

Transport and Climate Profile

Nepal



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Developed with the support of:



Introduction to the profiles: These “Transport and Climate Profiles” are part of the research work entitled “Transport NDC Gap Analysis for Low- and Middle-Income Countries (LMICs) in Asia and the Pacific” which is being implemented and builds on the work of the Asian Transport Outlook (ATO), a project initiated and supported by the Asian Development Bank (ADB). ATO is also being supported by the Asian Infrastructure Investment Bank (AIIB). The research is being co-funded by UKAID through the UK Foreign, Commonwealth and Development Office (FCDO) under the High-Volume Transport (HVT) Applied Research Program managed by DT Global International Development UK LTD (DT Global). The research is being implemented under HVT057 (Transport Decarbonisation Index - <https://transport-links.com/funded-projects/transport-decarbonisation-index-tdi>) whose lead research supplier is the Partnership on Sustainable, Low Carbon Transport. These profiles are designed to complement the main report of the research entitled *Bridging the Gap: A Deep Dive into NDCs and Transport Policy Landscapes in Low- and Middle-Income Asian Economies*. While intended as supplementary materials, they also function as standalone knowledge products. All the related knowledge products will be made available through <https://asiantransportoutlook.com/analytical-outputs/ndc-analysis> and <https://asiantransportoutlook.com/analytical-outputs/transportclimateprofiles/>

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This profile is structured into two main sections: Data Insights and Policy Insights. Under “Data Insights”, individual components at the intersection of transport and climate change are detailed. Similarly, the “Policy Insights” section outlines various policy documents, measures, and targets.

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Transport and Climate Profile: Nepal

2024

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Contents

Data Insights

- I Transport and Climate Change
- II Transport Energy Consumption
- III Adaptation and Resilience
- IV Other Externalities
- V Vehicle Fleet
- VI Urban Transport
- VII Transport Investments

Policy Insights

- VIII Transport and Climate Policy Documents
- IX Representation of Transport in Key Climate Policy Documents
- X Distribution of Transport and Climate Policy Measures in Policy Documents
- XI National Policy Priorities on Transport
- XII Direct GHG Targets
- XIII Indirect Transport Climate Change Targets
- XIV Transport and Climate Policy Measures

Executive Summary

Nepal, a low- and lower-middle-income country in South Asia, is experiencing a significant impact of transport on climate change. This comprehensive narrative delves into the trends, policies, and opportunities related to transport and climate change in Nepal, highlighting data on CO₂ emissions, energy consumption, vehicle fleet, electric mobility, resilience, urban transport, public transport availability, investments, and key policy documents. Additionally, it identifies gaps in Nepal's Nationally Determined Contributions (NDCs), policy priorities, and potential opportunities for improvement.

CO₂ Emissions:

- Nepal's transport sector CO₂ emissions, primarily driven by road transport, have been on a concerning upward trajectory. In 2023, emissions reached 4.7 million tonnes, representing 27% of total economy-wide emissions and a stark contrast to the pre-Paris Agreement era when growth was 5% annually. This acceleration is even more pronounced post-COVID, with an 18% annual growth between 2019-2023, significantly exceeding the Asia-Pacific average of 1%. Although Nepal's transport sector CO₂ emissions intensity with GDP in 2023, at 29.8 gCO₂ per USD, is slightly lower than the Asia-Pacific average of 32.0 gCO₂ per USD, it still represents a considerable increase from 2015 and 2000 levels.

Energy Consumption:

- Trends: The transport sector's energy consumption in Nepal reached 56,849 terajoules in 2021, with a growth rate of 5% annually since 2010. The energy intensity with GDP was 0.45 megajoules per USD of GDP, slightly higher than the Asia-Pacific average.
- Sources: Oil products dominate the energy consumption in the road sector, with minimal contributions from biofuels and electricity. The electricity share in the rail sector is 100%. Nepal's grid emission factor was 23 gCO₂ per kWh in 2022, significantly lower than the Asia-Pacific average.

Adaptation and Resilience:

- Vulnerability: Nepal faces potential average annual losses of 13.87 million USD to its transport infrastructure due to hazards, representing 0.01% of the country's GDP. Roads are the most vulnerable, with 96% of the losses attributed to them.
- Ranking: Nepal ranks 153rd out of 208 countries regarding national road vulnerability, indicating a lack of redundancies in the road network in case of disruptions.

Vehicle Fleet:

- Growth: Nepal's vehicle fleet is growing rapidly, with a focus on imports of buses and electric vehicles. Electric vehicle imports grew to 4.3% of total road vehicle imports in 2023 (in value), but this is still lower than the South Asia subregion's share of 13.4%.
- E-Mobility Readiness: Nepal scores 70/100 in the E-mobility Readiness Index, indicating potential for further improvement in access to technology, supporting policies, clean energy, and financial instruments.

Urban Transport:

- **Limited Infrastructure:** Nepal lacks extensive urban transport infrastructure, with no Bus Rapid Transit (BRT) or Light Rail Transit (LRT) systems.
- **Public Transport Access:** Only a small percentage of the population in surveyed cities has convenient access to public transport, highlighting the need for improvement in this area.

Investments:

- **ODA:** Nepal received significant official development assistance (ODA) in the transport sector, totaling 778.7 million USD between 2016-2022. The majority of these investments were directed towards roads.
- **PPP:** Public-private partnership investments in the transport sector were minimal during the same period.

Policy Landscape:

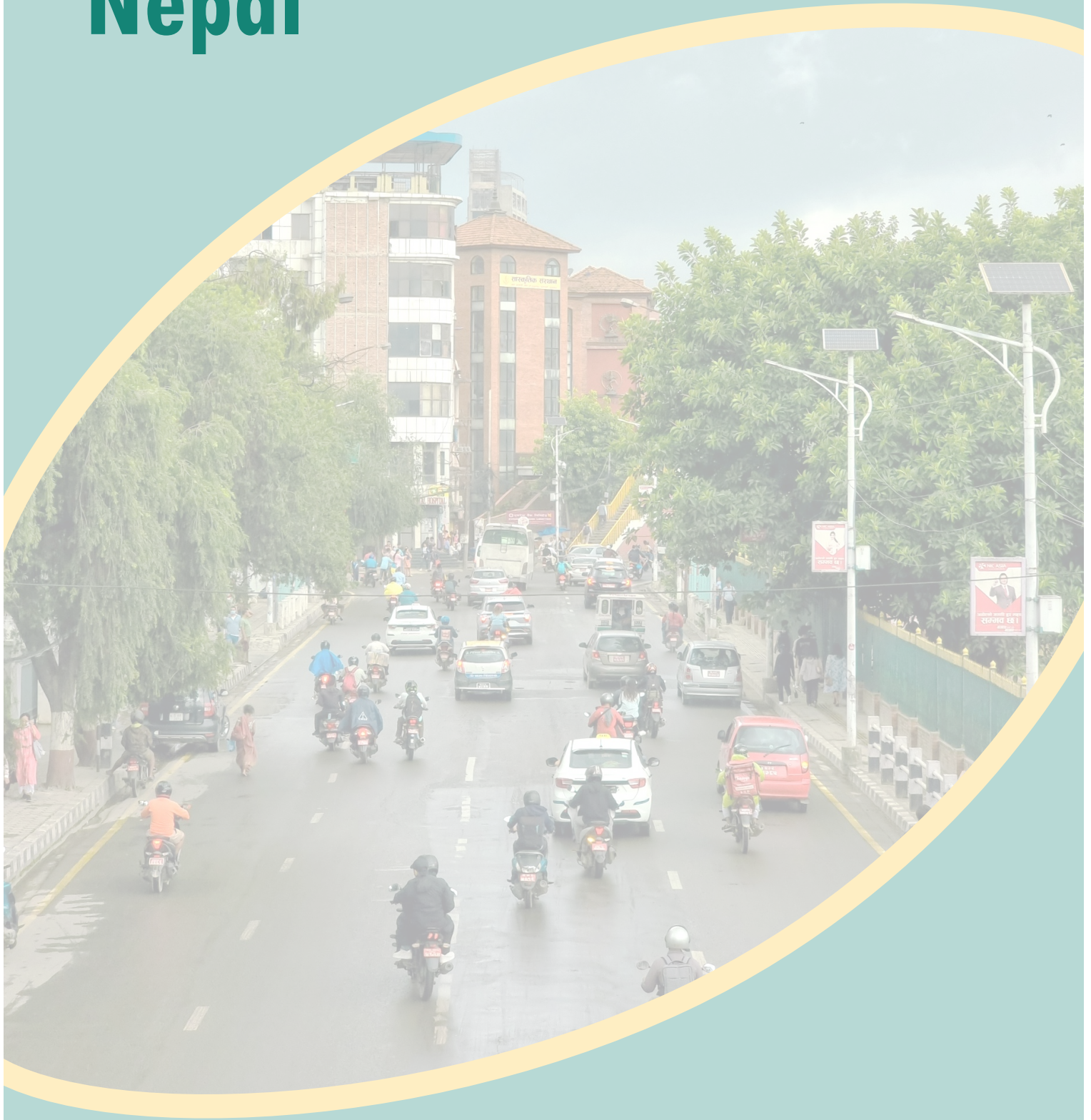
- **NDC and LTS:** Nepal's Nationally Determined Contribution (NDC) and Long-Term Strategy (LTS) outline climate targets and policies. However, there are gaps in terms of specific transport GHG emissions targets, and alignment between NDCs, LTS, and broader transport policies needs strengthening.
- **Policy Priorities:** Nepal's priority climate policies focus on e-mobility, public transport, transport law, data collection, infrastructure improvements, parking measures, rail expansion, institutional reform, EV charging infrastructure, and renewable energy. However, only a small percentage of these measures are from the NDC or LTS, and adaptation and resilience components are limited.

Opportunities:

- **Strengthening NDCs and LTS:** Nepal can enhance its NDCs and LTS by incorporating specific transport GHG emissions targets, aligning them with broader transport policies, and prioritizing adaptation and resilience measures.
- **Promoting Electric Mobility:** Expanding EV charging infrastructure, incentivizing EV adoption, and integrating renewable energy sources can accelerate the transition to electric mobility.
- **Enhancing Public Transport:** Investments in public transport infrastructure, improving access, and promoting integrated transport systems can reduce private vehicle usage and emissions.
- **Mainstreaming Climate Resilience:** Incorporating climate resilience measures into transport infrastructure planning and design is crucial to mitigate the impact of hazards.
- **Leveraging International Support:** Nepal can leverage international funding and technical assistance to support its climate-friendly transport initiatives.

Nepal's transport sector is a significant contributor to climate change, and addressing its impact is crucial for sustainable development. By strengthening climate policies, promoting electric mobility, enhancing public transport, mainstreaming climate resilience, and leveraging international support, Nepal can pave the way for a more sustainable and resilient transport system that contributes to its climate goals.

Data Insights Nepal



Nepal

Transport and Climate Profile

Population (2024)

31.2 million

Urban population

22%

Rural population

78%

Below 18 y.o.

36%

Above 60 y.o.

9%

Population density

216 persons per sqkm

Subregion

(1) **South Asia**

Income class

Low and lower middle income

Gross domestic product

(1) (GDP PPP, 2023)
160.1 billion USD

GDP per capita (PPP, 2023)

5,182 USD (1,2)

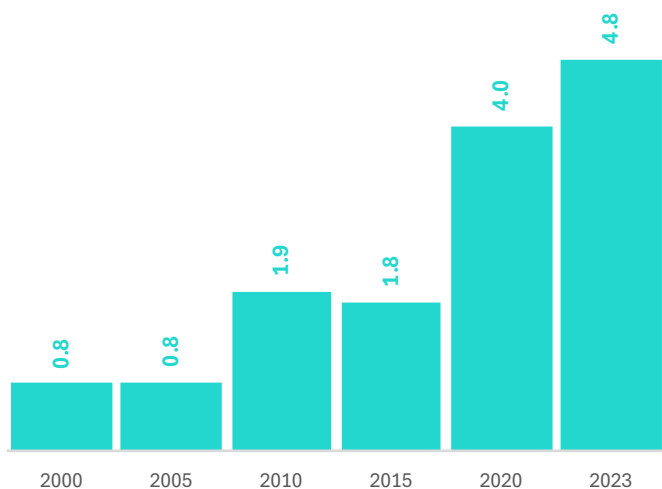
(1) Domestic consumption per capita, tonnes (2024)

6.9 tonnes (3)

(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.*

I. Transport and Climate Change

Transport fossil CO2 emissions, million tonnes



In 2010, transport contributed 41% of total fossil CO2 emissions. By 2023, transport contributed 27%.

Share of transport CO2 emissions by mode (2022)

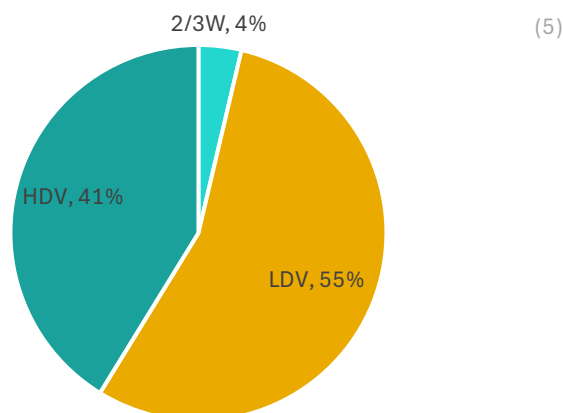
(4) | Road **99.2%** | Rail **0.0%** (4)

| Navigation **0.0%** | Aviation **0.8%** (4)

Navigation and aviation only includes domestic transportation

Between 2000-2015, road transport contributed 100% in transport fossil CO2 emissions. Between 2016-2022, road transport contributed 99%.

Road transport CO2 emissions (well-to-wheel), share by mode (2022)



Transport CO2 emissions intensity (2023)

30 gCO2 per USD

(2,4)

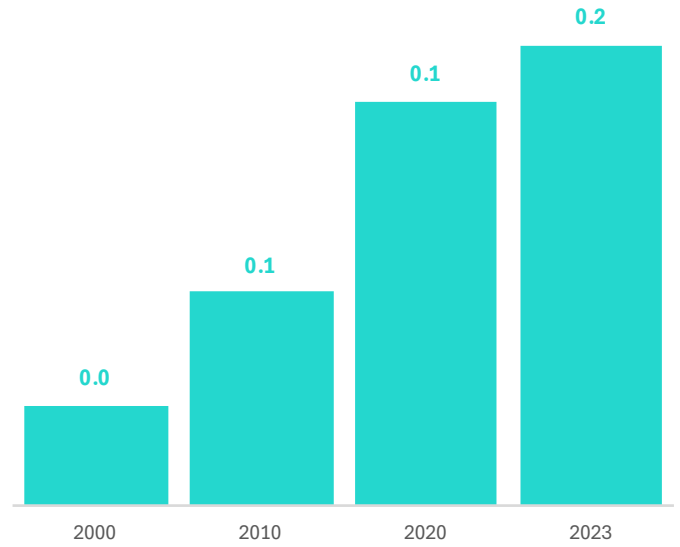
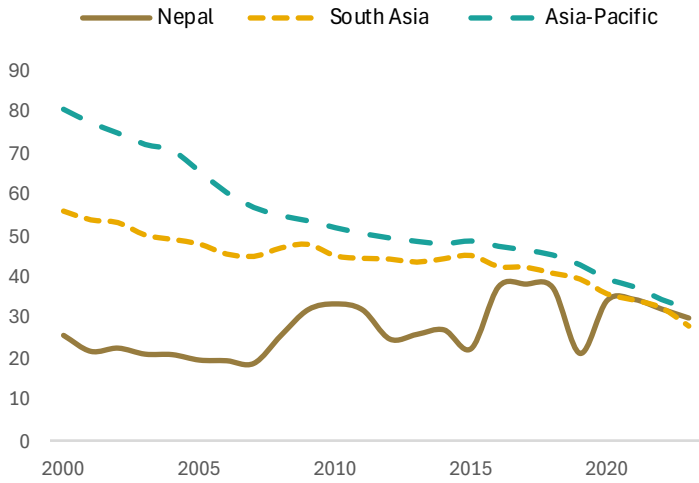
Asia-Pacific average is 32 gCO2 per USD

Transport fossil CO2 emissions per capita, tonnes

(1,4)

