

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

Maldives



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Suggested Citation: Asian Transport Outlook (ATO). (2024). Aichi 2030 Declaration on Environmentally Sustainable Transport (EST): Country Profile (Maldives), <https://asiantransportoutlook.com/analytical-outputs/countryprofiles/>

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

2024

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Maldives, a country in the South Asia region, having Upper middle income status, was recorded to have a national population of about 518 thousand in the year 2024.

The urban population share in total is about 42%. The age wise distribution of the national population accounts for 27% and 9% of <18 years old (minors) and >60 years old (seniors) population, respectively. The GDP per capita (PPP) for the year 2022 was 25,125 USD.

The motorisation rate of the road transport vehicles for the year 2022, for all vehicles combined, stood at 239 vehicles per thousand population. Similarly, the rate for 2&3 wheelers, LDV, freight vehicles and buses were 212, 23, 4, and 3 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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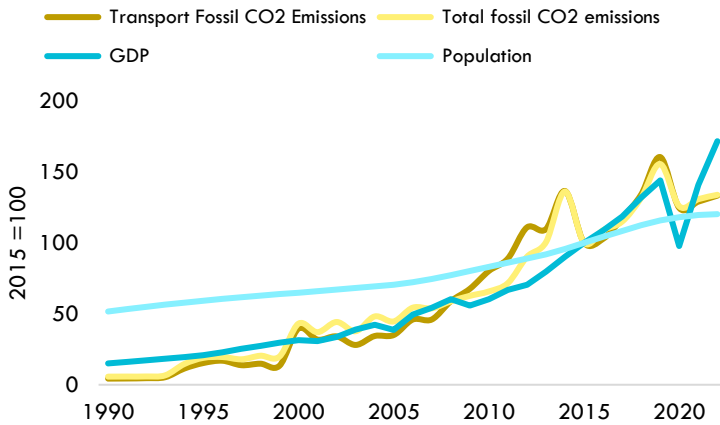
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Goal 1a – Low-Carbon (climate change mitigation):

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)



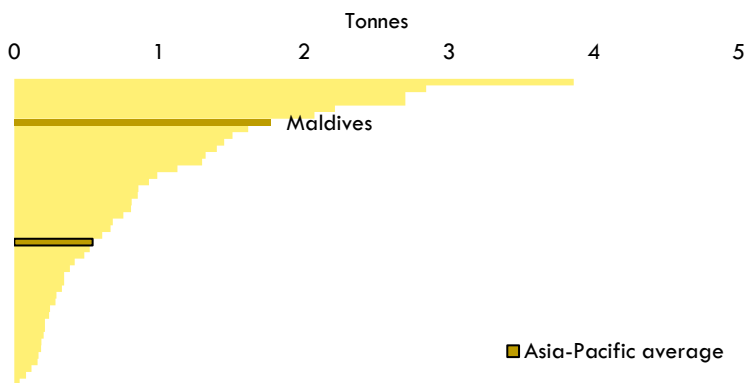
(EDGAR, 2023)

- **Motorization:** The motorization rate is 239 vehicles per 1,000 people (2022), dominated by 2&3 wheelers.

- **Emissions:** Transport fossil CO2 emissions per capita are high at 1.8 tonnes (2022), significantly above the Asia-Pacific average of 0.5. Emissions intensity is also high at 70.4 (2022), compared to the regional average of 33.2.

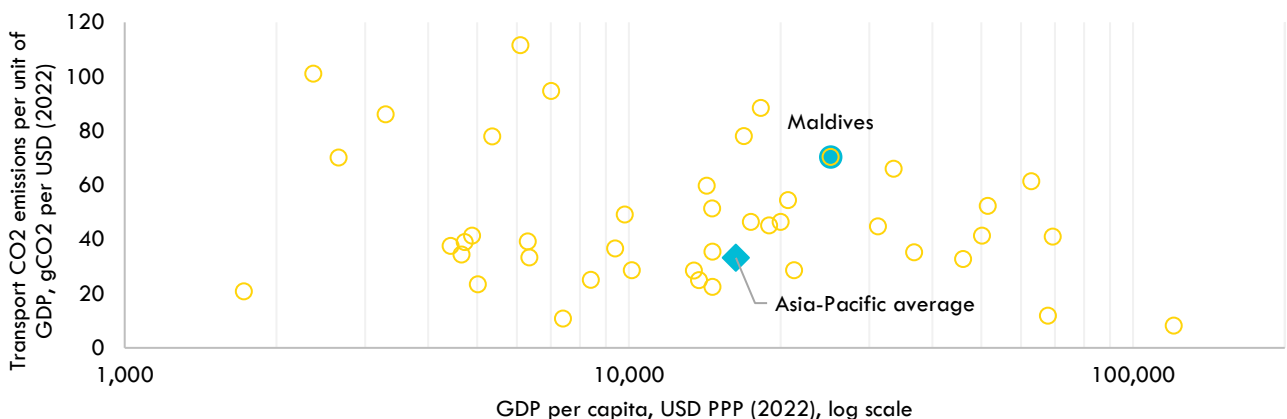
- **Energy:** Transport energy consumption is low at 0.02 EJ (2021). Road transport accounts for most of transport CO2 emissions (86%).

