

Maldives

Transport Climate Profile

Population (2024)
517.9 thousand

Urban population
42%

Below 18 y.o.
27%

Population density
1,737 persons per sqkm

Rural population
58%

Above 60 y.o.
9%

Subregion
(1) **South Asia**

Gross domestic product
(1) (GDP PPP, 2022)
13.16 billion USD

(1) Domestic consumption per capita, tonnes (2024)
17.8 tonnes

(1,2) *Domestic consumption is the total amount of materials directly used in the economy (used domestic extraction plus imports), minus the materials that are exported.*

Income class
Upper middle income

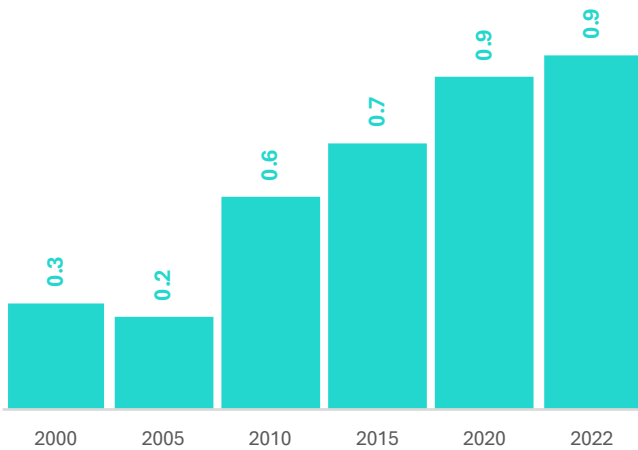
GDP per capita (PPP, 2022)
25,125 USD (1,2)

(2)

(3)

Transport and Climate Change

Transport fossil CO2 emissions, million tonnes



(4)

In 2010, transport contributed 52.0% of total fossil CO2 emissions. By 2022, transport contributed 42.5%.

Share of transport CO2 emissions by mode (2022)

| Road **86.1%** | Rail **0.0%** (4)

| Navigation **7.9%** | Aviation **6.0%** (4)

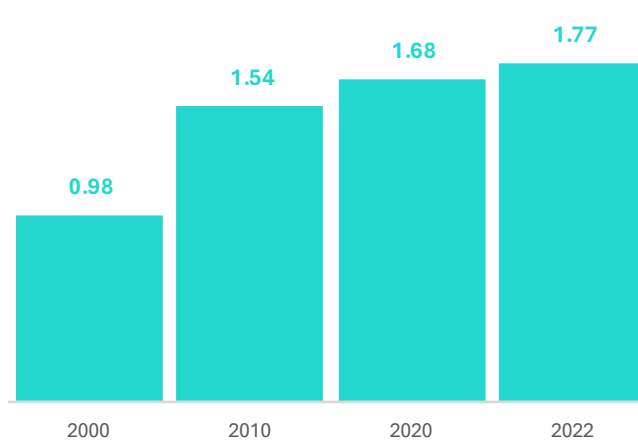
Navigation and aviation only includes domestic transportation

Between 2000-2015, road transport contributed 76.1% in transport fossil CO2 emissions. Between 2016-2022, road transport contributed 84.7%.

Transport CO2 emissions intensity with GDP, 2022
70.4 gCO2 per USD

Asia-Pacific average is 33.2 gCO2 per USD

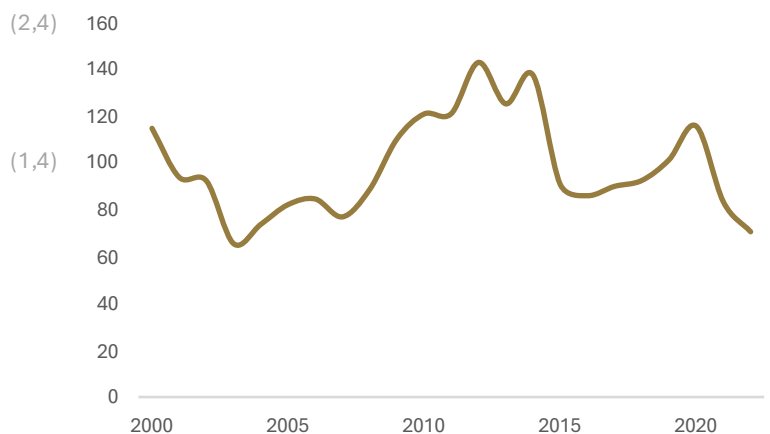
Transport fossil CO2 emissions per capita, tonnes



(2,4)

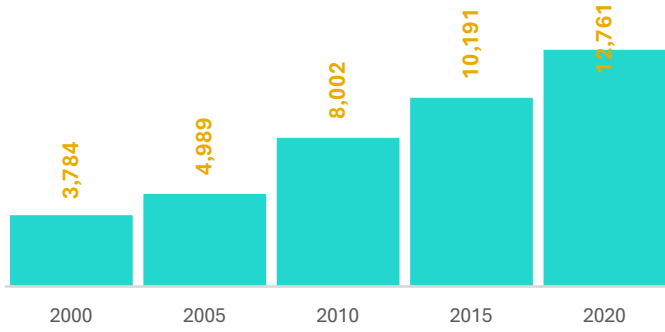
Transport CO2 emissions intensity with GDP trend, gCO2 per USD

(2,4)



(1,4)