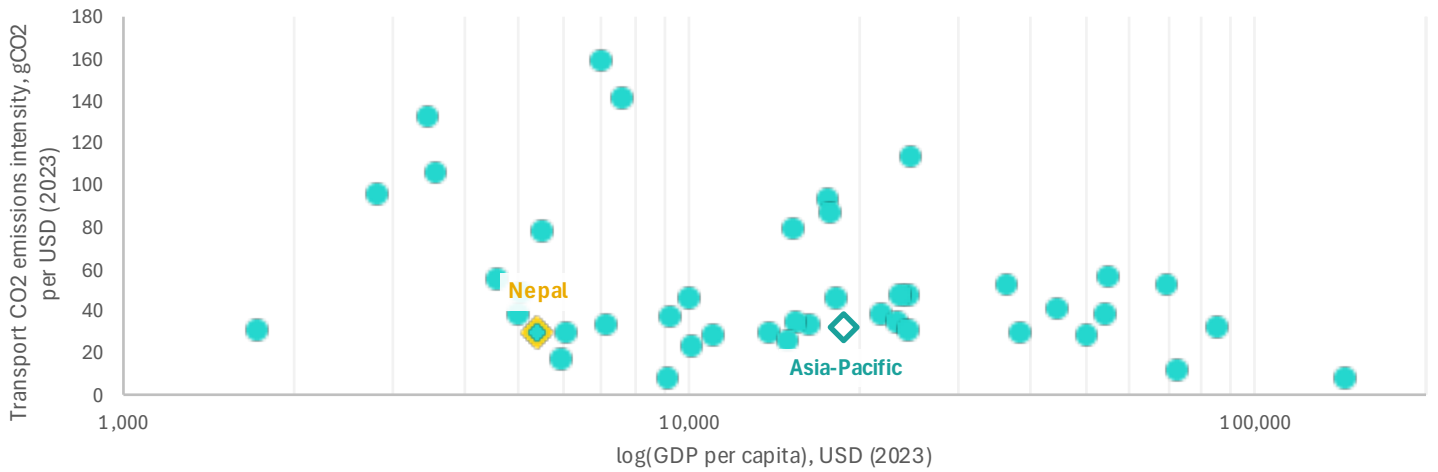
Transport CO2 emissions intensity trend, gCO2 per USD

(2,4)



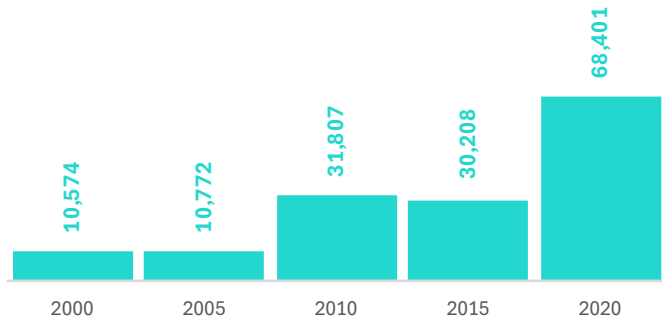
Transport CO2 emissions intensity in Asia-Pacific, gCO2 per USD

(2,4)



II. Transport Energy Consumption

Transport energy consumption, TJ

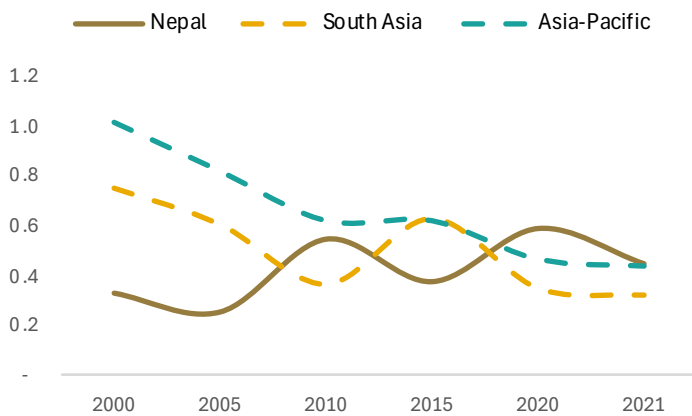


Transport energy intensity (2021)

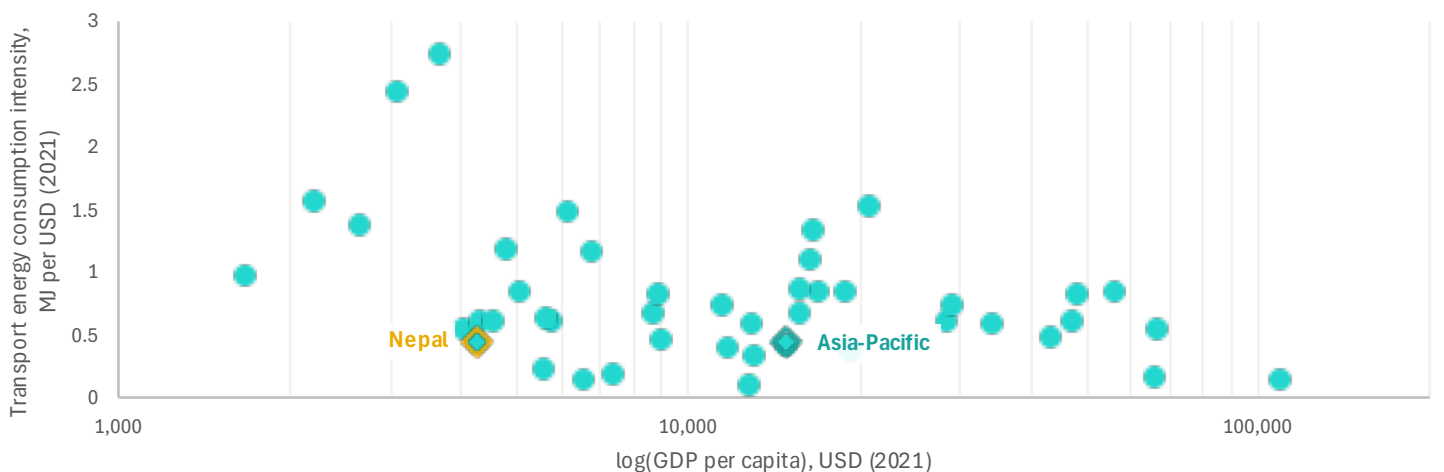
0.4 MJ per USD

Asia-Pacific average is 0.4 MJ per USD

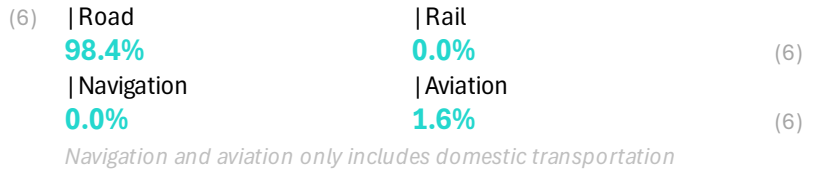
Transport energy intensity trend, MJ per USD



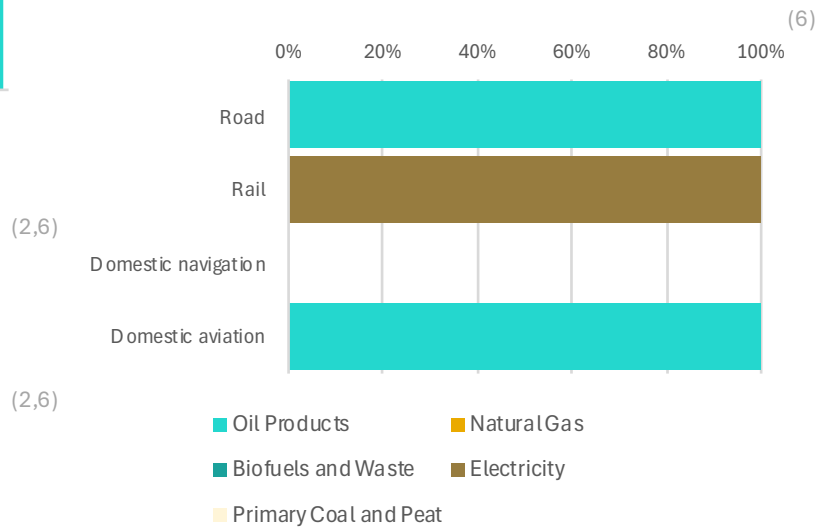
Transport energy intensity in Asia-Pacific, MJ per USD



Share of transport energy consumption by mode (2021)



Share of transport energy consumption by source (2021)



Share of transport in renewable energy consumption

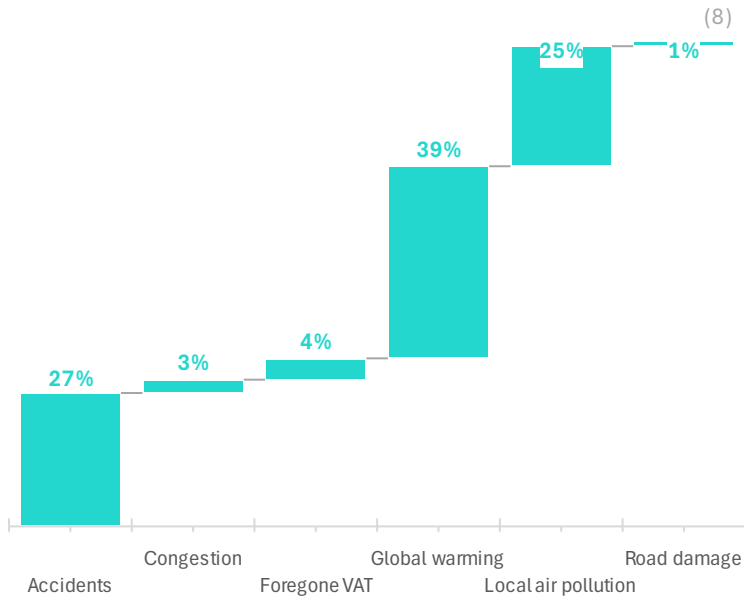


Transport fossil fuel subsidies, cumulative (2010-2022)

None

0.0% of Asia-Pacific total

Estimated externalities due to fossil fuel subsidies



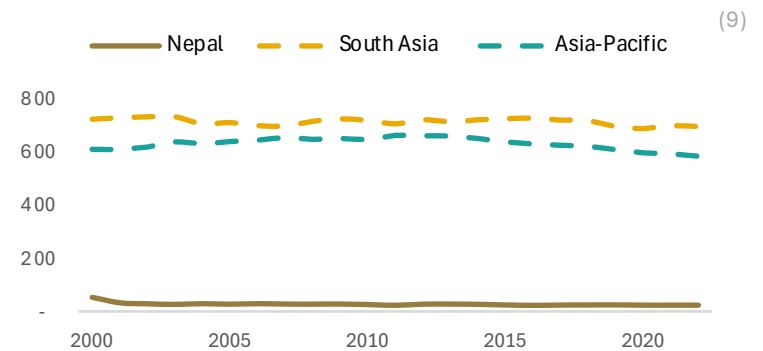
Data includes all sectors and all fuel types

Grid emission factor (2022)

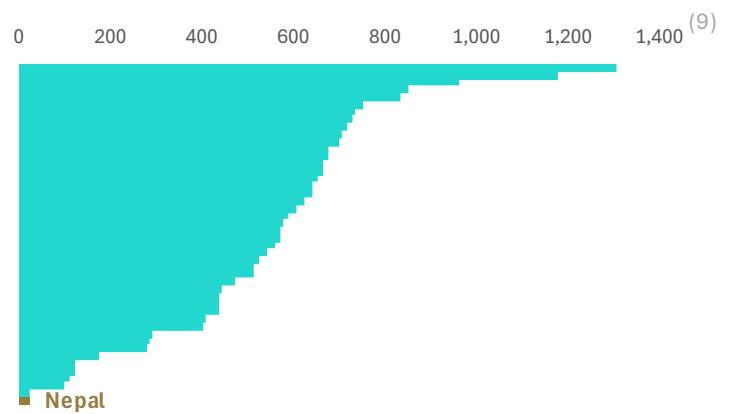
(7) **23 gCO₂ per kWh**

(9)

Grid emission factor trend, gCO₂ per kWh



Grid emission factors in Asia-Pacific, gCO₂ per kWh



III. Adaptation and Resilience

Average annual losses to transport infrastructure due to hazards (2023)

14 million USD

Road	Rail
96%	4%
Ports	Airports
0%	1%

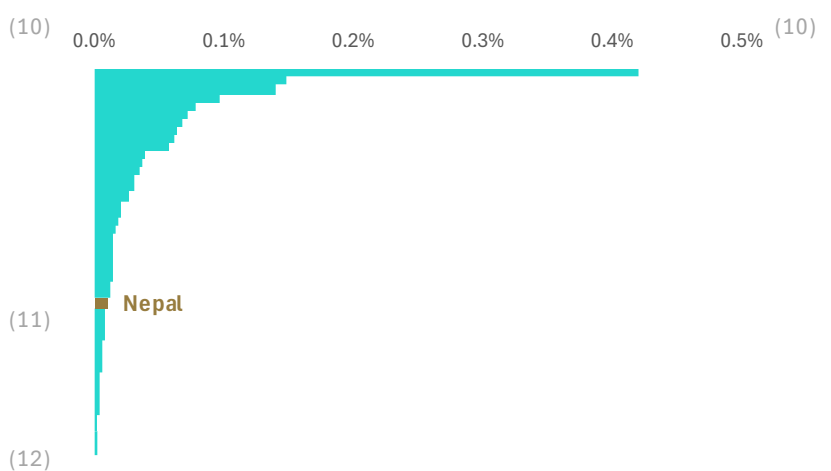
National road vulnerability index ranking (2023)

153rd out of 208 countries

Share of population in low elevated coastal zones (2018)

n.d.

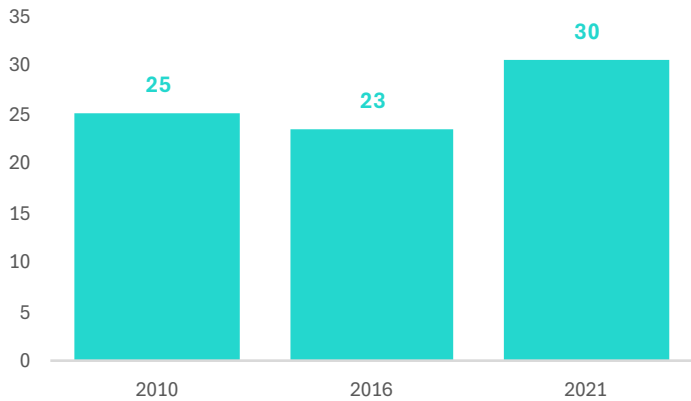
Average annual losses to transport infrastructure due to hazards, as a share of GDP, in Asia-Pacific (2023)



IV. Other Externalities

Road crash fatalities (2021)
8.5 thousand deaths

Road crash fatality rate per 100 thousand population

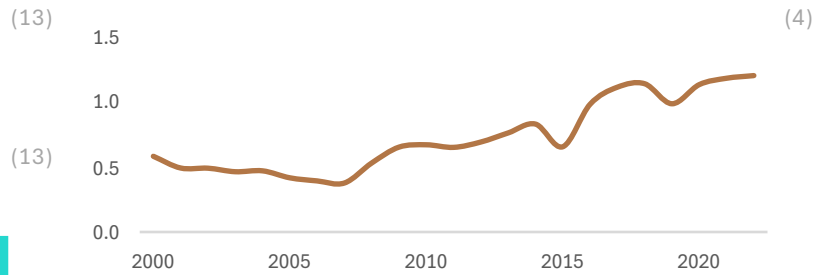


Asia-Pacific average is 16 fatalities per 100 thousand population

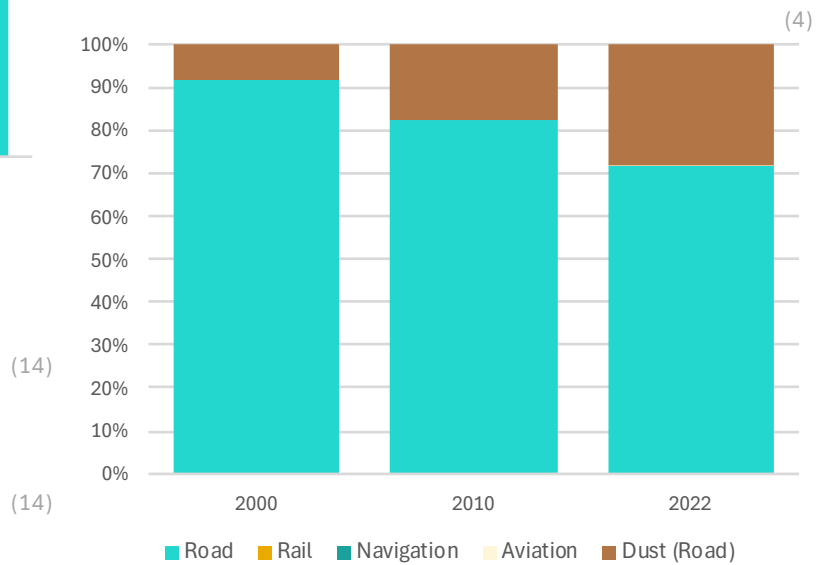
Rural access index (2023)
92%

Rural population without access to all-season roads (2023)
1.9 million

Transport PM 2.5 emissions trend, thousand tonnes



Transport PM 2.5 emissions share by source



V. Vehicle Fleet

Road vehicles (2023)
n.d.