Transport fossil CO2 emissions per capita (2022)



(EDGAR, 2023)

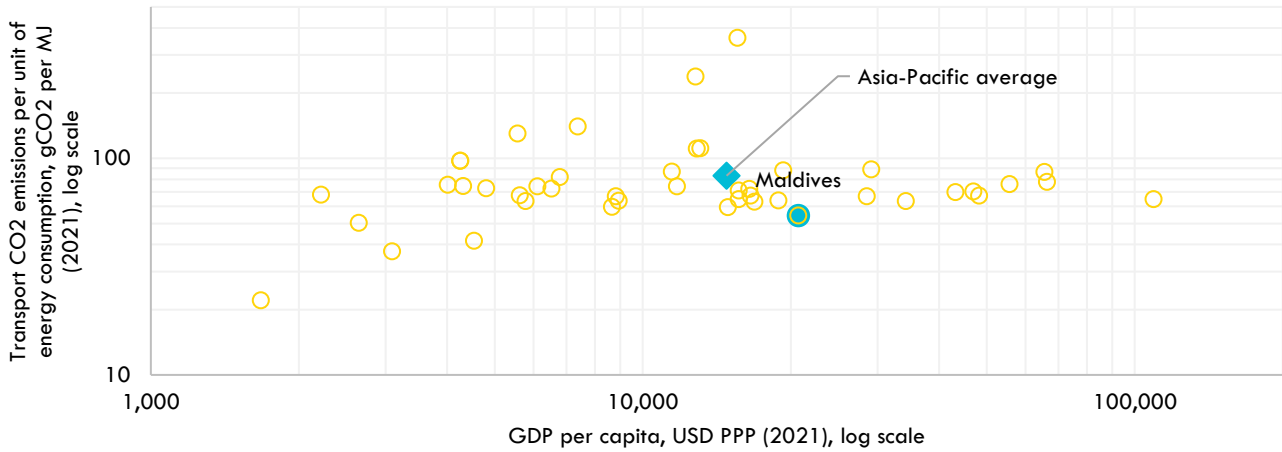
Transport CO2 emissions per unit of GDP (2022)



(EDGAR, 2023)

Transport energy consumption

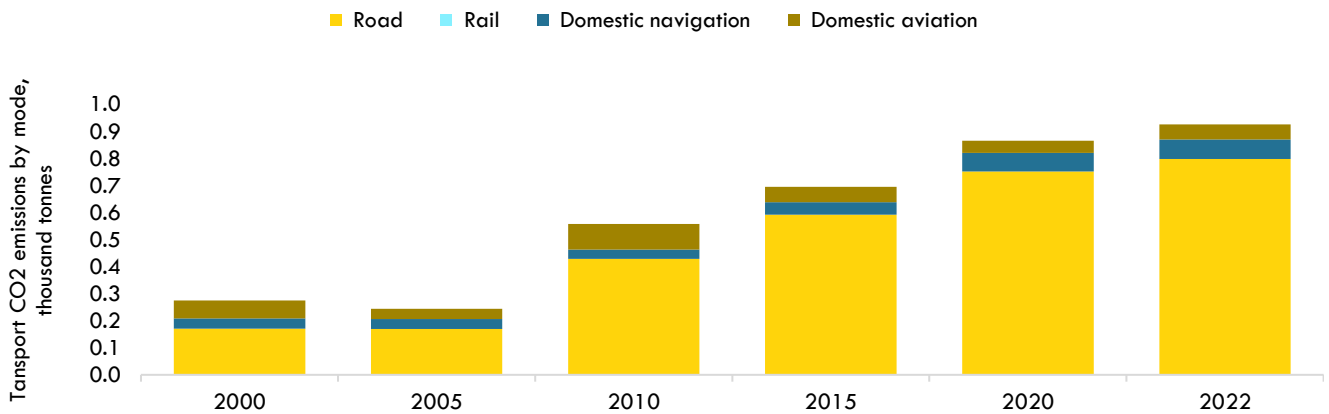
Transport CO₂ emissions per unit of energy consumption and GDP per capita (2021)



(EDGAR, 2023)

Transport CO₂ emissions (fossil) and energy consumption modeshare

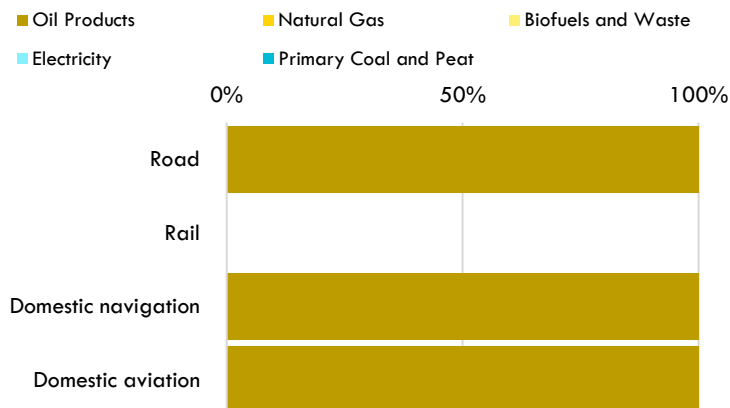
Growth of transport CO₂ emissions by mode



(EDGAR, 2023)

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

Share of transport in renewable energy consumption:



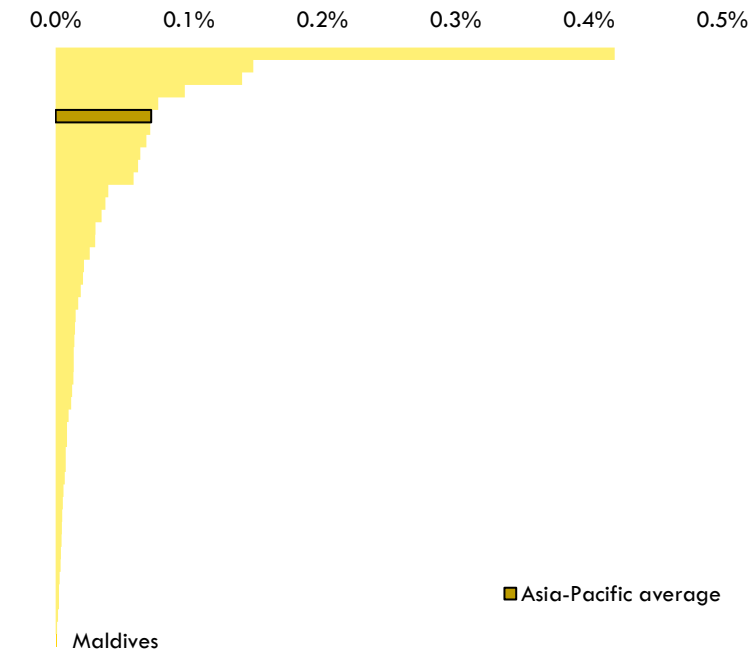
(EDGAR, 2023)

