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Legal Protection of the Environment in the Transport Sector

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Annotation:

The article analyzes the legal basis for environmental protection in the transport sector. Vehicles are considered one of the main factors affecting the environment, and legal measures are of great importance to reduce their negative consequences. Such measures include the introduction of environmental standards, the use of waste reduction technologies, and mechanisms for controlling external pollution. The article examines the problems and solutions in implementing environmental requirements in the transport sector based on an analysis of international and national legislation. The article focuses on innovative solutions to ensure environmental sustainability in the transport sector, including the development of green modes of transport, the use of renewable energy sources, and the legal regulation of electric vehicles. Proposals and recommendations are developed to improve legal mechanisms.

Key words: transport, environment, ecology, legal protection, legislation, pollution, sustainable development, emissions, environmental standards, electric cars

Introduction

The Republic of Uzbekistan is building a legal democratic state and an open civil society, ensuring full integration into the world community through the observance of human rights and freedoms, the formation of a socially and environmentally oriented market economy. The main goal and driving force of the reforms being carried out in our republic is to create conditions and practical mechanisms for the harmonious development and well-being of man, the realization of individual interests.

The environmental security policy of the Republic of Uzbekistan is carried out on the basis of the Constitution, legislation, the Concept of National Security of the Republic of Uzbekistan, the principles of the Rio de Janeiro and Johannesburg Declarations on the environment and sustainable

development, taking into account the obligations of the republic arising from international conventions and treaties, as well as the legislative experience of leading countries [1].

Articles 49, 62, 68 of the Constitution of the Republic of Uzbekistan enshrine environmental legal requirements related to nature protection and the rational use of our natural resources. Article 62 of our Constitution states that “Citizens are obliged to treat the environment with care,” thus strengthening the environmental obligations of citizens at the constitutional level.

Article 68 of the Constitution states that “Land, subsoil resources, water, flora and fauna, and other natural resources are national wealth and must be used rationally,” and it contains the main principles of the state environmental policy. The significance of this constitutional provision is that, firstly, it reinforces important principles such as the fact that the natural resources that form the material basis of our independence are the wealth and property of our people, secondly, the need for only rational use of natural resources, and thirdly, the fact that the nature of our republic is under state protection, that is, the state guarantees environmental and legal relations.

Based on these constitutional principles, during the years of independence, almost 40 laws and more than 500 regulatory legal documents governing the protection of the environment and the rational use of natural resources have been adopted in the republic.

The laws on environmental protection in force in Uzbekistan ensure the full implementation of measures such as environmental protection, conservation, rational use and restoration of natural resources throughout the country.

It should be emphasized that transport ecology is a science that studies the causes of socio-ecological problems that arise in the process of interaction of all living organisms with each other and with the transport and road system, as well as their prevention and elimination on a scientific basis [2]. Transport ecology is an applied ecology, which is a combination of several disciplines and uses their methodologies and methods.

Transport (lat. trans - "through" and portare - "carry") - a set of means intended for transporting and moving people and goods from one place to another. Sometimes the term "transport" is understood as a branch of the economy that includes all the infrastructure complex, management, vehicles and transport organizations that make up the transport system [3].

Methodology

The following types of transport are distinguished:

1. Water transport - the oldest type of transport. It remained the most important type of transport until the advent of interregional railways (second half of the 19th century). Due to its advantages (it is the cheapest type of transport after pipeline transport), it currently covers 60-67% of the world's freight traffic.
2. Road transport is currently the most widespread type of transport. Road transport is younger than rail and water transport, having appeared at the end of the 19th century. Due to its speed and convenience, it is more widely used than rail transport for transporting perishable goods. Passenger cars are characterized by a significantly higher cost of transporting one passenger compared to other types of transport. The main share of environmental damage to our planet (63%) is also associated with motor vehicles. In addition, the production, operation and disposal of cars, fuel, oils and coatings for them, as well as the construction of road and other road infrastructure facilities, cause significant damage to the environment and society. In particular, nitrogen and sulfur oxides, which are produced by burning gasoline and released into the atmosphere, create acid rain.

Railway transport was both a product and the heart of the industrial revolution. Having emerged at the beginning of the 19th century (the first steam locomotive was built in 1804), by the middle of this century it had become the most important means of transport in industrially developing countries[4]. By the end of the 19th century, the length of railways exceeded millions of kilometers. Railways served as a link between inland industrial regions and seaports. New industrial cities began to emerge around the railways. However, since World War II, railway transport has somewhat lost its importance with the advent of air and road transport. However, due to its ability to transport large volumes of cargo, reliability, and speed, it has become a leader in the transportation of large volumes of raw materials and agricultural products. Today, the longest railway is in the USA, and the most densely located (ratio of railway km to area km2) railway network is in Germany. Especially since the last decade of the 20th century, railways have been experiencing a kind of renaissance. First, in Japan, and later in Europe, high-speed railway systems were launched. Also, the development and launch of electrified railways, metro, tram systems are characterized by their environmental friendliness. Relatively electrified railways are currently being launched in Switzerland (up to 95%). 1) Metropolitan (French: “métropolitain” - city railway) - a directional urban railway, separated by engineering from any other transport and pedestrian traffic. The first overground metro was built in London in 1863 by the Metropolitan Railway Company (3.6 km), and the underground metro was built in New York in 1904. The largest metros in the world: New York in terms of the number of stations and the length of routes, Shanghai (420 km) and London (408 km) in terms of the length of routes, Tokyo and Moscow metros in terms of daily and annual passenger traffic. The smallest metros in the world are located in Perugia, Haifa, Catania and Genoa. Perugia, Lausanne, Rennes are the smallest cities in the world with metros.

