

TRAFFIC ENGINEERING AND MANAGEMENT

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Sustainable Transportation within the Framework of Green Deal - SPHERE

Call: ERASMUS-EDU-2023-CBHE-STRAND-2

Project Number: 101128065

TOPIC: GOALS AND OBJECTIVES OF THE SCIENCE. MAIN ELEMENTS OF AUTOMOBILE ROADS.

Agenda:

- 1 Prospects for the development of the road network of the Republic of Uzbekistan;
- 2 Role of highways in the development of the Republic;
- 3 Vehicles moving on highways;
- 4 Classification of highways;

1. Prospects for the development of the road network of the Republic of Uzbekistan



Highway - a complex of engineering structures intended for the movement of vehicles, ensuring their continuous and safe movement at a specified speed, weight, and dimensions, as well as land plots provided for the placement of this complex and a space above the complex within a specified circle.

The caravan routes that connected peoples hundreds of years ago have now turned into highways.

One such route is the Great **Silk Road**.



The Great Silk Road

The emergence of the road network in Uzbekistan

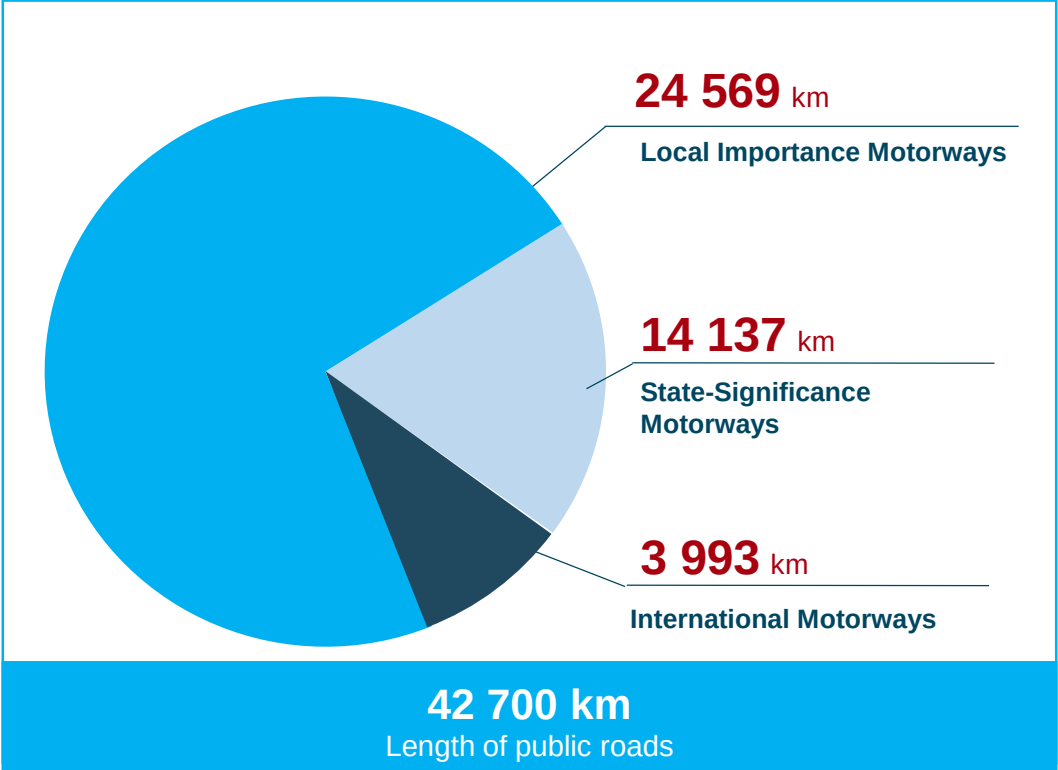
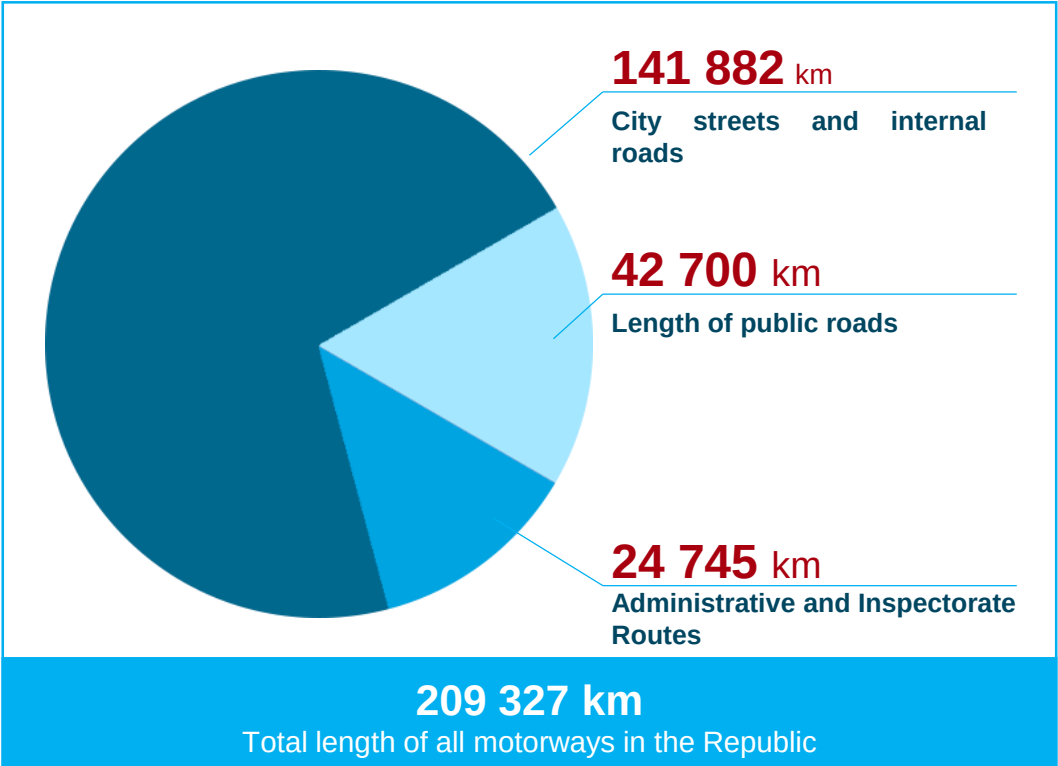
The construction of tarmac-surfaced roads in Uzbekistan dates back to the early 20th century.

