

Aichi 2030 Declaration on Environmentally Sustainable Transport (EST): Country Profile

Mongolia



Developed by:



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Aichi 2030 Declaration on Environmentally Sustainable Transport (EST): Country Profile (Mongolia)

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Mongolia, a country in the East Asia region, having Low and lower middle income status, was recorded to have a national population of about 3 million in the year 2024.

The urban population share in total is about 69%. The age wise distribution of the national population accounts for 38% and 9% of <18 years old (minors) and >60 years old (seniors) population, respectively. The GDP per capita (PPP) for the year 2022 was 14,260 USD.

The motorisation rate of the road transport vehicles for the year 2022, for all vehicles combined, stood at 389 vehicles per thousand population. Similarly, the rate for 2&3 wheelers, LDV, freight vehicles and buses were 22, 247, 88, and 9 respectively.

Introduction to the profiles: The Asian Transport Outlook (ATO) project serves as a comprehensive data repository that organizes transport-relevant data and information from various official and secondary sources. These profiles are meticulously crafted using data from this extensive collection and draw upon a carefully curated selection of key indicators from a pool of over 500 transport-related metrics (visit <https://asiantransportoutlook.com/snd> for more information).

These profiles also provide comprehensive summaries of national targets that are relevant to the Aichi 2030 Declaration goals as contained in ATO's national policy trackers. The profile is structured by goals, followed by policy insights and enumeration of sample projects by the MDBs corresponding to the 6 Goals.

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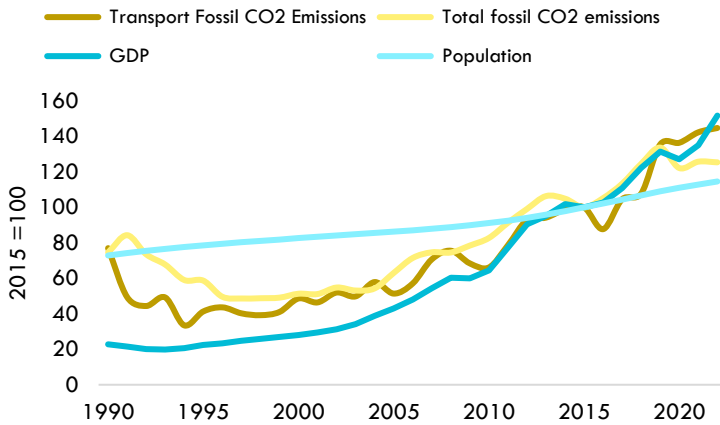
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Goal 1a – Low-Carbon (climate change mitigation):

By 2030, aim to peak transport CO2 emissions and initiate reductions in transport related CO2 emissions with the intention to move towards decarbonization of the transport sector by 2050, or shortly thereafter (Based on SDG 7.2, 9.1, 13.2, Paris Agreement)

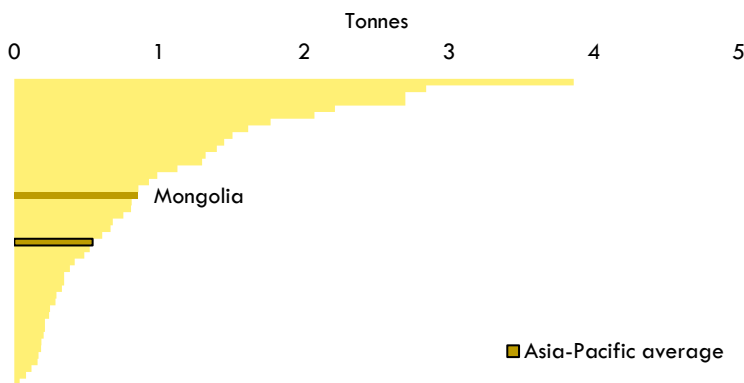
Transport CO2 emissions (fossil)

Growth of transport fossil CO2 emissions, total fossil CO2 emissions, population and GDP (PPP) (1990 - 2022)



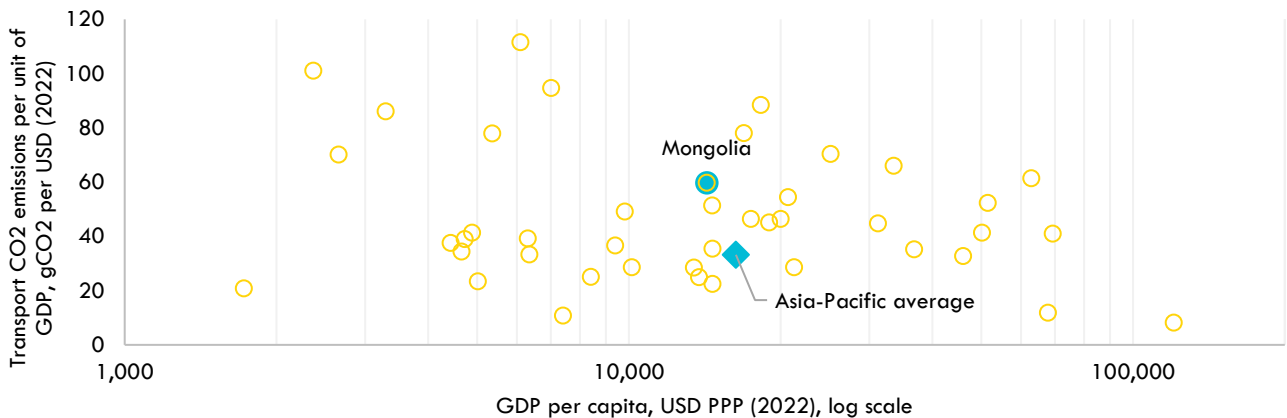
(EDGAR, 2023)

Transport fossil CO2 emissions per capita (2022)



(EDGAR, 2023)

Transport CO2 emissions per unit of GDP (2022)

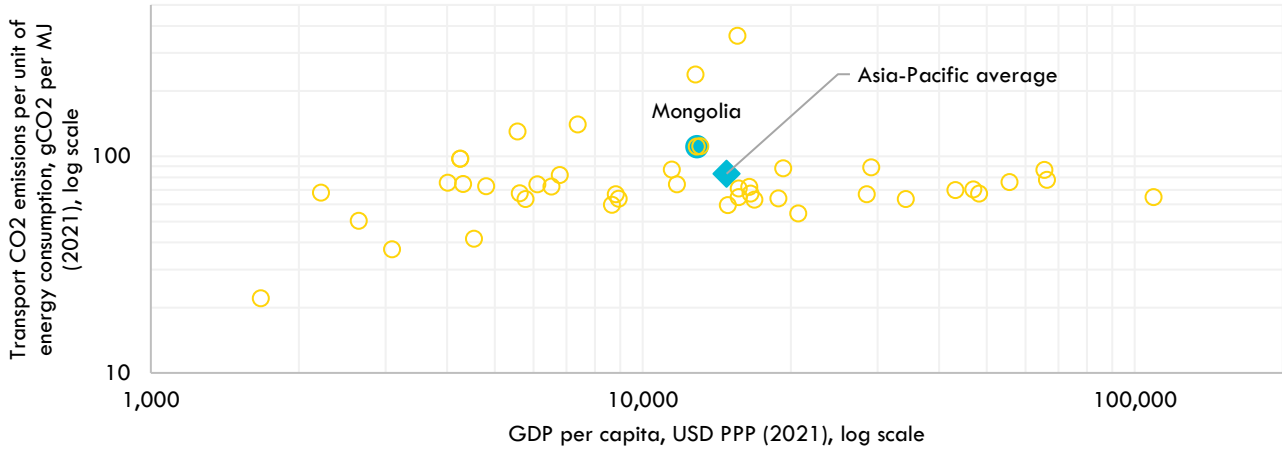


(EDGAR, 2023)