Transport energy consumption, terajoules

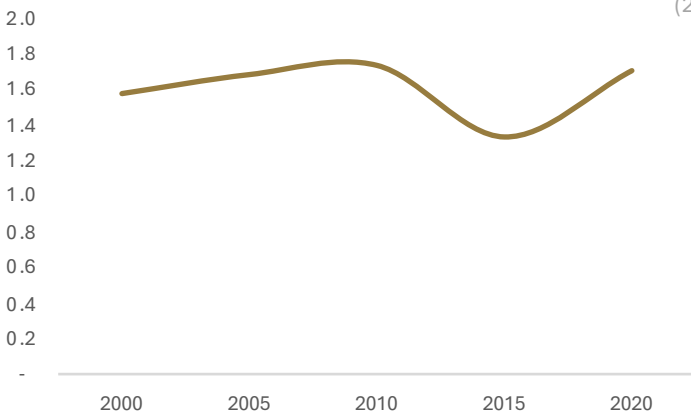


Transport energy intensity with GDP, 2020

1.7 MJ per USD

Asia-Pacific average is 0.5 MJ per USD

Transport energy intensity with GDP trend, MJ per USD

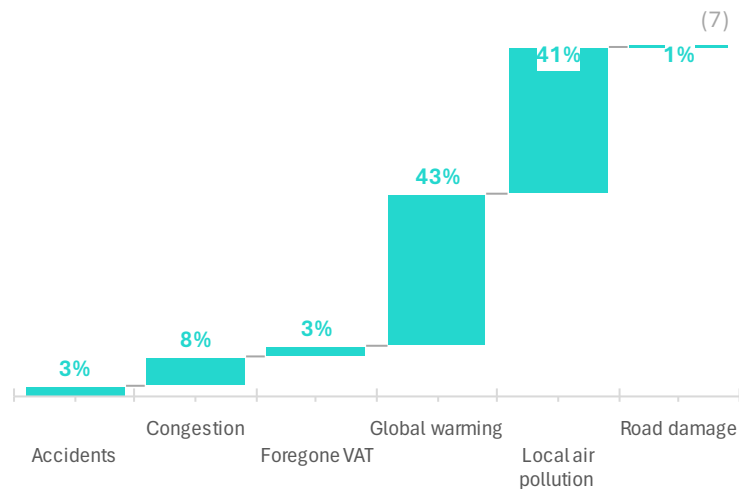


Transport fossil fuel subsidies, cumulative from 2010 to 2022

None

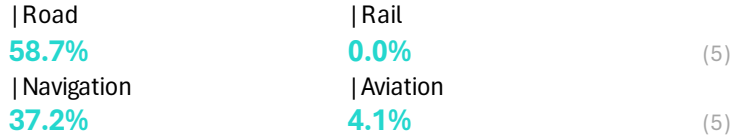
0.0% of Asia-Pacific total

Implicit fossil fuel subsidies due to externalities



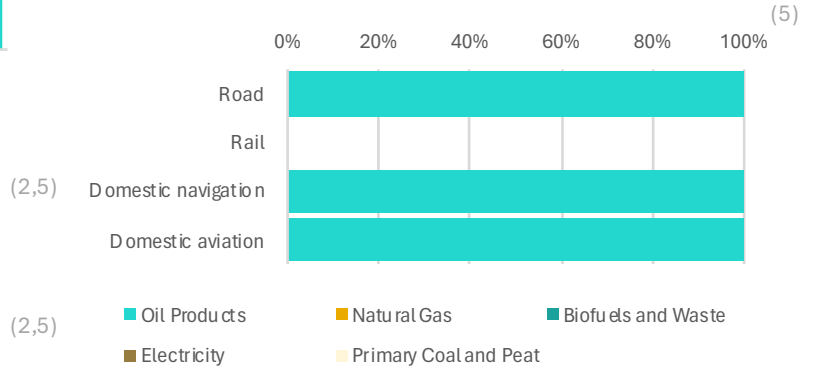
Data includes all sectors and all fuel types

Share of transport energy consumption by mode (2020)



Navigation and aviation only includes domestic transportation

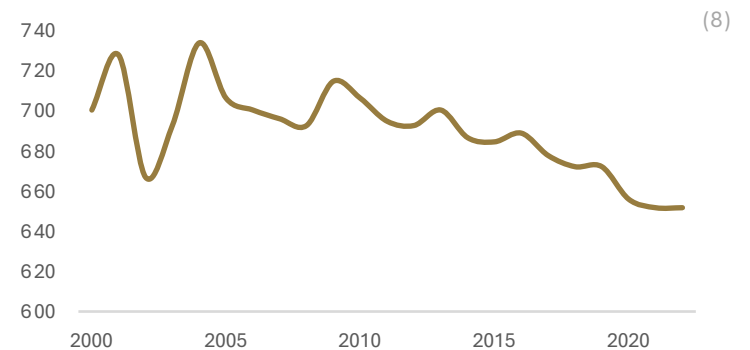
Share of transport energy consumption by source (2020)