Between 1928 and 1932, the first black-topped road in Uzbekistan, the Bukhara–Gijduvan–Kiziltepa road, was constructed, measuring 62 km in length. Once completed, this road began to serve the interconnection of Bukhara's main cotton-growing districts, as well as its link to Samarkand.

By 1937, the road network in Uzbekistan had reached 22,000 km, of which 2,200 km were paved roads.

In order to determine the length, technical condition, and departmental affiliation of the roads, a preliminary inventory of the republic's road network was conducted in 1957. Based on the materials of this event, in 1958, the republic's government adopted a resolution aimed at radically improving the road sector. The classification of new roads introduced on the basis of this resolution provides for the division of the road network into public and enterprise-owned roads.

Republican Road Network



By type of coating

Asphalt-Concrete Pavement Roads	Black-Topped Roads	Concrete-covered roads	Gravel Roads	Dirt roads
				
88 491 km	15 863 km	3 163 km	57 285 km	19 780 km

Internal road network within the republic

7

141 882 km

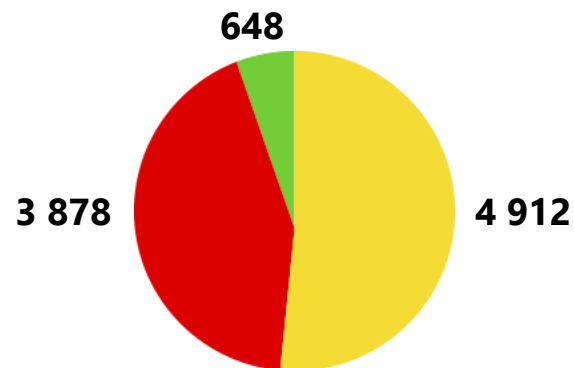
Total length of internal roads

37 177 km

Roads in need of repair in MFYs in the Red category

7 730 km

Roads in need of repair in MFYs in the yellow category



Total number of MFYs

9 438

In the context of MFYs

Red category

Yellow category

Green category

Surkhandarya region



Khorezm region



Samarkand region



Kashkadarya region



Bukhara region



Andijan region



Republic of Karakalpakstan



Tashkent region



Namangan region



Fergana region



Navoi region



Jizzakh region



Syrdarya region



Tashkent city



62 603 km

17 330 km
ASPHALT BETON
22 770 km
Gravel
22 503 km
Dirt

71 730 km

24 km
CEMENT BETON
39 003 km
ASPHALT BETON
32 703 km
Gravel

7 549 km

4 898 km
ASPHALT BETON
2 651 km
CEMENT BETON

By region

The following routes, with a total length of 2,752 km, are included in the National Motorway of Uzbekistan.