- **Motorization:** High motorization rate of 389 vehicles per 1,000 people, with a significant share of LDVs (247 per 1,000).
- **Emissions:** Transport CO2 emissions are growing faster than the regional average (5% vs 1%), with per capita emissions at 0.9 tonnes (above the regional average of 0.5).
- **Energy:** Transport energy consumption is low
- **LDV impact:** Road transport dominates emissions (73%). LDVs contribute 20% to road transport emissions.

Transport energy consumption

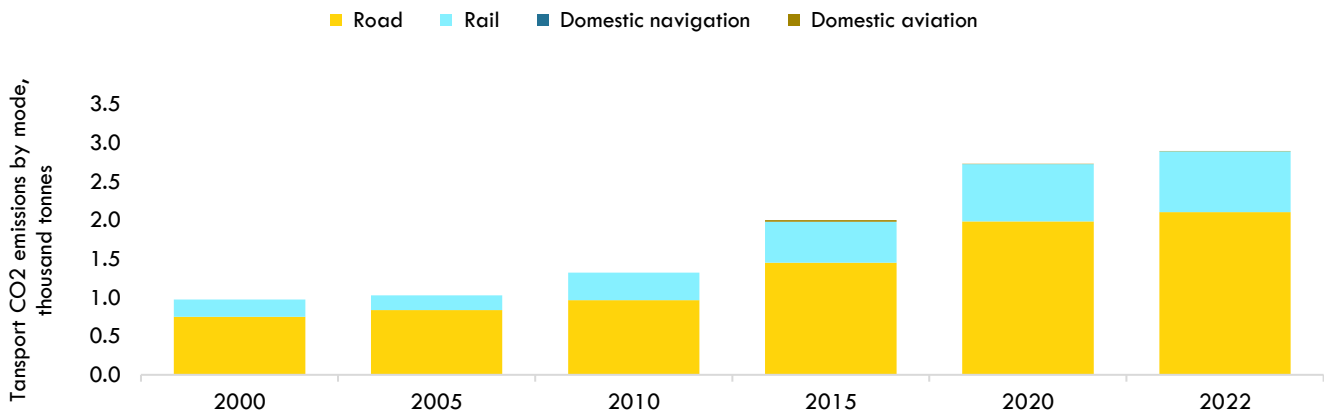
Transport CO₂ emissions per unit of energy consumption and GDP per capita (2021)



(EDGAR, 2023)

Transport CO₂ emissions (fossil) and energy consumption modeshare

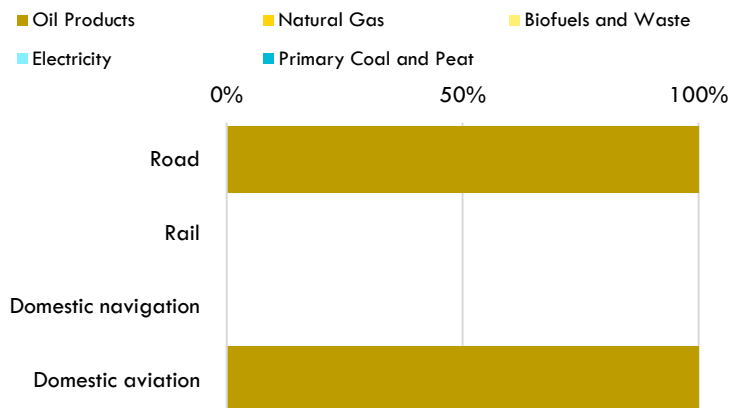
Growth of transport CO₂ emissions by mode



(EDGAR, 2023)

Share of transport energy consumption by mode and by source (2021)

Share of transport in renewable energy consumption:



(Data not available)

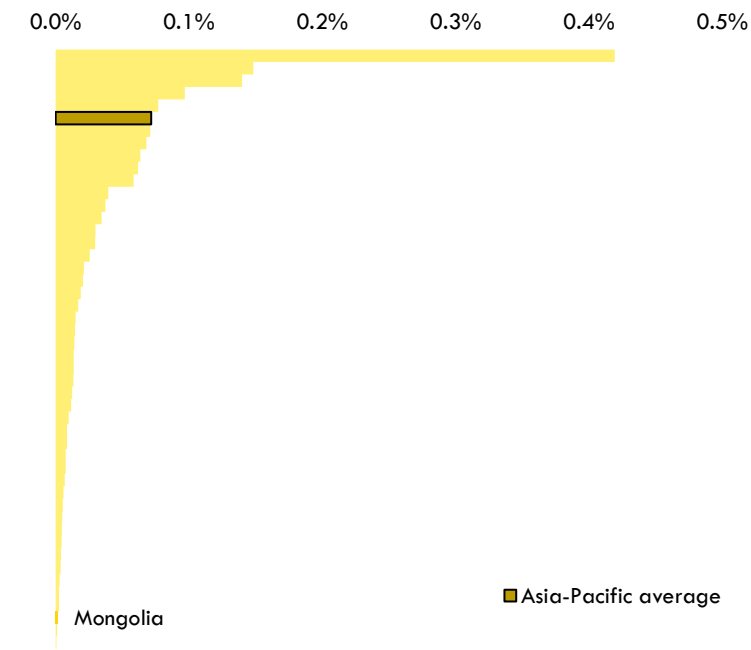
(EDGAR, 2023)

Goal 1b – Resilience:

By 2030, increase resilience and adaptive capacity of transport system to climate-related hazards and pandemics such as COVID-19. (Based on SDG 13, Paris Agreement and the Sendai Framework for Disaster Risk Reduction 2015-2030)

Estimated average annual losses to transport infrastructure due to hazards

Average annual losses to transport infrastructure due to hazards, as a share of GDP, in Asia-Pacific (2023)