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)



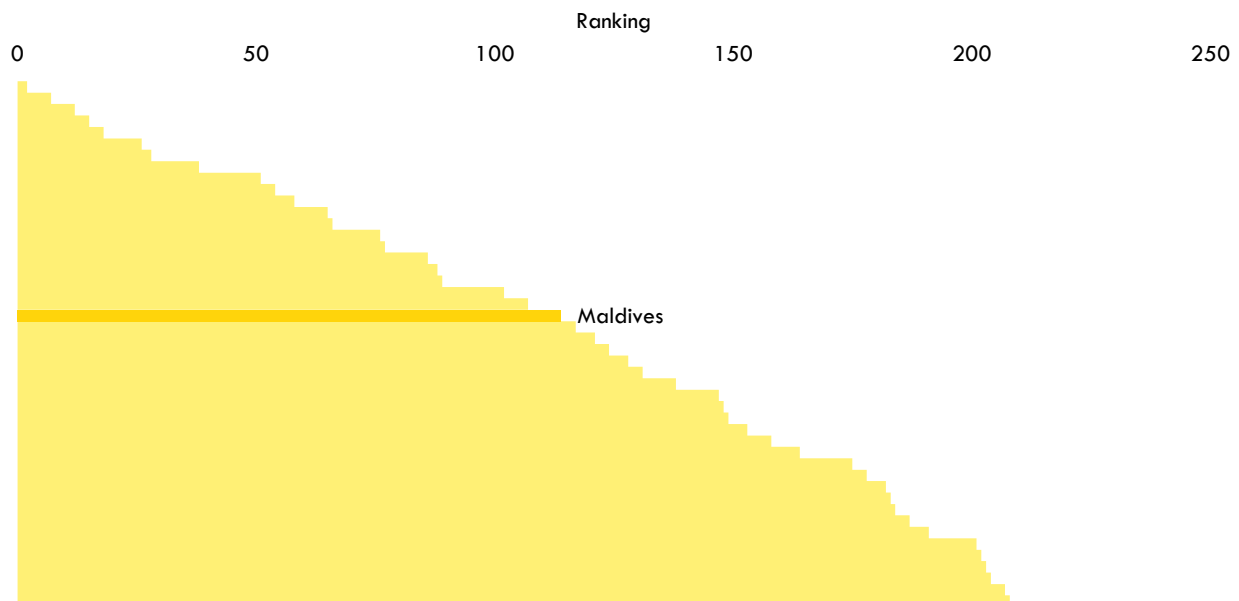
(CDRI, 2023)

- **Vulnerability:** Maldives is highly vulnerable to climate change, with 100% of its population living in low-elevation coastal zones.
- **Infrastructure:** The transport infrastructure is susceptible to hazards, with airports being the most affected. The country ranks 114th globally in terms of national road vulnerability.

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)



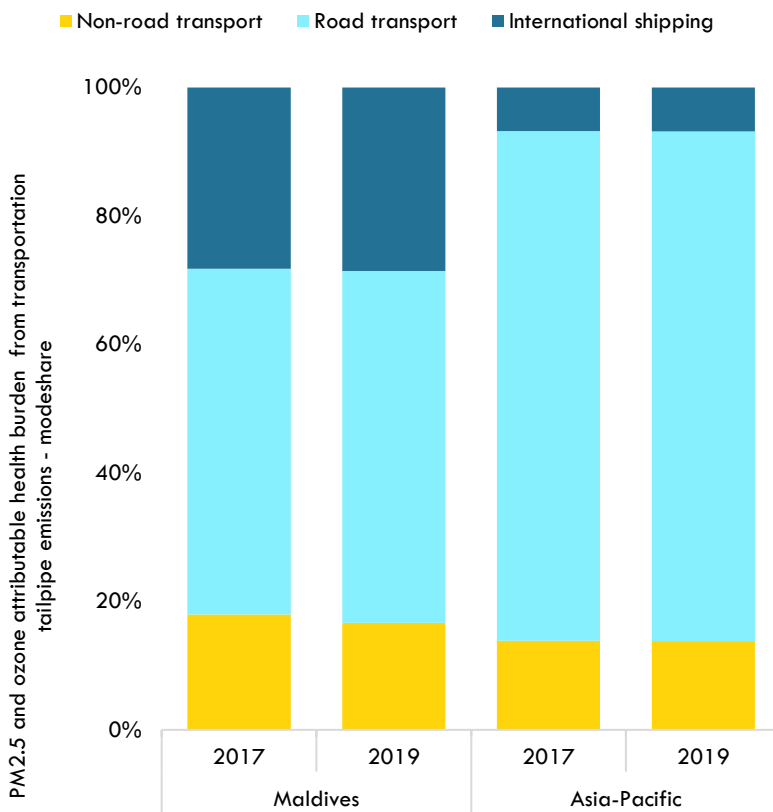
(Koks, et al., 2023)

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)