Share of vehicles by type

Road vehicle motorization rate (2023)
n.d.

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

(15)

(1,15)

Vehicle motorization per thousand population in Asia-Pacific (2000-2022)

Bus import value (2015-2023)

195.1 million USD

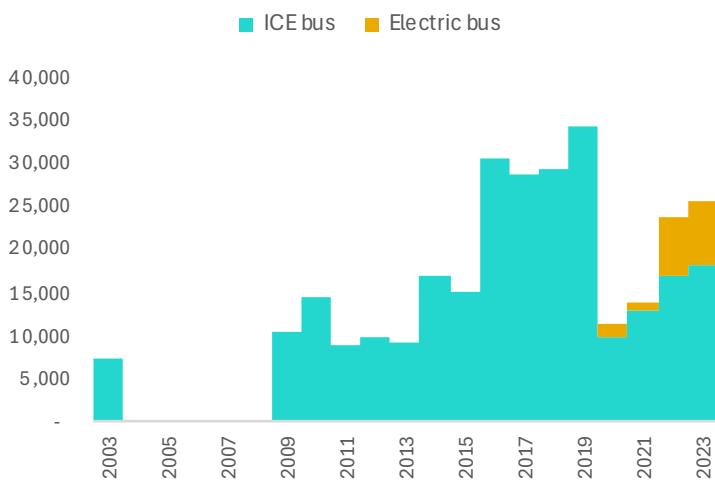
(16)

Bus vehicle production, units

(17)

Bus import value, thousand USD

(16)



E-mobility Readiness Index (2024)

(18)



Electric road vehicle import value (2017-2023)

38.1 million USD

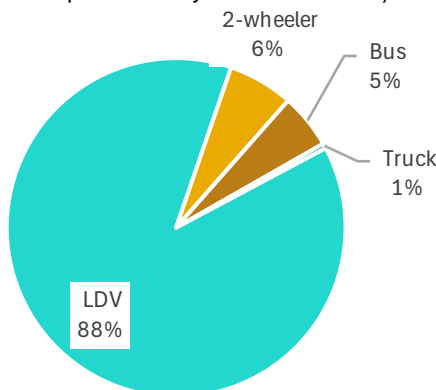
(16)

Electric road vehicle share in total road vehicle import value trend

(16)

Electric road vehicle import share by type (2017-2023)

(16)



VI. Urban Transport

Urban rapid transit length (2021)

BRT	LRT
None	None
Metro	
None	

(19)

(19)

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

(1,19)

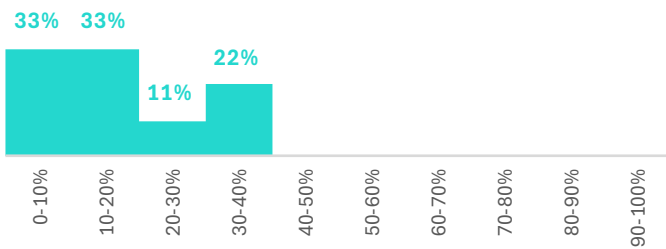
Urban rapid transit ratio (2021)

NA (1,19)

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

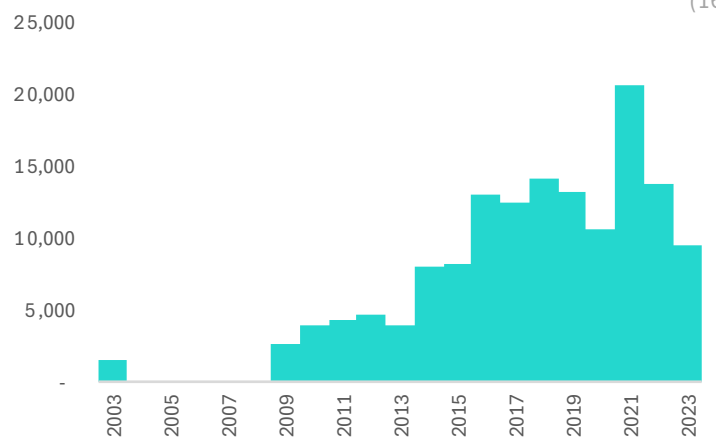
Share of cities by level of access to public transport (out of 9 cities)

(20)



Bicycle import value, thousand USD

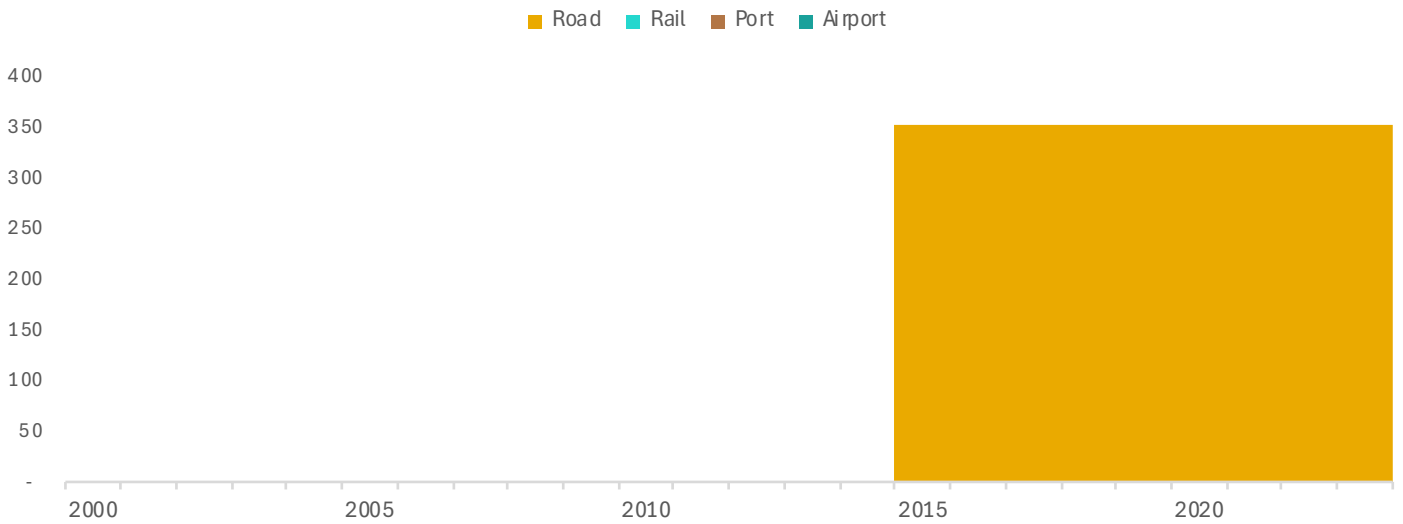
(16)



VII. Transport Investments

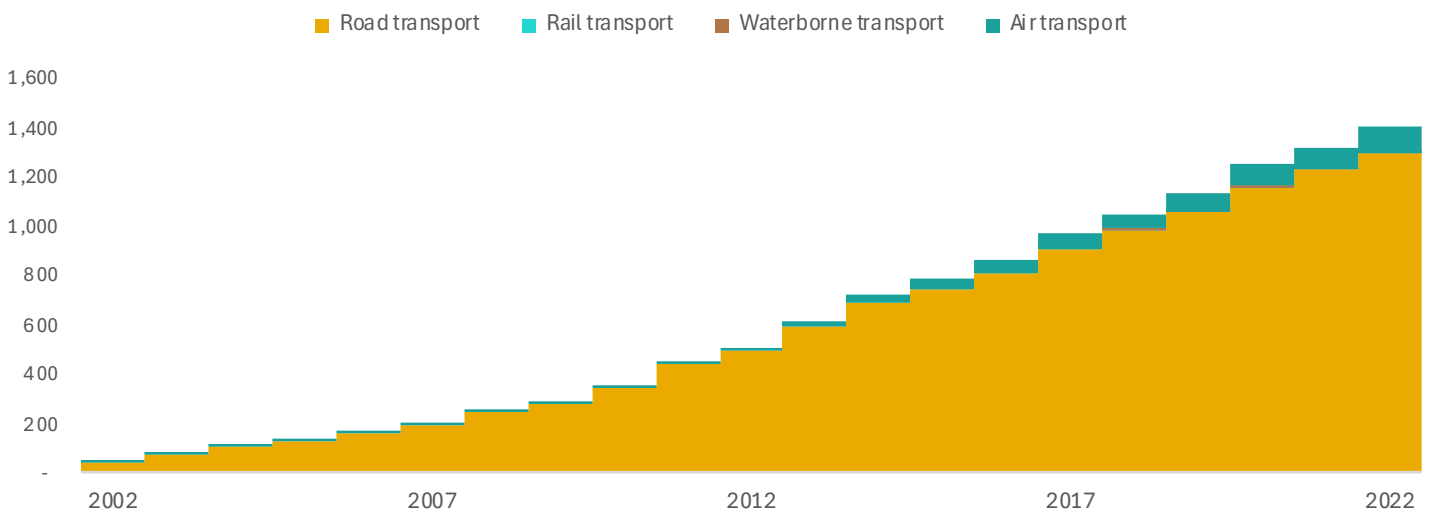
Public-private partnership investments in the transport sector, million USD

(21)

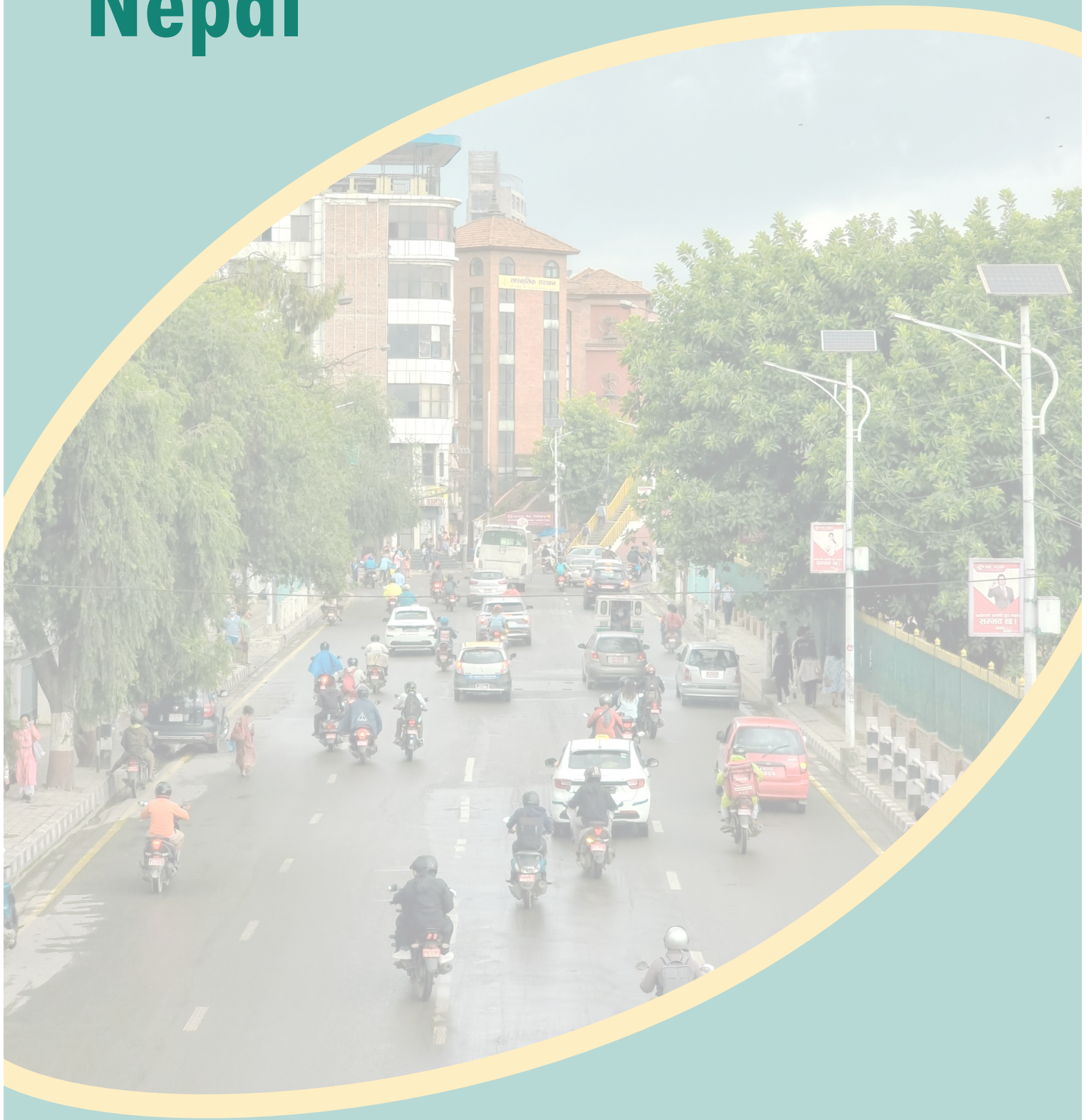


Official development assistance in the transport sector, million USD

(22)



Policy Insights Nepal



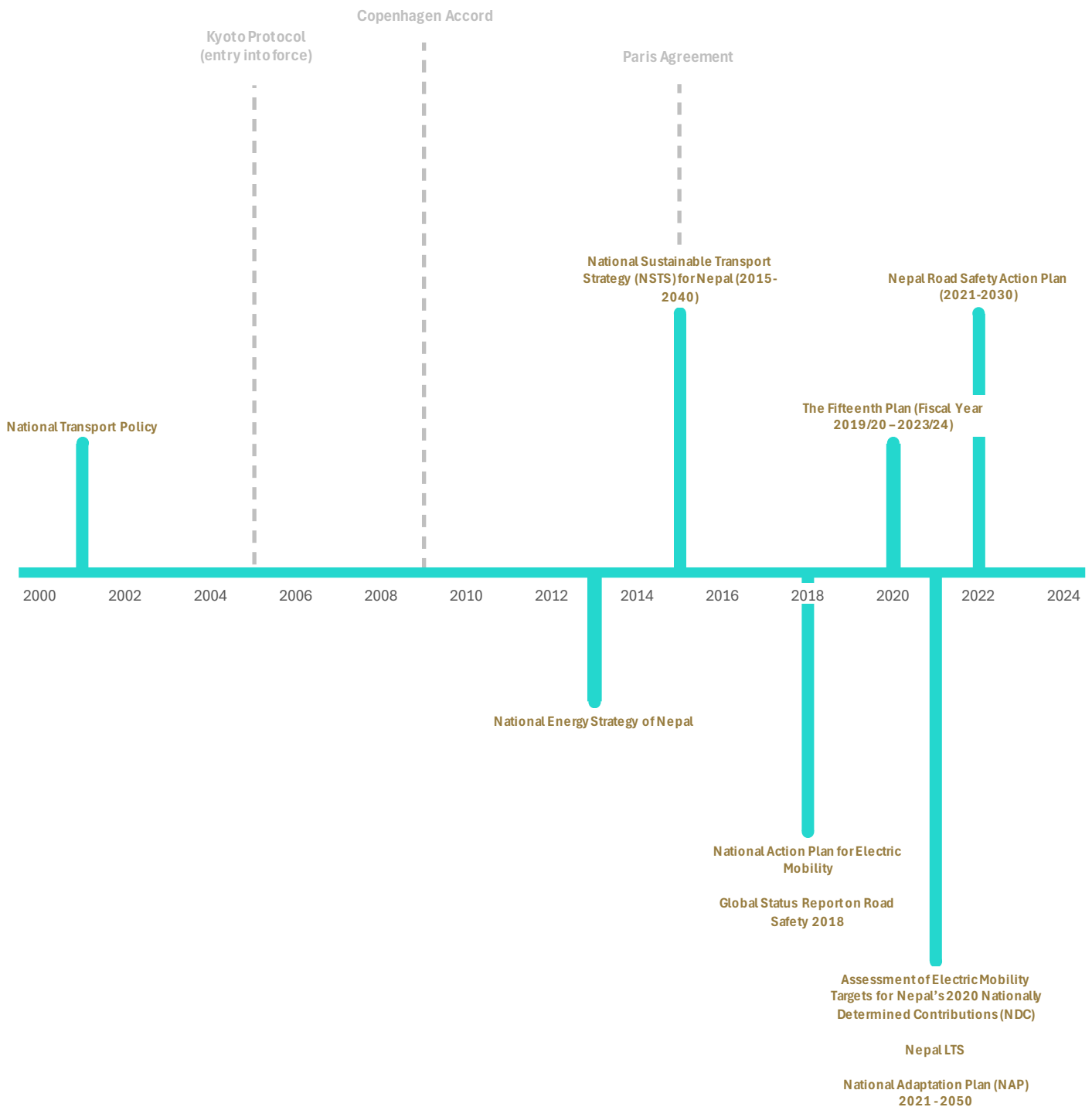
VIII. Transport and Climate Policy Documents