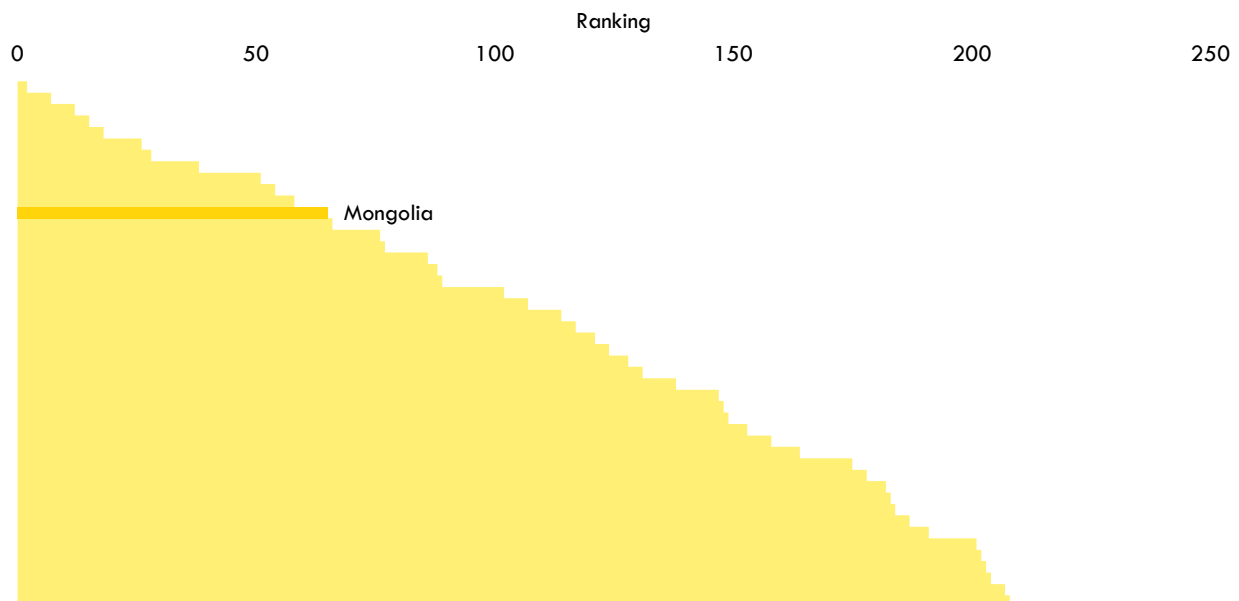
(CDRI, 2023)

• **Vulnerability:** Road infrastructure is highly vulnerable to hazards (77% of losses), ranking 65th globally in network redundancy.

Note: National road vulnerability index ranking (NRVI), highest rank = 1 means fewer disruptions to trips after climate hazards due to sufficient network redundancy.

Climate change vulnerability

National road vulnerability index (NRVI) ranking (2023)



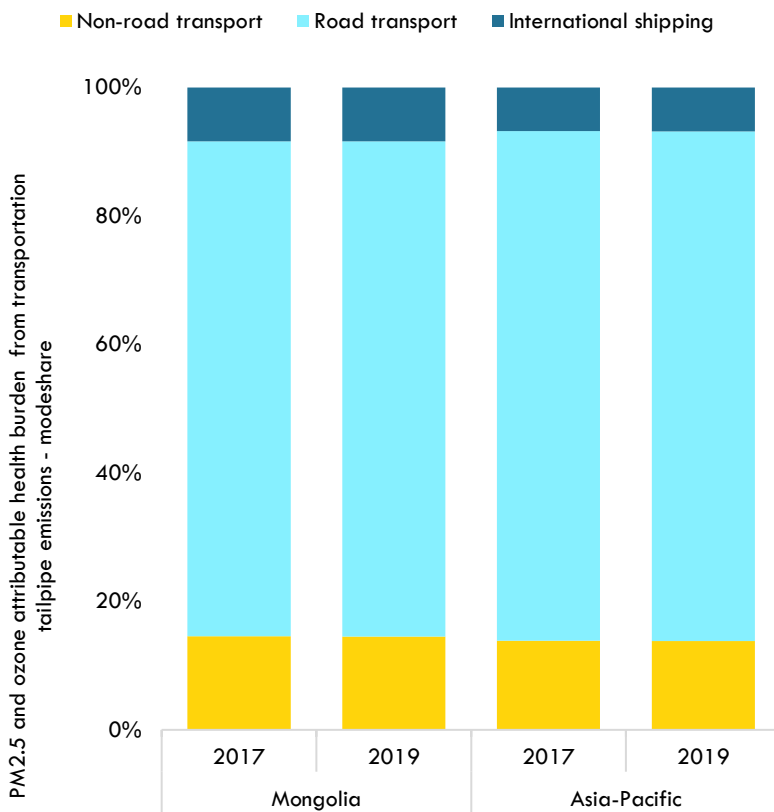
(Koks, et al., 2023)

Goal 1c – Air pollution:

By 2030, reduce air pollution and contamination caused by traffic, including PM2.5, other air pollutants and noise. (Based on SDG 3.9, 11.6).

Transport air pollution health impact

Transport air pollution health impact (PM 2.5)

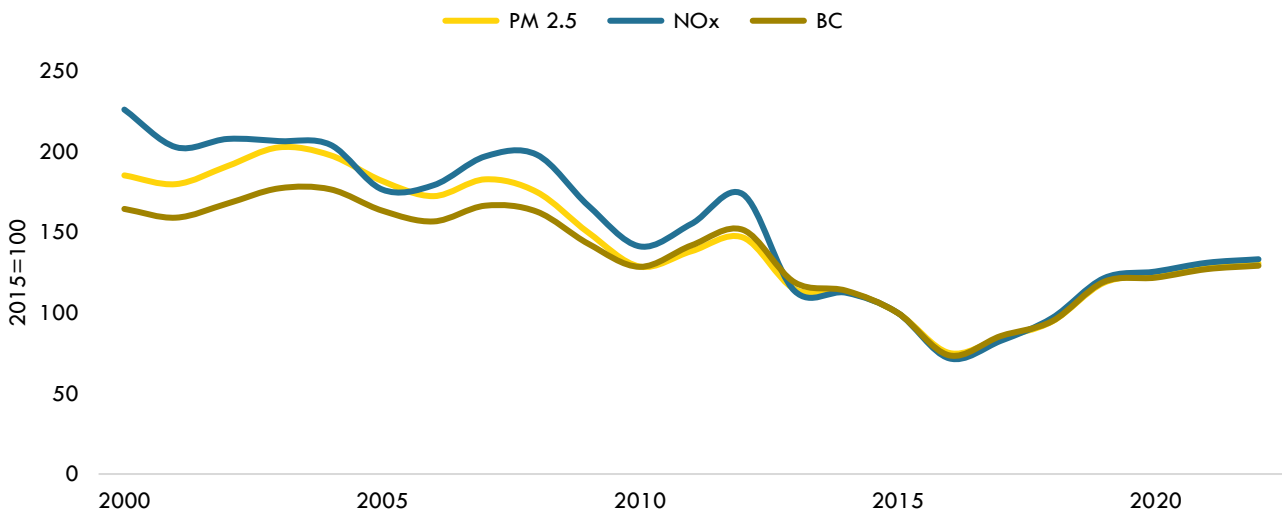


- Emissions: Air pollutant emissions from transport are increasing despite GDP growth. Road transport's share in economy-wide emissions is notable for NOx (4%) and BC (2%).
- Health impacts: Estimated deaths from transport-related air pollution increased from 96 to 110 between 2017 and 2019, with non-road transport being the major contributor (77%).
- In Mongolia, the total attributable deaths due to the PM2.5 and ozone air pollution from the transport sector changed from 96 to 110 between 2017 to 2019.
- The numbers for Asia-Pacific were about 236 thousand and 253 thousand, respectively, for the same time period.