**Beyneu-Qo'ng'iro't-Bukhara-
Samarkand-Tashkent-Andijan**

**2051
km**



Bukhara – Olot

**92
km**



Bukhara-Karshi-Guzor-Termez

**432
km**



Samarkand-Guzor

**177
km**



Map of the National Highway of Uzbekistan

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2. The Role of Motorways in the Republic's Development

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The road network is a strategic asset of great importance to the socio-economic development of any state.



It is particularly important for countries located far from the oceans or seas, that is, for water transport.



The adequate development of the road network and the fact that traffic operating indicators describing its condition are at a standard level reduce the time and cost of reaching any given destination. This, in turn, prevents losses that are significant for road users and the national economy.

Across our republic, 96.6% of passengers and 81.3% of freight transported by all modes of transport are carried by road transport.

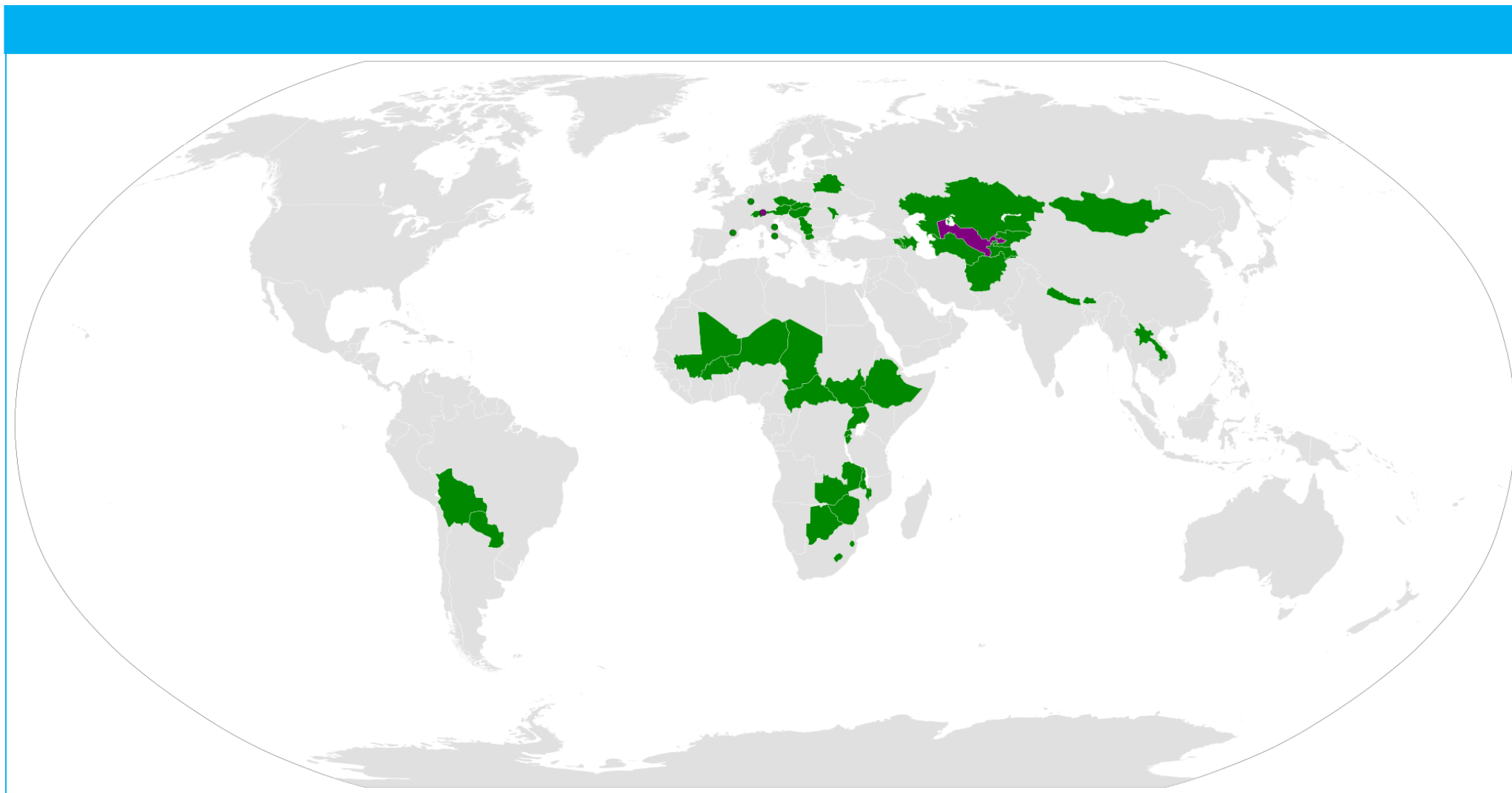
Out to the World Ocean



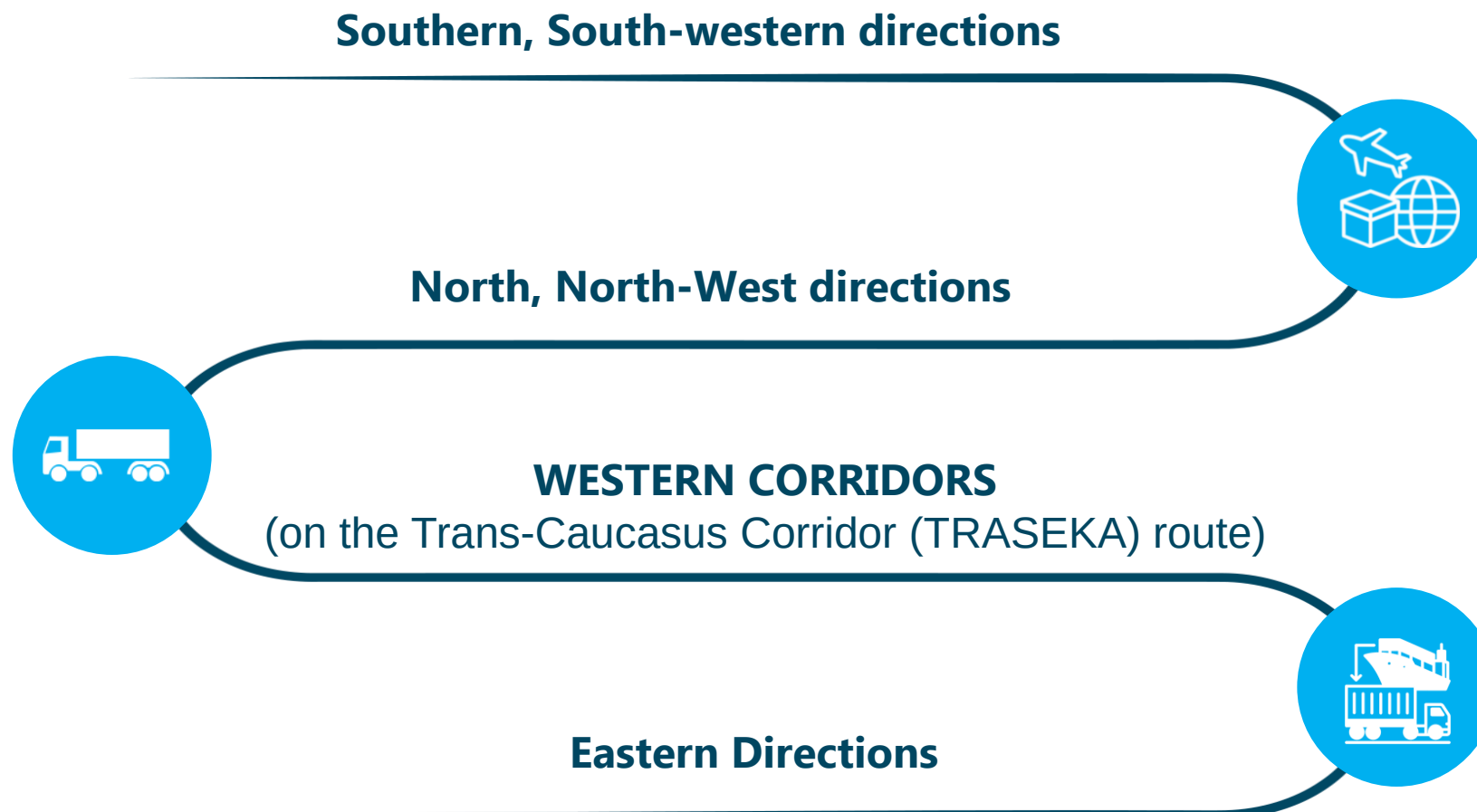
Successfully resolving logistical challenges is considered a key factor in developing Uzbekistan's foreign economic relations and increasing its foreign trade volume to access international markets.

