LOGISTICAL OPPORTUNITIES AND CHALLENGES IN UZBEKISTAN

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Abstract: This article analyzes the logistical opportunities, challenges, and solutions in Uzbekistan. The country's geographical location, transport infrastructure, and level of regional cooperation are examined as key factors for the development of Uzbekistan's logistics system. Additionally, the article discusses issues within the transport system and their solutions, the importance of digital technologies in logistics, and the necessary measures to enhance Uzbekistan's transit potential.

Keywords: transport infrastructure, transit opportunities, railway network, highways, international trade, transport connectivity.

Uzbekistan's geographical position as a transit corridor and its role in regional cooperation provide the country with significant logistical potential. Strategically located in Central Asia and at the crossroads of trade routes between China and Europe, Uzbekistan serves as a vital transit and transport hub. The rapid development of railways and highways, as well as the construction of new logistics centers, has substantially increased Uzbekistan's integration into regional and global trade.

At the same time, Uzbekistan's transport infrastructure still faces several challenges. The modernization of outdated systems, the introduction of digital technologies, and the strengthening of international cooperation are necessary measures to improve the efficiency of the country's logistics network. Infrastructure projects and the implementation of new transportation technologies in Uzbekistan contribute to strengthening the country's competitive position in the international trade and logistics system.

Logistical Opportunities of Uzbekistan

1. Development of Transport Infrastructure

In 2024, Uzbekistan's transport infrastructure has undergone further development with the implementation of new projects. The modernization of railways and highways, along with the establishment of new intermodal logistics centers, has significantly improved the efficiency of the transportation network. During the first half of 2024, the volume of transport services increased by 20% compared to the same period last year, reaching 58.9 trillion Uzbek soums.[1]

2. International Relations and Transit Potential

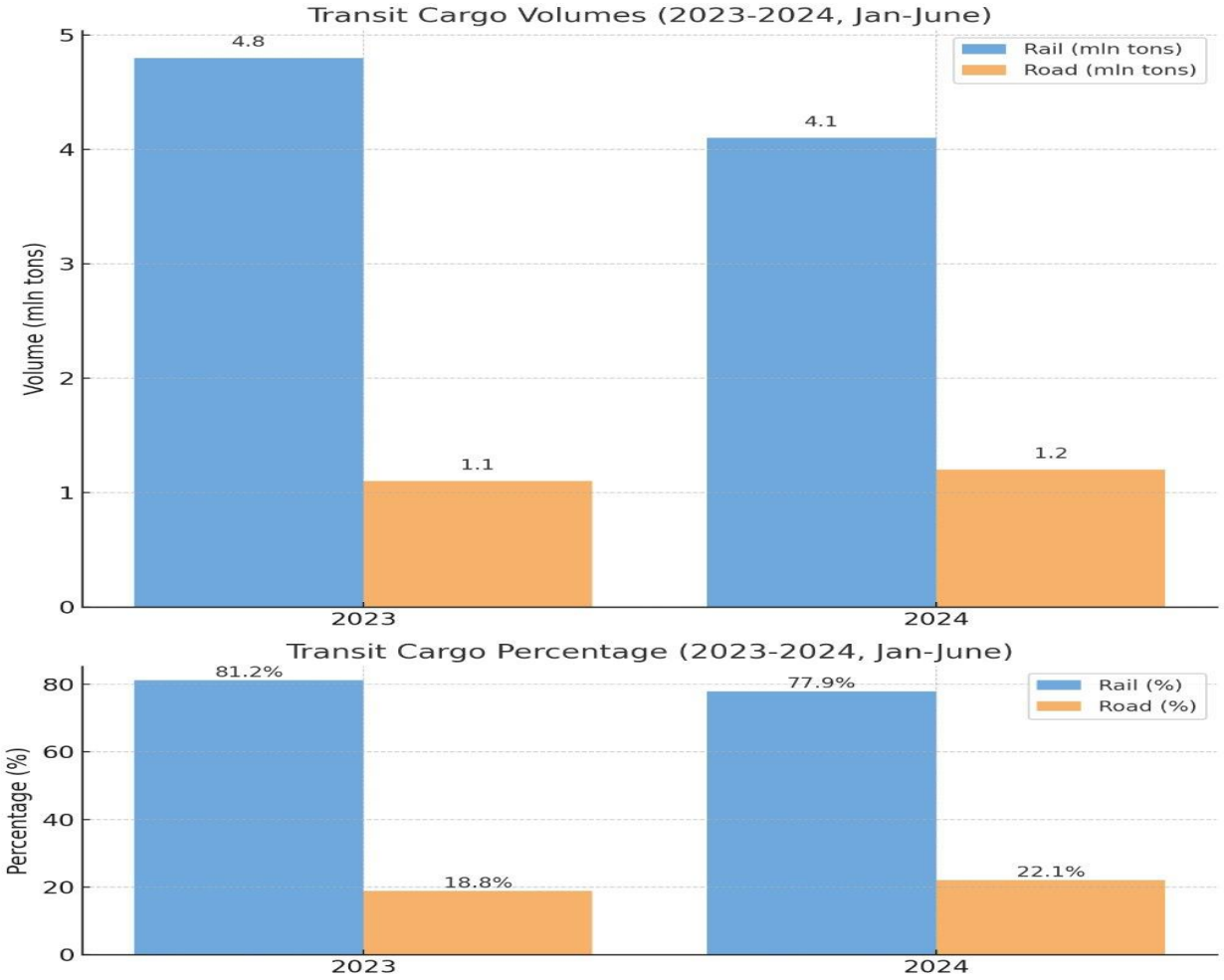
Uzbekistan's transit potential between China and Europe continues to grow year by year. The country's strategic location and the development of its transport infrastructure play a crucial role in this process. Specifically, the construction of the China–Kyrgyzstan–Uzbekistan railway project is underway.

