

TRANSPORT AND ENGINEERING INFRASTRUCTURE

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ABSTRACT

This article analyzes the current significance of the transport system and engineering infrastructure, existing problems and ways to solve them from a scientific point of view. The issues of modernization and sustainable development of transport communications are considered on the example of Uzbekistan

Introduction At present, transport and engineering infrastructure is an important factor in the economic and social development of countries. Modern transport networks not only ensure the movement of goods and services, but also improve the quality of life of the population, interregional integration and international economic relations. Uzbekistan geographical location Due to its geographical location in the center of Central Asia, the efficiency of the transport and communication system is a key factor in the national economy. competitiveness by designating gives.

Main Part . 1. Economic and social significance of the transport system

The transport system is the main support of economic activity. The uninterrupted operation of industry, trade, agriculture and service sectors depends on transport vehicles and road networks. Modern logistics centers, highways, railway, air and pipeline transport networks ensure the economic integration of the country. In the Republic of Uzbekistan, within the framework of the "New Uzbekistan" development strategy, work is being intensively carried out to modernize the transport and logistics infrastructure, expand international corridors and build new railway lines.

2. Engineering infrastructure and its networks

Engineering infrastructure includes systems such as energy, water supply, heat, sewage, communication and electricity networks. The effective operation of these networks is necessary for the sustainable development of cities and villages.

In recent years, large-scale programs have been implemented in Uzbekistan to upgrade engineering and communication networks, replace outdated pipelines, and improve water and electricity supply.

3. Existing problems and ways to solve them

There are a number of problems in the development of transport and engineering infrastructure: - Obsolescence of vehicles and poor quality of road networks; - Traffic jams

and environmental problems in cities; - Insufficient development of engineering networks in rural areas;

- High technical losses in energy and water supply; - Low level of digitalization in the transport and logistics system. To eliminate these problems, the following measures should be taken:

- Modernization of transport networks and introduction of "green transport" technologies;

- Widespread use of energy-saving systems in engineering infrastructure; - Implementation of smart logistics and digital management systems ;

- Attraction of international investments and implementation of new projects based on public-private partnerships.

4. Uzbekistan's experience and future directions In Uzbekistan, it is planned to bring automobile and railway networks into line with international standards based on the "Transport Strategy until 2030" . Major projects such as new routes of the "Tashkent Metro", the "Angren–Pop" railway, and the "Tashkent–Andijan" highway are helping to bring the country's transport infrastructure to a qualitatively new level. In the field of engineering infrastructure , the "Clean Water" program, modernization of electricity networks, and expansion of renewable energy sources are being implemented.

Conclusion

Transport and engineering infrastructure plays a key role in the country's economic security, well-being of the population, and strengthening interregional ties. In order to develop them in accordance with modern requirements, it is necessary to use a scientific approach, technological innovations, and international experience. Sustainable infrastructure is the basis of a sustainable economy.

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