After the collapse of the former USSR, the number of landlocked states reached 29. Uzbekistan occupies a special place on this list, as it is one of only two countries that have access to the world ocean via at least two other states.

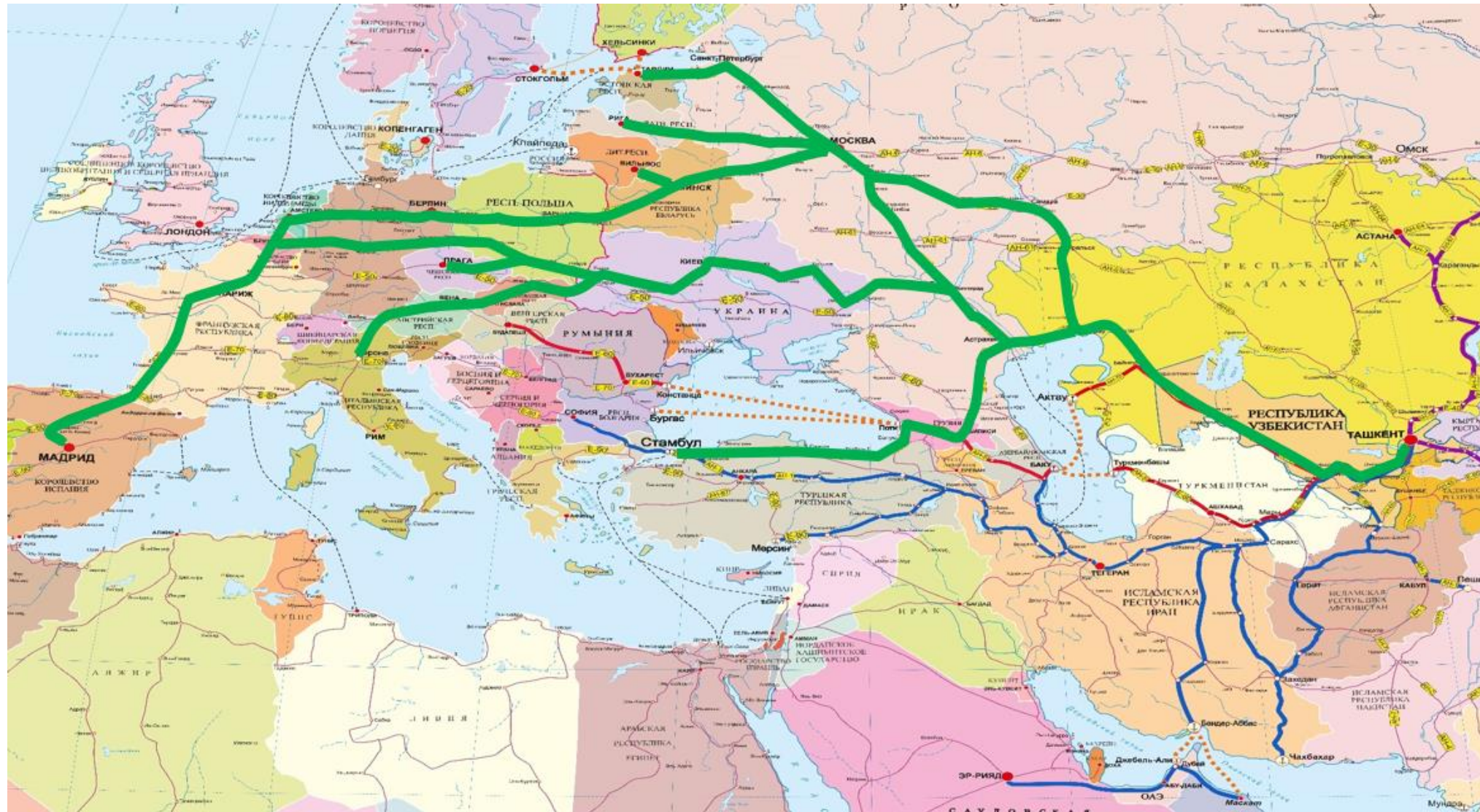
Countries without direct access to the sea (green), countries that must cross two state borders to gain access (purple)



