



UNIVERSITY  
OF CENTRAL ASIA



# TRANSPORT TRANSITION TO DECARBONISATION IN CENTRAL ASIA

## BACKGROUND STUDY

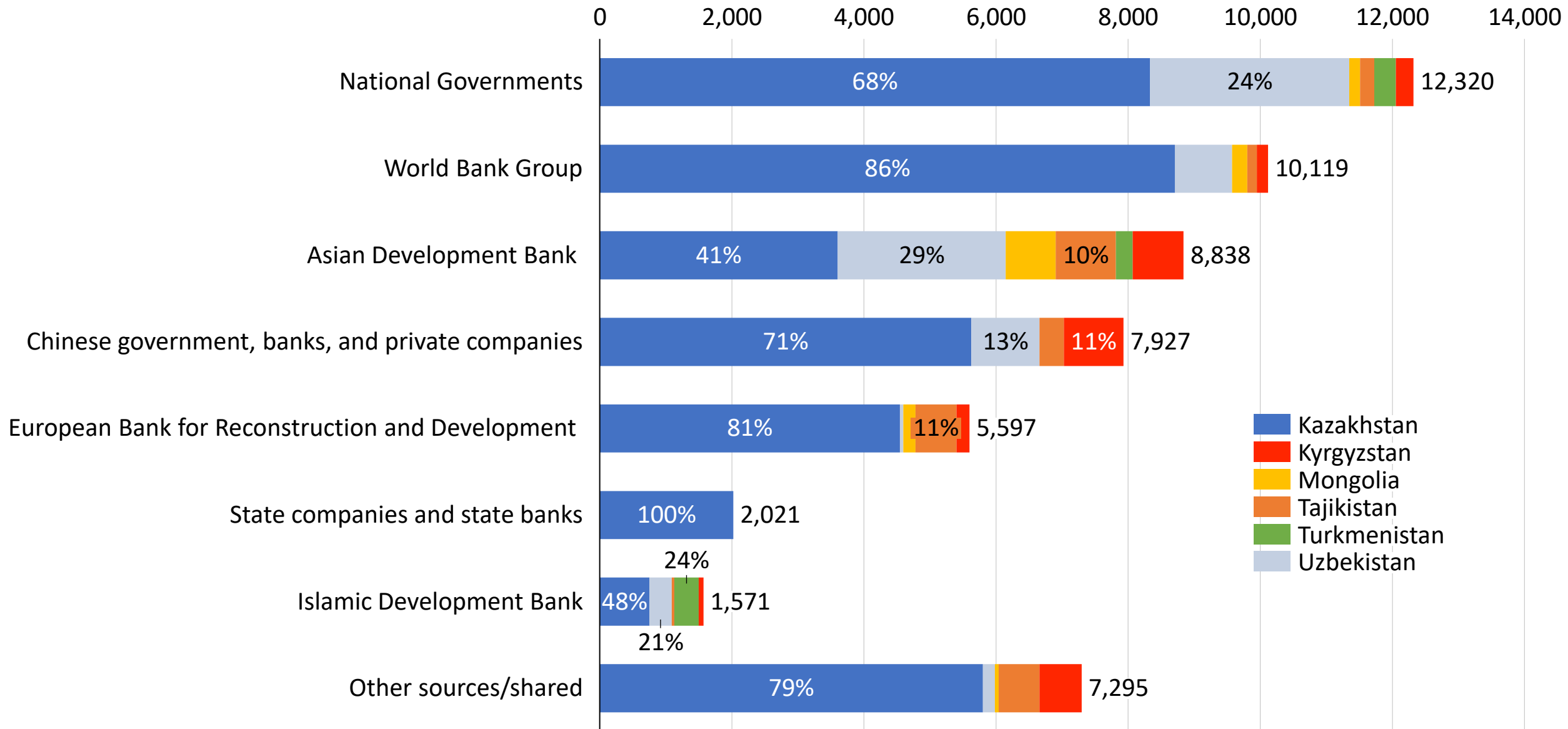
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# About the study