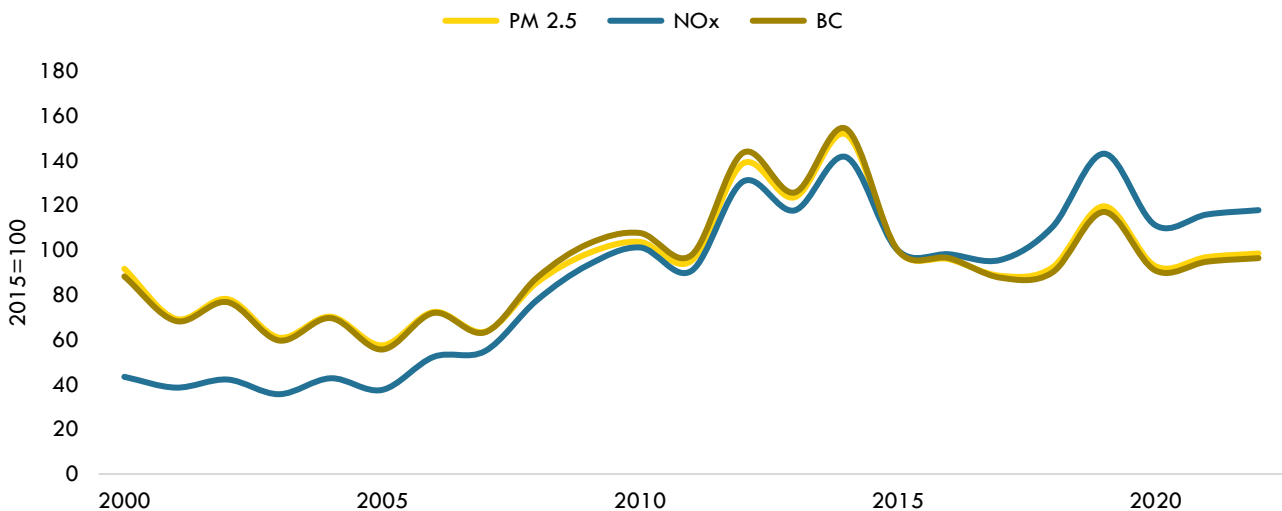


- Emissions: Road transport air pollutant emissions have remained relatively stable despite GDP growth.
- Health impacts: Estimated deaths from PM2.5 and ozone pollution from transport are low but significant.
- In Maldives, the total attributable deaths due to the PM2.5 and ozone air pollution from the transport sector stayed at about 4 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



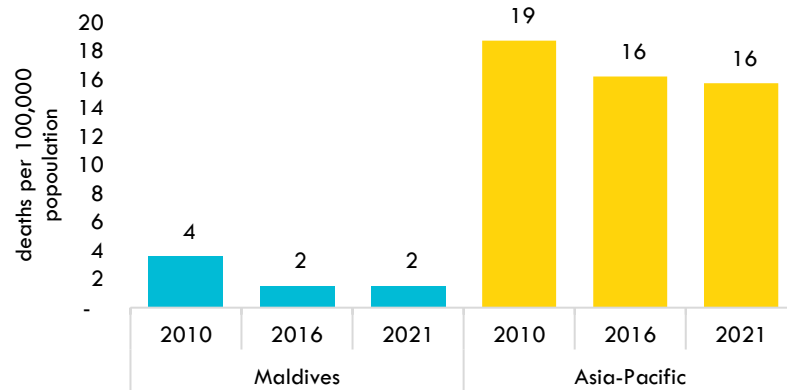
(EDGAR, 2023)

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)

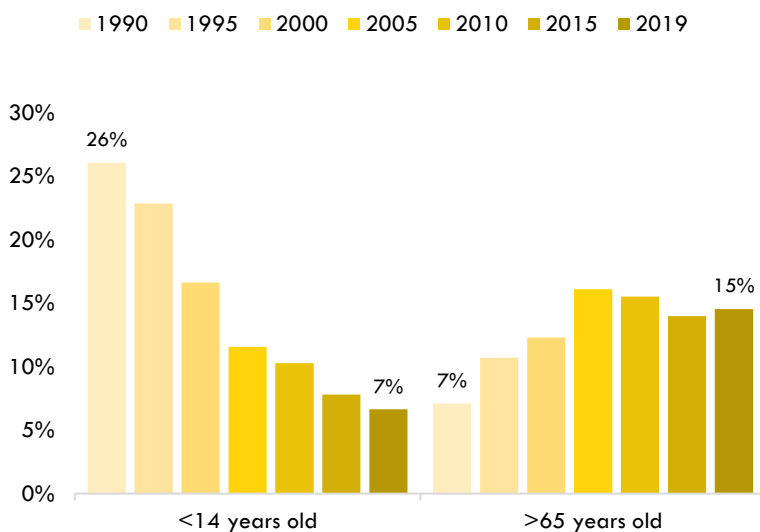
Road traffic crash fatalities (absolute values)

(Data not available)

- **Fatalities:** Road traffic fatalities are low compared to the regional average.
- **Vulnerable groups:** The share of minors and seniors in road fatalities is concerning.
- **Infrastructure:** Road infrastructure for pedestrians and cyclists is relatively good compared to the regional average.

