# SCIENTIFIC AND THEORETICAL FOUNDATIONS OF THE ORGANIZATION OF TRANSPORT AND LOGISTICS SERVICES IN THE NAMANGAN REGION

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#### Abstract

This article analyzes the current state of organization of transport and logistics services in Namangan region and their theoretical and methodological foundations based on the model. Statistical indicators, regional infrastructure potential, formation of logistics flows, existing problems and strategies for their elimination are covered. Based on diagrams and a roadmap, a conceptual approach is developed to improve the logistics system of Namangan region until 2030.

**Keywords:** transport and logistics, Namangan region, refrigerated transport, digital logistics, agroterminal, roadmap.

#### (Introduction)

The stability of the logistics system is of strategic importance for the country's economy and export potential. The eastern region of Uzbekistan - Namangan region - is a region that combines agricultural production and industrial potential, and is one of the largest suppliers of fruits and vegetables in the republic. However, the unbalanced development of logistics services, weak infrastructure and lack of refrigerated transport prevent the region from realizing its full export potential. The logistics system should be considered not only as a transport system, but also as a whole system of storage, packaging, information monitoring, agro-terminal and customs infrastructure. This article provides an in-depth analysis of the transport and logistics system in Namangan region.

#### (Methods)

The following approaches and methodologies were used in the study:

**Statistical analysis:** Based on data from the Ministry of Transport and Logistics, State Statistics Committee for 2020–2024.

**Regional monitoring:** The activities of logistics centers located in 3 main districts of the Namangan region (Turakurgan, Chortoq, Kosonsoy) were monitored.

**Survey and interviews:** Interviews with 25 farm managers and 10 logistics companies.

Analysis of international experience: based on the recommendations of FAO, UNESCAP, ITC, practical approaches of European and Asian countries (Turkey, Poland, China) were compared.

**Graphical analysis:** Regional logistics flows were visualized based on diagrams, cartographic maps, and road maps.

#### Results

# 1. Current infrastructure status (2024):

Indicator Quantity

Active road transport companies 135

Share of refrigerated transport 24.6%

Agroterminals and refrigerated warehouses 2 (Namangan city, Turakurgan)

Average freight transit time 2.8 days

Percentage of losses (en route) 9,2%

#### 2. Chart 1: Annual growth in the volume of transport and logistics services (2020–2024)

year	Cargo capacity (thousand tons
2020	450
2021	520
2022	610
2023	690
2024	740

### 3. The main problems in the logistics system:

Lack of refrigerated vehicles, lack of digital monitoring, automatic temperature control systems. Poor coordination of interregional transport. Lack of knowledge and experience in special packaging technologies

#### **Discussion:**

Analysis shows that the Namangan region has high potential in terms of demand for logistics services, but the current system does not allow for effective management of regional cargo flows. Losses in product delivery remain high due to the reduced fleet of refrigerated vehicles, the poor network of agroterminals, and the lack of a single technology for packaging standards. Mana birinchi diagramma:

2020–2024 In the years, the volume of transport and logistics services in the Namangan region has shown an increase.



**Chart 2: Main causes of product losses (in %)** 

- Lack of refrigeration 43%
- Packaging errors 22%
- Incorrect loading inside the truck -18%
- Transport delays 10%
- Other 7%

## Roadmap (2025–2030): Development of logistics in Namangan region

year	Measures
2025	Organize mini-logistics points in each district center
2026	Purchase 500 refrigerated vehicles on a subsidized basis

2027	Launch the "Agrologistics Platform" (mobile application + web)
2028	Organize specialized packaging plants
2029	Equip transport with temperature and direction control systems
2030	Increase the number of agroterminals to 7 and open export corridors

#### Conclusion

Although the transport and logistics potential of the Namangan region is quite high, the shortcomings of the existing infrastructure, technical base and coordination mechanisms do not allow for the full use of these opportunities. Based on the roadmap for 2025–2030:

- The share of refrigerated vehicles will increase from 24% to 50%;
- The number of agroterminals will increase from 2 to 7;
- Losses in freight transportation will be reduced from 9% to 3%;
- Regional logistics will be digitized.

This conceptual plan will serve to bring the regional logistics system to the level of regional competitiveness.

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