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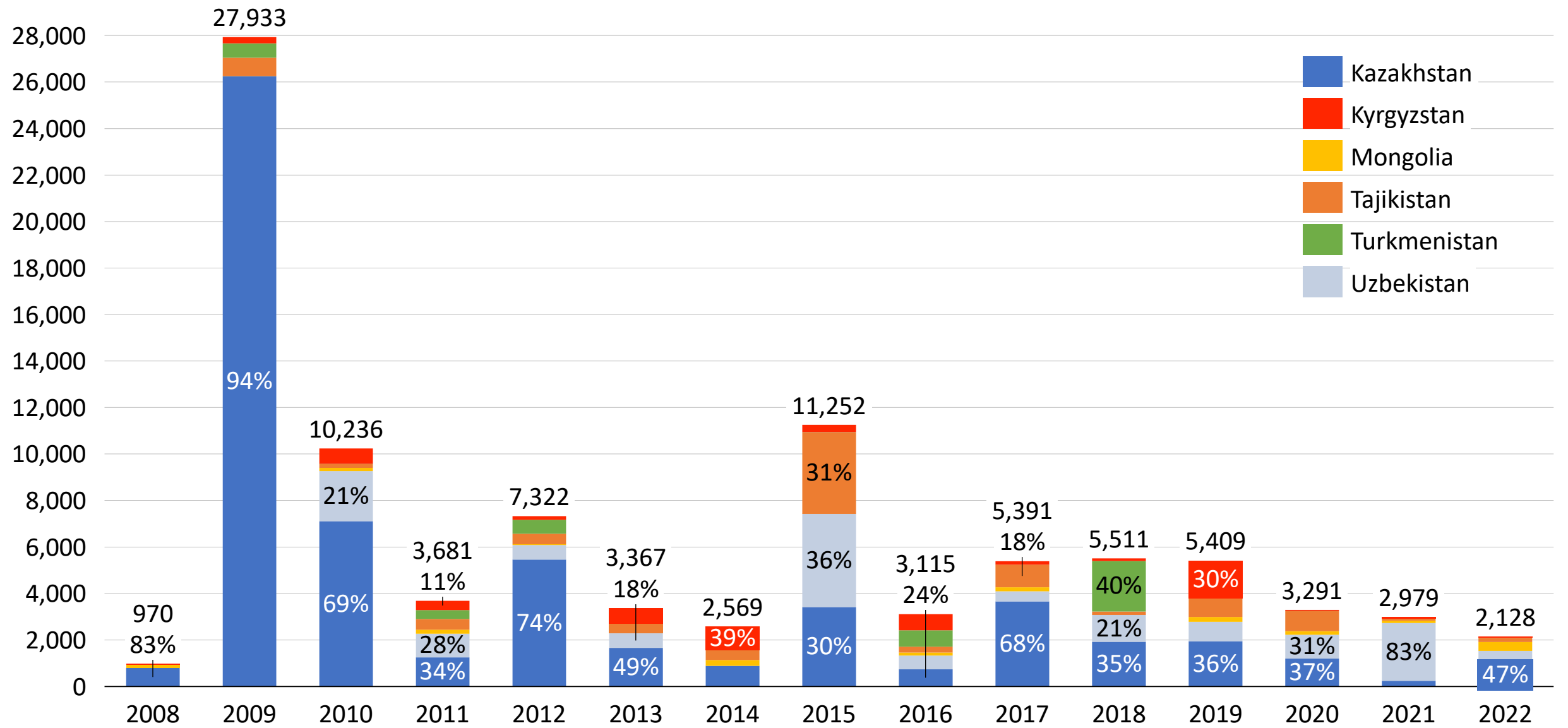
- The purpose of the study is to assess the policy environment in the CA region to understand to what extent current policy measures are sufficient to shift the countries towards more sustainable transport.
- The study will result in the preparation of a background paper with the state-of-play, policy frameworks, assessment, and recommendations on orientation of transport infrastructure investments on the goals of the Paris Agreement and the 2030 Agenda in Central Asia.