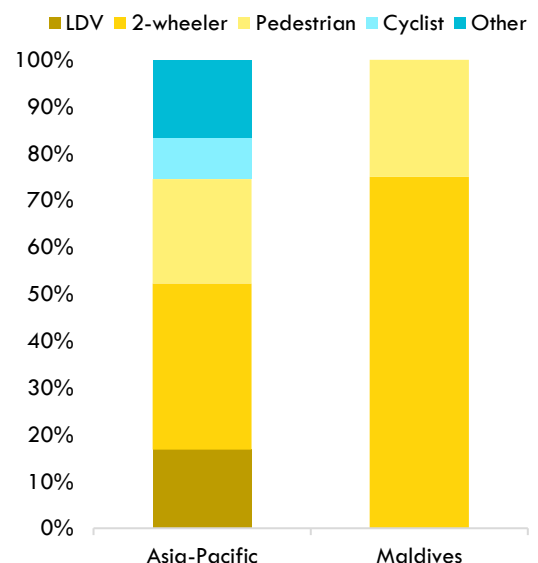
Share of vulnerable groups

Share of road crash fatalities by age



(GBD, 2021)

Share of road crash fatalities by mode



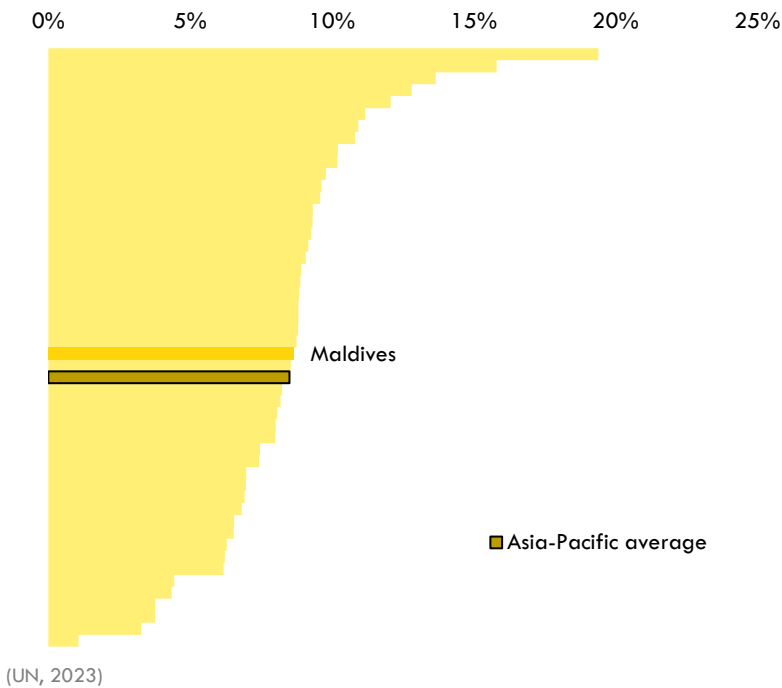
(WHO, 2023)

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

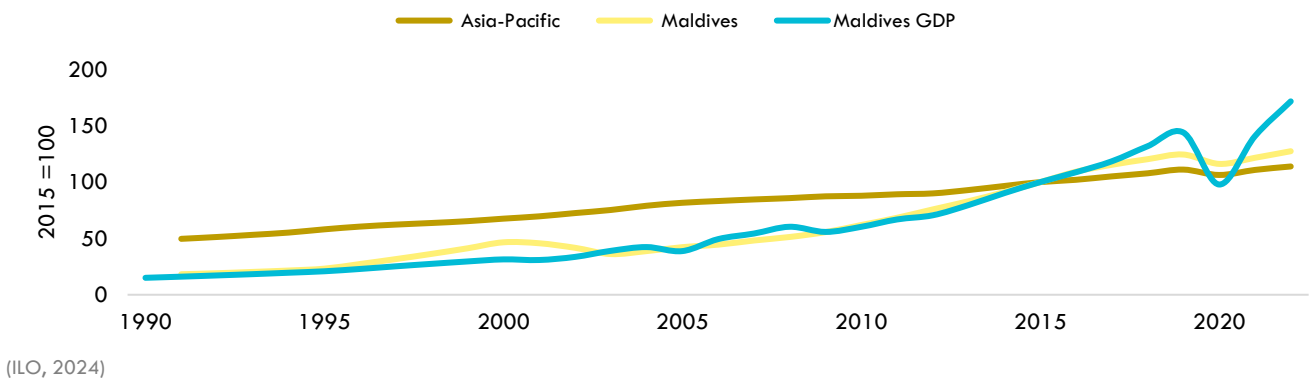
Transport as a share of GDP



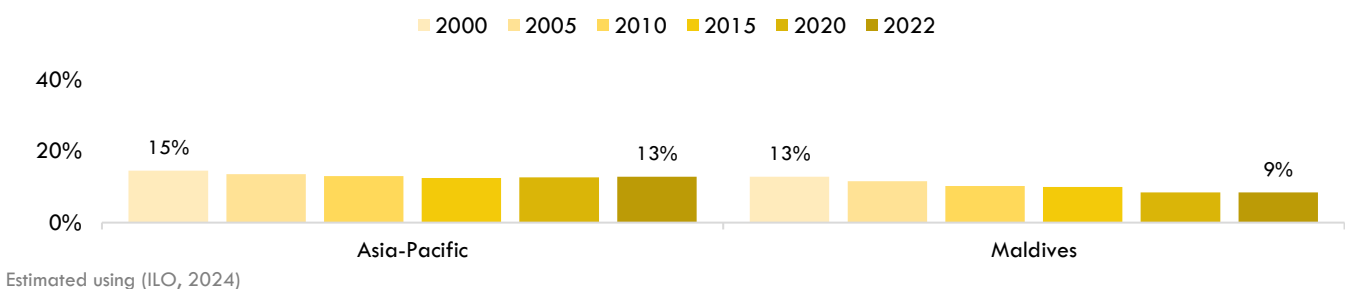
- Economic contribution: The transport sector's contribution to GDP has decreased slightly.
- Investment and employment: Transport employment growth is below the regional average.
- Logistics: Maldives has shown improvement in logistics performance but ranks low in sustainable freight.

