## DEVELOPMENT OF SCIENTIFIC FOUNDATIONS FOR THE CREATION OF A RESOURCE-SAVING AND ENVIRONMENTALLY FRIENDLY TRANSPORT SYSTEM IN DEEP CAREERS

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**Annotation**: The article addressed the issue of reducing the negative impact on the environment, taking into account the efficiency and safety of the traffic system. Existing problems and methods of reducing the negative impact on the environment were analyzed in the organization of traffic systems and the development of measures to ensure safety of traffic.

Keywords: Automobile roads, harmful substances, toxins, transportation flows, transportation infrastructure, automobile reconstruction, state road policy, road complex, ecology and environmental protection.

**Login**. Every year, millions of people in cities suffer from air pollution-related illnesses that come out of vehicles, as well as noise from motorways.

Regulatory documents set out a number of activities to reduce the environmental impact of the transport-road complex, and their implementation should be accompanied by an increase in ecological requirements for the design, construction, maintenance and maintenance of motorways [10]. Implementing these areas of ecological logging of the automotive complex requires certain knowledge and skills in protecting ecology and the environment and improving the ecological literacy of future engineers.

Mavzuga oid adabiyotlarning tahlili

In recent years, society's focus on the problems of its interaction with the environment has increased sharply. This is illustrated by the adoption of a new edition of the Law of the Republic of Uzbekistan "On Road Safety", February 25, 2021 No. ORQ-677, and the special emphasis on the environmental impact of vehicles in the requirements of the law [1]. In addition, Sapayev M.S. and The Watchtower are in the F.M. textbook "Safety of Life Activities and Ecological" and J.R. Qulmuhamedov, K.M. Xio, R.S. Hikmatov, Sh.A. Shoislomov's textbooks, entitled "Traffic Rules and Safety," focus on reducing the environmental impact of vehicles [2, 3, 8, 9].

Research Methodology

The methodological basis for the work was to solve the research problem, conduct systematic analysis, study specific, existing assessments and opinions on obtaining the necessary information using expert assessments and other methods.

Analysis and results

The existence of human civilization has led to quantitative and qualitative changes in the biosphere, the emergence of a new global material system in the form of a multi-layered saturated field of artificially created objects on the planet - the technosphere.

The result of a person's economic activity is a product (materials, services, equipment, etc.). Environmental pollution occurs at all stages of the life cycle or the object or resource cycle. The

main processes of the formation of pollutants are oxidation, recovery, replacement, decomposition, electromechanical, physical processes, and so on [7, 10].

Theoretical basis for the environmental impact of the traffic complex, descriptions of the negative environmental manifestations in the construction, maintenance and use of motorways are provided.

But along with the advantages that provide society with an advanced automotive complex, its development will, unfortunately, have a negative impact on the environment and on humans.

The Transport Complex is the largest pollutant in the environment. The share of transport in total emissions of pollutants from all sources to the atmosphere nationally reaches 45% (in cities - 85-95%), and in the emissions of "climate" gases -10%. The share of traffic in the noise impact of the townspeople is 85-95% [4].

The complex of automobiles adopted in the country and the practice of public administration of nature conservation activities are currently the main areas of solving the problems of ensuring the ecological safety of automobile transportation, the lack of a clear allocation of relevant responsibilities among government agencies, enterprises and organizations, the lack of effective economic mechanisms, the production and production of vehicles with high ecological characteristics to encourage their use [6]. The low efficiency of the current system of ensuring the ecological safety of automobile transportation is primarily due to the fact that applicable nature conservation laws focus on problems with sources of inpatient pollution and do not take into account the unique characteristics of transportation activities—the number of large and growing vehicles, their high mobility, and the constant use of them in areas with high population density.

To improve the ecological situation, it is necessary to revise the laws and pay attention to the transport facility, as well as to produce:

- constantly reducing the technical standards of vehicle emissions;
- Introduction of ecological classification for the purpose of organizing ecological control of vehicles and imposing restrictions on the use of vehicles;
- measures to conduct ecological classification of vehicles and improve their ecological class;
- take measures to ensure the ecological safety of vehicles in the sale of engine fuel;
- take measures to establish traffic, reconstruct the street-road network, establish areas of limited use of vehicles if the maximum permitted concentration regulations of pollutants in the atmosphere and the maximum allowable noise levels caused by traffic are excessive in the area of residential buildings;
- ecological control of vehicles, taking into account the ecological class;
- to control the quality of the engine fuel during their retail sales.