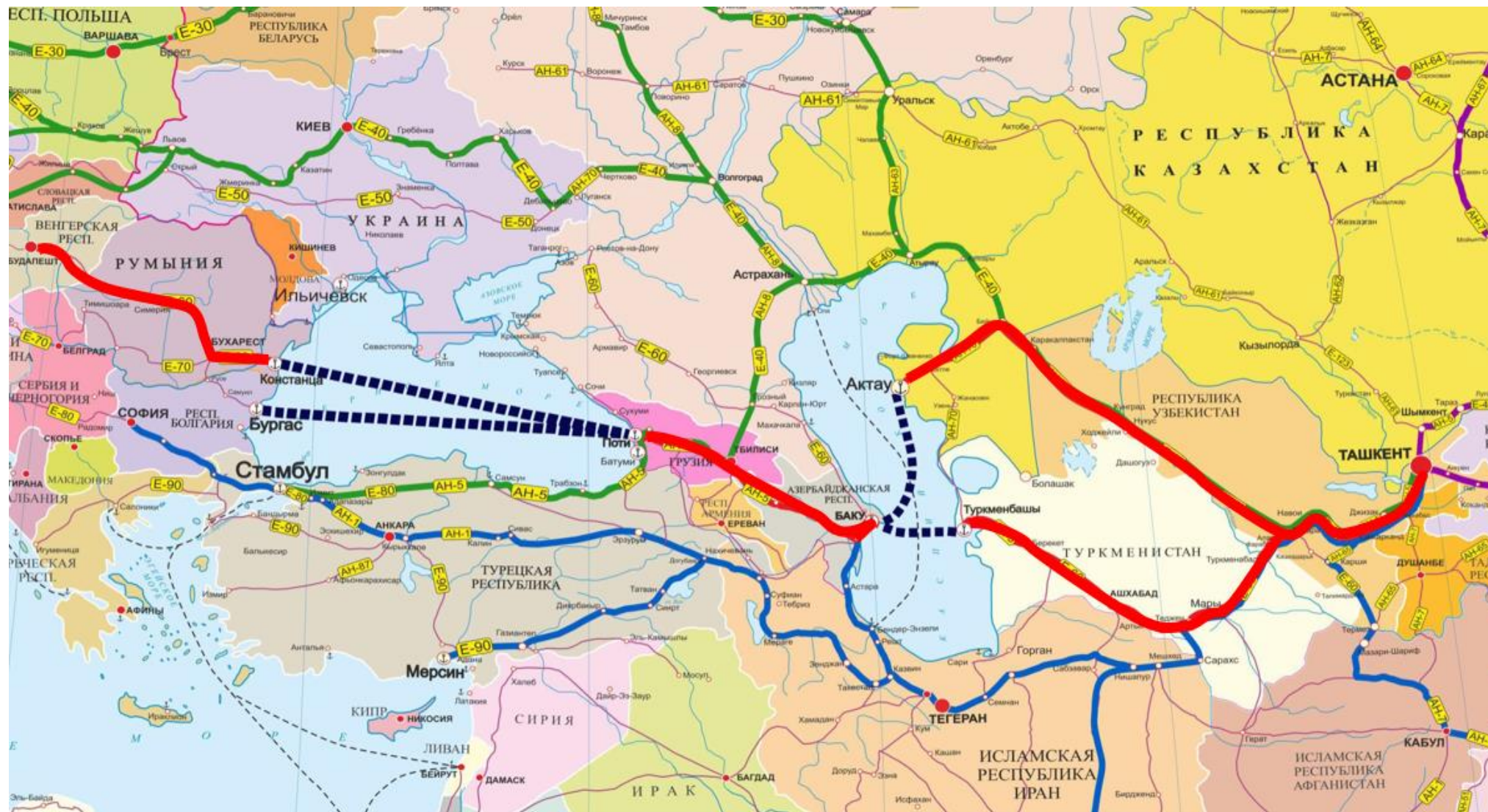
In our republic, there are four main routes for access to international markets and seaports.