This railway project is expected to significantly enhance Uzbekistan's transit capabilities. In its initial years of operation, it is anticipated to handle up to 3 million tons of freight annually, and by 2030, this figure could exceed 20 million tons per year.

These projects and corridors aim to strengthen Uzbekistan's position within the international transport network. The opening of new railway routes and transport corridors helps reduce shipping times, lower transportation costs, and promote regional trade relations.

These measures to enhance Uzbekistan's transit potential aim to establish the country as a key logistics hub in Central Asia. This will not only benefit the national economy but also positively impact the economic development of the entire region. In 2023, railway transport held a leading position, handling the majority of transit cargo. By 2024, the share of road transport increased, reflecting improvements in the country's road infrastructure and the diversification of logistics demands.

The following charts illustrate the dynamics of freight volumes transported via rail and road, as well as their shares in overall transit. These data highlight the efficiency and growing opportunities within Uzbekistan's transport system.



Source: Uzbekistan Statistics Agency

Challenges in Uzbekistan's Logistics System

1. Outdated Transport Systems and Low Efficiency

Uzbekistan's transport infrastructure includes aging railway networks, highways, and other systems that require modernization. This situation slows down freight operations and increases operational costs. For instance, outdated systems on the railway route between Tashkent and Bukhara limit timely freight transportation, thereby reducing the efficiency of the logistics system.

Slow transportation processes extend the duration of export-import operations, negatively affecting economic growth. Another challenge is the slow adoption of modern technologies, which reduces the competitiveness of the transport system and limits its ability to adapt to changes in the global logistics market. Additionally, the lack of integration between transport networks further decreases freight efficiency. Modernizing existing infrastructure and implementing advanced technologies are crucial for enhancing the effectiveness of Uzbekistan's logistics system.

Table 1. Current Issues in Uzbekistan's Transport System

Issue	Impact	Proposed Solution
Outdated railway networks	Slower transportation, higher costs	Modernization and upgrades
Poor quality of roads	Delays in freight, safety concerns	Construction of new roads
Lack of digital technology	Low efficiency	Implementation of IoT and AI

2. Challenges in Implementing Digital Technologies

The widespread implementation of digital technologies in Uzbekistan's logistics system remains a pressing issue. Technologies such as the Internet of Things (IoT), artificial intelligence (AI), and blockchain offer significant opportunities to automate, accelerate, and enhance logistics processes.

However, the necessary investments and infrastructure for large-scale adoption of these technologies are still underdeveloped. Many companies and the public sector require substantial financial and resource allocations to prepare for digital transformation. Moreover, the level of expertise and knowledge among personnel is not yet fully aligned with the demands of these technological changes.

To successfully implement digital technologies, it is essential to strengthen collaboration between the public and private sectors, attract investments, and modernize the education system to produce a skilled workforce.

Conclusion and Recommendations

1. Expanding the Use of Digital Technologies

To enhance the efficiency of the logistics system, it is crucial to implement IoT, artificial intelligence, and blockchain technologies. These technologies enable real-time cargo tracking, optimal route selection, and secure transportation processes. By utilizing digital platforms and integrated software, it is possible to reduce transportation costs and increase operational speed.

2. Modernizing Transport Infrastructure

Modernization of outdated railways and highways, as well as the construction of new bridges and networks, is essential for improving transport efficiency. By 2026, the construction of new facilities is expected to significantly accelerate transportation processes.

3. Strengthening International Cooperation

To boost Uzbekistan's transit potential, it is vital to strengthen transport connections with neighboring countries. This will facilitate better integration of Uzbekistan into regional and global logistics networks.

Uzbekistan's logistics system, while developing, requires significant progress in digital technology implementation, infrastructure modernization, and the expansion of international cooperation. These measures will play a major role in increasing the system's efficiency and establishing Uzbekistan as a central hub for transit logistics.

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