# Investment in transport infrastructure projects in Central Asia in 2008-2022 by source of funding and countries, million USD



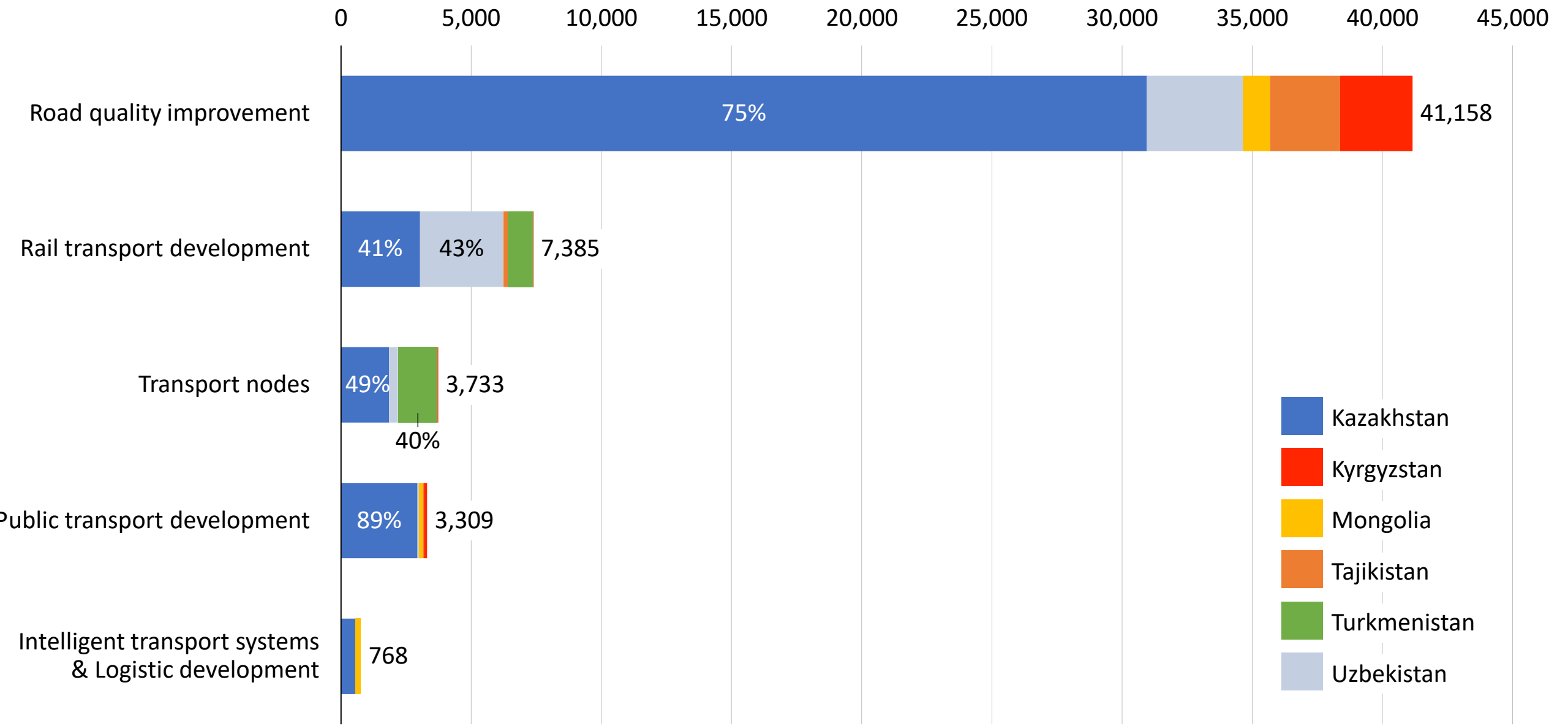
\*NOTE: Other sources/shared include Japan agencies and funds, OPEC Fund, Global Environment Facility, International Finance Corporation, UNDP, etc.