(McDuffie et al., 2021)

Transport air pollutant emissions

Growth of road transport air pollutant emissions



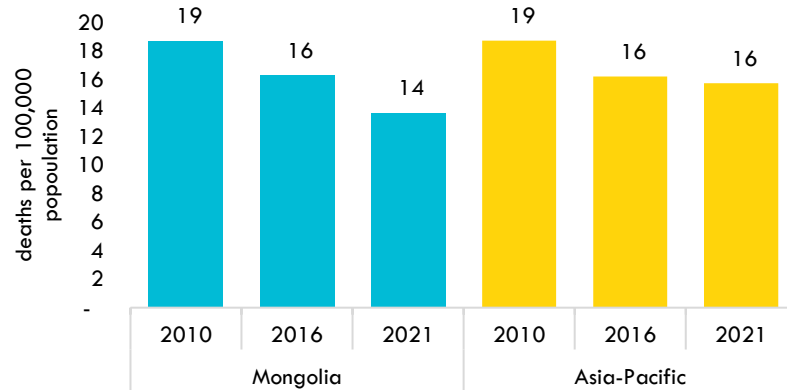
(EDGAR, 2023)

Goal 2 – Road safety:

By 2030, halve the number of deaths and injuries from road traffic accidents in Asia compared to 2020, with specific attention to vulnerable road users. (Based on SDG 3.6 and second UN Decade of Action on Road Safety 2021 – 2030, Stockholm Declaration on Road Safety)

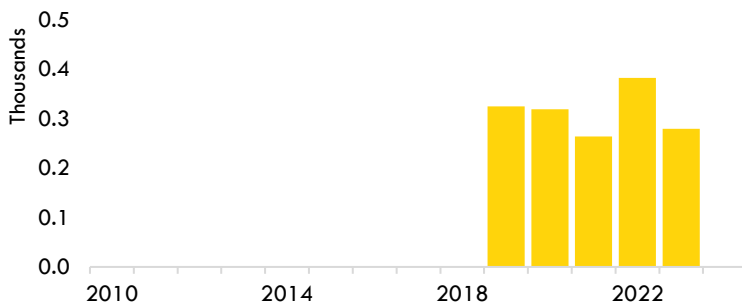
Road traffic crash fatalities

Road traffic crash fatality rate



(WHO, 2023)

Road traffic crash fatalities (absolute values)

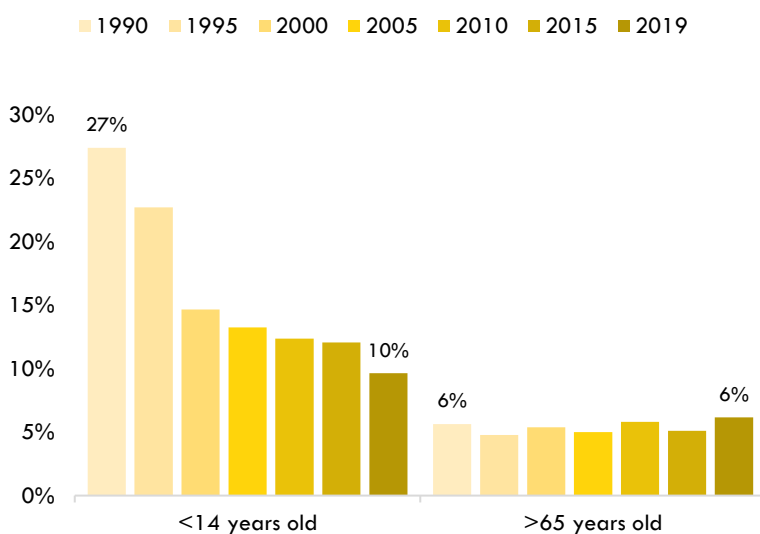


(Country official statistics)

- **Fatalities:** Estimated road traffic fatalities are high (around 400 in 2021), costing 4% of GDP.
- **Vulnerable groups:** The share of fatalities among minors and seniors is decreasing, but the share of pedestrians and cyclists is high (35%).

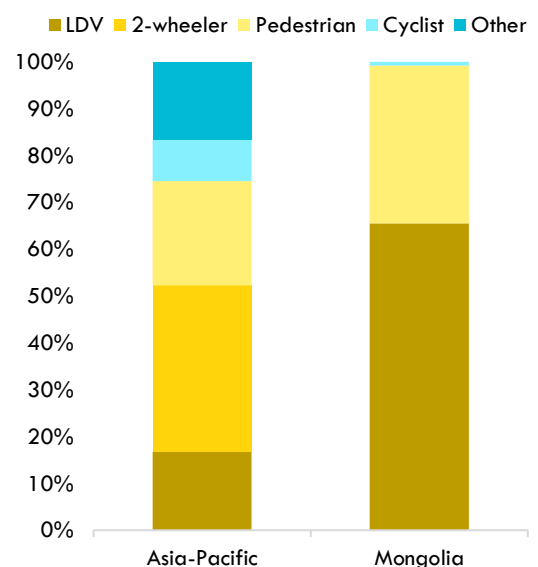
Share of vulnerable groups

Share of road crash fatalities by age



(GBD, 2021)

Share of road crash fatalities by mode



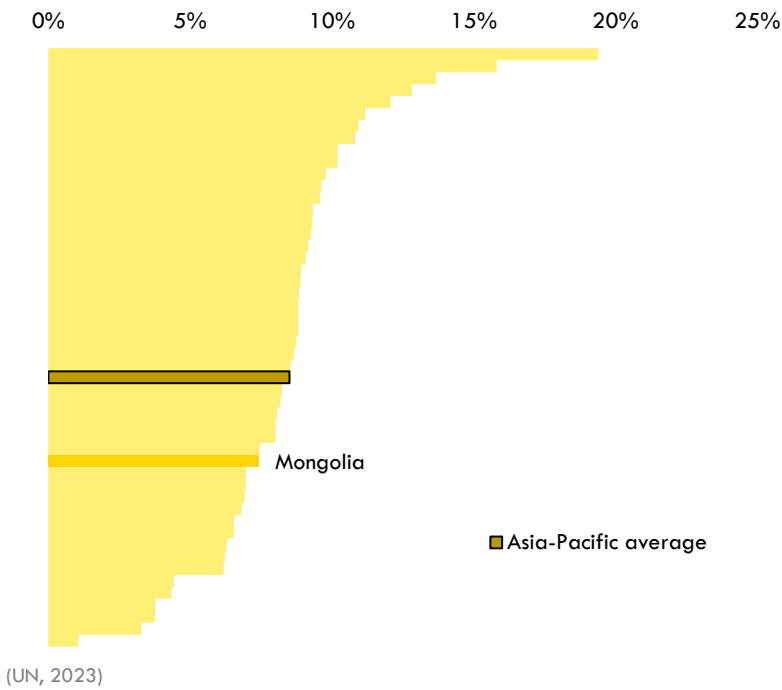
(WHO, 2023)

Goal 3 - Economic sustainability:

By 2030, realize sustainable economic and employment growth by leveraging science, technology and innovation and green investments in quality passenger and freight transport infrastructure and services in a manner that fully incorporates environmental and social impacts throughout the lifecycle of the transport infrastructure and services, (Based on SDG 8.4, SDG 9.1, 12.1 and 12.c)