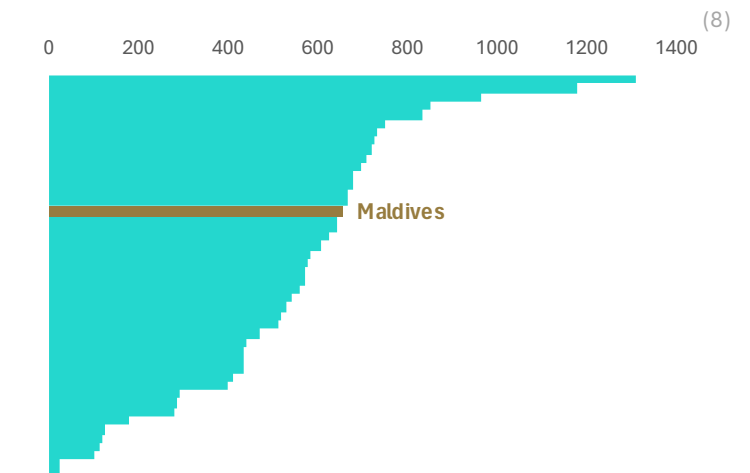
Grid emission factor (2022)

651.5 gCO₂ per kWh

Grid emission factor trend, gCO₂ per kWh



Grid emission factors in Asia-Pacific, gCO₂ per kWh



Vehicle Fleet

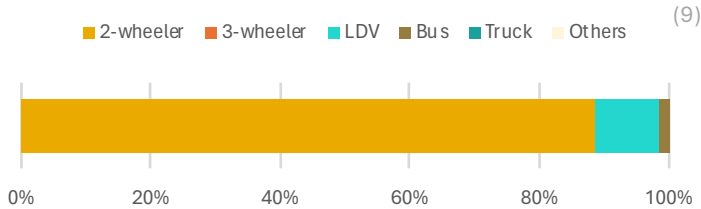
Road vehicles (2022)
125 thousand vehicles

Road vehicle motorization rate (2022)
239 vehicles per thousand population

Road vehicles include 2- and 3-wheelers, LDVs, buses and other informal public transport, trucks, and other unclassified types

In 2000, Maldives had 58 vehicles per thousand population. By 2022, this has increased to 239 compared with Asia-Pacific average of 577 in 2022.

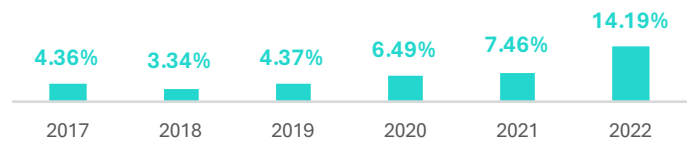
Share of vehicles by type



Bus vehicle production, units

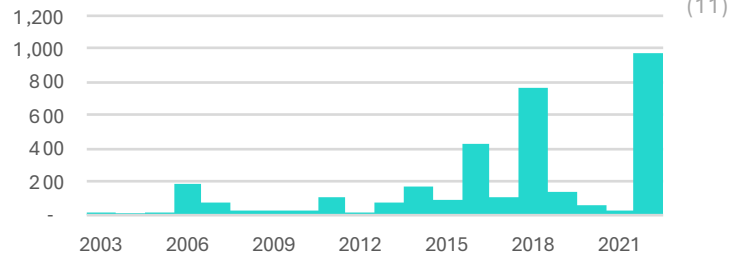
Electric road vehicle import value (2017-2022)
 (9) | Total **18.9 million USD** | Hybrid-electric **7.5 million USD** (11)

(1,9) Electric road vehicle share in total road vehicle import value trend (11)



Bus import value (2017-2022)
18.1 million USD (11)

(10) Bus import value trend, assuming 2015=100 (11)



Adaptation

Average annual losses to transport infrastructure due to hazards (2023)
0.06 million USD

Share of average annual losses due to hazards, by mode (2022)

Road	17%	Rail	0%
Ports	24%	Airports	59%

National road vulnerability index ranking (2023)
114th out of 208 countries

Share of population in low elevated coastal zones (2018)
100%

Average annual losses to transport infrastructure due to hazards, as a share of GDP, in Asia-Pacific (2023)
 (12) 0.00% 0.10% 0.20% 0.30% 0.40% 0.50% (12)



Urban Transport

Urban rapid transit length (2021)

BRT	LRT
None	None
Metro	
None	

(16)

Urban rapid transit ratio in Asia- Pacific, kilometers per million urban population (2021)

(1,16)

Urban rapid transit ratio (2021)

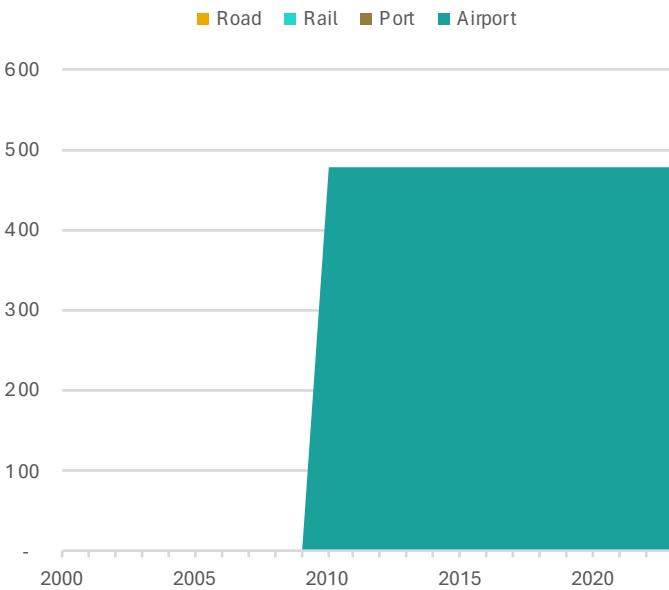
NA (1,16)

