ELIMINATION OF POLLUTIONS IN THE ATMOSPHERIC AIR'RGANISH

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Annotation
This article aims to reveal the problems of the spread of pollutants in the air on the example of the city of Andijan. This research method may be necessary in the future to reveal the laws of atmospheric distribution of pollutants in cities. To date, the development of models that take into account the factors affecting atmospheric pollution is based on the equations of mass migration of aerodynamics in expressing the distribution of pollution into the atmosphere, taking into account complex processes.

Keywords: urban air purification, the spread of motor vehicle waste pollution, air and soil moisture, gas, sludge, type, depending on the type of heavy metals. substances in cities.

Introduction

To date, a number of measures are being taken in the country under the direct leadership of the State Ecological Committee. Nevertheless, the problem of scientific application of the current situation remains open. There are almost no scientific institutions in our country that are fully engaged in atmospheric research. The weight of scientific research is small.

Our research work is aimed at revealing the problems of the spread of pollutants in the air on the example of the city of Andijan. This research method may be necessary in the future to reveal the laws of atmospheric distribution of pollutants in cities.

To date, there has been a growing interest in scientific research devoted to the development of models that take into account the factors influencing atmospheric pollution, in particular, the following scientific works [1; 24 – b.]. It is important to note that the effects of direct vehicles have been studied. Based on large-scale research and principles of air pollution, it is usually costly and time consuming. This limits the ability to determine efficiency, reliability [2; pp. 129–130]. Although several methods have been developed to date to determine the impact of point pollutant sources, one of their shortcomings remains the difficulty in accounting for combined pollutant sources [3; 159 – b.]. In particular, Shilin. A.V [4; 188–194 – b.]. research has taken

some approach to solving this problem. In his study [5; 60–63 – b.]. conclusions are given on the application of algorithms in the control of air pollution and the introduction of a consistent automated monitoring system and the application of the Markov method of traffic flow assessment.

Belyaev [6; 05 – b.] In his research modeled the pollution of the atmosphere by cars on the example of the Ukrainian city of Dnepropetrovsk. The method of mathematical modeling he developed is important in that it takes into account the location of urban buildings on a large scale and the distribution of pollutants.

The expression of the distribution of pollution into the atmosphere, taking into account complex processes, is based on the equations of aerodynamic mass displacement [7; 781–788 – b.]. The state of gases in the atmosphere depends on the values of temperature, pressure and density, three of which are related by the state equation [8; 38–39 – b.]. It is used in the analysis of the dependence of the distribution of pollutant sources on human health if the processes in the atmosphere obey the law of ideal gas.

The rapid development of many industries in the country, the increase in the intensity of traffic, has a negative impact on the urban ecosystem. In particular, in the city of Andijan, 75-80% of total pollutants are emitted by vehicles. These substances have an impact on atmospheric air, soil layer, flora and human health.

Gases from motor vehicles based on gasoline and diesel engines play a decisive role in the pollution of the city's ecosystem. Internal combustion engines are a direct source of air pollution with substances such as carbon monoxide, paraffin and olifin series hydrocarbons, high-boiling aromatic substances and dry aldehydes, nitrogen oxides, lead oxides. These smoke gases can mix with atmospheric air, react photochemically, especially under the influence of intense solar radiation, and result in the formation of fog.[9; 231–259 – b.].