Transport-related policy documents in Nepal

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

Nationally Determined Contributions of Nepal

2020: Second Nationally Determined Contribution



IX. Representation of Transport in Key Climate Policy Documents

Nationally Determined Contributions

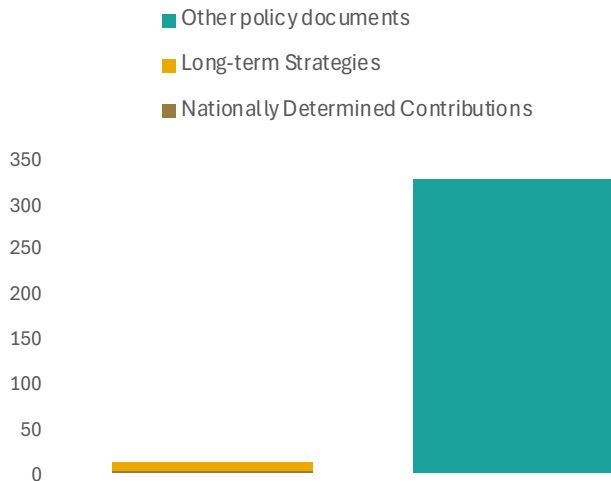
		Road transport	Rail transport	Domestic navigation	Domestic aviation	Urban transport
<i>Second Nationally Determined Contribution (adopted in 2020)</i>	Mitigation measures					
	Mitigation targets	Yes	Yes			Yes
	Adaptation measures					
	Adaptation targets					

Long-term Strategies

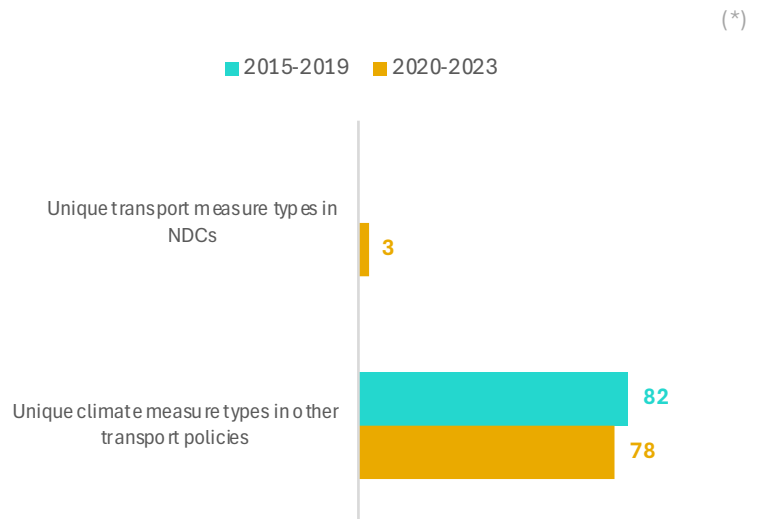
		Road transport	Rail transport	Domestic navigation	Domestic aviation	Urban transport
<i>Nepal LTS (adopted in 2021)</i>	Mitigation measures	Yes	Yes		Yes	Yes
	Mitigation targets	Yes	Yes			
	Adaptation measures					
	Adaptation targets					

X. Distribution of Transport and Climate Policy Measures in Policy Documents

Number of policy measures by source

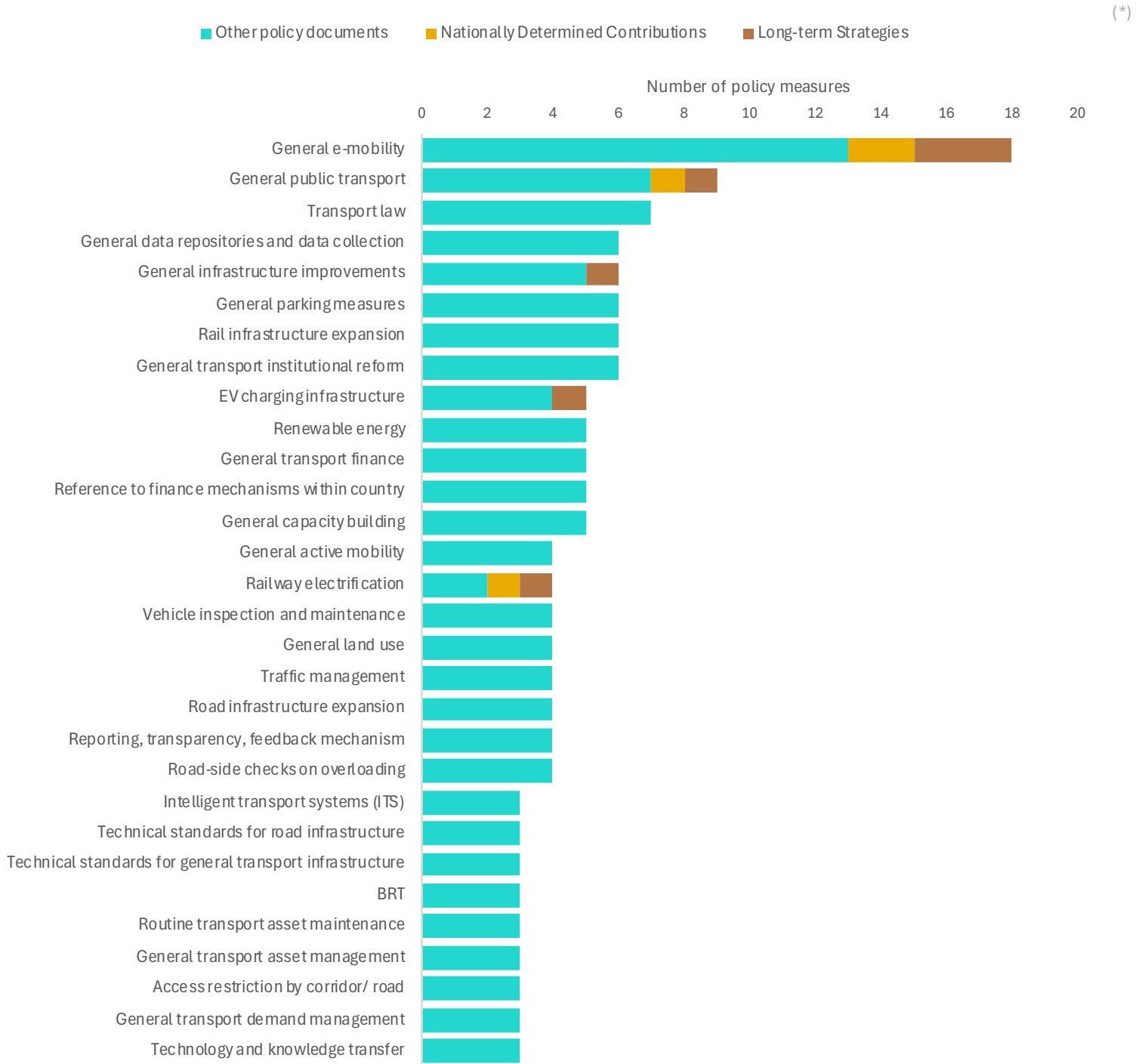


Integration of climate ambition, unique number of policy measures in (*) NDCs and other transport policies

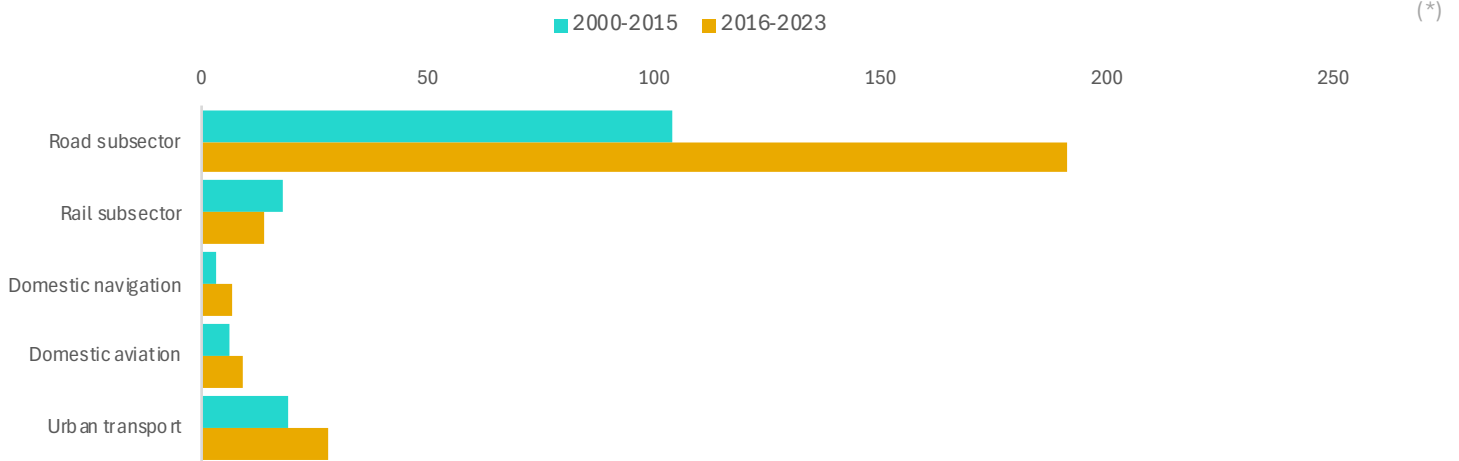


XI. National Policy Priorities on Transport

Priority policy measures on climate change mitigation and adaptation in transport (top 30)



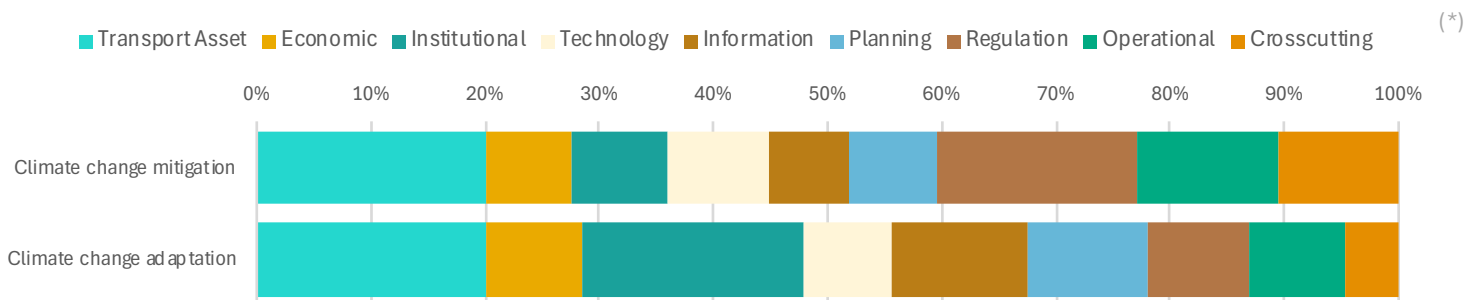
Number of climate change policy measures by subsectors



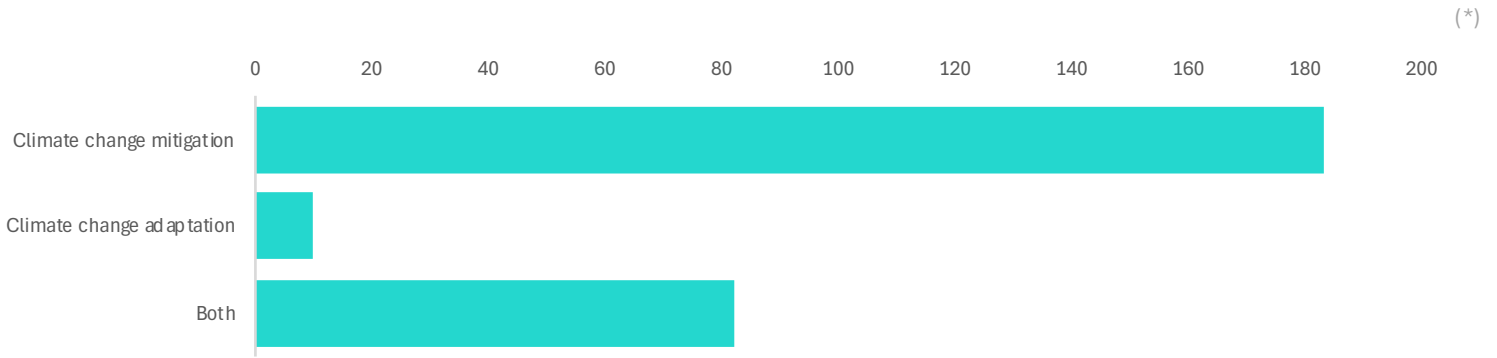
Number of climate change policy measures by passenger vs. freight



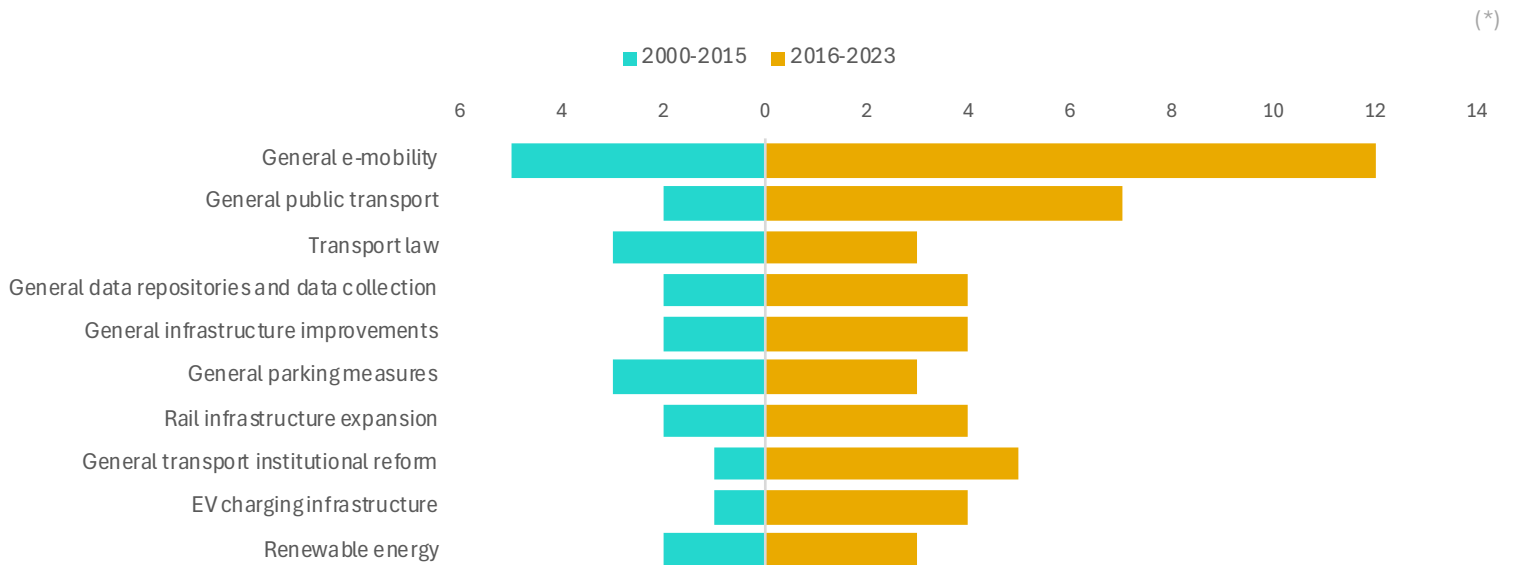
Transport-related climate change policy measures by framework