Sources of environmental impact of the motorway-road car

transportation, road engineering facilities (soil polotnosis, bridge crossing and roadblocks, drainage and small waterproofing facilities), separate structures of road structures (road clothes, sidewalks), road infrastructure facilities (restrooms, automobile gas stations, food branches, public transportation stations).

The rapid development of automobile transportation has had a significant impact on the environment. Such an mechanism of influence has a number of distinctive features:

- the mass and steadily growing pace of the automation process;
- a wide range of negative events that accompany the process of motorization development;
- the complexity of significantly improving existing ecological safety indicators;
- the concentration of many vehicles in relatively limited areas (large cities) and their mass penetration into selective areas, the difficulty of localizing negative consequences.

In modern conditions, maintaining the level of cleanliness of the environment in conditions where the number of car parks and the number of freights and passengers transported by it is increasing [11, 12].

Research into the various aspects of this problem is done in many areas where limiting negative effects is generally considered to be distinct and of a highly specialized character.

Obviously, there is no single type of solution to the pollution problem, and the optimal solution can only be done on the basis of a study of a set of interrelated factors that determine the level of impact mentioned above.

Implementing a comprehensive approach is most effective if there are limit values for assessing environmental pollution levels in terms of parameters, methods of obtaining them and the state of environmental harmlessness.

Environmental pollution is characterized by the occurrence of in many directions: the atmosphere, water, soil contaminated with various substances, the environment is subject to acoustic, electromagnetic, vibrational effects, environmental equilibrium is disrupted, low levels of movement safety are achieved.

The results of a survey of city dwellers living in neighborhoods and neighborhoods limited to main streets show that the causes of many diseases among urban residents have a clear ecological component. The parameters of the habitat in which they are created are due to the incompatibility of the human body with the requirements, noise factor and quality of atmospheric air.

To reduce the health effects of residents living near city roads and streets, a comprehensive approach should be taken to assess the quality of the living environment, taking into account the main ecological factors. It is important to identify available resources to reduce the impact of automobile transportation on the habitat with urban architecture [5].

Full observations and analysis of project practices in urban architecture show that when developing residential planning projects, it is necessary, first and foremost, to give a hygienic assessment of the predictive aeration regime, as well as the expected level of atmospheric pollution. Since there is a functional connection between these factors, the quality of ventilation of the street space should be assessed both from the point of view of a person's sense of heat and depending on the degree of pollution that meets the sanitary standards of the atmosphere.

Due to the negative impact of transport, the decrease in the population in the megapolis will be achieved as a result of the wider implementation of transportation and urban development activities. This includes: transfer of transit flows of vehicles to a network of high-speed highways located in areas outside the city and in the agglomeration area; development and construction of new directions of modern non-personal types of transport (Monoray system, light metro, river trams, etc.); formation of a system of transport and transplant noons equipped with park suspension; creation of areas without transport in the Central Planning areas with intensive movement of pedestrians.

The study of best practices in the field of transportation policy will allow you to identify key areas of improvement that will help the city develop in key aspects of the transportation system's activities.

The recommended indicator will allow cities to evaluate the effectiveness of measures aimed at regulating transportation systems, as well as to model the impact of the city on the transport complex.

Summary vain suggestions

Automobile roads, like other technical structures, directly affect the environment with changes in the parameters of natural systems. For the design and use of roads, the most important structural transport pollution, land removal and area separation are important in terms of ecological safety. Ecological safety is one of the key indicators of investment in the development of motorways.

The ecological safety of the motorway (its ecologically safe state) means the ability of the motorway to ensure the minimal harmful impact and pollution of the natural environment of the areas around the roads formed by engineering facilities and structures and their impact on the operation of automobile transportation. The ecologically favorable state of the motorway is as follows:

- 1. Technical condition of motorways and road constructions.
- 2. Pollution levels of the natural environment along the way.
- 3. The impact of the technical condition of the motorway on the release of harmful substances in automobile transportation.

The ecological safety of automobile roads is achieved by developing and applying project documents for construction, reconstruction, repair and maintenance of technical solutions that adversely affect the environment, which will not have a detrimental impact on public health, irreversible changes in the natural environment, deterioration of people's socio-economic living conditions.

## List of available publications:

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