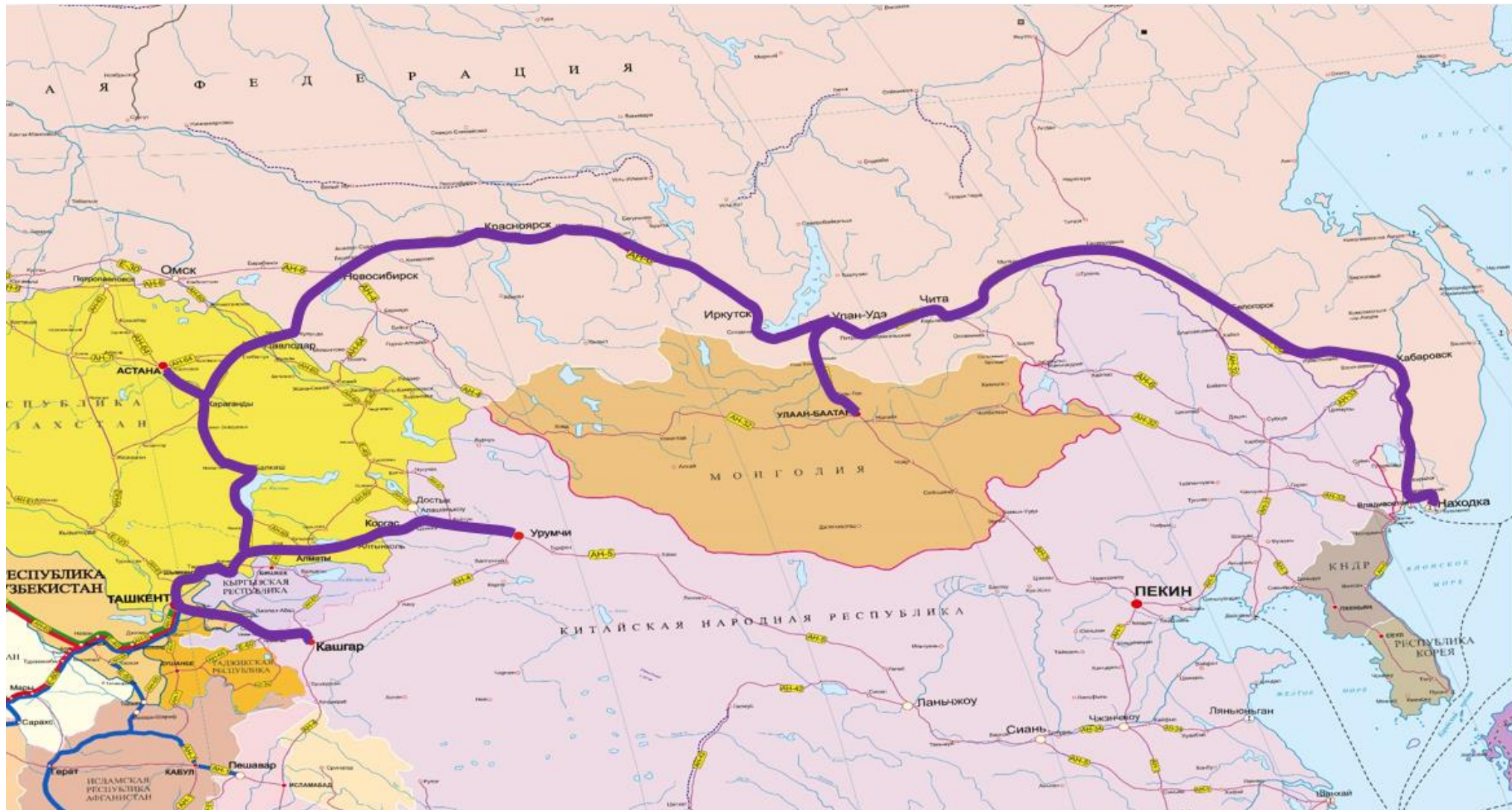




North, North-West directions



Western Directions



Eastern Directions

Modern highways are designed to accommodate a larger number of vehicles.

Chain cars and infrequently used horse-drawn carts that break up the road surface must travel along parallel dirt roads or specially constructed tractor tracks.

