

Regional Perspectives Kazakhstan

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SIG B3 Summer Session 2

Climate Change - The role that freight transport can play to avoid emissions

27 July 2022, 11 a.m. - 12.30 p.m. CEST



Kazakhstan

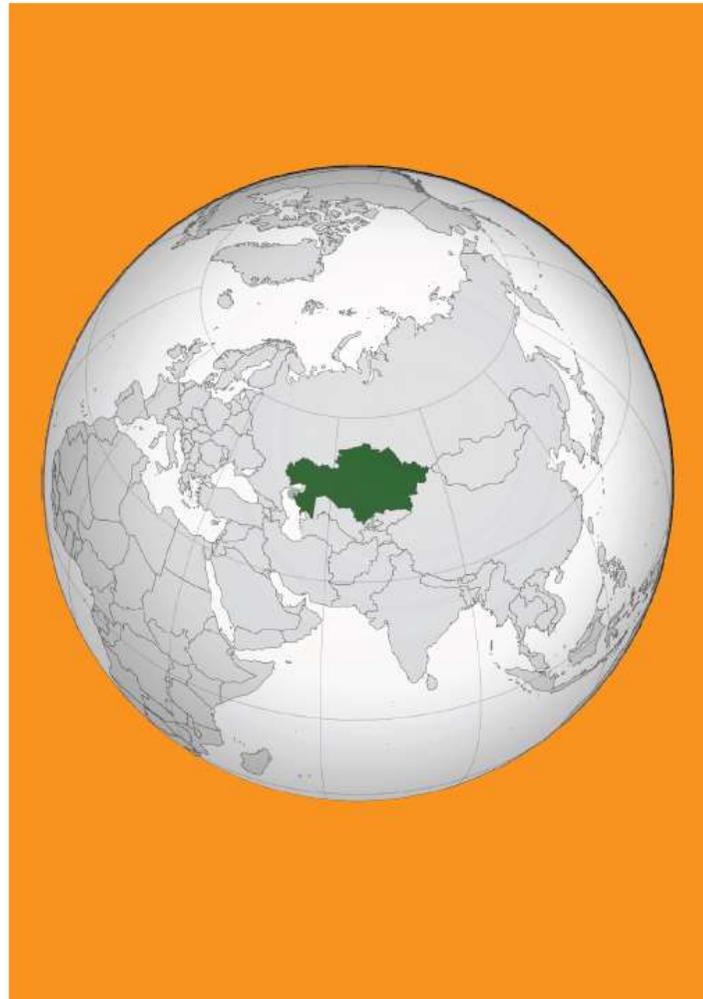
Geography

- Ninth largest country in the world: Large land surface areas

Neighboring states:

- Russia
- China
- Kyrgyzstan
- Uzbekistan
- Turkmenistan

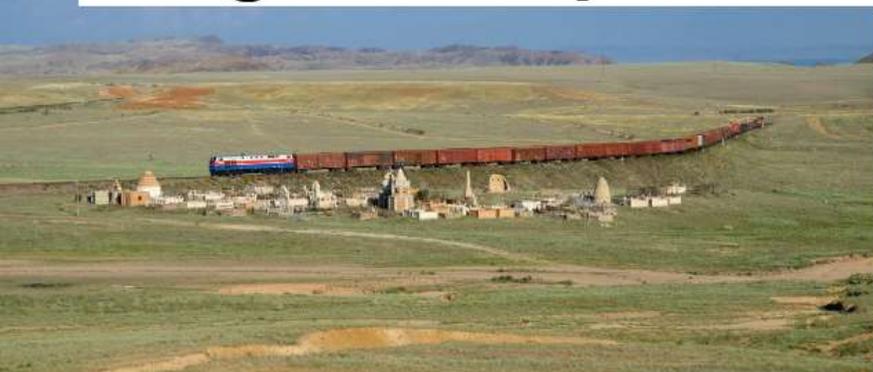
Landlocked besides in the west: Caspian Sea



Economy and Resources

- Rich in industrial metals and minerals
- The world's largest deposits of chromium, vanadium, bismuth, and fluorine
- Large deposits of oil, gas, coal, and uranium
- Gap between rich and poor, power elites/clans, weak middle class
- Large remote areas
- Low productivity levels in the manufacturing industry
- Insignificant local consumer demand for goods and services
- Unbalanced economic development on the regional level
- environmental challenges

Freight Transport Markets



**Strategic geographical position:
Bridge between Europe and Asia
Proximity to China, India, and Russia**

- transnational corridors
- bottleneck: transport across the Caspian Sea
- economic development will significantly increase transport volume in the upcoming years

- Transport networks are in poor condition: infrastructure technology.
- Transport costs account for 8%–11% of the final cost of goods, in contrast to the 4%–4.5% share to total cost in industrialized countries.
- Gap of connectivity and logistics
- A more developed economic and transport capability relative to other countries in the region

	Transportation of goods		Freight turnover		Transportation of passengers		Passenger turnover	
	mln tons	%	bln tkm	%	mln persons	%	mln pkm	%
	4 222.7	100.0	597.6	100.0	23 835.8	100.0	295 517	100.0
Rail	397.0	9.4	286.7	48.0	22.4	0.1	17 721	6.0
Car and electric urban	3 550.5	84.1	173.5	29.0	23 804.7	99.9	260 909	88.3
Water domestic	1.3	0.0	0.01	0.0	0.0	0.0	0.7	0.0
Pipeline	273.0	6.5	136.7	22.9				0.0
Sea	0.8	0.020	0.7	0.1	0.1	0.0		0.0
Air	0.027	0.001	0.1	0.0	8.6	0.0	16 886	5.7

The main indicators of the transport sector in Kazakhstan,
ed. G. Tasato, K. Bajarin, Kazakhstan's Road to Net Zero GHG Emissions, tale 2.8, p. 28

Push and Pull Freight Transport Decarbonization



Photo Eberhard Joos

**Connectivity:
closing the gap**

The Challenge

Improve connectivity
without increasing
carbon intensity

**Regional
integration**

**Technology upgrading:
vehicles, rail system**

**Economic growth:
green and circular economy**

Policy and regulation

**A coherent
approach on
all levels of the
freight transport
system**

**Know how:
skill gap**

Data collection and monitoring

Initiatives and Action Lines



Photo: Eberhard Joos

Connectivity

- focus on the rail system: tracks and electrification

Economic growth:

- push eco value chains, upgrading manufacturing technologies, and rebalancing regional, remote and urban development

Know how:

- logistics education on tertiary and secondary level

Upgrading transport systems:

- shared infrastructure, data collection
- decreasing fossil fuel emission, particularly in the urban environment

Energy system:

- using the robust renewable energy and green hydrogen potential
- upgrading and re-design the energy system

Policy and regulation

- establishing a regulatory framework for decarbonization