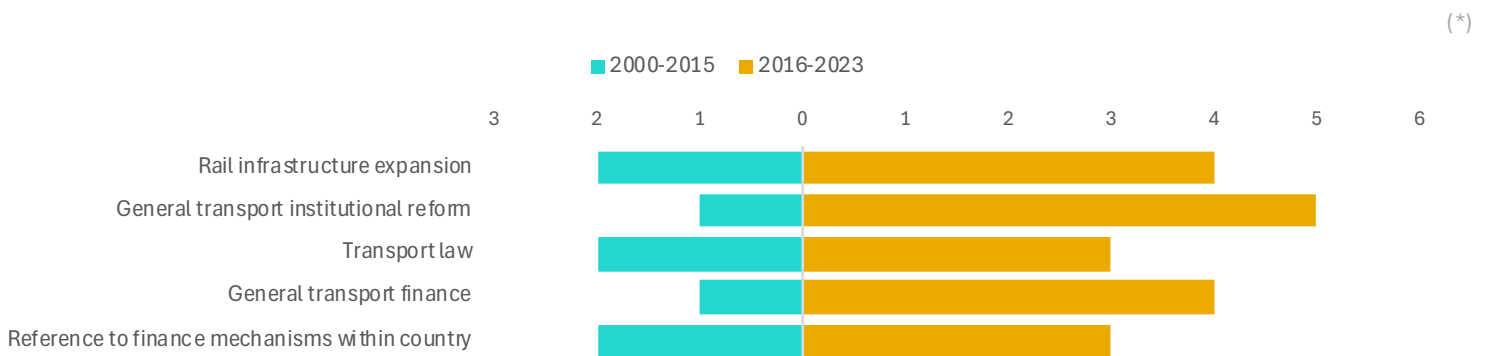
Number of climate change mitigation vs. climate change adaptation policy measures



Climate change mitigation top 10 typology, number of policy measures



Climate change adaptation top 5 typology, number of policy measures



XII. Direct GHG Targets

This table contains transport-relevant (e.g. economy-wide; sector-specific) GHG emissions targets as explicitly mentioned in the policy documents of Nepal

Document	Year published	Target	Target year
Economy-wide emissions			
Net zero, carbon neutrality, and other long-term climate action			
Transport GHG emission			

XIII. Indirect Transport Climate Change Targets

This table shows non-GHG targets as specified in the policy documents in Nepal which indirectly benefit climate change mitigation and adaptation in the transport sector

Document	Year published	Target	Target year
General e-mobility			
Second Nationally Determined Contribution	2020	Sales of electric vehicles (e-vehicles) in 2025 will be 25% of all private passenger vehicle sales, including two-wheelers and 20% of all four-wheeler public passenger vehicle sales (this public passenger target does not take into account electricrickshaws and electric-tempos) in 2025.	2025
Second Nationally Determined Contribution	2020	By 2030, increase sales of e-vehicles to cover 90% of all private passenger vehicle sales, including two-wheelers and 60% of all four-wheeler public passenger vehicle sales (the public passenger target does not take into account electric-rickshaws and electric-tempos).	2030
Nepal LTS	2021	: i) In 2025, electric vehicles (e-vehicles) will account for 25 per cent of all private passenger vehicle sales (including two-wheelers) and 20 per cent of all fourwheeler public passenger vehicle sales (excluding electric rickshaws and electric three-wheelers) (Second NDC)	2025
Nepal LTS	2021	Increase e-vehicle sales to 90 percent of all private passenger vehicle sales (including two-wheelers) and 60 percent of all four-wheeler public passenger vehicle sales by 2030. (excluding electric-rickshaws and electric threewheelers). (Second NDC)	2025
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	7.3.1: Share of EV in public transport systems 2025: 35% (SDG Targets & indicators)	2025
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	7.3.1: Share of EV in public transport systems 2030: 50% (SDG Targets & indicators) By 2030, increase sales of e-vehicles to cover 90% of all private passenger vehicle sales including two-wheelers and 60% of all four-wheeler public passenger vehicle sales (this public passengertarget does nottake into account electric-rickshaws and electric-tempos) (NDC)	2030
National Energy Strategy of Nepal	2013	Gradually replace 20 percent demand capacity of diesel and petrol cars of the base case in year 2025 with electric and hybrid vehicle in equal share.	2025
National Energy Strategy of Nepal	2013	Gradually replace 30 percent demand capacity of diesel and petrol cars of the base case in year 2030 with electric and hybrid vehicle in equal share. Facilitate imports of hybrid and electric cars by 15 percent.	2030
National Implementation Plan for Climate Change Mitigation and Adaptation (2080-2087)	2023	<ul style="list-style-type: none"> By 2025, 25% of the total domestic passenger vehicle sales will be due to electric passenger vehicles. Share of sales to tri-electric public transport vehicles in total: Sales to public transport vehicles to be 20 percent (electric rickshaws and tri-electric tempos are included in target volume of sales to public transport vehicles) 	2025
General public transport			
Second Nationally Determined Contribution	2020	By 2025, ensure at least three provinces operate electric public transport,	2025
Railway electrification			
Second Nationally Determined Contribution	2020	By 2030, develop 200 km of the electric rail network to support public commuting and mass transportation of goods.	2030
Nepal LTS	2021	iii) Develop a 200-kilometer electric rail network by 2030 to support public transportation and mass transportation of goods. (Second NDC)	2030
Ban of ICE sales			

XIII. Indirect Transport Climate Change Targets

This table shows non-GHG targets as specified in the policy documents in Nepal which indirectly benefit climate change mitigation and adaptation in the transport sector

Document	Year published	Target	Target year
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	Remove all petroleum-powered vehicles from four urban centres (Kathmandu Valley, Chitwan, Hetauda and Kavre) by 2028. (Bagmati Province Periodic Plan)	2028
Fuel quality			
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	By 2050, Nepal will decrease its dependency on fossils in the transport sector by 50%. (NDC)	2050
General infrastructure improvements			
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Families with access to transportation within the distance of 30 minutes = 95 (baseline = 82 (2018/19))	2024
General transport finance			
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Transportation, storage and communication Gross Domestic Product and sector-wise value addition target (In 10 million rupees) = 37,122 (baseline 2018/19 = 22,135) Economic growth rate and sector-wise value addition target = 10.8% (baseline 2018/19 = 5.9%) Sector-wise contribution to the gross domestic product = 7.7% (baseline 2018/19 = 7.2%) Incremental capital-output ratio and total investment (At the constant prices of FY 2018/19) (In 10 million rupees) = 45740	2024
Rail infrastructure expansion			
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	By 2030, develop 200 km of the electric rail network to support public commuting and mass transportation of goods. (NDC)	2030
Renewable energy			
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Ratio of renewable energy in total energy consumption = 12% (baseline 2018/19 = 7%)	2024
Road infrastructure expansion			
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Road density = 0.74 km/sqkm (baseline = 0.55 (2018/19)) National and provincial highways (up to 2 lanes) (*Only blacktopped roads) = 20,200 km (baseline = 7,794 (2018/19)) National highways (above 2 lanes, including fast tracks) = 1174 km (baseline = 96 (2018/19)) Railways = 348 km (baseline = 42 (2018/19))	2024

XIV. Transport and Climate Policy Measures

This table lists the policy measures that relate to climate change mitigation and adaptation in the transport sector that had been identified in the transport policy documents of Nepal

Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
EV charging infrastructure							
Nepal LTS	2021	Installation and expansion of charging stations	x				
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	establishing charging stations for EV (15th Five-Year Plan (2019/20 – 2023/24)) Within one year, establish charging stations and bus terminals with charging facilities in partnership with the private sector. Within two years, develop legal measures for the conversion of old vehicles to EV. (Kathmandu Valley Air Quality Management Action Plan, 2076 [2020]) Facilitating land for the construction of ten charging stations in Kathmandu, under a pilot initiative. Installing charging stations in retail outlets such as shopping malls, hotels and large parking areas. (Environment-Friendly Vehicle and Transport Policy, 2014)	x				x
National Action Plan for Electric Mobility	2018	Facilitating land for the construction of ten charging stations in Kathmandu, under a pilot initiative. Installing charging stations in retail outlets such as shopping malls, hotels and large parking areas. (Environment Friendly Transport Policy) Ensuring continuous supply of power to electric vehicle charging stations. (National Energy Strategy) Identify and co-fund charging infrastructure project	x				
National Energy Strategy of Nepal	2013	Ensure continuous supply of electricity to the electrical vehicle recharge stations.	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Charging stations will be gradually set up as needed with the participation from the private sector to promote electric vehicles.	x				
Fuel quality							
Nepal LTS	2021	Switching fuel to clean energy (electricity, fuel cells, synthetic fuels/biofuels in aviation)	x				
General e-mobility							
Nepal LTS	2021	Electrification in all end-use services in urban areas · Promotion of electric mass passenger transport Electrification in freight transport	x				x
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	encourage electrification of the public transport sector (Periodic Plans of Local Governments) energy-efficient technologies and promotion of electrical energy in industry, transport and physical infrastructure sectors; (ii) promotion of electrical vehicles; (National Climate Change Policy, 2019) clean vehicles such as electric vehicles, hybrid vehicles and hydrogenpowered vehicles will be promoted. (National Environment Policy, 2019) Encouraging manufacturing of environment-friendly vehicles, including EV. (Environment-Friendly Vehicle and Transport Policy, 2014) conversion of 20% of vehicles in Nepal to clean vehicles by the next five years. (Road, Rail and Transport Development for Prosperous Nepal – Five Year Strategic Plan (2073-2078))	x				x

XIV. Transport and Climate Policy Measures

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
National Action Plan for Electric Mobility	2018	Expanding the use of electric vehicles (National Transport Policy) Encouraging manufacturing of environment friendly vehicles, which include electric vehicles. Increasing the share of what the policy terms “environment friendly vehicles” to a minimum of 20% of the total vehicle fleet by 2020. (Environment Friendly Transport Policy) Promoting electric vehicles across all systems. (National Sustainable Transport Strategy [Draft]) Facilitating and increasing the import of hybrid and electric vehicles. (National Energy Strategy) Develop informational campaign for electric mobility Development government fleet of electric vehicles Ease restrictions on electric two-wheelers	x				
National Energy Strategy of Nepal	2013	Reduce demand capacity of diesel and petrol cars by 10 percent of base case in 2020. Electric and Hybrid cars substituting this capacity by 5 percent each. Facilitate imports of hybrid and electric cars	x				
National Implementation Plan for Climate Change Mitigation and Adaptation (2080-2087)	2023	Promotion and promotion of electric mobility, public transport	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Electrification of transport vehicles	x				
National Transport Policy	2001	To operate bus, tram and other vehicles powered by gas, electricity and solar power.	x	x			
Strategy and Initiatives for Electrification of Public Transportation in Nepal	n.d.	Provision for Converting the fossil fuel vehicles to environment friendly vehicles (Environment Friendly Vehicles and Transport Policy 2014)	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	The priority will be given for the use of the electric vehicles. Electric vehicles will be promoted and appropriate tariffs will be fixed by conducting a study on tariff rates.	x				
General freight and logistics improvements							
Nepal LTS	2021	Electrification in freight transport	x	x		x	
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Minimize empty-running of trucks Improve operational efficiency of truck transport Provision of container port (dry port) Urban freight: · Provision of appropriately located freight station · Design of efficient distribution logistics · Clean vehicles	x				x
General infrastructure improvements							
Nepal LTS	2021	transition to zero-emission transportation for intercity, intracity, and freight travel across public and private modes	x				
National Action Plan for Electric Mobility	2018	Promoting the development of sustainable urban public transport services in all urban areas with over 100,000 residents.	x				x

XIV. Transport and Climate Policy Measures

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Construction of service stations on national highways Improvement of major intersection in Kathmandu valley and other major cities (including provision of flyovers) Provision of over/under pass on national highway and railways	x	x			
National Transport Policy	2001	To construct access way, house and huts permanently or temporarily, encroach the road leading to construct in maintaining design speed on high ways shall not be allowed, shall be removed the same, if any. Private sector shall be encouraged to construct and operate cable car at the places which can play vital role because of tourism and other economic activities, where road transport facility is not available and necessity of alternate transport system has also been felt. Private sectors shall be encouraged to construct and operate rope ways in the areas where construction of road is dangerous in environmental and geographical view or where operating road transport is comparatively costly. Local institutions shall be involved in the construction, repairing and maintenance of suspension bridges located in the main way.	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Introduction of safe system approach as an integral element in land use planning, city planning, road design, transport system planning, and governance Segregate fast-moving traffic on opposing lanes whenever the cruising speed is likely to exceed 40 kmph Use of combined passenger-freight vehicles on low traffic roads Implementation of traffic calming measures to bring down the cruising speed to the prescribed speed limit. Ensure prohibition of unauthorized road works and opening of access (as per § 19 of PRA). Develop roadside amenities, truck/ bus laybys, and refresh center for long route drivers Initiate systematic elimination of traffic bottlenecks as a part of road development package (caused by abruptly narrowed intersections, road sections, culverts, inadequate extra-widening at sharp curves, etc.). Systematic improvement of footpath and road carriageway by clearing physical obstructions (eg: utility poles, tree stumps), removing vendors/ parked vehicles, surface improvement, and railing at intersections to encourage pedestrian to use the footpath. Ensure nationwide erection of speed control sign and publish notice on speed zones	x				
General public transport							
Nepal LTS	2021	· Promotion of electric mass passenger transport	x				x

XIV. Transport and Climate Policy Measures

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Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	emphasize mass transit and bus rapid transit (15th Five-Year Plan (2019/20 – 2023/24)) well-managed and reliable transport system (Periodic Plans of Local Governments) special attention to improving 'the comfort, reliability, safety, frequency, availability and affordability of public transport' to reduce the harmful emissions from mobility sources; (National Transport Policy, 2001) promote the shift towards more sustainable transport modes such as non-motorized transport and further promote public transport systems (Environment-Friendly Vehicle and Transport Policy, 2014)	x				
National Action Plan for Electric Mobility	2018	Operating electric bus, tram and other public transport vehicles, especially in cities. (NTP) Introducing electric bus public transportation in urban areas (National Sustainable Transport Strategy [Draft]) Reform route and permit management for electric public transport	x				x
National Energy Strategy of Nepal	2013	Encourage use of public transport	x				
National Implementation Plan for Climate Change Mitigation and Adaptation (2080-2087)	2023	Establishing a public transport facility in Kathmandu.	x				x
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Seek balance between the cost of private mode and public transport fare Provision of public transport (electric vehicles) and NMT facilities in cities/towns that are popular tourist destination Make provision of public transport in rural areas Promote modal shift (from private to public) o Raising public awareness on the benefits of public transport o Imposing higher cost on private modes ('push' factor) o Making public transport attractive ('pull' factor) Design public transport routes and franchising policy based on scientific analysis	x				x
Nepal Road Safety Action Plan (2021-2030)	2022	Explore mass passenger transport alternatives in Metro and Sub-metro cities. Undertake adequate study prior to awarding route permits for inter-province buses and make necessary arrangements to record routes in an electronic platform Establish a modality to encourage public vehicle operators to maintain a better safety record.	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	The automatic fare system will be made more effective based on practical and scientific criteria. Route permits for vehicles will be issued only after assessing road conditions, and the public transport system in major cities including the federal capital will be re-routed.	x				
Access restriction by corridor/ road							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Study for possible restriction of motorcycles and cars (during peak hour) on the busiest routes in Kathmandu valley	x				