# Dynamics of investments in transport infrastructure projects in Central Asian countries in 2008-2022 by countries, million USD

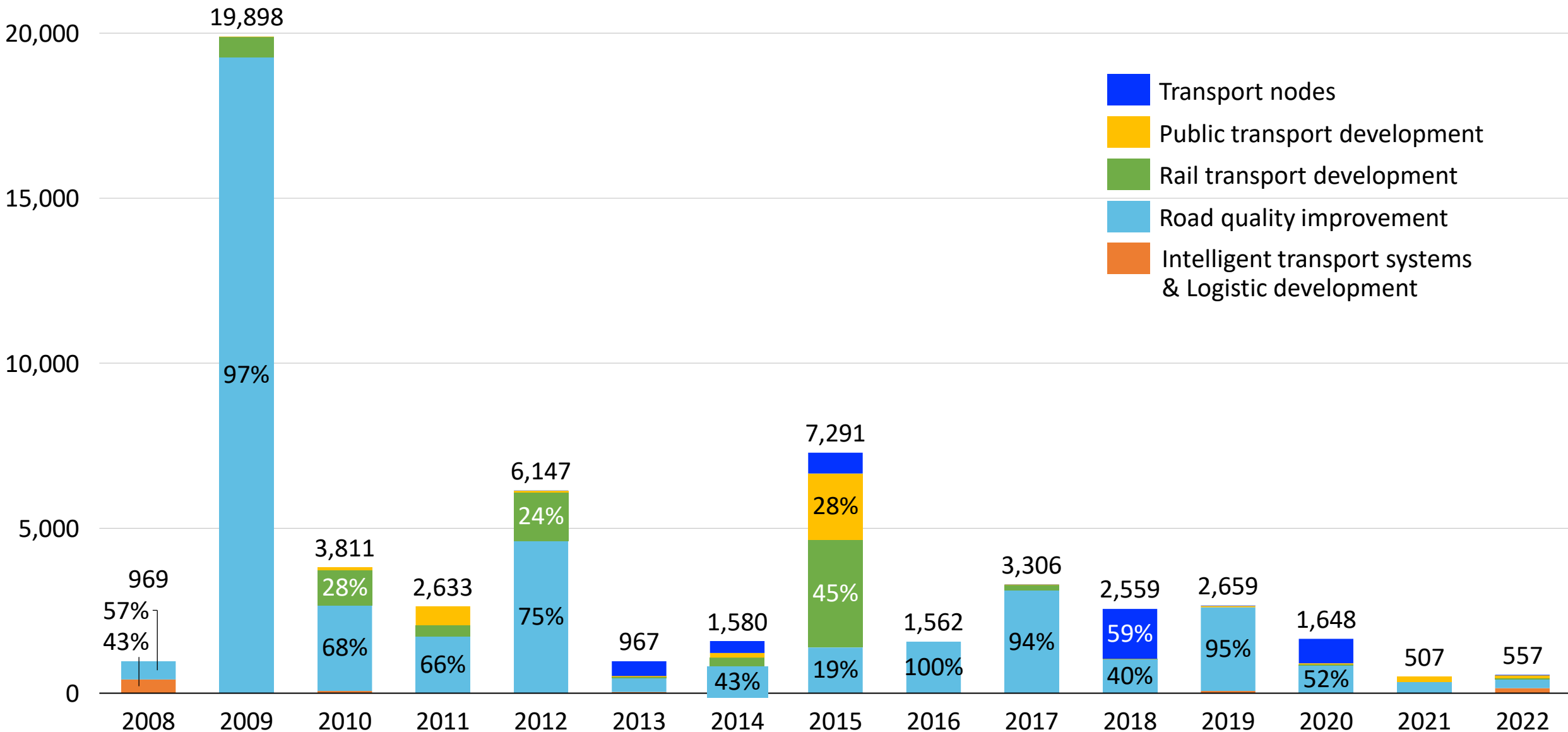


Source: UCA (2023) Central Asian dataset of infrastructure projects 2008-2023

# Distribution of the total investment by main types of transport infrastructure projects in Central Asian countries in 2008-2022 by countries, million USD