Transport sector and GDP

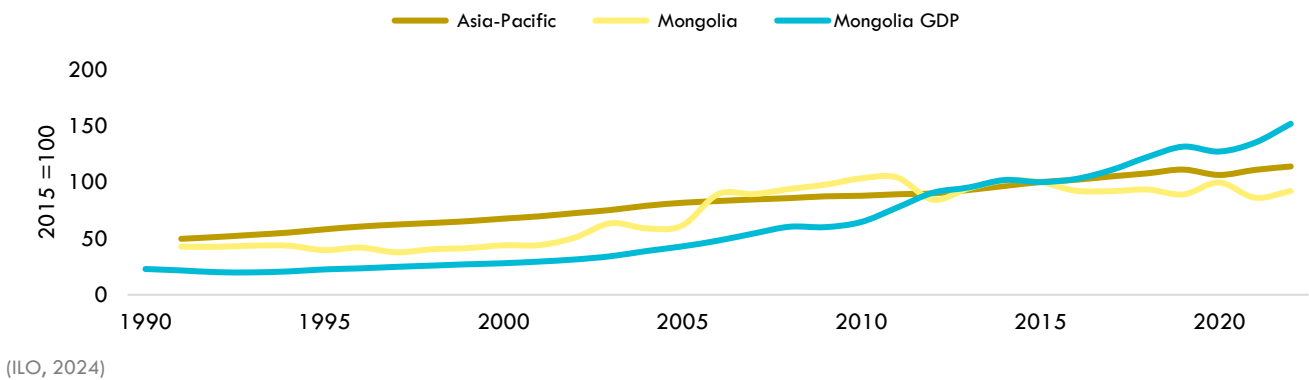
Transport as a share of GDP



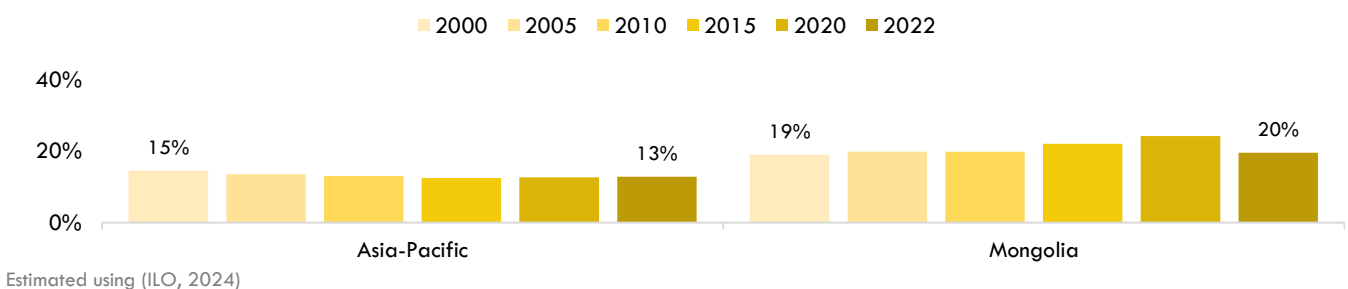
- Economic contribution: Transport sector's share in GDP and employment is declining.
- Logistics: Improvements in logistics performance and sustainability rankings.

Transport employment

Growth of transport sector employment

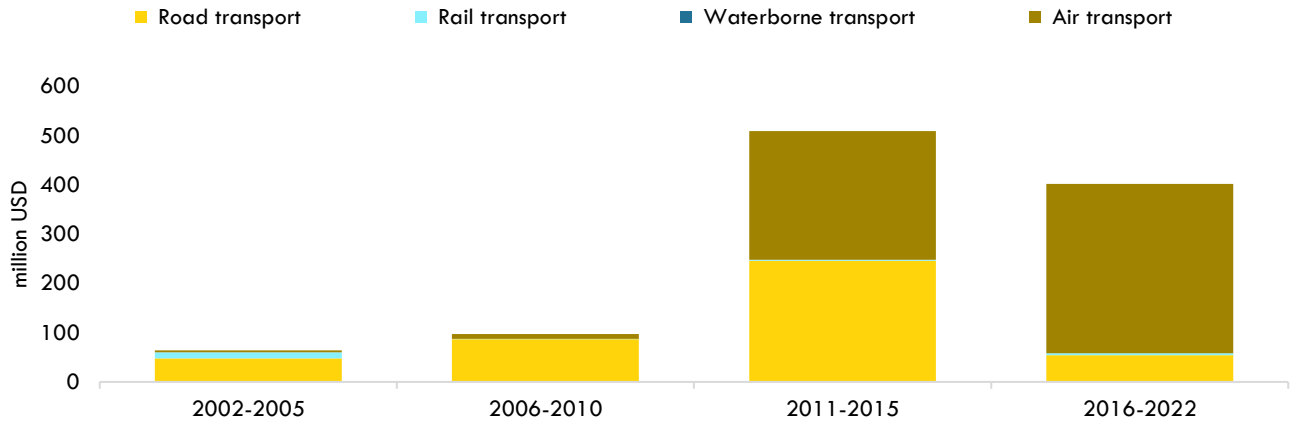


Female share in the transport employment



Transport investments

Official development assistance for Transport



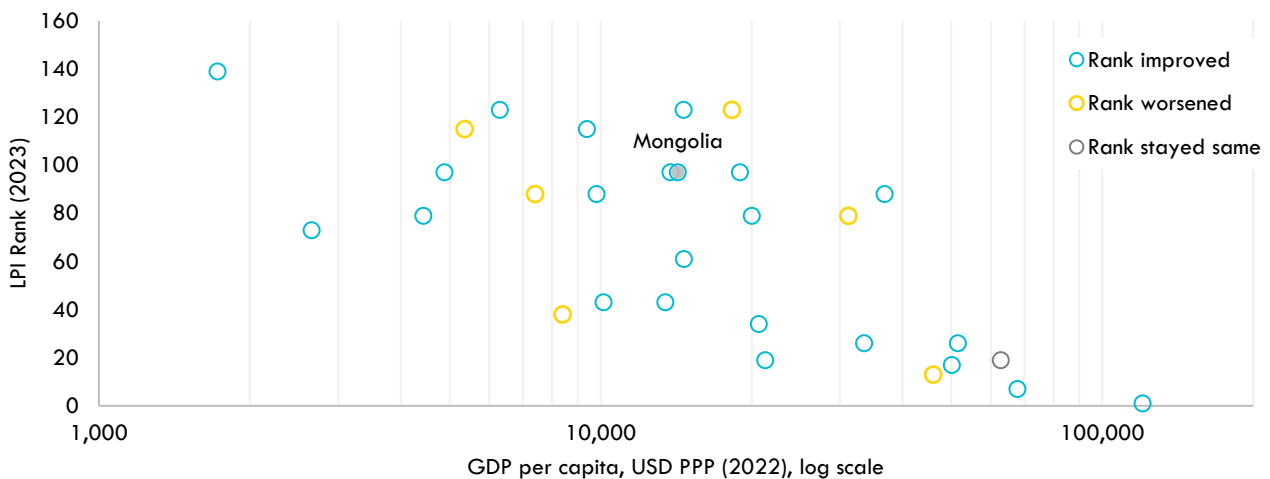
(OECD, 2022)