XIV. Transport and Climate Policy Measures

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
National Transport Policy	2001	To restrict motorized vehicles in prescribed core areas. Arrangement shall be made as to not allowing parking except in specified places. To maintain designed speed on the high-speed roads fast track and express way and in order not to allow speed breaking old and vehicles not having specified roadworthiness shall not be allowed to run.	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Bicycles and other NMT to be allowed only on roads suitable for them Study on the possibility of authorizing/prohibiting vehicle use based on the traffic demand, terrain, altitude, and type of road. Declare vehicle-free zones (where deemed necessary) to improve safety of pedestrians and cyclists (as per MVTMA § 118). Incorporate location identifier/chip in Vehicle registration plate and discourage vehicles without permit to drive into the designated area. To relieve congestion in urban areas: initiate strategies including congestion pricing schemes, entry restriction based on the time of the day and type of vehicles, the minimum number of passengers in cars, maximum parking duration, and parking/ stopping spots for buses and taxis.	x				x
Accreditation of driver training agencies							
Nepal Road Safety Action Plan (2021-2030)	2022	Update the list of etiquette for the driver, conductor, and passengers in the Public Transport Code of Conduct 2067 based on 1968 Convention on Road Traffic. Also include the percentage of standees allowed in different passenger vehicles; essential carry-on tools and spares; accessibility for the elderly and disabled.	x				
Accreditation of vehicle inspection centers							
Nepal Road Safety Action Plan (2021-2030)	2022	Amend the Guidelines on vehicle fitness inspection and testing to include maintenance workshops to be recognized by the vehicle manufacturer and qualification of authorized mechanics. Explore the possibilities to authorize the private sector for testing the vehicles and issuing driving permits.	x				
Active transport infrastructure expansion							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Construction of service lanes and pedestrian facilities on national highways. Provisions of pedestrian facilities, such as overhead bridges Pedestrian way and dedicated bicycle lanes along national highway sections passing through the settlement areas.	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Develop bicycle lanes and bicycle parking area in the city core and on the roads leading to it	x				
Adaptation transport laws, regulations and programmes							
National Adaptation Plan (NAP) 2021 - 2050	2021	Undertake climate vulnerability and risk hazard mapping of the road sector	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Awareness raising among key stakeholders					

XIV. Transport and Climate Policy Measures

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Adaptation-related education and training							
National Adaptation Plan (NAP) 2021 - 2050	2021	Build capacity and increase awareness on climate-resilient industry and infrastructure operations to ITPI stakeholders and service providers	x				
Adoption of Harmonized Technical United Nations Regulations for Wheeled Vehicles, Equipment and Parts United Nations Regulations 1958							
Nepal Road Safety Action Plan (2021-2030)	2022	Adoption and implementation of the 1958 UN Agreement Develop a national standard for vehicle accessories such as brake, tire, and seatbelt in conformity to the 1958 Agreement on Vehicle Regulations.	x				
Alternative trip schedules							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Study for possible restriction of motorcycles and cars (during peak hour) on the busiest routes in Kathmandu valley Arrange staggered working/school hours	x				
Alternatively-powered rolling stock							
National Adaptation Plan (NAP) 2021 - 2050	2021	Promote hybrid-fuel systems for transportation vehicles.	x				
Ban of ICE sales							
National Energy Strategy of Nepal	2013	Reduce demand capacity of diesel and petrol cars by 10 percent of base case in 2020.	x				
Biofuels							
National Energy Strategy of Nepal	2013	Economy-wide: Production of bio-diesel and ethanol and their use shall be promoted with appropriate fiscal and other incentives Introduce Ethanol blended gasoline E10 (10 percent blended with ethanol) in all gasoline vehicles. Introduce biodiesel B05 (5 percent blended with diesel) in all diesel vehicles.	x				
BRT							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	emphasize mass transit and bus rapid transit (15th Five-Year Plan (2019/20 – 2023/24))	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Improve the condition of road-based public transport with viable options, such as introduction of high-capacity buses, provision of bus lane or Bus Rapid Transit (BRT) system Introduction of bus lane or BRT routes where the existing road width permits	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	A bus rapid transit system will be prioritized by emphasizing on mass transport.	x				
Budget/ identification of active mobility projects							

XIV. Transport and Climate Policy Measures

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Invest for pedestrian and Non Motorized Transport (NMT) infrastructure in Kathmandu and other cities	x				x
Bus fleet renewal							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Improve the condition of road-based public transport with viable options, such as introduction of high-capacity buses, provision of bus lane or Bus Rapid Transit (BRT) system Introduction of trolley buses or electric buses in Kathmandu Provision of high-quality buses (with bus info system, WiFi)	x				
Climate-resilient design standards							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Adopt design standards to adapt climate change and other hazards Adopting hierarchical design standards based on the strategic importance of a particular route of link Adopt higher design standard for strategic roads (eg access to hospital etc)	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Special precautions will be taken during the design and construction of roads and bridges to minimize the impact and damage from natural calamities and climate adversities.	x				
Convention on Road Traffic 1968							
Nepal Road Safety Action Plan (2021-2030)	2022	Ratification of BBIN should be preceded by the 1968 Convention on Road Traffic Update the list of etiquette for the driver, conductor, and passengers in the Public Transport Code of Conduct 2067 based on 1968 Convention on Road Traffic. Also include the percentage of standees allowed in different passenger vehicles; essential carry-on tools and spares; accessibility for the elderly and disabled.	x				
Coordinate planning across government agencies							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Coordinated planning of transport network with other sectoral plans, such as industrial zones, hydropower development, eco-tourism, agro-industries and so on. Achieve integration between national transport network and regional development plan Early planning intervention to ensure land-use and transport coordination in newly (recently) declared municipalities or newly extended areas of existing municipalities or metro (and sub-metro) cities. Establish linkage/partnership/collaboration with concern agencies /institutions/stakeholders national and international levels.	x	x		x	

XIV. Transport and Climate Policy Measures

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
National Transport Policy	2001	In constructing new roads in urban areas, public utility services like sewage, drinking water, telephone, electricity, shall be managed separately away from the road pavement to the possible extend. Cycle lane shall be managed separately. A National Transport Board is constructed subject to connecting all authorities relating to transport including civil aviation. If the project (road) operated by the local bodies gets feasible from the point view of traffic density, standard of service and self-reliance, such roads may be included into the central system and shall be included into the concerned authority gradually.	X				X
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Other infrastructure sectors will be coordinated for the construction of national highways	X				
Customs Convention on the Temporary Importation of Private Road Vehicles 1954							
59 UN Transport Agreements/ and Conventions Serviced by ECE	2021	Ratification, accession, or definite signature by country	X				
Data modelling improvements							
Nepal Road Safety Action Plan (2021-2030)	2022	Development of a GIS-based national road accessibility model to find settlements still not connected through accessibility audit. Development of a GIS-based model on bus routes and frequency	X				
Define roles and accountabilities across agencies							
National Transport Policy	2001	A Road Transport Authority, by merging the Department of Roads and Department of Transport Management, shall be established in order to make the road transportation and transport management self-governing and self-reliance. To cancel public transport related government corporations, , failed to become self-reliant. By appropriately evaluating the investment and depreciation in the corporations concerned with the transport service under taken by the government, arrangement shall be made to operate them in a smooth manner with a management based in the commercial principle. To control the attitude of relying on the governmental subsidy. By fully handing over all infrastructure of the local transport system to the local bodies within 3 years, to hand over the existing man-power and machine-tools, office including residential building temporarily or permanently to the concerned body. Water Transport: Coordination shall be made with the Ministry of Water Resources and the Water and Energy - Commission for study, investigation and data bank about water transport. The construction and maintenance of main trails and mule tracks shall be undertaken by local institutions with the maximum utilization of local skills, labour and materials through public participation.	X		X		
Nepal Civil Aviation Act, 2073	2017	Civil Aviation Authority of Nepal to act as a regulatory body for the oversight of aviation safety, security and organisation (further details in chapter 5)				X	

XIV. Transport and Climate Policy Measures

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The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Resources for road maintenance will be managed through the Roads Board.	x				
Design standards for sidewalks and bicycle paths							
Global Status Report on Road Safety 2018	2018	Partial	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Setting standards for pedestrian way and NMT lanes in urban areas	x				x
Development density or intensiveness							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Promote high-density and compact city development (minimize travel)					
Development of aviation plan/policy							
National Transport Policy	2001	Policies relating to air transport shall be considered as part of the National Transport Policy itself				x	
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	A national air service agreement strategy will be formulated, and air service agreements will be concluded with new destination countries.				x	
Development of e-mobility transport plan/policy							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	develop and implement a national program for e-mobility (National Action Plan for Electric Mobility, 2018)	x				
Development of public transport plan/ policy							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Prepare a Master Plan for mass transit in Kathmandu (high capacity bus, BRT, LRT, MRT)	x	x			
Development of rail plan/ policy							
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Legal and policy arrangements will be put in place for the management of railways.		x			
Development of road plan/ policy							
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	A long-term master plan will be developed by categorizing roads based on different standards such as load-bearing capacity, traffic volume, and contribution to the economy. Project implementation will be started after preparing a comprehensive plan of action, including preparatory activities such as land acquisition, right of way, drawing, and approval for the utilization of forest area.	x				
Development of shipping/ maritime/ inland water transport (IWT) plan/ policy							

XIV. Transport and Climate Policy Measures

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The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	New laws and policies will be introduced, and existing laws will be revised in accordance with international laws and practices for the development and operation of water transport.			x		
Development of transport plan/ policy							
National Action Plan for Electric Mobility	2018	Preparing comprehensive transport management standards and plans. (National Urban Development Strategy)	x				x
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	For the improvement of the urban environment, a plan will be formulated implemented based on the concept of integrated urban infrastructure including transport, urban roads, drinking water supply, sewerage, housing, parks, open green areas, market areas, and bus parks.	x				x
Energy efficient vehicle purchase incentives							
National Energy Strategy of Nepal	2013	Exempt tax in purchase of vehicles running on alternate fuels.	x				
Express lanes/ public transport priority							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Planning for bus lane in newly constructed intercity expressway routes. Make provision of bus lane during peak hour	x				
Fiscal incentives for EVs and components							
National Action Plan for Electric Mobility	2018	A customs (import) duty of 1% is in place (compared to a customs duty of 5% for fossil fuel vehicles with more than 40 seats for public transport mentioned in the Budget Speech for FY2015/16). • Exemption of value added tax (compared to a VAT of 13 % leveed on fossil fuel vehicles for public transport). For electric vehicles for private transport: • A customs (import) duty of 10 % is in place (compared to a customs duty of 80 % for fossil fuel vehicles for private usage). • Exemption of value added tax (compared to a VAT of 13 % leveed on fossil fuel vehicles for private usage). For battery recycling equipment: • A customs duty of 1 % is in place on machinery and equipment used for the recycling of batteries. For electric rickshaw parts: • Exemption of value added tax (compared to a VAT of 13 % leveed on fossil fuel vehicle parts). (Budget Speech 2016/2017) Incentivize new entrants on the electric mobility market	x				
National Energy Strategy of Nepal	2013	Provide rebates in the customs duty of hybrid/electric vehicles as much as 50% and 25% on the prevailing customs duty on conventional vehicles.	x				
Freight transport shifting to rail or inland waterways (IWT)							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Modal shift to railway/water transport		x	x		

Fuel tax

XIV. Transport and Climate Policy Measures

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
National Energy Strategy of Nepal	2013	Increase the fuel price. This will limit the use of vehicles as per need.	x				
General active mobility							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	promote the shift towards more sustainable transport modes such as non-motorized transport and further promote public transport systems (Environment-Friendly Vehicle and Transport Policy, 2014)	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Recognize walk and NMT modes as the means of improving public health Promote bicycle clubs targeting rural tourists Discourage replacement of bicycle by motorcycle through public awareness and bicycle lanes.	x				x
Nepal Road Safety Action Plan (2021-2030)	2022	Provide a safe and comfortable road crossings in urban areas for pedestrians. Develop bicycle lanes and bicycle parking area in the city core and on the roads leading to it Registration and management of Non-motorised transport (NMT) as data are crucial to planning infrastructures and services	x				x
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Vehicles Free Zones' will be announced focusing on densely populated cities and settlements.	x				
General adaptation measures							
National Adaptation Plan (NAP) 2021 - 2050	2021	Promote and use climate-resilient and environment friendly tools, technologies, and inclusive measures in roads and transport (e.g., green belts, avenue plantations, bioengineering, bypasses, distance shortening, electric vehicles, waterways, railways, charging stations, etc.). Promote nature-based solutions to building resilience of the road sector.	x				
General alternative fuels							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Use of alternative and low-emission fuels					
General aviation improvements							
National Implementation Plan for Climate Change Mitigation and Adaptation (2080-2087)	2023	Development of capacity of airfriendly transport system and operational speed trains.				x	
General capacity building							
National Action Plan for Electric Mobility	2018	Promoting integrated land-use and transport planning, through institutional and capacity development. (National Urban Development Strategy)	x				x

XIV. Transport and Climate Policy Measures

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National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	· Building capacity of government institutions (central and local level governments) · Upgrade technical capacity of private firms involved in infrastructure design and construction (consultants and contractors) · Start courses on railway planning, engineering, and management in public engineering campus · Establish railway training institute · Building capacity for transport policy research o Establish in-house think-tank within government agencies o Establish long-run collaboration for transport policy research with some research center of public university	x	x			
National Transport Policy	2001	To develop the professional skills, standard, managerial ability, better utilization of equipment and training and fair competition among constructors					
Nepal Road Safety Action Plan (2021-2030)	2022	Multi-disciplinary participation in road safety-related discussions and investigation of major road crashes Ensure availability of trained workforce for effective monitoring and implementation of the prevailing provision of VTMR § 140, 157, 158 Capacity building on trauma-care service. Establish a network of trauma care facilities. Identify hospitals for the establishment of trauma and rehabilitation units along major highways	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Human resources related to the road sub-sector will be imparted high-quality training to develop their practical skills. The in-house staff of the road sector will be optimally involved in projects implemented under foreign aid to help transfer knowledge, skills, and technologies. The institutional capacity of the private sector involved in infrastructure development will be strengthened. The capacity of human resources engaged in the construction, operation, and other managerial aspects of railways will be enhanced. Human resources related to water transport will be developed and capacitated	x	x	x		
General commuter trip reduction							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	avoid unnecessary travel, reduce trip distance (Environment-Friendly Vehicle and Transport Policy, 2014)	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Reduce travel demand by o Land-use and transport coordination o Pricing transport to reflect real social cost	x				
General data repositories and data collection							
Motor Vehicles and Transport Management Act, 2049 (1993)	1993	Records of motor vehicle to be maintained	x				
National Action Plan for Electric Mobility	2018	Improve data collection on vehicle registration and scrapping Establish data collection and sharing protocol for air quality data	x				

XIV. Transport and Climate Policy Measures

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National Adaptation Plan (NAP) 2021 - 2050	2021	Develop a nationwide and accessible resource, data and information pool that support building capacities of resilient ITPI.	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Maintain data-base of basic transport data	x			x	
Nepal Road Safety Action Plan (2021-2030)	2022	Registration and management of Non-motorised transport (NMT) as data are crucial to planning infrastructures and services Establish a national database linking weighbridges at border crossing points and on highways Establish a provincial and national database to keep the record of initial registration, vehicle use authorization, inspection history, crash history, ownership history, and driver history. Grant access to the registration data to all TMO and Traffic Police Offices, and disseminate regularly on the official website.	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	A data center will be established and developed for a one-window system for information on drivers' licenses and vehicle registration.	x				
General education and behavior change							
Nepal Road Safety Action Plan (2021-2030)	2022	Ride-sharing culture will be developed. Accommodate road safety in the next revision of formal and informal education curricula, teachers' guide, and standard reference material. Introduce incentives for commercial drivers/operators having crash-free records for a year Continuous enforcement at zebra crossings for a month each year to help develop an involuntary reflex to stop.	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Training for capacity development and behavioral change will be conducted for the human resources involved in the transport sector	x				
General inland waterways (IWT) improvement							
National Transport Policy	2001	For those remote areas where road -transport is difficult internal water transport system shall be developed by identifying the feasible areas integrating nearest road system Necessary legal provisions shall also be made for the development of internal water transport infrastructure. Identifying the feasible areas for developing water transport, priority shall be given to develop in coordination with private sector. For the development and operation of waterways, His Majesty's Government shall arrange to operate the waterways according to the Act, Rules and Directives by prescribing the measurement taking in view the expansion and security of the same.			x		

XIV. Transport and Climate Policy Measures

This table lists the policy measures that relate to climate change mitigation and adaptation in the transport sector that had been identified in the transport policy documents of Nepal

Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Water transport will be developed and expanded based on feasibility studies. 2. Bilateral and multilateral agreements will be concluded for the construction of the required infrastructure facilitating access to the sea. Inland water transport infrastructure will be prepared and to be affiliated to aqua tourism. The private sector will be prioritized for the operation, development, and expansion of services of water transport. 2. Resources required for the development of water transport will be raised through a public-private partnership.			x		
General international conventions							
Nepal Road Safety Action Plan (2021-2030)	2022	Establish VFTC conforming to the 1997 Convention on Technical Inspection of Vehicles in all provinces with the capacities matching the legal test frequency for each type of vehicle within a year Ratification of the 1975 Agreement on Minimum Requirements for Driving Permits Aligning the existing legal tools for compatibility with the ratified UN resolutions Develop and implement standard procedure while issuing a driving license in conformity to the 1975 Agreement on Minimum Requirements for Driving Permits	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Nepal will be a party to international covenants, conventions, and agreements on water transportation.			x		
General IPT/ paratransit measures							
National Action Plan for Electric Mobility	2018	Introducing electric rickshaws in small and medium-sized cities. ((National Sustainable Transport Strategy [Draft])) Reconsider ban on additional electric threewheelers	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Introduction of electric rickshaw in small/medium cities	x				
General land use							
National Action Plan for Electric Mobility	2018	Promoting integrated land-use and transport planning, through institutional and capacity development. (National Urban Development Strategy)	x				x
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Coordinate land-use and transport development Undertake settlement planning/restructuring in the rural area before planning for the rural roads Early planning intervention to ensure land-use and transport coordination in newly (recently) declared municipalities or newly extended areas of existing municipalities or metro (and sub-metro) cities. Coordinate production and consumption places (minimalize transport distance)	x				x
National Transport Policy	2001	Given attention to the long term development process of the country in time, and with the view to open the way for future, appropriate land for the possible express day, fast track road, by-pass, electric railway and dedicated utility lanes, in urban areas, new international airport, shall be identified and separated in time and shall be acquired in advance.	x	x			x

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
Nepal Road Safety Action Plan (2021-2030)	2022	Introduction of safe system approach as an integral element in land use planning, city planning, road design, transport system planning, and governance	x				
General parking measures							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	Encouraging the private sector to invest in the construction and management of electric vehicle parking stations and service centres (Environment-Friendly Vehicle and Transport Policy, 2014)	x				
Motor Vehicles and Transport Management Act, 2049 (1993)	1993	Parking place and bus stand to be determined: The competent authority shall, in consultation with the officials of local bodies at the village, municipal and district levels, determine parking places and bus stands, without causing adverse effects on traffic on the main roads.	x				
National Action Plan for Electric Mobility	2018	Encouraging private sector to invest in construction and management of electric vehicle parking stations and service centers. (Environment Friendly Transport Policy)	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Make provision of parking facilities in Kathmandu and other major cities Make provision of parking for introducing park-and-ride system	x				
National Transport Policy	2001	Not to allow more motor vehicles than the certain density. For this purpose, the means of controlling vehicle ownership and city parking fee shall be taken up. Arrangement shall be made as to not allowing parking except in specified places.	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Development of supplementary infrastructure such as storied parking lots, higher charges on on-road metered parking, and Park-and-Ride facilities. To relieve congestion in urban areas: initiate strategies including congestion pricing schemes, entry restriction based on the time of the day and type of vehicles, the minimum number of passengers in cars, maximum parking duration, and parking/ stopping spots for buses and taxis. Development of overhead/ underground parking lots near UNESCO heritage sites and its surroundings through PPP. Enforce parking at road edge or lay-bye for a month each year to help develop a habit among passenger buses	x				x
General rail improvement							
National Transport Policy	2001	Identifying the feasible areas according to the demand for operating rail transport, a long term planning shall be drafted to develop it coordinating within national transport system. • Rail transport shall be developed in immediate possible or will be possible sectors with the participation of private sector on the basis of comparative benefits with road transport. • The private sector shall be encouraged to develop and institutional operation of the railway transport.		x			
General shared mobility							

XIV. Transport and Climate Policy Measures

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
Nepal Road Safety Action Plan (2021-2030)	2022	Ride-sharing culture will be developed.	x				
General transport asset management							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Completion and upgrading of Strategic Road Network (SRN	x				
National Transport Policy	2001	In order to deliver an appropriate level of service from the existing transport infrastructure, necessary maintenance, repair and protection shall be implemented. To construct, improve, maintain and rehabilitate the important road system an autonomous and self contained organization shall be established.	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	The East-West Highway will be upgraded to Asian Highway standards and inter-provincial highways will be expanded based on traffic volume. . Resources for road maintenance will be managed through the Roads Board.	x				
General transport demand management							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Plan for regional economic zones and transport connectivity to minimize intercity travel and for better economic integration among the regions. - Planned city development along national transport corridors giving priority for making use of public transport (intercity) more efficient and convenient (such as with provisions of bus terminal, access/egress modes). Minimize empty-running of trucks	x				
National Transport Policy	2001	Operation permit to the means of transportation shall be given only on the competitive basis To manage as fully to permit only light vehicles and mini-buses mini-trucks on the road of remote hilly regions.	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Determine routes, frequency, normal/ extended operating hours, normal/ off-hour fare, and size of intra-province buses while ensuring sustainability and attractiveness of services.	x				
General transport finance							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	encourage local governments and cooperatives to invest in public transport and effectively regulate the private sector. (15th Five-Year Plan (2019/20 – 2023/24))	x				
National Action Plan for Electric Mobility	2018	Improve banking for electric mobility businesses	x				

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
National Transport Policy	2001	Construction of transport infrastructure and operation of transport shall not be carried out with the subsidy of His Majesty's Government. Private sector participation shall be encouraged in the construction of wire road, cable car and environment friendly green road as a short distance transport infrastructure related with pilgrimage and tourism destination. Government subsidy and cross subsidy shall be stopped except to the project or condition prescribed by His Majesty's Government by clearly arranging the budget in the transport structure and service slatted with poverty alleviation and disaster relief service. To attract and encourage foreign and native private sector to construct/build airports, roads, waterways and rope ways like transport structure through the process of Build Operate and Transfer (BOT), Operate and Transfer (OT) and Build, own, operate and Transfer (BOOT). In inviting investment of the private sector in such way, facilities shall be provided as to increase employment, economic activities in the affected area of the contranport structure as will as project. To make government procedure more transparent, short, simple and attractive. To implement Public Infrastructure construction and Hand over Policy, 1057 (19..) in totality.	x			x	
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	High-cost infrastructure such as national highways and interprovincial roads will be developed by ensuring quality through modern forms of contract, including public-private partnership, EPC, and design-built. Resources will be managed for the protection and promotion of road infrastructure by also involving road users. Dependence on traditional public sector resources will be reduced by tapping into alternative sources of investment for finance. . Resources for road maintenance will be managed through the Roads Board. While attracting foreign direct investment for the construction and operation of railways, the latest approaches to contract management will be adopted. Resources required for the development of water transport will be raised through a public-private partnership. The private sector will be effectively regulated, and investment in public transport will be encouraged from the local level and cooperative sector.	x	x	x		
General transport institutional reform							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	establish a unit for promoting e-mobility; (National Action Plan for Electric Mobility, 2018)	x				
National Action Plan for Electric Mobility	2018	Developing required institutional structures and support for electric mobility (National Sustainable Transport Strategy [Draft])	x				
National Adaptation Plan (NAP) 2021 - 2050	2021	Develop a Decision Support System for Transportation Systems to enable understanding of the unfolding climate vulnerability and risks in the transport sector	x				

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Restructure transport regulatory institutions and reform regulatory provisions for transport services	x	x		x	
Nepal Road Safety Action Plan (2021-2030)	2022	Formulation of policy and draft bill to bring individual passenger vehicle operators under a mass-transport authority. A separate dedicated unit will be established with adequate human and technical resources for managing data at the Federal, Provincial, and Local level. Establish a Road Safety Unit at Department of Health Services. Establish Road Safety Councils at federal, provincial, and municipal (metropolitan/ sub-metropolitan) levels through law.	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Institutional reforms will be introduced to make institutions accountable to users by undertaking a review of existing institutional arrangements. A strategic partner will be brought in to make the management of NAC efficient, strong, and competitive. . Professionalism and efficiency of NAC will be enhanced through institutional strengthening. 2. In view of international norms and national requirements, a Civil Aviation Act will be prepared to create two separate agencies for service provision and regulation by restructuring the Civil Aviation Authority of Nepal.	x			x	
General transport labels							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Classification of road system based on the degree of vulnerability	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Categorization and standards for national highways, provincial highways, urban roads, and local and rural roads will be carried out. Major sources of emission and drivers of greenhouse gases including transport, industry, energy, agriculture, forest, and land use will be categorized based on emission volume, and criteria for emission measurement will be prepared.	x				x
General vehicle improvements							
National Action Plan for Electric Mobility	2018	Develop guidelines for vehicle conversion and/or hybridization	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Form a working group involving motor vehicle importers, body fabricators, and transport operators and consult on the possibility to operate half-bus, half truck type vehicles on certain routes.	x				
High-speed rail (HSR)							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Study for Kathmandu-Hetauda high-speed railway (HSR). Consideration for possible use of high-speed rail (HSR) in future for the proposed East-West railways routes (civil structure to be designed for HSR)		x			
Intelligent transport systems (ITS)							

XIV. Transport and Climate Policy Measures

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Exploring possible use of Intelligent Transport System (ITS) for enhancing road safety and transport service improvement, and designing new infrastructure considering possible use of ITS in future.	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Pilot Intelligent Transport System with traffic actuated signals, remote monitoring and control of traffic speed and flow, SMS/email delivery of traffic violation tickets, and so on. Strengthened traffic monitoring through increased patrolling and remotely through CCTV along SRN, PRN and local roads	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	The development of necessary infrastructure for modern ICT-based intelligent transport systems will be started with a detailed plan for roads with high traffic volume.	x				
Intermodality measures							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Physical integration with good connectivity of highways, railways and airports with the provisions of intermodal (transfer) facilities	x	x			
Investment required for specific projects							
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Investment opportunities will be increased for national highways through the involvement of the project bank.	x				
Involvement of subnational government for transport activities							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Coordinate railway development with regional development and local town development plans		x			

XIV. Transport and Climate Policy Measures

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
National Transport Policy	2001	In the construction of sections of roads and bridges of the East-West Postal Roads (Hulaki Sadak) the local cooperation shall be obtained and it shall be developed gradually as a highway to connect east with west The rural level transport infrastructure shall be constructed, repaired/maintained and expanded from local level itself by maximum utilizing the existing transport infrastructure. The construction, operation and maintenance of agricultural road and low trafficked roads in use at District and village level shall be done or cause to be done under local development programs. Roads under local road system shall be constructed, maintained and repaired by the local authorities under the plan formulated themselves. The help for the work as: formulation of plan, coordination on foreign resource management, technical cooperation or coordination with central level, to local authority shall be provided by the Ministry of Local Development or the Department of Local Infrastructure Development and Agricultural Road. The help for the work as: formulation of plan, coordination on foreign resource management, technical cooperation or coordination with central level, to local authority shall be provided by the Ministry of Local Development or the Department of Local Infrastructure Development and Agricultural Road. The constructions, maintenance, repair and operation of bus terminals shall be under the working scope of municipality. Identification, conservation of green belt in the urban area shall be the responsibility of the municipality itself. These works shall have to be done by the municipality in coordination with various authorities of His Majesty's Government. Local institutions shall be involved in the construction, repairing and maintenance of suspension bridges located in the main way.	x				x
Local production, services, contracting etc.							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	Improving the possibility of local vehicle assembly by improving access to required vehicle parts, including batteries (Environment-Friendly Vehicle and Transport Policy, 2014)	x				
National Action Plan for Electric Mobility	2018	Improving the possibility of local assembly by improving access to required vehicle parts, including batteries (Environment Friendly Transport Policy) Support local electric vehicle assembly or manufacturing projects	x				
Low-emission vehicle zones							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	Within five years, operate only zero-emission vehicles in tourist and culturally sensitive areas (Kathmandu Valley Air Quality Management Action Plan, 2076 [2020])	x				x
LPG/ CNG/ LNG							
National Transport Policy	2001	To operate bus, tram and other vehicles powered by gas, electricity and solar power.	x	x			
Measures to increase car occupancy							

XIV. Transport and Climate Policy Measures

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Nepal Road Safety Action Plan (2021-2030)	2022	To relieve congestion in urban areas: initiate strategies including congestion pricing schemes, entry restriction based on the time of the day and type of vehicles, the minimum number of passengers in cars, maximum parking duration, and parking/ stopping spots for buses and taxis.	x				x
National speed law							
Global Status Report on Road Safety 2018	2018	Yes	x				
National Transport Policy	2001	The limitation of speed shall be maintained from 20 to 40 Km/h on hilly and feeder roads. Manage to maintain speed limit according to road design.	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Ascertain and implement blanket speed limit for all categories of roads i.e., SRN, LRN, Urban Roads.	x				x
Number of vehicle registration limit							
National Transport Policy	2001	Not to allow more motor vehicles than the certain density. For this purpose, the means of controlling vehicle ownership and city parking fee shall be taken up.	x				
Passenger and freight load limits							
Motor Vehicles and Transport Management Act, 2049 (1993)	1993	Prescription of number of passengers and quantity of goods to be hold in motor vehicle: (1) The Department shall determine the number of passengers and the weight of goods permissible in a public motor vehicle and publish a notice to that effect for information of the general public. (2) A public motor vehicle may not carry persons or goods in excess of such number of persons or weight of goods as may be specified pursuant to Sub-section (1).	x				
National Transport Policy	2001	Manage not to allow vehicles to carry goods and passengers beyond capacity	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Ensure loading of vehicles does not exceed the manufacturer's specifications or as legally allowed limits as per VTMA § 102, 117, and VTMR § 15.	x				
Public transit integration							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Make provisions for bus terminals, bus stops, taxi stands and bicycle stands and transfer facilities Enforce integrated fare system (eg distance-based) for public transport	x				
Rail infrastructure expansion							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	Develop electrical (hydropowered) rail network by 2040 to support mass transportation of goods and public commuting. (NDC)		x			
National Implementation Plan for Climate Change Mitigation and Adaptation (2080-2087)	2023	East West Railway Development of capacity of airfriendly transport system and operational speed trains.		x			

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National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Construction of Mechi-Mahakali-Kathmandu-Pokhara electric railways		x			
National Transport Policy	2001	Construction of existing rail services shall be expanded and developed in coordination with the Indian rail way service		x			
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	A national strategic network of railways will be developed based on a master plan. 2. Railways included in the project bank following feasibility studies will be constructed and expanded.		x			
Railway electrification							
National Action Plan for Electric Mobility	2018	Planning for an electric rail service, utilizing hydropower (NTP) Encouraging the development of a high-priority, national electric rail system. (National Sustainable Transport Strategy [Draft]) Recognition of the need to strengthen electric rail and sustainable mass transport services. (Fourteenth Three-Year Plan 2016/2017- 2018/2019) Undertaking research and analysis into the viability of establishing electric ail and ropeways. Prioritizing the development of electric rail systems. (National Energy Strategy) Advance electric rail initiatives		x			
National Energy Strategy of Nepal	2013	Research on the probability of electric trains and ropeways (both electric and mechanical).		x			
Reference to finance mechanisms within country							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	provision of economic instruments in the form of custom and tax incentives to promote private sector involvement in the construction, maintenance and rehabilitation of transport infrastructure and to encourage non-polluting vehicles (National Transport Policy, 2001) establish financing mechanism for e-mobility (National Action Plan for Electric Mobility, 2018)	x				
National Action Plan for Electric Mobility	2018	The maximum loan-to-value ratio for personal electric vehicles loan has been increased to 80 percent. (Bank Monetary Policy)	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Make use of value-capture mechanism to fund urban transport infrastructure investment and integrate transport and land development. Balancing social cost and benefits of different intercity modes through subsidies and taxes Taxing private modes (vehicle tax and fuel tax) and provide subsidy to public transport form the collected revenue					x

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National Transport Policy	2001	To promote private sector involvement in the construction maintenance and rehabilitation of transport infrastructure and to encourage non polluting vehicles exemption on custom duty and tax on related construction materials, machinery, equipment and vehicles for limited period shall be given. With an objective to minimize the total transport expenditure within the specified life cycle, a service fee, on the basis of minimum service standard to be received y the consumer, shall be prescribed by increasing its effectiveness and the maintenance work of the road shall be done by - the amount so raised and institutional- development. of maintenance shall be done.	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Identifying and implementing innovative funding mechanisms, such as central matching funds for road safety interventions at the provincial levels.	x				
Renewable energy							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	expansion of solar poweredandelectricity-driventransportmeansthroughoutthecountry (National Transport Policy, 2001)					
National Action Plan for Electric Mobility	2018	using electricity from renewable energy sources. (National Transport Policy) Encouragement of vehicles powered by alternative and renewable energy sources. (Fourteenth Three-Year Plan 2016/2017- 2018/2019)	x				
National Energy Strategy of Nepal	2013	developing a transport system with renewable sources such as electric and solar energy. (National Transport Policy 2001)					
National Transport Policy	2001	To operate bus, tram and other vehicles powered by gas, electricity and solar power.	x	x			
Reporting, transparency, feedback mechanism							
National Adaptation Plan (NAP) 2021 - 2050	2021	Conduct periodic monitoring and review as necessitated by standards	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Conduct periodic personal trip survey for Kathmandu valley	x				
National Transport Policy	2001	Regular monitoring whether or not the means of transportation are operating according to specific standard shall be done and anyone violating the standard shall be severely punished. Arrangement shall be made to recover the loss and damage caused due to the wrong advice given by the person and advisory, institution of the private sector.					
Nepal Road Safety Action Plan (2021-2030)	2022	Realtime tracking of all vehicles plying on SRN and PRN and local roads	x				
Resilient transport technologies							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Use of green road technology and bio-engineering to minimize ecological impacts and landslide hazards due to construction of rural roads	x				