# Investment by main types of transport infrastructure projects in Central Asian countries in 2008-2022, million USD



# Main investment trends

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- Central Asian (CA) governments underinvest in transport infrastructure development, and concentrate their efforts on road quality improvements
- Not all CA countries have the fiscal capacity to invest in transport infrastructure and continue to depend on funding from development banks and China
- Investment flow in transport infrastructure is volatile and mainly associated with a few large transit development projects

# Central Asian countries are getting ready for decarbonisation by setting strategic objectives

Country	GHG emission reduction target by 2030	GHG emission reduction target conditional to international support* and other support**	Policy document	Policy announcement year	Baseline
Kazakhstan	by 15 %	by 25% by 2030*; reaching carbon neutrality by 2060*	KZ Carbon neutrality Strategy 2060; Updated Nationally Determined Contribution	2023	1990
Kyrgyzstan	by 15.97%	by 36,61% by 2025*; by 43,62% by 2030*	Updated Nationally Determined Contribution	2021	“Business as usual”
Mongolia	by 22.7%	by 27.2% by 2030**; by 44.9% by 2030**	Updated Nationally Determined Contribution	2020	2010
Tajikistan	not exceed 60-70% of base year	not exceed 50-60% of base year by 2030*	Updated Nationally Determined Contribution	2021	1990
Turkmenistan	by 20%	-	Nationally Determined Contribution	2022	2010
Uzbekistan	by 35% per unit of GDP	-	Updated Nationally Determined Contribution	2021	2010



# Government strategies and programs supporting decarbonisation of transport

Measure	Kazakhstan	Kyrgyzstan	Mongolia	Tajikistan	Turkmenistan	Uzbekistan
<b>Reconstruction and rehabilitation of roads, improvement of roadside infrastructure on international road corridors</b>	<i>KZ Transport and logistics Concept 2030</i>	<i>KG NDP 2026; KG Road transport Concept</i>	<i>MN SDV 2030; MN National green development Policy; MN Climate change Program</i>	<i>TJ Transport development Program 2025; TJ Climate change Strategy 2030</i>	<i>TKM Transport Diplomacy 2022-2025</i>	
<b>Electrification of railways</b>	<i>KZ The transport and logistics Concept 2030</i>	<i>KG NDP 2026</i>	<i>MN National green development Policy; MN Climate change Program</i>		<i>TKM Climate change Strategy</i>	
<b>Railway construction and modernization</b>	<i>KZ Transport and logistics Concept 2030; KZ Carbon neutrality Strategy 2060</i>		<i>MN SDV 2030; MN Climate change Program</i>		<i>TKM Climate change Strategy</i>	
<b>Development of new transport and logistics systems</b>	<i>KZ Transport and logistics Concept 2030</i>	<i>KG NDP 2026; KG Road transport Concept</i>	<i>MN SDV 2030; MN National green development Policy</i>	<i>TJ NDS 2030; TJ Transport development Program 2025</i>		<i>UZ Green economy Strategy</i>

CA countries plan to continue the construction and rehabilitation of roads along main international corridors, electrification of railways, and development of new transport and logistic nodes.