Transport employment

Growth of transport sector employment

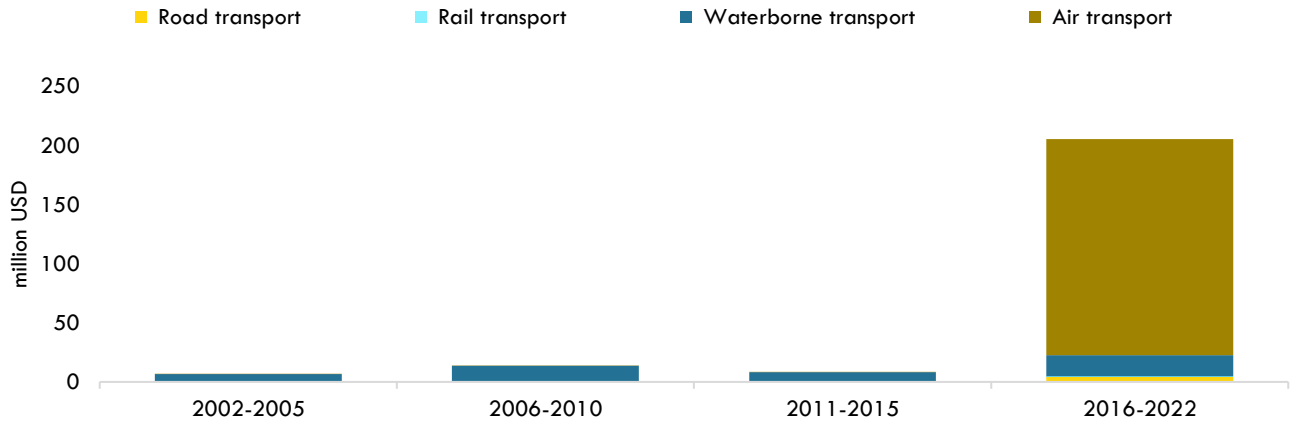


Female share in the transport employment



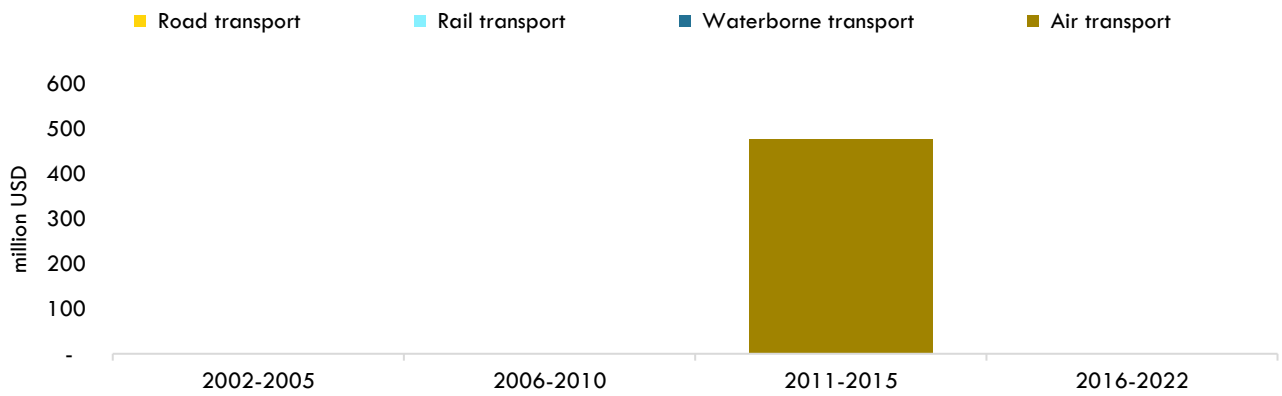
Transport investments

Official development assistance for Transport



(OECD, 2022)

Public Private Partnership in Transport



(WB, 2023)

Freight sector

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

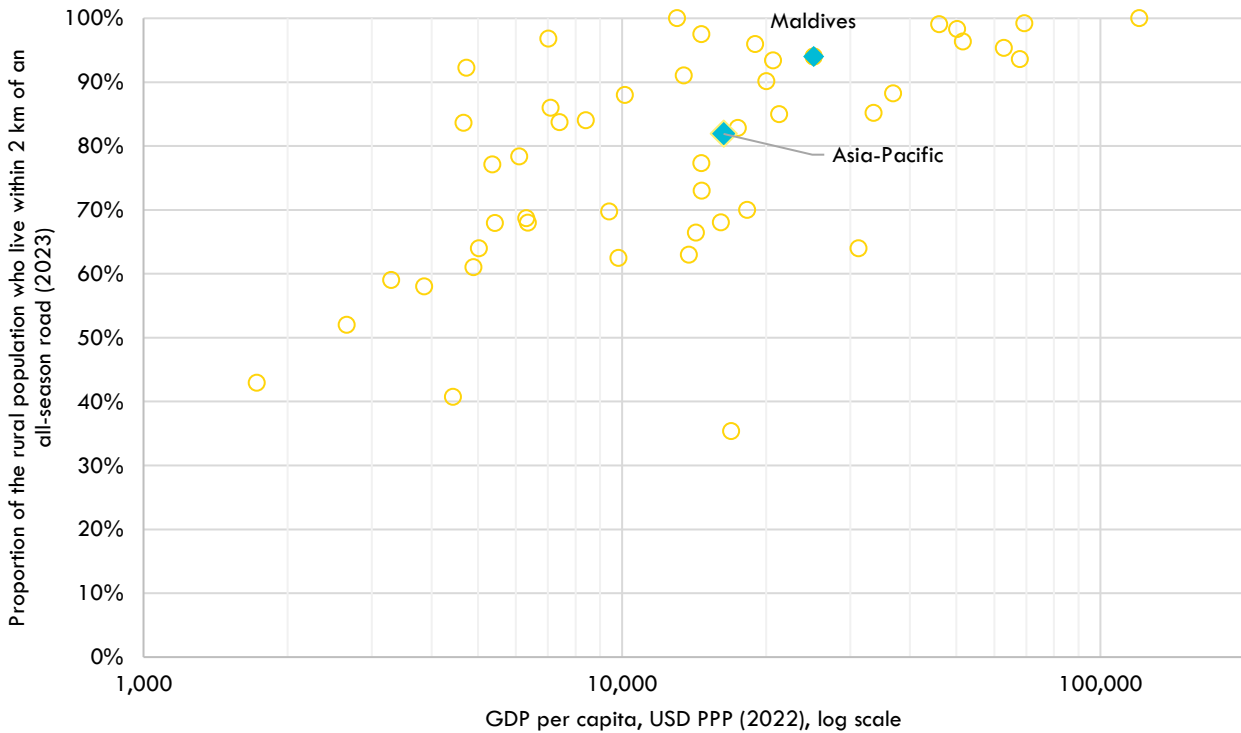
(Data not available)