The first metro in the CIS countries was opened in Moscow in 1935. The metro in Tashkent has been operating since 1977. It is the first metro in Central Asia. The first Chilanzor line, built in 1968-1970 and with 9 stations over 12.2 km, was put into operation in 1977. The Tashkent metro was built to be earthquake-resistant, taking into account the seismic characteristics of the region (it is stated that its design is designed for earthquakes of up to 9 on the Richter scale). Today, the metro has 29 stations and is 36.2 km long on three routes.

2) Air transport is the fastest and at the same time the most expensive type of transport. The main area of application of air transport is the transportation of passengers over distances exceeding a thousand kilometers (the volume of freight transport is very low). Air transport is mainly used for the transportation of perishable and particularly valuable cargo, as well as for postal purposes. In many hard-to-reach areas (mountains, the North Pole), air transport has no equal. In such areas where there is no landing site, helicopters are used. The main environmental problem of air transport is noise and vibration.

3) Pipeline transport - is distinguished by its unique feature, such as the absence of vehicles. In other words, the infrastructure itself is a means of transport at the same time. Pipeline transport is cheaper than rail and even water transport. It does not require a large number of employees. Cargo is mainly in liquid (oil, oil products) or gaseous form. Pipelines are laid underground, above ground or through special columns. Cargo movement is carried out at pump or compressor stations. Currently, experimental pipelines are being studied for transporting solids mixed with water through pipelines. Examples of pipelines for solid cargo include pneumatic mail and garbage pipelines. The most common types of pipeline transport are water and sewage.

4) Other types of transport - in recent years, elevator transport in large cities has also become one of the most important types of urban passenger transport.

Transport is a major consumer of energy and a source of carbon dioxide and greenhouse gases, contributing to global climate change. The main reason for this is the large amount of fossil fuels (mainly petroleum products - gasoline, kerosene and diesel fuel) burned during transport.

Other negative impacts of transport on the environment include atmospheric pollution with exhaust gases and small solids, groundwater pollution with liquids generated by roads, car washes and parking lots, noise pollution, the occupation of a large part of the urban area (in modern cities, about 50% of the area is allocated to roads, parking lots, garages and gas stations), and the reduction of wildlife habitats and agricultural land due to urban expansion.

Results and Discussion

Public transport and non-motorized transport (bicycles, etc.) are considered environmentally friendly means of transport and do not cause the above problems. Electric vehicles (electric trains, hybrid cars, metro, trams, trolleybuses) are considered "climate neutral", that is, they do not affect climate change and are therefore preferable to vehicles that run on fuel.

Transport activities are a set of organizational and technological operations for the movement of goods, passengers and luggage by road, air, rail, sea, river and other modes of transport or a combination of these modes of transport, as well as transport and forwarding activities and other transport works and services performed on a contractual or other legal basis related to transportation.

In cities, the transport sector occupies a key place in terms of its impact on the environment[5]. For example, the share of urban transport in atmospheric air pollution in our capital exceeds 80% [6]. In this sense, the negative impact of motor vehicles on the environment is also a matter of concern. In particular, a single car absorbs an average of 4 tons of oxygen per year and emits more than 200 substances, about 800 kg of hydrocarbon oxides, 40 kg of nitrogen oxides and almost 200 kg of various hydrocarbons. If plants and factories are located in one specific place and pollute only a certain area, then road traffic will affect all the places where human feet touch [7]. According to statistics, more than 320 million motor vehicles are currently in use in the countries of the world. The composition of gases emitted from vehicles has been studied to contain 200 different toxic substances.

The share of automobile transport among public transport (railway, air transport, metro) in Uzbekistan is 70-85%. The share of electric transport (trolleybus, tram, metro, electric locomotive), which is considered environmentally friendly, is only 7-10% of public transport. One of the transport sectors that has a significant impact on atmospheric air pollution in Tashkent is aviation. They cause a sharp increase in hydrocarbon, nitrogen and carbon oxides in the air. However, recently, the replenishment of air fleets with modern aircraft of the A-300 and Boeing categories, which have a low harmful effect on atmospheric air, has led to a decrease in this negative situation.

One of the main principles of ensuring the safety of the population in sanitary and epidemiological matters is to ensure the priority of activities aimed at preventing the harmful effects of environmental factors on public health during the development, placement, design, construction and commissioning of transport vehicles.

Regardless of the form of ownership, enterprises, institutions, organizations, associations and individuals are obliged to ensure that vehicles are maintained in accordance with sanitary norms, rules and hygiene standards.

Subjects of transport activities must: obtain a special permit (license) to carry out transport activities in order to ensure their safety; comply with environmental and sanitary and hygienic standards when carrying out transport activities; ensure special conditions for the transportation of dangerous (explosive, flammable, chemical, toxic, radioactive, etc.) cargo.

Providers of transport works and services must make targeted use of the territories - natural objects (land and water areas, airspace zones) in which the relevant transport activities are carried out, and

take environmental protection measures that exclude the deterioration of the ecological situation in these territories.

Conclusion

Natural objects on which transport activities are carried out (land plot, river, other water bodies, airspace zone) can be recognized by the authorized state body as a source of excessive risk, and a special procedure for production, work and service provision can be established in it.

LIST OF MATERIALS USED AND RECOMMENDED

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