# Government strategies and programs supporting decarbonisation of transport

Measure	Kazakhstan	Kyrgyzstan	Mongolia	Tajikistan	Turkmenistan	Uzbekistan
<b>Ensuring environmental standards in transport sector including their alignment with international standards</b>	<i>KZ Transport and logistics Concept 2030; KZ Carbon neutrality Strategy 2060</i>	<i>KG Law on protecting the atmosphere; KG Road transport Concept</i>	<i>MN National green development Policy; MN SDV 2030</i>	<i>TJ Law on environmental safety; TJ Transport development Program 2025</i>	<i>TKM Law on protecting the atmosphere</i>	<i>UZ Law on transport; UZ Green economy Strategy</i>
<b>Promoting incentives and regulations for fuel-efficient vehicles</b>	<i>KZ Carbon neutrality Strategy 2060; KZ Green economy Concept 2050</i>	<i>KG NDP 2026; KG Road transport Concept</i>	<i>MN National green development Policy; MN Climate change Program</i>	<i>TJ Climate change Strategy 2030</i>	<i>TKM Climate change Strategy</i>	
<b>Incorporating the concept of green investment into investment policies and projects, particularly in the realm of green transportation.</b>	<i>KZ Carbon neutrality Strategy 2060</i>					<i>UZ Green economy Program 2030</i>

CA country policies emphasise the importance of promoting fuel-efficient vehicles and enhancing environmental standards to reach international environmentally friendly transportation standards. However, only Kazakhstan and Uzbekistan incorporate green investment actions in the transport sector.

# Government strategies and programs supporting decarbonisation of transport

Measure	Kazakhstan	Kyrgyzstan	Mongolia	Tajikistan	Turkmenistan	Uzbekistan
Expanding and enhancing of environmentally friendly, high-capacity public transport modes (electric buses and trolleybuses) and developing efficient public transport systems in urban areas	<i>KZ Transport and logistics Concept 2030; KZ Carbon neutrality Strategy 2060</i>	<i>KG Road transport Concept; KG NDP 2026</i>	<i>MN Climate change Program; MN National green development Policy</i>	<i>TJ Transport development Program 2025</i>	<i>TKM Climate change Strategy</i>	<i>UZ Green economy Strategy</i>
Facilitating the transition of the transportation sector to the utilization of high-quality and enhanced fuels (use of natural gas, biofuels and hydrogen)	<i>KZ Carbon neutrality Strategy 2060; KZ Transport and logistics Concept 2030</i>	<i>KG Road transport Concept</i>	<i>MN Climate change Program</i>	<i>TJ Transport development Program 2025; TJ Law on environmental safety</i>	<i>TKM Climate change Strategy</i>	<i>UZ Green economy Strategy</i>
Encouraging the public to switch to public passenger transport	<i>KZ Transport and logistics Concept 2030</i>		<i>MN Climate change Program</i>			
Ensuring accessibility of public transport for individuals with disabilities				<i>TJ NDS 2030</i>		

CA countries recognise the need for the development of energy-efficient public transport. However, only Kazakhstan and Mongolia include policy actions for encouraging a switch from private to public transport use. Only Tajikistan identifies the need to ensure accessibility of public transport for people with disabilities.

# Main challenges

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- Underinvestment in transport infrastructure does not allow CA countries to develop transport and benefit from participation in global trade
- Transformation of CA highways into trade corridors demands better road quality and safety
- CA countries' investment in improving road quality is significant but limited to funding highways forming international transport corridors, excluding enhancing regional and local roads

# Challenges and opportunities for transport investment's contribution to decarbonisation

- CA countries' overemphasis on road infrastructure improvement may lock in carbon emissions from private cars because the development of public transport is mainly concentrated in urban areas whereas the development of regional public transport is overlooked.
- CA countries' public investment in cargo railways is the second priority after road development and electrification of the railways in CA could be a promising opportunity for decarbonising the transport sector. However, in some CA countries, electrified railway transport does not work on clean energy consumption, creating a new carbon emissions trap.
- The development of transport nodes in CA countries could be better aligned with the development of logistics and intelligent transport systems (ITS), playing an essential role in increasing the energy efficiency of the transport sector.

**Thank you for your attention!**