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)

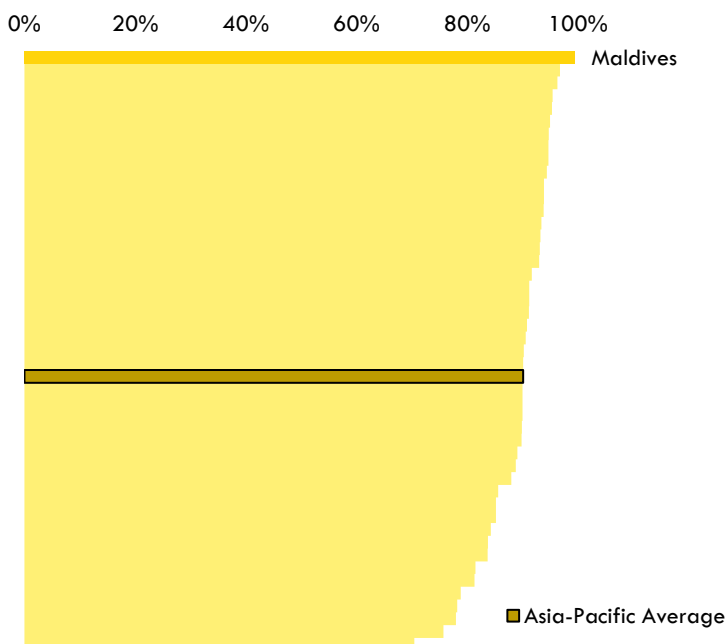
Rural access

Rural access index



(CIESIN-rural, 2023)

Share of Secondary and Tertiary roads in Total road network



(ATO and Country estimates)

- Accessibility: Rural access to all-weather roads is high compared to regional and global averages.

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)

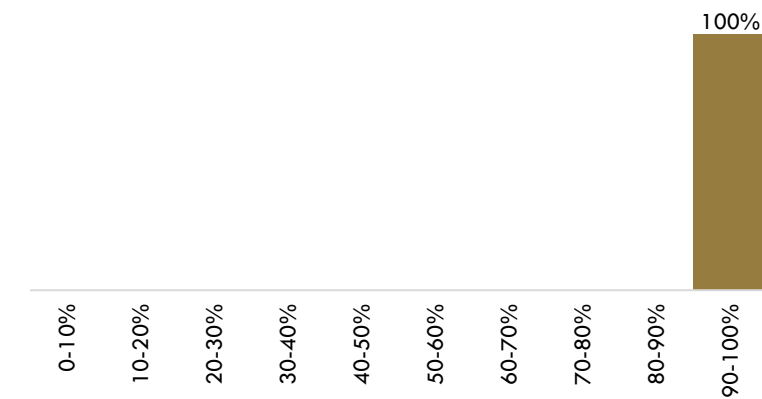
(Data not available)

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)

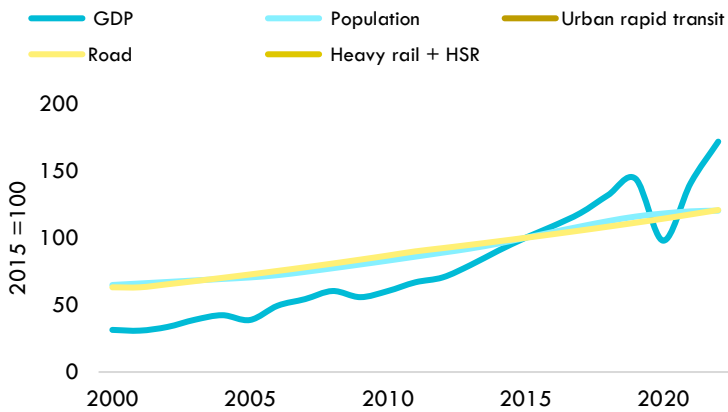
• Public transport: Data on urban access to public transport is limited.