Public Private Partnership in Transport

(Data not available)

Freight sector

Domestic Logistics Performance Index, Rank change (2016 - 2023)



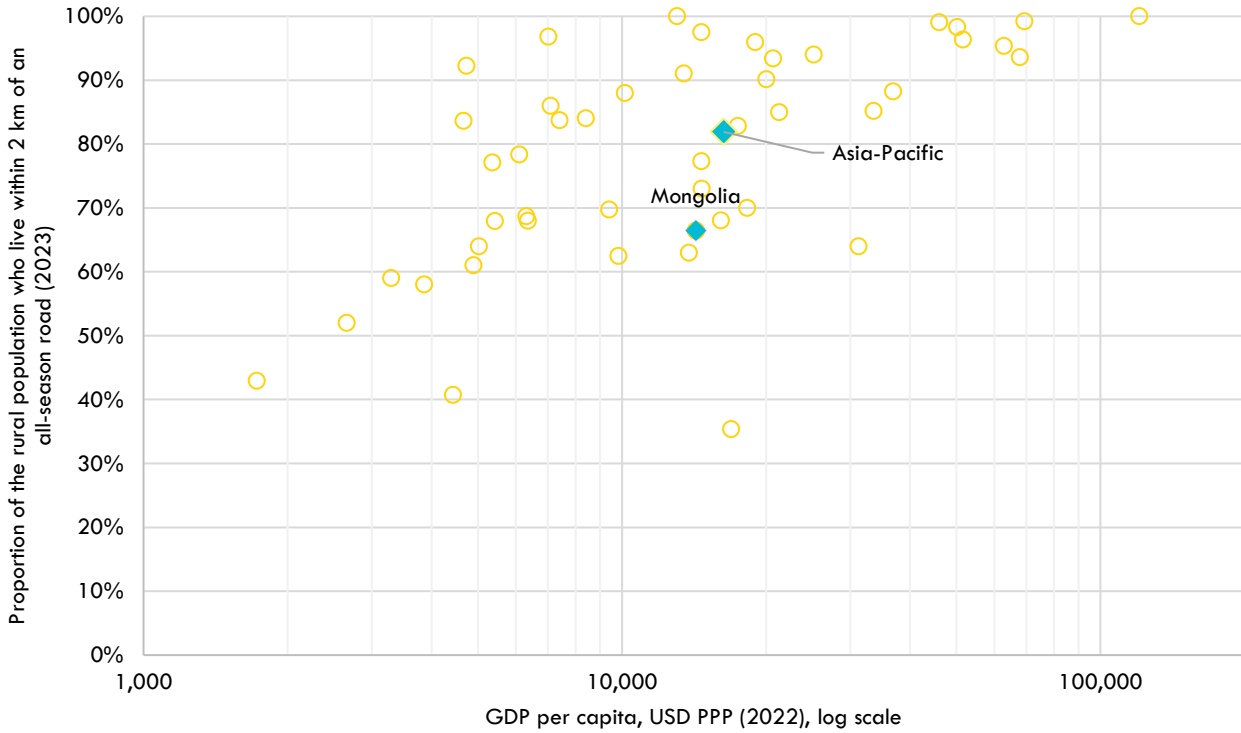
(WB, 2022)

Goal 4 - Rural access:

By 2030, realize accessible, inclusive, safe, affordable, and resilient rural transport infrastructure and services, thus facilitating improved access to markets, basic utilities and services including health and education by the farming community, and other rural population including physically disabled and vulnerable groups (Based on SDG 2 and SDG 9.1)

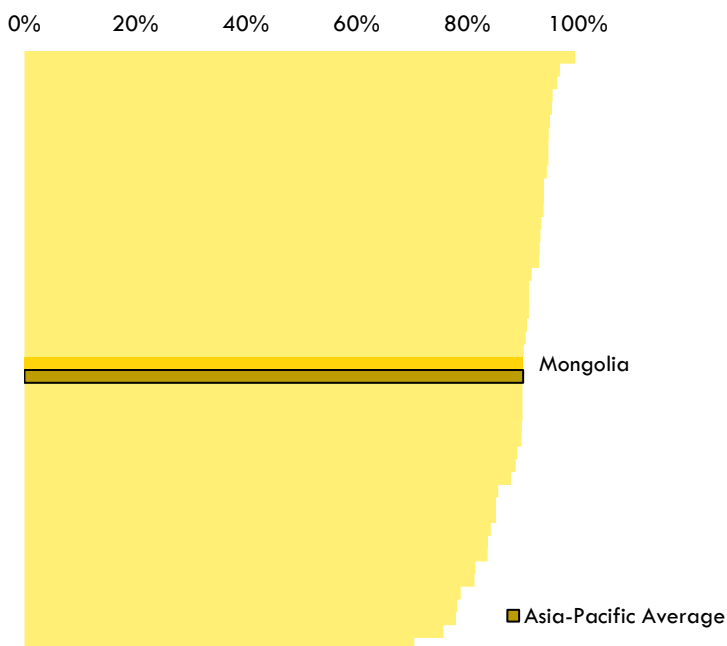
Rural access

Rural access index



(CIESIN-rural, 2023)

Share of Secondary and Tertiary roads in Total road network



(ATO and Country estimates)

- Accessibility: 66% of the rural population lives within 2km of an all-weather road, below regional and global averages.
- Challenges: An estimated 343,000 people lack decent rural access.

Goal 5 - Urban access:

By 2030, ensure access to accessible, inclusive, safe, efficient, affordable, and sustainable transport facilities, systems and services for urban dwellers, including physically disabled and vulnerable groups through the development of urban transport infrastructure and services (Based on SDG 11.2 and 11.7)

Urban rapid transit infrastructure

Rapid transit infrastructure to resident ratio (RTR)

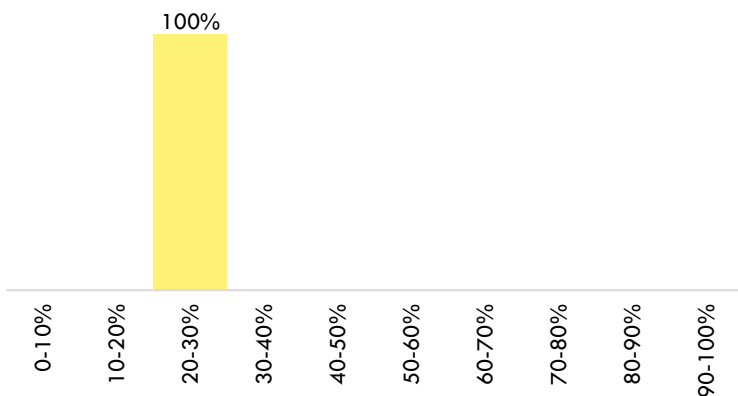
(Data not available)

Urban rapid transit infrastructure length

(Data not available)

Urban access

Share of cities by level of urban access (out of 1 cities)



(CIESIN-urban, 2023)

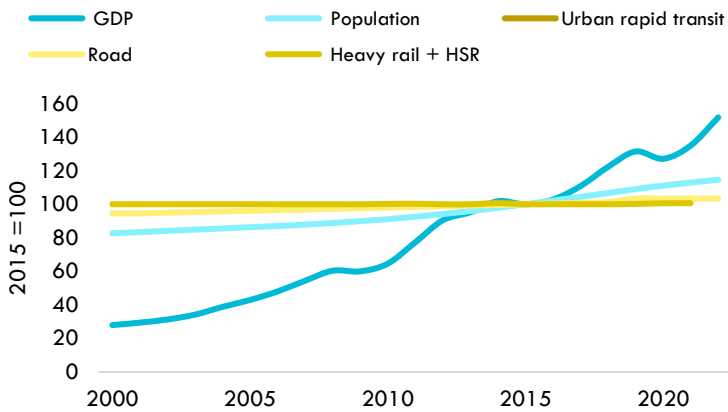
Data on urban access to public transport is limited.