Urban rapid transit ratio, kilometers per million urban population (2000-2021)

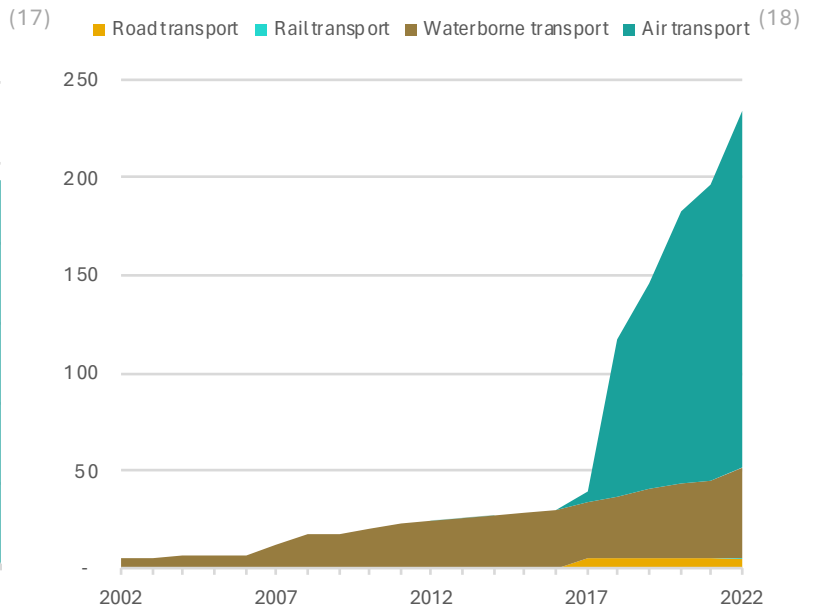
Based on 2015 estimates, only 42% of the population could reach the nearest city in 30 minutes, another 0% could reach in 1 hour, and another 4% could reach only after 3 hours.

Transport Investment

Public-private partnership investments in the transport sector, million USD



Official development assistance in the transport sector, million USD

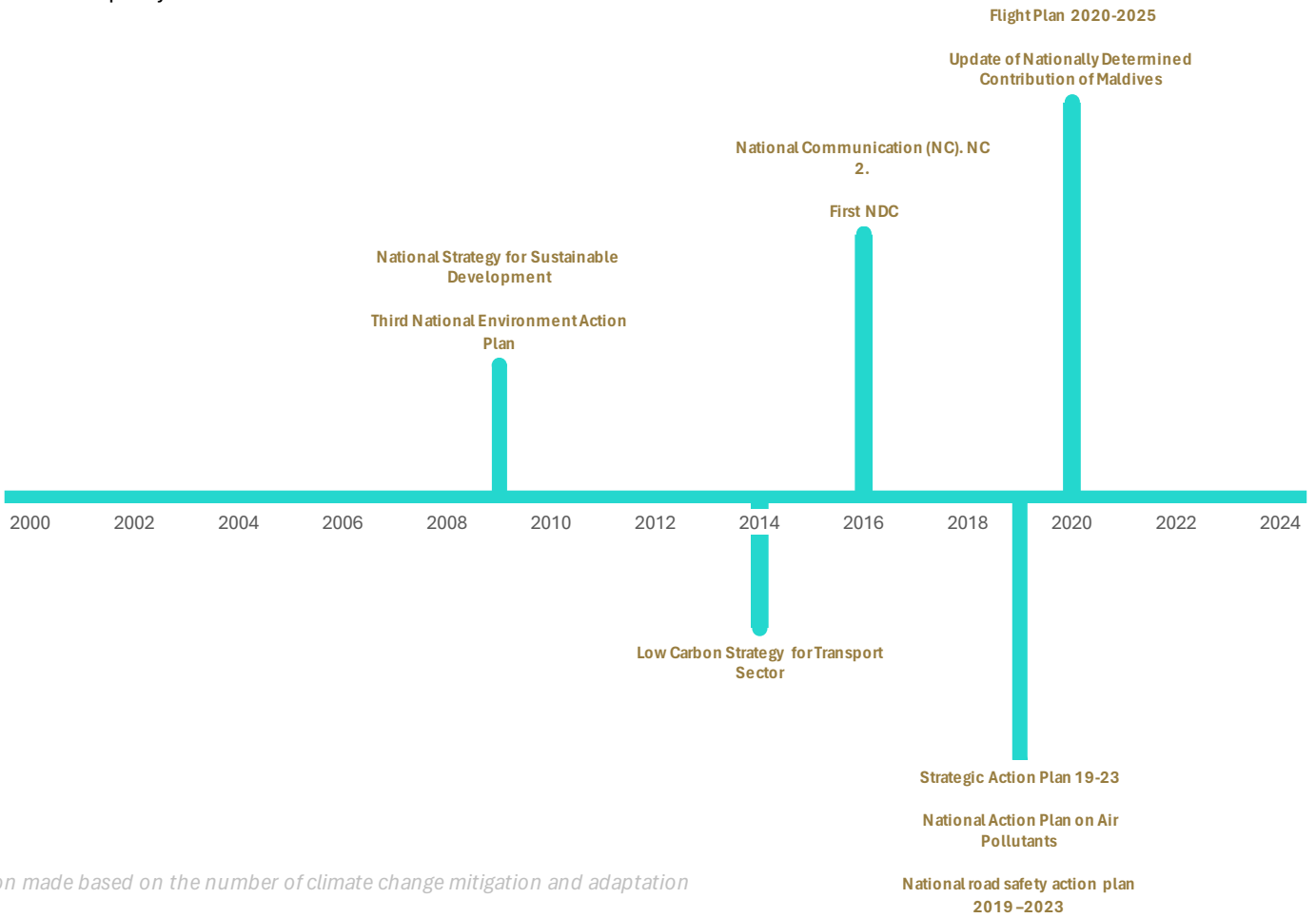


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Transport Climate Policy Documents

