

**THE TRANSPORT SYSTEM OF THE REGION: COMPOSITION  
AND ROLE IN SPATIAL DEVELOPMENT**  
**ТРАНСПОРТНАЯ СИСТЕМА РЕГИОНА: СОСТАВ И РОЛЬ В  
ПРОСТРАНСТВЕННОМ РАЗВИТИИ**

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**Аннотация.** Транспортная система региона играет ключевую роль в его социально-экономическом развитии, формируя пространственную структуру и обеспечивая интеграцию в глобальные экономические процессы. Цель исследования – комплексно изучить состав и функции транспортной системы региона, оценить ее влияние на пространственное развитие и выявить основные тренды и перспективы.

**Ключевые слова:** Транспортная и логистическая система, модернизация, инфраструктура, логистика, международные транспортные коридоры, устойчивое развитие, экономический рост, конкурентоспособность.

**Abstract**

The region's transportation system plays a key role in its socio-economic development, forming the spatial structure and ensuring integration into global economic processes. The purpose of the study is to comprehensively examine the composition and functions of the region's transportation system, assess its impact on spatial development and identify the main trends and prospects.

**Keywords:** Transport infrastructure. regional development, economic growth, social mobility, global integrationaccessibility, logistics.

The world transport system is heterogeneous, and in it one can distinguish transport systems of economically developed and developing countries, several regional heterogeneous transport systems: North America, Western Europe, CIS countries, Asia, Latin America, Australia. The density of the transport network, which characterizes its provision to the greatest extent, in most developed countries is 50-60 km per 100 km of territory, and in developing countries - 5-10 km. In economically developed countries more than 80% of the world automobile fleet is concentrated, almost 2/3 of all world ports are located there, 3/4 of the world cargo turnover is carried out. This transport subsystem is also characterized by a high technical level [2].

Development and implementation of strategies of perspective development of a single interconnected system of transport system of the Republic of Uzbekistan, introduction of advanced information technologies on digitalization of the entire transport system, implementation of a single technical policy in the field of highways, taking into account the interests of users of highways, airfields and airports, railway stations, railroads and other objects of transport infrastructure financing, design, construction of objects, ensuring the national interests of the Republic. A number of tasks and assignments have been set before the authorized persons for the implementation of these issues. It would not be wrong to say that the adoption of this decision will become the basis for further development of the transportation and logistics system in our country.[1]

Many famous local and foreign scholars have conducted research on organizing rational transport systems on various routes and formulating tasks. They argued that an improved transportation system based on the theoretical foundations of the relationship between transportation and economy is the main stimulating factor for economic growth. M.Porter[3] and H.According to the theory of regional development outlined in the works of scholars such as Perlin [4], transport systems were recognized as a direction that helps to reduce logistics costs, improve market accessibility and promote trade.

The transportation system plays an important strategic role in the economic development of a country. It is one of the main means of strengthening international and regional integration, and the effective use of transit potential leads to an increase in international trade, export opportunities and foreign exchange earnings. serves to increase. The development of modern transportation routes reduces the time and cost of product delivery, which increases the efficiency of production and trade, reduces production costs and increases competitiveness. Transportation infrastructure also has a positive impact on the development of the region. It reduces economic and social differences between inland regions and increases opportunities for attracting investment.

Transportation plays a crucial role in the movement of people and goods across various distances, and it can be classified into different types based on the mode of transport. Below is a detailed description of the various types of transportation, highlighting their key features and examples of vehicles.(1-Table)

Each of these modes plays a significant role in the global transport network, providing various options depending on distance, cost, and the type of goods or passengers being transported.

**1-Table.The region's transportation system<sup>1</sup>**

| Type of transportation | Description                                                    | Main features                                  | Examples of vehicles       |
|------------------------|----------------------------------------------------------------|------------------------------------------------|----------------------------|
| Road transportation    | Transportation that uses automobiles to move people and goods. | High mobility, convenient for short distances. | Cars, buses, trucks, cabs. |

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<sup>1</sup> Systematized by the author on the basis of the studied literature.

| Type of transportation    | Description                                                                | Main features                                                                 | Examples of vehicles                    |
|---------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------|
| Railway transportation    | Transportation that uses trains to travel on railroads.                    | Reliable, suitable for transporting large quantities of goods.                | Trains, streetcars.                     |
| Air transport             | Transportation using aircraft to transport people and goods.               | Fast movement over long distances.                                            | Airplanes, helicopters.                 |
| Maritime transportation   | Transportation that uses ships to transport people and goods on waterways. | Suitable for international transportation, especially freight transportation. | Ships, container ships, cruise ships.   |
| River transportation      | Transportation using rivers and other waterways for transportation.        | Applicable in areas with a developed river network.                           | Boats, barges, river passenger vessels. |
| Metropolitan              | Urban transportation using underground or surface routes.                  | High throughput capacity, speed.                                              | Subways, light rail transportation.     |
| Pipeline transportation   | Transportation that uses pipes to carry liquids and gases.                 | Used for transportation of oil, gas, water.                                   | Pipelines.                              |
| Pedestrian transportation | Transportation in which a person travels on foot.                          | The most environmentally friendly and                                         | Walking.                                |

| Type of transportation | Description | Main features                   | Examples of vehicles |
|------------------------|-------------|---------------------------------|----------------------|
|                        |             | cheapest way of transportation. |                      |

The main conclusion about a region's transportation system is that it is an essential element of its spatial development and economic integration. An efficient transportation system helps to improve connectivity between different territories, providing accessibility to markets, jobs, educational and medical facilities. This, in turn, improves the quality of life of the population and stimulates economic activity.

Transportation networks, including road, rail, air and water routes, play a key role in the mobility of people and the movement of goods. They promote tourism, attract investment and support the region's integration into the national and international economy.

For sustainable spatial development of the region, it is necessary to take into account the harmonious development of all modes of transportation, ensuring their accessibility and efficiency. It is also important to take into account environmental aspects in order to minimize the negative impact on the environment and improve the quality of life of people.

#### Key Findings:

1. Digitalization and innovative technologies. The introduction of digital solutions, such as cargo tracking systems, automation of customs procedures and the use of platforms to integrate different actors in logistics chains, contributes to the transparency, efficiency and safety of transport operations. The introduction of innovative technologies such as unmanned vehicles and smart roads is an important step for future development.

2. Development of international relations. Uzbekistan actively participates in global and regional transportation initiatives such as the Trans-Caspian

International Transport Route and the Silk Road. This contributes to strengthening the country's position as an important transportation hub, increasing the volume of foreign trade and expanding access to international markets.

3. environmental sustainability. In the face of global environmental challenges, Uzbekistan is beginning to take into account environmental aspects when developing transportation solutions, such as the use of environmentally friendly technologies and reducing carbon emissions in the transportation sector.

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