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The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	. Alternative measures will be adopted to minimize road closures due to landslides and accidents.	x				
Road charging and tolls							
Nepal Road Safety Action Plan (2021-2030)	2022	To relieve congestion in urban areas: initiate strategies including congestion pricing schemes, entry restriction based on the time of the day and type of vehicles, the minimum number of passengers in cars, maximum parking duration, and parking/ stopping spots for buses and taxis.	x				x
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	The collection of revenue and fees in the transport sector, including road charges, will be based on the electronic system	x				
Road infrastructure expansion							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Completion and upgrading of Strategic Road Network (SRN Construction of Kathmandu Terai Fast Track (KTFT) and Kathmandu Kulekhani Hetauda Tunnel (KKHT) highways Acquire right-of-way for by-pass roads in towns along national highways Construction of service lanes and pedestrian facilities on national highways Expand road network in Kathmandu Valley and other major cities Designate the road hierarchy and complete missing links in Kathmandu Planning and implementation of outer ring-road and other suburban arterial roads in Kathmandu valley	x				x
National Transport Policy	2001	A Mid-Hills East-West Highway will be gradually constructed and upgraded and far western mid-hills east-west Highway shall be developed.	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	The East-West Highway will be upgraded to Asian Highway standards and inter-provincial highways will be expanded based on traffic volume. North-South Highways of Karnali and Sudurpashchim provinces still struggling with proper road networks will be developed and expanded based on traffic volume ensuring domestic as well as international connectivity. Provisions will be made to expand and strengthen the road access to administrative centers of local governments. While developing and expanding the road network, factors such as the contribution towards provincial balance, economic hubs, or touristic destinations will be taken into account. Modern road infrastructure including fly-overs and underpasses in city areas, tunnel roads in major highways, and viaducts will be developed as part of the expansion and development of roads of strategic importance to reduce travel time.	x				
Road space repurpose to allow access for other modes							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Pedestrian way and dedicated bicycle lanes along national highway sections passing through the settlement areas.	x				

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Nepal Road Safety Action Plan (2021-2030)	2022	Segregate pedestrians, bicycles, NMT, and other slow-moving vehicles from fast-moving vehicles along SRN Roads (atleast at and nearby settlement areas).	x				
Road-side checks on overloading							
Motor Vehicles and Transport Management Act, 2049 (1993)	1993	Weight of motor vehicle: The Department may determine the limit of weight of a motor vehicle in respect of any public place. Where the limit of weight of a motor vehicle is so determined, no one shall drive, or cause to be driven, the motor vehicle in that public place in excess of the limit of weight so determined.	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Improve/enforce regulation for axle loads of heavy vehicles plying on the national highways	x				
National Transport Policy	2001	To operate the appropriate axle load system vehicles to reduce load on roads.	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Control overloading of freight trucks through the installation of weighing stations at border crossing points and along major trade corridors. Establish or operate under PPP model a weighbridge in each 50km of CRN roads Ensure loading of vehicles does not exceed the manufacturer's specifications or as legally allowed limits as per VTMA § 102, 117, and VTMR § 15.	x				
Routine transport asset maintenance							
National Transport Policy	2001	Road maintenance activities shall be conducted classifying the activities as general maintenance (regular and recurrent), periodic maintenance, emergency maintenance and preventative maintenance. General maintenance activities and periodic maintenance activities shall be programmed and undertaken using a cyclic approach. Generally, periodic maintenance shall be done for black topped and graveled roads on every 6 years.	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Instill concept to prioritize periodic maintenance of roads based on the traffic volume	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Road maintenance will be regularly monitored based standards of road maintenance and responsibilities agreed for each level of government.	x				
Speed limit on motorways <= 90 kph							
Global Status Report on Road Safety 2018	2018	80 km/h	x				
Speed limit on rural roads <= 70 kph							
Global Status Report on Road Safety 2018	2018	80 km/h	x				
National Transport Policy	2001	The limitation of speed shall be maintained 20 Km/h on rural hilly roads	x				
Speed limits on urban roads <= 30 kph							
Global Status Report on Road Safety 2018	2018	40 km/h	x				x

XIV. Transport and Climate Policy Measures

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
Stakeholder involvement							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	private sector mobilization for reduction of emissions in industry and transport (National Climate Change Policy, 2019) Encouraging the private sector to invest in the construction and management of electric vehicle parking stations and service centres (Environment-Friendly Vehicle and Transport Policy, 2014)	x				
National Transport Policy	2001	The Government shall not give heavy machinery tools on hire in order to - promote institutional development in the private sector. A necessary transitional arrangement shall be made in this regard. Urban Roads: Those works shall be conducted by peoples' participation.	x				x
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Resources will be managed for the protection and promotion of road infrastructure by also involving road users.	x				
Surface treatment resurfacing							
National Transport Policy	2001	Attention shall be given to make rigid pavement on the main roads.	x				
Technical standards for general transport infrastructure							
National Action Plan for Electric Mobility	2018	Preparing comprehensive transport management standards and plans. (National Urban Development Strategy)					x
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Improve service level of public transport (speed, vehicles standard, reliability, safety)	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Standardizing two-wheeler uses Develop a national standard for vehicle accessories such as brake, tire, and seatbelt in conformity to the 1958 Agreement on Vehicle Regulations.	x				
Technical standards for road infrastructure							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Upgrade the design standard of rural roads Upgrading engineering and environmental standards of rural roads	x				
Nepal Urban Road Standard- 2076	2019	Nepal Urban Road Design Standards - detailed document	x				x
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Categorization and standards for national highways, provincial highways, urban roads, and local and rural roads will be carried out.	x				x
Technologies on transport asset management							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Introduce advance and innovative construction/maintenance methods for urban roads Utilize bio-engineering techniques	x				x
Technology and knowledge transfer							
National Review of Sustainable Development Goals	2017	modernizing transport and communication systems	x			x	

XIV. Transport and Climate Policy Measures

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
Nepal Road Safety Action Plan (2021-2030)	2022	Launch a pilot project to demonstrate benefits of real-time monitoring by installing commercial vehicles operating along two highway sections with a tracking device Tracking devices will be installed on all commercial vehicles and linked with the centralized vehicle tracking/monitoring system Real-time information on traffic condition and safety issues for the drivers through FM, mobile app, and SMS alerts at the provincial level.	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	The in-house staff of the road sector will be optimally involved in projects implemented under foreign aid to help transfer knowledge, skills, and technologies. A fully-automated electronic system will be developed by optimally using information technologies to improve institutional effectiveness by facilitating access to all information related to the development, expansion, maintenance, and operations of road infrastructure. Appropriate methods including bio-engineering will be effectively adopted for preventing surface soil erosion. Vehicles tracking will be carried out through a global positioning system (GPS). The collection of revenue and fees in the transport sector, including road charges, will be based on the electronic system	x				
Teleworking							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Promote tele-commuting					
Traffic management							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Improvement of traffic management system in Kathmandu valley and other major cities	x				x
National Transport Policy	2001	The traffic density and movement shall be kept within a particular limit on the basis of carrying capacity and land utilization of every city in the urban area.	x				x
Nepal Road Safety Action Plan (2021-2030)	2022	Study on the possibility of authorizing/ prohibiting vehicle use based on the traffic demand, terrain, altitude, and type of road. Traffic monitoring at known road crash blackspots remotely through CCTV	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Traffic congestion in major cities will be managed by installing traffic lights.	x				x
Training of enforcement authorities							
Nepal Road Safety Action Plan (2021-2030)	2022	Each Traffic Police unit to develop /implement a patrolling plan.	x				
Transit-oriented development (TOD)							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Promote transit oriented development (TOD) in big and small cities Plan and implement urban development schemes under Transit Oriented Development (TOD) in Kathmandu valley and other sub-metropolitan cities	x				x
Transport asset condition assessment							

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Document	Year published	Measure	Road	Rail	Domestic Navigation	Domestic Aviation	Urban Transport
National Transport Policy	2001	The priority for improvement and reconstruction of road shall be based on the daily traffic volume possible economic benefit. Road maintenance activities shall be conducted classifying the activities as general maintenance (regular and recurrent), periodic maintenance, emergency maintenance and preventative maintenance.	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Route permits for vehicles will be issued only after assessing road conditions, and the public transport system in major cities including the federal capital will be re-routed.	x				
Transport asset management information system							
National Transport Policy	2001	The roads under central road system shall be evaluated in every three years regularly. All roads those are not included in the central road system shall be classified under local road system.	x				
Transport infrastructure resilience							
National Review of Sustainable Development Goals	2017	building resilient infrastructure	x			x	
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Developing and mainstreaming project screening guidelines Provision of network redundancy in transport planning					
Transport law							
Motor Vehicles and Transport Management Act, 2049 (1993)	1993	Road worthiness certificate to be issued The Government of Nepal may determine and prescribe necessary criteria on the following matters in order to examine and ascertain whether a motor vehicle is capable of being plied: (a) Mechanical condition of the motor vehicle. (b) Length, breadth, height, structure and body of the motor vehicle. (c) Pollution likely to be generated from the motor vehicle. (d) Period during which the motor vehicle can be plied. (2) In issuing the road worthiness certificate after examining whether a motor vehicle is capable of being plied or issuing the test certificate, the competent authority shall make examination subject to the criteria prescribed pursuant to Sub-section (1)	x				
National Action Plan for Electric Mobility	2018	Change legislation for police empowerment on polluting vehicles	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Reviewing guidelines for environmental and social assessment Stringent conditions for issuing driving licenses for public transport vehicles	x				
National Transport Policy	2001	A comprehensive Transport Act, Rules covering road transport, tunnel, railways, waterways, rope ways, cable car, airport and multi-modal transport shall be enacted and implemented. It shall be managed that the vehicle should be used only on that purpose for which it is made. To take legal action against any organization and individual that obstructs to provide an affordable and accessible transport service in competitive way Manage to make life,- insurance of passengers and insurance of vehicles compulsorily	x	x			

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Nepal Road Safety Action Plan (2021-2030)	2022	Ensure separate operation permits are issued for motorcycles to be used on highways and city roads Provision for compulsory insurance in road works contracts of all sizes, executed by any agency and in any geographic location. Strictly enforce the existing legal provisions on compulsory insurance against motor vehicle crashes as per MVTMA Chapter 8 (MVTMR Chapter 7) Ensure vehicles carrying dangerous or oversized goods use conspicuous signs (as per VTMA § 127). Amend MVTMR to accommodate a list of offenses, violation of which on incremental basis is made proportional to the duration for which a driving license would be suspended. Uniform test parameters and procedure throughout the country Further categorization of driving permits based on the purpose of driving. Provision for a compulsory refresher course on traffic management and road safety during the renewal of the driving license. Make amendments in MVTMR to require training participation for each change/addition of vehicle type in driving license while renewing driving license No vendors on pedestrian walkways except in sections specifically permitted by the municipality	x				
Strategy and Initiatives for Electrification of Public Transportation in Nepal	n.d.	Motor vehicles subjected to Environment friendly, and energy efficiency-oriented modifications shall be exempted for three years from the Provision under subsection (2) of section 39 of Motor Vehicle and Transport Management Act, 1993. (Gon Decision and Gazette Notification: March 28, 2022)	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Road development: Necessary amendments in the law and policy improvements will be carried out with the high priority New laws and policies will be introduced, and existing laws will be revised in accordance with international laws and practices for the development and operation of water transport.	x		x		
Travel time improvement							
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Modern road infrastructure including fly-overs and underpasses in city areas, tunnel roads in major highways, and viaducts will be developed as part of the expansion and development of roads of strategic importance to reduce travel time.	x				
Urban passenger rail infrastructure improvement							
National Action Plan for Electric Mobility	2018	Recognition of the need to undertake feasibility studies for the establishment of a metro or monorail service in the capital (Fourteenth Three-Year Plan 2016/2017- 2018/2019)		x			x
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Private investment will be attracted to the construction of metro and monorail in feasible urban areas including Kathmandu Valley by preparing detailed project reports.		x			x
Vehicle air pollution emission standards							
National Energy Strategy of Nepal	2013	Make vehicle emission standard stringent and monitored accordingly at the same time by fixing high penalty to those vehicles that do not meet the set emission standards.	x				

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National Energy Strategy of Nepal	2013	development of a transport system that is pollution free (National Transport Policy 2001)	x				
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Upgraded emission standards Up scaling vehicle emissions standards in Kathmandu valley Strict monitoring of compliance of vehicle emission standard	x				
Vehicle efficiency standards							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Improved standard for vehicle energy efficiency Improve engine efficiency (fuel economy)	x				
Vehicle import inspections							
Road Safety Opportunities and Challenges: Low- and Middle-Income Country Profiles	2020	Yes	x				
Vehicle inspection and maintenance							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Strengthening vehicle testing and green sticker system. Monitoring of vehicle/engine condition for compliance	x				
National Transport Policy	2001	To check and cause to check roadworthiness of a new vehicle after five year and thereafter in every two years.	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Establish VFTC conforming to the 1997 Convention on Technical Inspection of Vehicles in all provinces with the capacities matching the legal test frequency for each type of vehicle within a year At least one VFTC will be established in each province under the PPP model. Establish a provincial and national database to keep the record of initial registration, vehicle use authorization, inspection history, crash history, ownership history, and driver history. Grant access to the registration data to all TMO and Traffic Police Offices, and disseminate regularly on the official website. Amend the Guidelines on vehicle fitness inspection and testing to include maintenance workshops to be recognized by the vehicle manufacturer and qualification of authorized mechanics.	x				
Road Safety Opportunities and Challenges: Low- and Middle-Income Country Profiles	2020	Periodic inspection is in effect	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Automated technology will be used for measuring vehicle pollution by establishing a vehicle testing office at the province level The private sector, too, will be encouraged to set up vehicle fitness centers for the check-up of vehicles.	x				
Vehicle labelling							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Strengthening vehicle testing and green sticker system.	x				

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Vehicle manufacturing							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	Encouraging manufacturing of environment-friendly vehicles, including EV. (Environment-Friendly Vehicle and Transport Policy, 2014)	x				
Nepal Road Safety Action Plan (2021-2030)	2022	Monitoring of bus/truck fabricators and service centers	x				
Vehicle restrictions (import, age, access, sale, taxation)							
National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)	2015	Regulation on aging vehicles o Implement the policy decision of phasing out 20 years old vehicles o Prepare guidelines for limiting vehicles ages by the kind of vehicles (such as private, taxis, buses, minibuses, freight vehicles, vehicles for urban, intercity and rural; vehicles for terai and hill areas)	x				x
National Transport Policy	2001	The import of the vehicles older than five years shall be restricted. Sound and air polluting vehicles shall be restricted. To manage separate standard for the vehicles operating in the urban area.	x				x
Nepal Road Safety Action Plan (2021-2030)	2022	Ensure only vehicles meeting acceptable standards for safe driving are allowed to ply (as per VTMR § 17, 144).	x				
Vehicle scrappage scheme							
National Action Plan for Electric Mobility	2018	Identify and co-fund battery recycling Improve data collection on vehicle registration and scrapping	x				
National Transport Policy	2001	To manage not to dispose old vehicles and useless things of vehicles like batteries and lubricants etc. other than the place and manner as specified.	x				
Vehicle taxes							
Assessment of Electric Mobility Targets for Nepal's 2020 Nationally Determined Contributions (NDC)	2021	fixing an appropriate tariff for EV (15th Five-Year Plan (2019/20 – 2023/24))	x				
The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24)	2020	Electric vehicles will be promoted and appropriate tariffs will be fixed by conducting a study on tariff rates.	x				

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