Transport-related policy documents in Maldives



Selection made based on the number of climate change mitigation and adaptation

Nationally Determined Contributions

		Road transport	Rail transport	Domestic navigation	Domestic aviation	Urban transport
Update of Nationally Determined Contribution of Maldives (adopted in 2020)	Mitigation measures	Yes		Yes	Yes	
	Mitigation targets					
	Adaptation measures	Yes		Yes	Yes	
	Adaptation targets					

Long-term Strategies

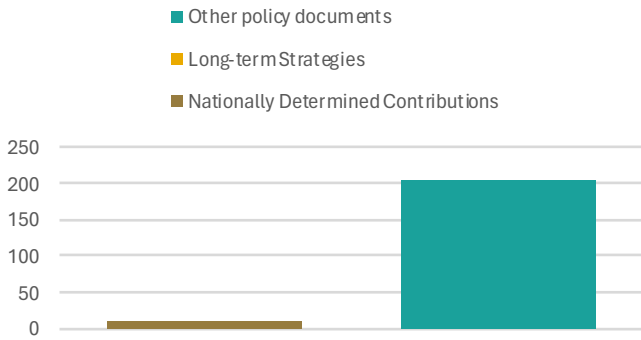
		Road transport	Rail transport	Domestic navigation	Domestic aviation	Urban transport
None	Mitigation measures					
	Mitigation targets					
	Adaptation measures					
	Adaptation targets					

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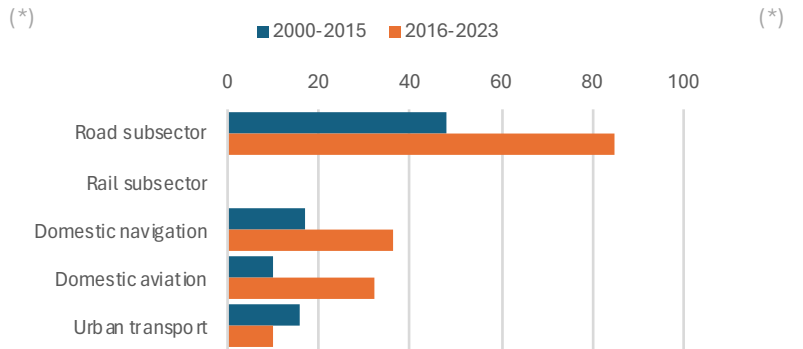