The main pollutants are carbon monoxide, nitrogen oxides, hydrocarbons, benzene (a) pyrene, aldehydes and lead. Transport directly pollutes the living environment, causing the accumulation of lead and other toxic and carcinogenic compounds in the human body [10; 341–368 – b.].
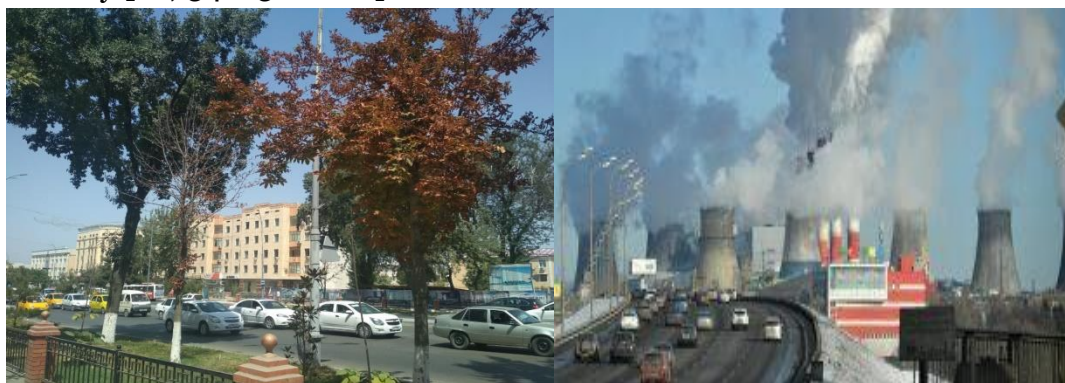

Figure 1 Effects of harmful substances in the atmosphere on the environment

Emissions of pollutants from vehicles and industrial enterprises into the atmosphere cause various diseases. Contaminants accumulate in brain tissue, skin, liver, pancreas, form protein in the urine, and raise blood pressure. It causes lung tumors, inflammation of the airways, disorders of the nervous system, eye injuries and other diseases. At the same time, nitrogen oxides burn the leaves of plants, corrode metal equipment and have a negative impact on the national economy.

Official data obtained by the Andijan Regional Department of Ecology and Environmental Protection on the total number of vehicles and types of fuel in the region were used. According to this data, there are a total of 211,397 cars in the region, of which the number of gasoline-powered cars is 130,806 or 61.8%, 5,408 or 2.6%, the number of cars running on gas is 75,183 or 35.6%, diesel. the number of cars running on fuel. The total length of the streets taken as the object of study is 15.4 km on one side and 30.8 km on both sides.

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Table 1 Results of determining the intensity of traffic on Bobur, Navoi, Cholpon and A.Temur branches

T / r №	The name of the street	Observation times			
		In the morning	**Lunch**	**Dinner**	**Average intensity in 1 hour**
		7:00 a.m. to 9:00 p.m.	11:00 a.m. to 2:30 p.m.	16:00 to 18:00	
1	**Named after Bobur**	12800	4656	9120	8825
2	**Named after Cholpon**	11100	4800	10696	7807
3	**Named after Amir Temur**	7920	4750	10752	8967
4	**Named after Navoi**	11760	4700	10452	8865
5	**Average intensity per hour**	10895	4752	10255	8702-8616

The number of cars was determined by counting the average number of hours on each street. Counting of the number and type of cars was determined during the hours when cars are most active, ie from 7:00 to 9:00 in the morning, from 11:30 to 14:30 at lunch and from 16:00 to 18:00 in the evening. According to this table, the total amount of emissions is 14,306 thousand tons, which is 18-20% of the total amount of pollutants

emitted from vehicles in the region. The composition and amount of emissions are distributed as follows: carbon monoxide 8,5846 thousand tons, hydrocarbons1,4306thousand tons, nitric oxide0. 236 thousand tons, sulfur oxide 0.118 thousand tons, lead compound 0.095 thousand tons.

The number of vehicles, depending on the amount of fuel consumed on their roads, is the amount of pollutants emitted into these streets [referenced in Figure 1.].

When the conditions for plants to grow are favorable, respiration is accelerated 30 times and they produce a lot of oxygen. This means that photosynthesis maintains the amount of oxygen in the earth.

It is concluded that this level of air pollution leads to the drying up of trees and the destruction of the urban ecosystem. It is important to increase the number of ornamental trees in the Amir Temur, Bobur, Navoi, Cholpon branches of Andijan, which are the object of research, and to select species that are suitable and resistant to the urban ecosystem. Also, the creation of "green shields" in the city, ie small forests, is one of the positive measures to purify the atmosphere in the urban ecosystem. It is necessary to implement the establishment of green protection zones.

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