In the current period, the preservation and protection of ecology and its transfer to the next generation in a good condition has become the most important task. Both trucks and public transport, powered by different types of energy, are now used to provide traffic, and therefore vehicles have a negative impact on nature. Every year, many people suffer from diseases related to emissions and gases emitted from cars, as well as their noise. Today, this process has a negative impact on every country.

Key words

Motor transport, exhaust gases, nitrogen oxides, hydrocarbons, carbon monoxide, body, gasoline, noise.

Every type of transport pollutes the environment, but an important advantage is that 85% of pollution is caused by motor transport, which emits exhaust gases. These types of cars, buses and other vehicles cause various problems:

Types of environmental pollution from cars

1. Air pollution;
2. Greenhouse effect;
3. Noise pollution;
4. Electromagnetic pollution;
5. Deterioration of human and animal health

Maritime transport pollutes the first hydrosphere, as the water used to wash ships goes into reservoirs. Ship power plants also pollute the atmosphere with various gases. When tankers transport oil products, there is a risk of oil contamination with water.

Air transport primarily pollutes the atmosphere. Aircraft engine gases are their main cause. Air traffic releases carbon dioxide and nitrogen oxides, water vapor and sulfur oxides, carbon monoxide and particulate matter into the air.

Electric vehicles contribute to environmental pollution through electromagnetic radiation, noise and vibration. During its storage, various harmful substances enter the biosphere.

Thus, environmental pollution occurs during the use of various vehicles. Harmful substances pollute water, soil, but most pollutants enter the atmosphere. These are carbon monoxide, oxides, heavy compounds and vaporous substances. As a result, not only the greenhouse effect appears, but also acid rain, diseases increase and human health worsens.

The complex of vehicles is a powerful source of environmental pollution. 89 percent of the 35 million tons of harmful waste is the waste of automobile transport and road construction enterprises. The role of transport in the pollution of water bodies is great. In addition, traffic is one of the main sources of noise in cities and contributes significantly to thermal pollution of the environment.

The growing number of cars has a greater impact on environmental pollution. Cars in the world use 2.1 billion tons of fuel per year and emit about 700 million tons of toxic substances into the atmosphere, including 420 million tons of CO, 170 million tons of CxHy, 60 million tons of NOx, 17 million tons of soot and 0.6 million tons of sulfur ash (an average car generates 1.3 tons of waste per year). As a result, the share of automobile transport in the total air pollution in developed countries reaches 45-50%. 40% in Russia, including 50-60% in cities, 85-90% in megacities [1].

Currently, as a result of the development of all branches of industry in Uzbekistan, the number of vehicles is also increasing. In 2001, there were 1 million 200 thousand vehicles in the Republic of Uzbekistan. As of December 1, 2021, there are 3 million 775 thousand vehicles in our republic. According to statistics, the number of cars increases by 300 thousand on average every year. According to the State Statistics Committee, the total number of motor vehicles owned by the population in recent years:

For specific information, we should say that for the city of Tashkent, our capital, motor vehicles pollute 395 tons of toxic gases every year. They account for 90% of gases released into the atmosphere [2].

It is everyone's duty to fight against pollution of nature and ecology. And cars have their place in environmental pollution. The increase in the number of cars accelerates this process even more. Based on the data provided by the Statistics Agency, as of January 1, 2023, the number of cars available to individuals in Uzbekistan is 3,637,119. This means that almost every family has a car. Car types include cars, trucks, buses, minibuses and special cars.

The increase in automobile traffic has a negative impact on nature and human health. According to the findings of my scientists, 1 car emits 50-70 m³ of exhaust gases during 1 hour of operation. Exhaust gases contain more than 200 harmful chemicals. They include nitrogen oxide, sulfur gas, carbon monoxide, hydrocarbons, soot, aldehydes, carbon dioxide, lead compounds, and compounds such as benzopyrin.

The received data, statistics and research results show that the share of vehicles in the total emissions of harmful substances released into the atmosphere from all sources on a national scale is 45% (85-95% in cities). In order to reduce the amount of harmful gases emitted by cars into the environment, it is necessary to know the exact choice of the engine's operating mode, the methods of correct use of fuel and lubricants used in them. Because long-term reliable and efficient operation of automobile transport depends on the quality of oil products, their rational and economical use.

Nowadays, due to the change of the global climate and the air pollution of cities, the work of inventing alternative fuels and creating environmentally friendly cars has been accelerating for many years.

Sources and balance of nature and environmental pollution of the vehicle complex: 1.Cars in motion-76%, Passenger cars-65%, Trucks-26%, Buses-12%

2. Production equipment base-24%, Car storage spaces-40%, Auto transport enterprises-27%, Garage construction companies -22%, Car service stations, car owners, etc. -11%

Exhaust gases emitted from internal combustion engines have a negative impact on the health of millions of people, on all living things, and on the atmosphere every day. People often suffer from diseases such as cough, asthma attacks, acute and chronic bronchitis, as well as disorders of the heart and circulatory system. The harmful effects of engine gases are at the highest level for drivers, car workers, road workers and similar professionals.

According to statistics, a person consumes an average of 1.5 kilograms of food and 2.5 liters of water per day. Human lungs absorb 13 cubic meters of air per day. This is equal to the volume of a single railway tank. A person can live a month without food and three days without water. However, it cannot live without air for more than two to three minutes. In addition, the exhaust gas emitted by vehicles harms flora and fauna, water and soil. Under the influence of polluted air, the metabolism of matter and energy in plants is disturbed, crops and fruit trees become less productive. Not only that, it has been found that carbon dioxide has a negative effect on the process of photosynthesis in nature [3]. Release of about 700

million tons of toxic substances into the atmosphere, including 420 million tons of CO, 170 million tons of CxHy, 60 million tons of NOx, 17 million tons of soot and 0.6 million tons of lead (for one average car per year on average, 1.3 tons of waste corresponded [3-4].

There are several ways to reduce the harmful effects of cars on the environment:

- Use of alternative fuels. Products such as hydrogen, ethanol, and biodiesel are used instead of gasoline. They produce relatively small amounts of harmful gases compared to traditional diesel and gasoline.

- Increasing the efficiency of car engines, i.e. the efficient engine uses less fuel and produces less emissions.

Optimizing the work process with the help of regular maintenance and adjustment of the car and reducing the mass of the car.

- Use of public transport. Sufficiently increase public transport, which will reduce the number of passenger cars on the roads, which will reduce the amount of emissions.

- Use of electric or hybrid vehicles. These vehicles do not emit exhaust gases and the amount of fossil fuels can be reduced.

- Increasing the conversion of cars to natural gas and liquefied gas fuel. Currently, 50-55% of vehicles are gassed in our country.

- Strengthen monitoring of atmospheric air in places where cars gather a lot. Through this, it is possible to control and set restrictions on vehicles that emit large amounts of emissions.

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