Transport Climate Policy Overview

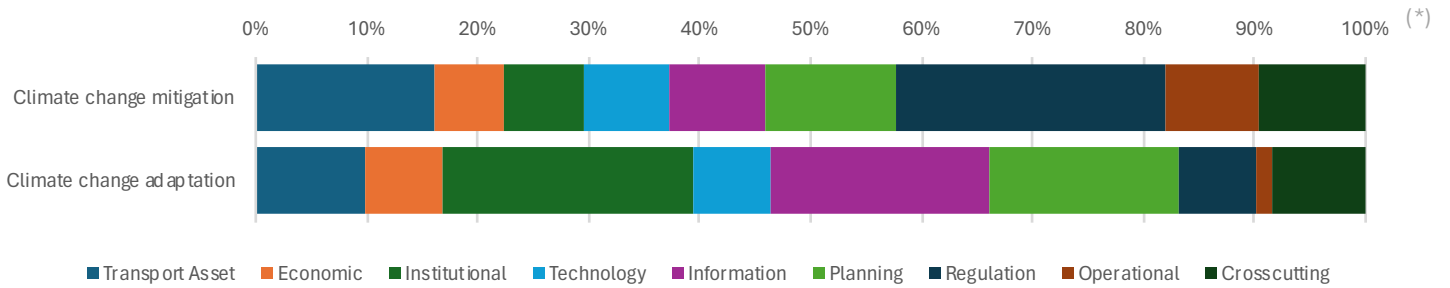
Number of measures by source



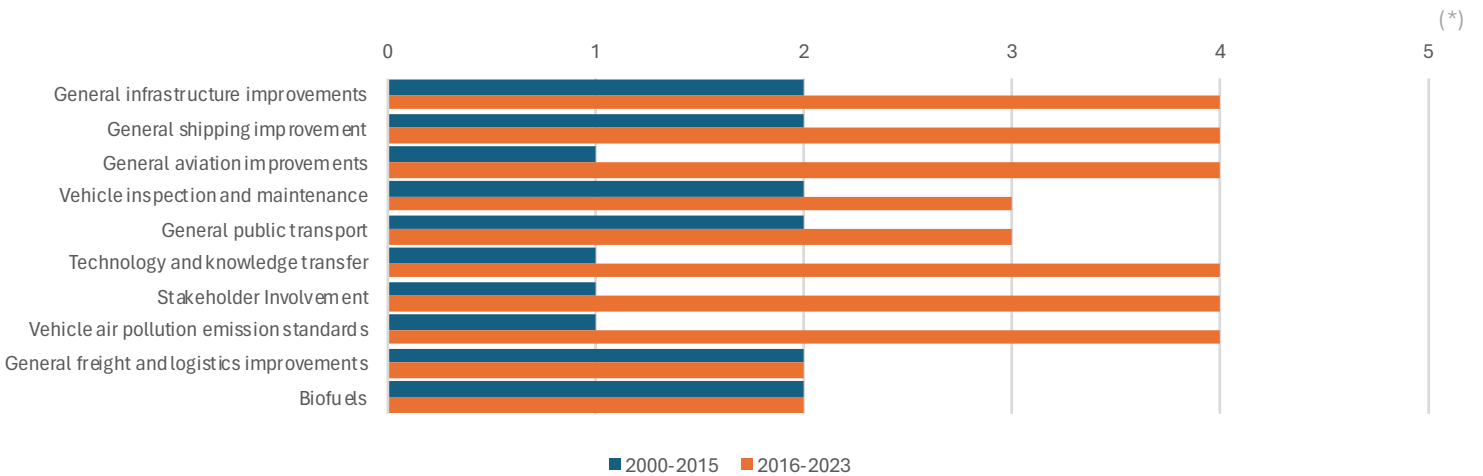
Number of climate change measures by subsectors



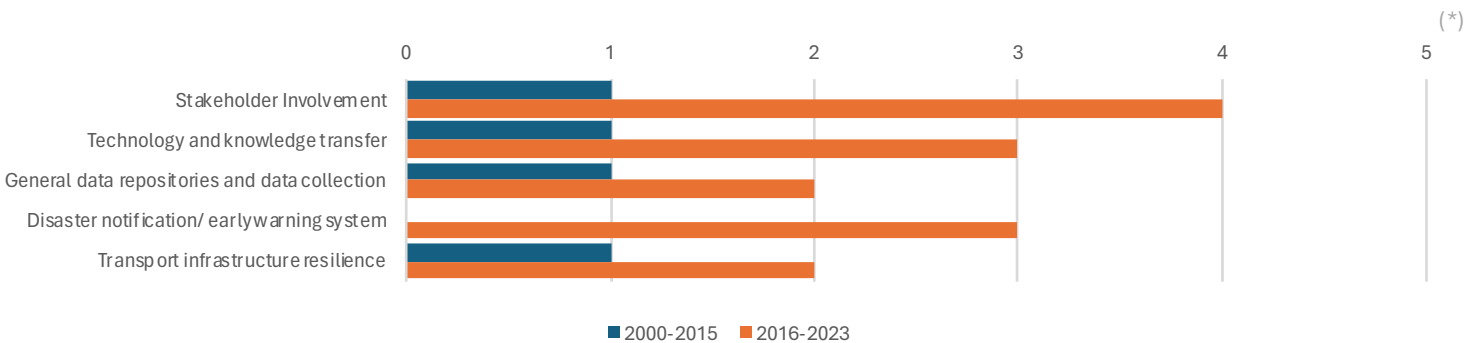
Transport-related climate change by framework



Climate change mitigation top 10 typology, number of measures



Climate change adaptation top 5 typology, number of measures



Climate Change Mitigation Policy Measures - Road Transport

Policy document	Year	Measures
Low Carbon Strategy for Transport Sector	2014	Active transport infrastructure expansion, Road space repurpose to allow access for other modes, General data repositories and data collection, EV charging infrastructure, Fiscal incentives for EVs and components, General e-mobility, Travel time improvement, Vehicle inspection and maintenance, Vehicle labelling, Express lanes/ public transport priority, General public transport, General transport asset management, Access restriction by corridor/ road, Alternative trip schedules, Energy efficient vehicle purchase incentives, Traffic management, Vehicle taxes, General commuter trip reduction, General parking measures, General transport demand management, Technology and knowledge transfer, Development of climate change/ low carbon plan/ policy, Ecodriving, General education and behavior change, Vehicle efficiency standards, Vehicle restrictions (import, age, access, sale, taxation)
Third National Environment Action Plan	2009	Active transport infrastructure expansion, General public transport, Target - Transport GHG emission
Update of Nationally Determined Contribution of Maldives	2020	General land use, Alternately-powered rolling stock, General transport demand management, Vehicle air pollution emission standards
National Strategy for Sustainable Development	2009	Development of active transport plan/ policy, General active mobility, General freight and logistics improvements, General infrastructure improvements, Road-side vehicle technical checks, Vehicle inspection and maintenance, Biofuels, LPG/ CNG/ LNG, Public transit integration, Target - Transport GHG emission, Development of transport plan/ policy, General education and behavior change, Vehicle air pollution emission standards, Vehicle efficiency standards
Strategic Action Plan 19-23	2019	General e-mobility, General infrastructure improvements, Vehicle inspection and maintenance, Vehicle scrappage scheme, General land use, Development of public transport plan/ policy, Bus fleet renewal, General IPT/ paratransit measures, General public transport, Number of vehicle registration limit, General parking measures, General transport demand management, Technology and knowledge transfer, General capacity building, Road infrastructure expansion, General education and behavior change, Vehicle air pollution emission standards, Vehicle import inspections, Vehicle restrictions (import, age, access, sale, taxation)
Global Status Report on Road Safety 2018	2018	Design standards for sidewalks and bicycle paths, National speed law, Speed limits on urban roads <= 30 kph, Speed limit on rural roads <= 70 kph
Maldives Climate Change Policy Framework	2015	Development of climate change/ low carbon plan/ policy
National Communication (NC). NC 2.	2016	General active mobility, EV charging infrastructure, General e-mobility, Vehicle labelling, Number of vehicle registration limit, Vehicle air pollution emission standards
National Action Plan on Air Pollutants	2019	General data repositories and data collection, Vehicle inspection and maintenance, Training of enforcement authorities, Vehicle air pollution emission standards
National road safety action plan 2019 –2023	2019	Technical standards for road infrastructure, Technical standards for general transport infrastructure, General public transport, Routine transport asset maintenance, Traffic management, Stakeholder Involvement, General education and behavior change, General vehicle improvements, Vehicle import inspections
National Development Plan (ppt)	2019	Intermodality measures
Maldives National Energy Policy and Strategy	2016	Vehicle efficiency standards
Road Safety Opportunities and Challenges: Low- and Middle-Income Country Profiles	2020	Vehicle inspection and maintenance, Vehicle import inspections