Goal 6 - National access and connectivity:

By 2030, facilitate inclusive multi-modal national (including rural-urban) and regional (cross-border) connectivity through the provision of sustainable multi-modal freight and passenger transport infrastructure and services (Based on SDG 9.1)

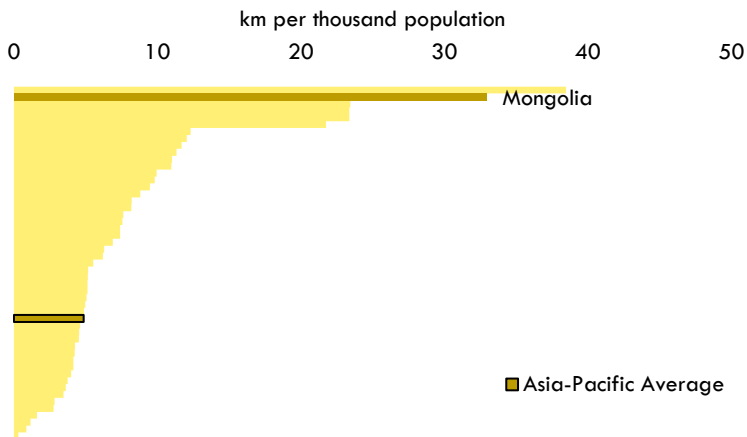
Transport infrastructure

Growth of transport infrastructure



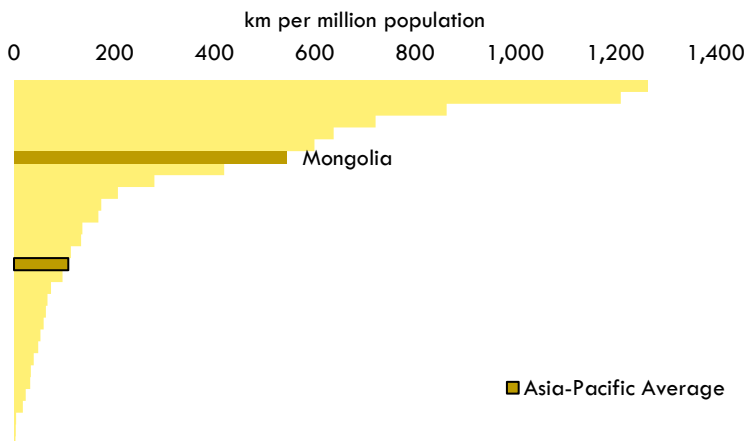
(IRF, 2024) (UIC, 2024) (ITDP, 2022) (ATO and Country estimates)

Road transport infrastructure availability (2022)



(IRF, 2024) (ATO and Country estimates)

Rail transport infrastructure (including HSR) availability (2021)

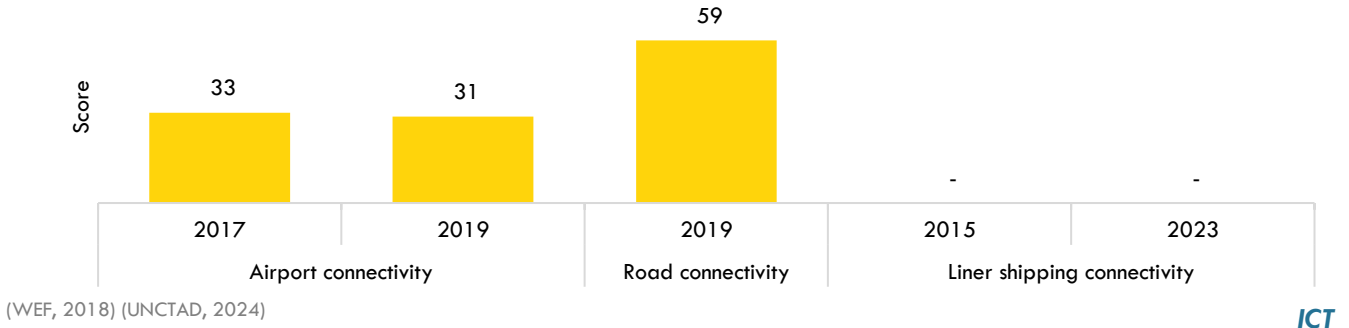


(UIC, 2024)

- Infrastructure: Road and rail infrastructure is expanding. Bus motorization has increased significantly.
- Connectivity: Airport connectivity has slightly decreased.
- Telecommunications: Strong mobile network coverage and increasing internet usage.

Transport connectivity

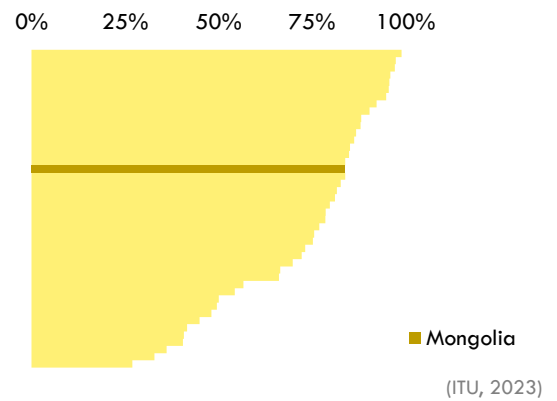
Transport connectivity



Container port traffic (TEU)

(Data not available)

Percentage of individuals using the internet (2022)



Transport Policy insights:

The insights are based on the transport policy trackers developed by the ATO. Trackers include analysis of policy measures and targets from all the transport relevant policy documents for a country published after the adoption of the Aichi 2030 Declaration, i.e. 2021.

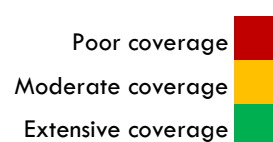
- Policy adoption: 15 policy documents adopted since 2015, with 2 published since the Aichi 2030 Declaration.
- Focus areas: Most documents focus on Low-Carbon goals, with some attention to Air Pollution, Road Safety, and National Access and Connectivity.