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)

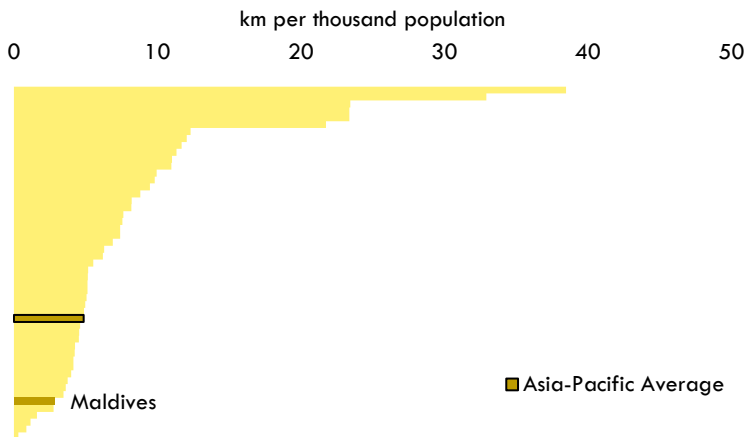
Transport infrastructure

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)

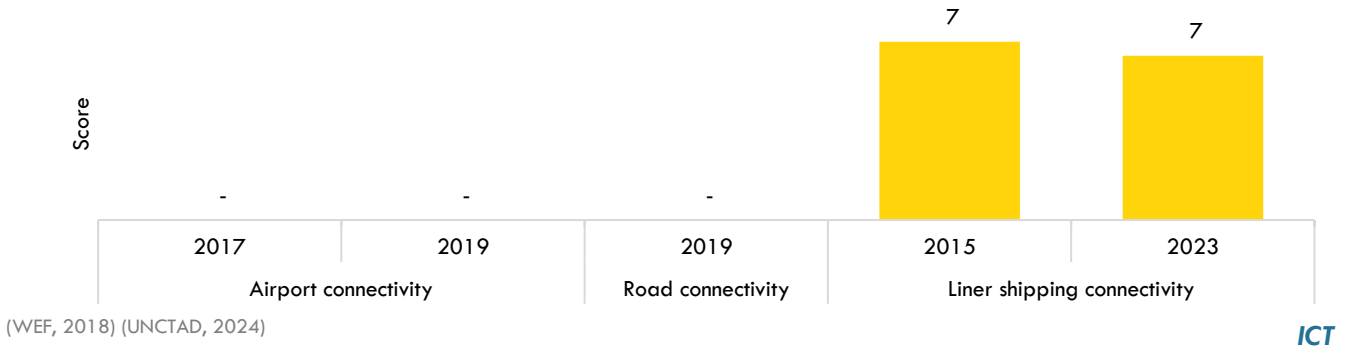
Rail transport infrastructure (including HSR) availability (2021)

(Data not available)

- Infrastructure: Road infrastructure is limited, and there is no heavy rail network.
- Connectivity: Liner shipping connectivity is stable. Telecommunication infrastructure is well-developed, with high internet usage.

Transport connectivity

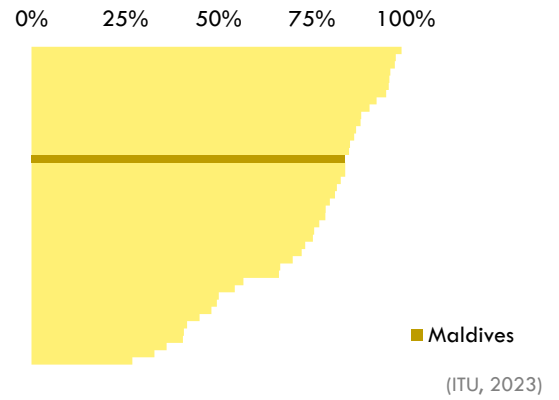
Transport connectivity



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.

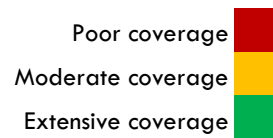
- Policy adoption: Policy focus has been on low-carbon transport and air pollution, with limited attention to other goals.
- Aichi 2030 Declaration: No policy documents have been published since the adoption of the Aichi 2030 Declaration.

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	Maldives Climate Change Policy Framework	2015	Green	Red	Green	Red	Red	Red	Red	Green
2	First NDC	2016	Yellow	Yellow	Yellow	Red	Red	Red	Red	Green
3	National Communication (NC). NC 2.	2016	Green	Red	Green	Yellow	Red	Red	Red	Yellow
4	Maldives National Energy Policy and Strategy	2016	Green	Red	Yellow	Red	Red	Red	Red	Red
5	Strategic Action Plan 19-23	2019	Green	Yellow	Yellow	Yellow	Red	Red	Red	Yellow
6	National Action Plan on Air Pollutants	2019	Green	Yellow	Green	Yellow	Red	Red	Red	Red
7	National road safety action plan 2019 –2023	2019	Yellow	Red	Yellow	Green	Red	Red	Red	Yellow
8	Biennial update report (BUR). BUR 1	2019	Yellow	Red	Yellow	Yellow	Red	Red	Red	Yellow
9	National Development Plan (ppt)	2019	Green	Yellow	Green	Yellow	Red	Red	Red	Green
10	Update of Nationally Determined Contribution of Maldives	2020	Yellow	Yellow	Yellow	Yellow	Red	Red	Red	Yellow
11	Flight Plan 2020-2025	2020	Green	Yellow	Green	Red	Red	Red	Red	Green

(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
4	Maldives National Energy Policy and Strategy									
	By 2030, increase substantially the share of renewable energy in the global energy mix	2030	x		x					
	Economy-wide: BY 2030, double the global rate of improvement in energy efficiency	2030	x							
6	National Action Plan on Air Pollutants									
	Bioethanol 15% blend in all gasoline Biodiesel 20% blend in diesel	2025	x		x					
5	Strategic Action Plan 19-23									
	By 2023, at least 60% of the population in the Greater Male' Region utilise public transport services on a regular basis	2023	x		x	x				x
	By 2023, at least 60% of maritime incidents are reduced compared to 2018 levels By 2023, 90% of the resident population have access to air connectivity within a 30-minute radius by speed boat	2023	x		x					x
	By 2023, vehicle congestion in Greater Male' Region is reduced by 30% compared to 2018 levels	2023	x		x	x			x	

(ATO National policy tracker)

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GDP data is sourced from (WB, 2022) and Population data from (UN, 2022)	