Climate Change Mitigation Targets - Road Transport

Policy document	Target year	Targets
Strategic Action Plan 19-23	2023	By 2023, at least 60% of the population in the Greater Male' Region utilise public transport services on a regular basis
Strategic Action Plan 19-23	2023	By 2023, vehicle congestion in Greater Male' Region is reduced by 30% compared to 2018 levels
Maldives National Energy Policy and Strategy	2030	Economy-wide: BY 2030, double the global rate of improvement in energy efficiency

Climate Change Mitigation Policy Measures - Domestic Navigation

Policy document	Year	Measures
Strategic Action Plan 19-23	2019	General freight and logistics improvements, General infrastructure improvements, Vehicle inspection and maintenance, Intelligent transport systems (ITS), Technical standards for general transport infrastructure, General public transport, Development of shipping/ maritime/ inland water transport (IWT) plan/ policy, General shipping improvement, General transport finance, Accreditation of driver training agencies, Employment in transport, communication, and storage, Technology and knowledge transfer, General capacity building, Port infrastructure improvements, General transport institutional reform, Reporting, transparency, feedback mechanism, Stakeholder Involvement, Transport law, Vehicle air pollution emission standards
National Strategy for Sustainable Development	2009	General freight and logistics improvements, General infrastructure improvements, Biofuels, Public transit integration, General shipping improvement, Port infrastructure improvements, General education and behavior change
Low Carbon Strategy for Transport Sector	2014	General freight and logistics improvements, General public transport, Ship efficiency improvements, General shipping improvement, Development of climate change/ low carbon plan/ policy, General education and behavior change
Maldives Climate Change Policy Framework	2015	Development of climate change/ low carbon plan/ policy
National Action Plan on Air Pollutants	2019	General data repositories and data collection, Ship efficiency improvements
Update of Nationally Determined Contribution of Maldives	2020	General land use, Ship efficiency improvements, General transport demand management, Vehicle air pollution emission standards
Third National Environment Action Plan	2009	General public transport, Target - Transport GHG emission
First NDC	2016	General shipping improvement
National Communication (NC). NC 2.	2016	General shipping improvement
National Development Plan (ppt)	2019	Intermodality measures
Biennial update report (BUR). BUR 1	2019	Ship efficiency improvements

Climate Change Mitigation Targets - Domestic Navigation

Policy document	Target year	Targets
Strategic Action Plan 19-23	2023	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

Climate Change Mitigation Policy Measures - Domestic Aviation

Policy document	Year	Measures
National Strategy for Sustainable Development	2009	General freight and logistics improvements, General infrastructure improvements, Biofuels, General education and behavior change
Flight Plan 2020-2025	2020	Development of aviation plan/policy, Emission standards for aircraft, General aviation improvements, General data repositories and data collection, General freight and logistics improvements, General infrastructure improvements, Technical standards for general transport infrastructure, Target - Net zero, carbon neutrality, and other long-term climate action, General economic instruments, General transport finance, Technology and knowledge transfer, General capacity building, Coordinate planning across government agencies, Reporting, transparency, feedback mechanism, Stakeholder Involvement, Transport law
Strategic Action Plan 19-23	2019	Development of aviation plan/policy, General aviation improvements, General freight and logistics improvements, General economic instruments, General transport finance, General transport institutional reform, Stakeholder Involvement, Transport law, Vehicle air pollution emission standards
Low Carbon Strategy for Transport Sector	2014	General aviation improvements, General public transport, Development of climate change/ low carbon plan/ policy
Maldives Climate Change Policy Framework	2015	Development of climate change/ low carbon plan/ policy
First NDC	2016	General aviation improvements
International Aviation Climate Ambition Coalition	2021	General aviation improvements
Update of Nationally Determined Contribution of Maldives	2020	General land use, General transport demand management
National Development Plan (ppt)	2019	Intermodality measures
Third National Environment Action Plan	2009	Target - Transport GHG emission

