

## **DEVELOPING ANDIJAN CITY PASSENGER TRANSPORTATION SYSTEM AND PROBLEMS IN IT**

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**Annotation:** This paper explores the current state and development challenges of the passenger transportation system in Andijan city. It highlights issues such as traffic congestion, outdated infrastructure, insufficient public transport coverage, and rising demand due to population growth. The study analyzes urban mobility trends, public transport efficiency, and commuter behavior to identify core problems. Furthermore, it emphasizes the importance of modernizing transport networks through sustainable planning, technological integration, and policy reforms. The potential role of smart technologies, including AI-based systems, is also discussed as a means to optimize operations and improve service quality for residents of Andijan.

**Key words:** Andijan, passenger transport, urban mobility, traffic congestion, smart transport, public transportation

**Introduction.** Today, there are 464 passenger transport enterprises in the Andijan region, and the number of vehicles in them is 11,061. Of these, 215 buses, 90 minibuses, and 10,756 passenger vehicles. The total number of passenger routes in the region is 314, of which 72 are buses and 242 are fixed-route taxis (minibuses, Damas) [1-3].

Including:

- 74 urban routes (Andijan city);
- 225 suburban routes;
- 5 intra-regional intercity;
- 10 intercity-interregional routes.

There are 1 bus station and 19 bus stations in the region.

There are a total of 1,326 intermediate stations in the region.

There are 9 routes from the region to 2 regions of the republic (to the cities of Fergana and Namangan), of which 5 are route taxis and 4 are bus routes.

The following work was carried out in Andijan region in 2020 [3]:

In order to provide high-quality motor transport services to the population of the region, 9 new bus routes were organized during 2020.

President of the Republic of Uzbekistan in the region in 2018

In accordance with the requirements of the Resolution of the President of the Republic of Uzbekistan dated March 6, 2019 No. PP-3589 "On Measures for Further Improvement of the Road Transport Management System," LLC "Risolat" built the "Risolat" bus station in the Asaka district and reconstructed the "Boz" bus station in the Buston district. In 2020, the "Lochin" bus station was completed and put into operation by "Asaka Avtoturargoh" LLC [4].

In total, 314 routes operate in the Andijan region (for reference: on 72 (22.9%) of these routes, buses, 7 (2.2%) minibuses, and 235 (74.9%) Damas cars), of which 54 routes were actually suspended for various reasons. In addition, as a result of the study, it was decided to create a total of 12 new routes in the Andijan region in 2021.

From these indicators, it is clear that in our region, the demand for public transport of the population living in the city of Andijan and its suburbs is met by route taxis.

This limits the social protection of the population, in particular, the ability of passengers to use public transport at affordable prices.

In addition, the decrease in buses on passenger routes leads to a significant increase in the number of minibuses and passenger cars on highways. Currently, Damas passenger cars with a capacity of 6 passengers (74.9% of the region's population is transported by these cars) occupy the main part of the passenger transport services market, and the fare per passenger on them is twice as high as on regular bus routes. This leads to an increase in the use of private cars by the population rather than public transport [5].

The organization of convenient, safe, fast, and reliable public transport services for passengers is one of the most pressing issues in all megacities. For a broad segment of the population to prefer public transport over their personal vehicles and use its services, first of all, public transport must be attractive in all aspects (in terms of time, in terms of finances, in terms of convenience).

In our country, with the growth of incomes and the standard of living of the population, the number of vehicles is also increasing every year. Over the past 10 years, the number of cars in the capital, Tashkent, has doubled - from 250 thousand to 510 thousand. More than 600 thousand vehicles enter the streets of Tashkent every day. Accordingly, transport infrastructure is being developed. However, due to shortcomings in traffic regulation, traffic congestion on the streets is increasing every year. This, in turn, leads to large economic losses, environmental damage, and negatively affects public health [6,7].

As a result of the analysis of the collected data for the Andijan region, the following was revealed:

The population of the region is 3.2 million people, and each person uses public transport on average 199 times a year. On average, 1.7 million passengers are transported daily by motor vehicles in the region.

There are 1 bus station and 19 bus stations, as well as 1,326 bus stations in the region. In cities, there is 1 intermediate stop for every 3,800 meters of routes.

The number of bus routes in the region is 72. The main part of the routes is organized in suburban areas. Urban routes account for 29 percent of all routes.

The number of licensed vehicles in the region is 9,731. Of these, 9,497 or 97 percent are passenger cars. The total number of licensed buses in the region is 115, which is 0.03 per 1000 people, or 1 bus per 27 826 people. The average age of buses is 7.5 years, which is slightly better than in the republic.

Information on the state of public transport in Andijan

There are 83 mahalla citizens' assemblies in the city.

Today, 447,800 people live in the city.

All appeals from city residents to relevant organizations regarding transport issues have been received due to the high cost of travel on route taxis, and all appeals have been resolved positively.

Transportation on urban and suburban routes.

Average fare value, the cost of transportation on urban and in-city routes.

According to the decision of the khokim of the region No. 308-K dated May 8, 2018, the cost of travel on city routes is set at 1000 soums per 1 passenger km for buses, 1000-1500 soums for Damas vehicles.

The number of routes and the number of buses and other vehicles operating in the city;

There are 64 passenger transport routes in the city. Of these, 8 are bus routes and 56 are route taxis (Damas). A total of 82 buses, 95 minibuses, and 5,612 Damas cars will operate on these routes.

**Conclusion.** The analysis of Andijan city's passenger transportation system reveals several critical challenges, including traffic congestion, outdated infrastructure, limited transport coverage, and inefficient route planning. These issues negatively impact daily commuter experience and urban mobility. To address them, a comprehensive approach is required—one that includes infrastructure modernization, expansion of public transport services, and the implementation of smart technologies such as AI for traffic management and route optimization. Improving the transportation system in Andijan will not only enhance the quality of life for residents but also contribute to the city's economic growth and environmental sustainability.

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