Transport relevant policy documents

Red - Poor coverage; Orange - Moderate coverage; Green - Extensive coverage

Doc. No.	Document Name	Year	Goal 1a	Goal 1b	Goal 1c	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6
1	Intended Nationally Determined Contribution (Updated)	2015	Green	Yellow	Green	Yellow	Red	Red	Yellow	Red
2	About Road Traffic Safety	2015	Yellow	Red	Red	Green	Red	Red	Red	Red
3	Mongolia Sustainable Development Vision 2030	2016	Green	Yellow	Green	Yellow	Red	Red	Red	Yellow
4	Mongolia's Initial Biennial Update Report	2017	Green	Yellow	Green	Yellow	Red	Red	Red	Yellow
5	National Program on Energy Saving	2017	Green	Red	Yellow	Yellow	Red	Red	Red	Yellow
6	Law on Autoroads	2017	Green	Green	Green	Green	Green	Red	Red	Green
7	Third National Communication of Mongolia	2018	Green	Red	Yellow	Yellow	Red	Red	Yellow	Yellow
8	State Policy on Automobile Sector	2018	Green	Yellow	Yellow	Yellow	Red	Red	Red	Yellow
9	Three Pillar Development Policy	2018	Green	Red	Yellow	Red	Red	Red	Red	Yellow
10	National Program on Road Safety	2019	Yellow	Yellow	Yellow	Green	Red	Red	Red	Yellow
11	Action Plan of the Government of Mongolia 2020-2024	2020	Green	Yellow	Green	Yellow	Red	Red	Red	Yellow
12	First Submission of Mongolia's NDC	2020	Yellow	Yellow	Yellow	Red	Red	Red	Red	Yellow
13	Vision 2050	2021	Green	Yellow	Yellow	Red	Red	Red	Red	Green
14	Voluntary National Review 2023	2023	Green	Red	Yellow	Yellow	Red	Red	Yellow	Green
15	Transport Strategy of Mongolia	n.d.	Green	Red	Green	Yellow	Red	Red	Red	Yellow

(ATO National policy tracker)



Transport relevant national targets

Doc. No.	Target	Year	Goal 1a	Goal 1b	Goal 1c	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6
1	Intended Nationally Determined Contribution (Updated)									
	Increase the share of private hybrid road vehicles from approximately 6.5% in 2014 to approximately 13% by 2030.	2030	x		x					
	The expected mitigation impact of these policies and measures will be a 14% reduction in total national GHG emissions excluding Land use, land use change and forestry (LULUCF) by 2030, compared to the projected emissions under a business as usual scenario.	2030	x		x					
3	Mongolia Sustainable Development Vision 2030									
	Meet up to 100 percent of the national demand for main fuels from domestic production meeting the Euro-5 standards	2030	x		x					
4	Mongolia's Initial Biennial Update Report									
	The new Law on Energy and Renewable energy target is to increase the share of renewable energy in total primary energy sources up to 20% by 2020, 25% by 2025 and 30% by 2030.	2025	x		x					
	The new Law on Energy and Renewable energy target is to increase the share of renewable energy in total primary energy sources up to 20% by 2020, 25% by 2025 and 30% by 2030.	2030	x		x					
	The expected mitigation impact of these policies and measures will be a 14% reduction in total national GHG emissions excluding Land use, land-use change and forestry (LULUCF) by 2030, compared to the projected emissions under a business as usual scenario.	2030	x		x					
	Increase share of public transportation 13% by 2030	2030	x		x	x				
	Safely Connected: A Regional Road Safety Strategy for CAREC Countries, 2017–2030									
	the overall target of the CAREC road safety strategy would be to reduce the number of fatalities on CAREC road corridors by 50% in 2030 as compared with the 2010 base level	2030				x				
8	State Policy on Automobile Sector									
	□ Cargo terminal = 21	2026	x		x					x
	Infrastructure Quality in Global Competitiveness Indicators = 74	2026	x		x	x				x
	□ Logistics center = 6	2026	x		x					x
	Passenger service bus station = 23	2026	x		x	x				x
	National paved road = 7500 km	2026	x							x
	Safe Driving Center = 2	2026				x				
	□ Number of people killed in traffic accidents per 100,000 = 7.4	2026				x				
	□ Number of people injured in traffic accidents per 100,000 = 324	2026				x				
	Increase in freight turnover carried out by road transport = 20.9 Increase in passenger turnover by road transport = 17.5	2026	x		x	x				
	□ Share of eco-vehicles in total vehicles = 30	2026	x							
	□ Technical inspection center = 40	2026	x		x	x				
7	Third National Communication of Mongolia									

	Increase the share of private hybrid road vehicles from approximately 6.5% in 2014 to approximately 13% by 2030.	2030	x		x					
10	National Program on Road Safety									
	reduce the number of road and transport accidents by 50 percent;	2023				x				
	50 percent reduction of social risks caused by road and transport accidents;	2023				x				
11	Action Plan of the Government of Mongolia 2020-2024									
	Reduce the dust by 50% by building sidewalk, bicycle paths, children's playground and green areas in accordance with international standards.	NA				x				
12	First Submission of Mongolia's NDC									
	The mitigation target of Mongolia's NDC will be a 22.7% reduction in total national greenhouse gas (GHG) emissions by 2030. In addition, if conditional mitigation measures such as the carbon capture and storage and waste-to-energy technology are implemented, then Mongolia could achieve a 27.2% reduction in total national GHG emissions.	2030	x			x				
	1,048.8 Gg CO ₂ e with measures	2030	x							
13	Vision 2050									
	Number of airports with state ranking = 4	2025	x			x				x
	Number of airports with state ranking = 7	2030	x			x				x
	Number of airports with state ranking = 9	2050	x			x				x
	Number of new regional transport and logistic centers = 4	2025	x			x				x
	Number of new regional transport and logistic centers = 7	2030	x			x				x
	Number of new regional transport and logistic centers = 11	2050	x			x				x
	The length of newly built railroads = 1174	2025	x	x		x				x
	The length of newly built railroads = 1960	2030	x	x		x				x
	The length of newly built railroads = 4838	2050	x	x		x				x
	The length of new national roads to be built = 6616	2025	x							x
	The length of new national roads to be built = 8055	2030	x							x
	The length of new national roads to be built = 8831	2050	x							x

(ATO National policy tracker)

Transport relevant sample projects:

A sample list of projects by the MDB highlights their focus with respect to the Aichi 2030 Declaration Goals.

Transport relevant projects

Year	Project name	Amount (million USD)	Goal 1a	Goal 1b	Goal 1c	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6
2022	Ulaanbaatar Sustainable Urban Transport Project Additional Financing	3	x	x	x	x	x		x	x
2021	Improvement of Urban Mobility in Ulaanbaatar	1	x	x	x	x	x		x	
2021	Ulaanbaatar Sustainable Urban Transport Project	100	x	x	x	x	x		x	
2021	Ulaanbaatar Traffic Management Improvement	7	x	x	x		x		x	
2023	Regional Road Development and Maintenance Project (Phase 3)	150		x			x	x		
2021	Project Readiness Enhancement Project	20		x			x	x		
2022	Mongolia Transport Connectivity and Logistics improvement project	110		x	x		x			
2021	Preparing the Regional Road Development and Maintenance Phase 3 Project	3		x			x			

(MDB Projects database)

References:

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