Climate Change Mitigation Policy Measures - Urban Transport

Policy document	Year	Measures
Low Carbon Strategy for Transport Sector	2014	Active transport infrastructure expansion, Road space repurpose to allow access for other modes, Express lanes/ public transport priority, General public transport, Access restriction by corridor/ road, Alternative trip schedules, Traffic management, General commuter trip reduction, General parking measures, General transport demand management, Technology and knowledge transfer, General education and behavior change
National Strategy for Sustainable Development	2009	Development of active transport plan/ policy, General active mobility, Development of transport plan/ policy
Strategic Action Plan 19-23	2019	General land use, Number of vehicle registration limit, General parking measures, General transport demand management, Technology and knowledge transfer, Vehicle air pollution emission standards, Vehicle import inspections
Global Status Report on Road Safety 2018	2018	Speed limits on urban roads ≤ 30 kph

Climate Change Mitigation Targets - Urban Transport

Policy document	Target year	Targets
Strategic Action Plan 19-23	2023	By 2023, vehicle congestion in Greater Male' Region is reduced by 30% compared to 2018 levels

Climate Change Adaptation Policy Measures

Policy document	Year	Measures
Flight Plan 2020-2025	2020	General data repositories and data collection, General transport finance, Technology and knowledge transfer, General capacity building, Coordinate planning across government agencies, Reporting, transparency, feedback mechanism, Stakeholder Involvement, Transport law (Sub-sectors: Domestic Aviation)
Strategic Action Plan 19-23	2019	Disaster notification/ early warning system, Development of public transport plan/ policy, General transport finance, Employment in transport, communication, and storage, Technology and knowledge transfer, General capacity building, General transport institutional reform, Reporting, transparency, feedback mechanism, Stakeholder Involvement, Transport law (Sub-sectors: Road transport, Domestic Navigation, Domestic Aviation, Urban transport)
National Strategy for Sustainable Development	2009	Development of transport plan/ policy (Sub-sectors: Road transport, Urban transport)
First NDC	2016	Disaster notification/ early warning system, Relocation from climate-risk areas, Transport infrastructure resilience (Sub-sectors: Domestic Navigation)
Update of Nationally Determined Contribution of Maldives	2020	Disaster notification/ early warning system, Transport infrastructure resilience (Sub-sectors: Road transport, Domestic Navigation, Domestic Aviation)
Low Carbon Strategy for Transport Sector	2014	General data repositories and data collection, General transport asset management, Investment required for specific projects, Reference to finance mechanisms within country, Technology and knowledge transfer, General capacity building, Stakeholder Involvement, Transport law (Sub-sectors: Road transport, Urban transport)
National Action Plan on Air Pollutants	2019	General data repositories and data collection, Reference to finance mechanisms within country, Stakeholder Involvement (Sub-sectors: Road transport, Domestic Navigation)
National road safety action plan 2019 –2023	2019	Routine transport asset maintenance, Stakeholder Involvement, General vehicle improvements (Sub-sectors: Road transport)
National Development Plan (ppt)	2019	Technology and knowledge transfer (Sub-sectors: NA)
Strategic National Action Plan for Disaster Risk Reduction and Climate Change Adaptation 2010-2020	2010	Transport infrastructure resilience (Sub-sectors: Road transport, Domestic Navigation, Domestic Aviation)

Notes



(*) Policy measures and targets were extracted from policy documents as listed in the ATO National Transport Policies Database

<https://bit.ly/ATOpolicyrepository>

References

- (1) UN Population Database (2022), <https://population.un.org/wpp/>
- (2) World Bank (2022), <https://data.worldbank.org/>
- (3) Global Materials Flow Database (UNEP, 2023), <https://www.resourcepanel.org/global-material-flows-database>
- (4) Emissions Database for Global Atmospheric Research (EC, 2023), <https://edgar.jrc.ec.europa.eu/>
- (5) UN Energy Statistics (2021), <https://unstats.un.org/unsd/energystats/dataPortal/>
- (6) Fossil Fuels Consumption Subsidies 2022 (IEA, 2022), <https://www.iea.org/reports/fossil-fuels-consumption-subsidies-2022>
- (7) Climate Change Dashboard (IMF, 2024), <https://climatedata.imf.org/pages/access-data>
- (8) Ember (2023), <https://ember-climate.org/data-catalogue/yearly-electricity-data/>
- (9) Country Official Statistics
- (10) International Organization of Motor Vehicle Manufacturers (OICA, 2023), <https://www.oica.net/production-statistics/>
- (11) Trademap (ITC, 2024), <https://www.trademap.org/>
- (12) Koks, et al. (2019), <https://www.nature.com/articles/s41467-019-10442-3>
- (13) Coalition for Disaster Resilient Infrastructure (CDRI, 2023), <https://giri.unepgrid.ch/facts-figures/building-infrastructures>
- (14) Koks, et al. (2023), <https://iopscience.iop.org/article/10.1088/2634-4505/acd1aa>
- (15) Environmental Vulnerability Indicators (UN, 2018), <https://www.un.org/development/desa/dpad/least-developed-country-category/evi-indicators-ldc.html>
- (16) Rapid Transit Database (ITDP, 2022), <https://www.itdp.org/rapid-transit-database/>
- (17) PPI Database (World Bank, 2023), <https://ppi.worldbank.org/en/ppi>
- (18) Organisation for Economic Co-operation and Development (OECD) (2022), <https://stats.oecd.org/Index.aspx?DataSetCode=CRS1#>

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