Tractor trains with several trailers, motorcycles with rubber tires, and agricultural machinery are permitted on roads in agricultural-specialized areas.



DECISION OF THE CABINET OF MINISTERS OF THE REPUBLIC OF UZBEKISTAN

2011 yil «26» December

№ 342

Appendix 1 to the Rules for Ensuring Road
Traffic Safety when Transporting Oversized
and Heavy Cargo by Road Transport

Permitted dimensions of road vehicles *

Length	
private motor vehicle	12 m
trailer	12 m
climbable motor train	20 m
Articulated lorry train	20 m
Articulated lorry train **	2 m
Width	
motor vehicles	2,55 m
isothermal vehicle	2,6 m
Height	
motor vehicles	4 m

Appendix 2 to the Rules for Ensuring Road
Traffic Safety when Transporting Oversized
and Heavy Cargo by Road Transport

Permitted mass of road vehicles

Type of vehicle	Indicator (t)
Single motor vehicles:	
Two-pronged	18
Three-pronged	26
four-pronged	32
Articulated lorries and trailers:	
three-pronged	28
four-pronged	36
five-pointed	40
six or more-barrelled	44

Public roads are designed to accommodate the following dimensional vehicles: by length - single vehicles up to 12 m, train units and wheeled tractor units up to 24 m, by width - up to 2.5 m, by height - up to 4 m.

When calculating the strength of the road surface of public roads, the weight of the vehicle on its most heavily loaded single axle is taken as 130 kN (13 t) for categories I–II and 100 kN (10 t) for categories III–V.



LAW OF THE REPUBLIC OF UZBEKISTAN

On highways

Chapter 3. Classification of highways and their categories

Article 8. Classification of highways

Highways in the Republic of Uzbekistan are classified as follows:

- public roads;
- the streets of cities and other settlements;
- Farm roads.

Article 9. Public roads

Public highways are state property and are open to road users. Public highways ensure the transportation of goods and passengers between cities and other settlements to meet the needs of the population, socio-economic and defense needs of the state.

Public roads are divided into international, state, and local roads.

Roads of international significance include roads that, in accordance with international treaties of the Republic of Uzbekistan, are part of the international road network.

Roads of state importance include roads that provide transport links between the administrative centers of regions and districts of the Republic of Uzbekistan, cities of regional subordination, cultural and industrial centers, and connect these centers with roads of international significance, airports, railway stations, ports, and berths, as well as with neighboring states.

Roads connecting the administrative centers of districts with towns, kishlaks, and auls, as well as roads of state significance, are classified as highways of local significance.

Public highways are under the jurisdiction of a specially authorized body.

The list of public highways of the Republic of Uzbekistan is approved in the prescribed manner.

Article 10. Streets of cities and other settlements

Streets of cities and other settlements pass within the boundaries of cities, urban-type settlements, kishlaks, and auls, with the exception of sections of these streets included in the established manner in the List of Public Roads of the Republic of Uzbekistan.

Streets of cities and other settlements are state property and are under the jurisdiction of local government authorities.

Article 11. Household roads

Economic roads are state property or the property of legal entities and individuals. Roads serving technological purposes, as well as branch, service, patrol, and other similar roads, are classified as industrial roads.

Article 12. Highway categories

Highways are divided into categories according to their technical purpose in the manner prescribed by law.

ROAD SERVICE PROVIDERS AND SOURCES OF FINANCING



Public highways. Served by the Committee for Roads.



To the streets of cities and other settlements. They are maintained by the local authorities' departments of urban development.



The household's roads are maintained by the relevant organisations.



The Special Fund for the Development of Motorways under the Ministry of Finance of the Republic of Uzbekistan.



The Regional Targeted Funds for the Development of Automobile Roads under the Ministry of Finance of the Republic of Karakalpakstan and the Main Directorates of Finance of the regional governorships and the capital city of Tashkent.



At their own expense.

Classification of roads

Based on the City Planning Norms and Rules 2.05.02-23 “Roadways”

The classification of roads is determined in accordance with Table 3, based on their designated function and anticipated traffic intensity.

The economic importance of the road	Road category	Computational throughput, units per second
International and state-significance roads	Ia (highway)	14000 more than
	Ib (expressway)	14000 more than
	II	6000 - 14000
	III	2000 - 6000
Roads of local importance	IV	200 - 2000
	V	Up to 200



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Thank you for your attention!