

ROAD SAFETY IN ASIA

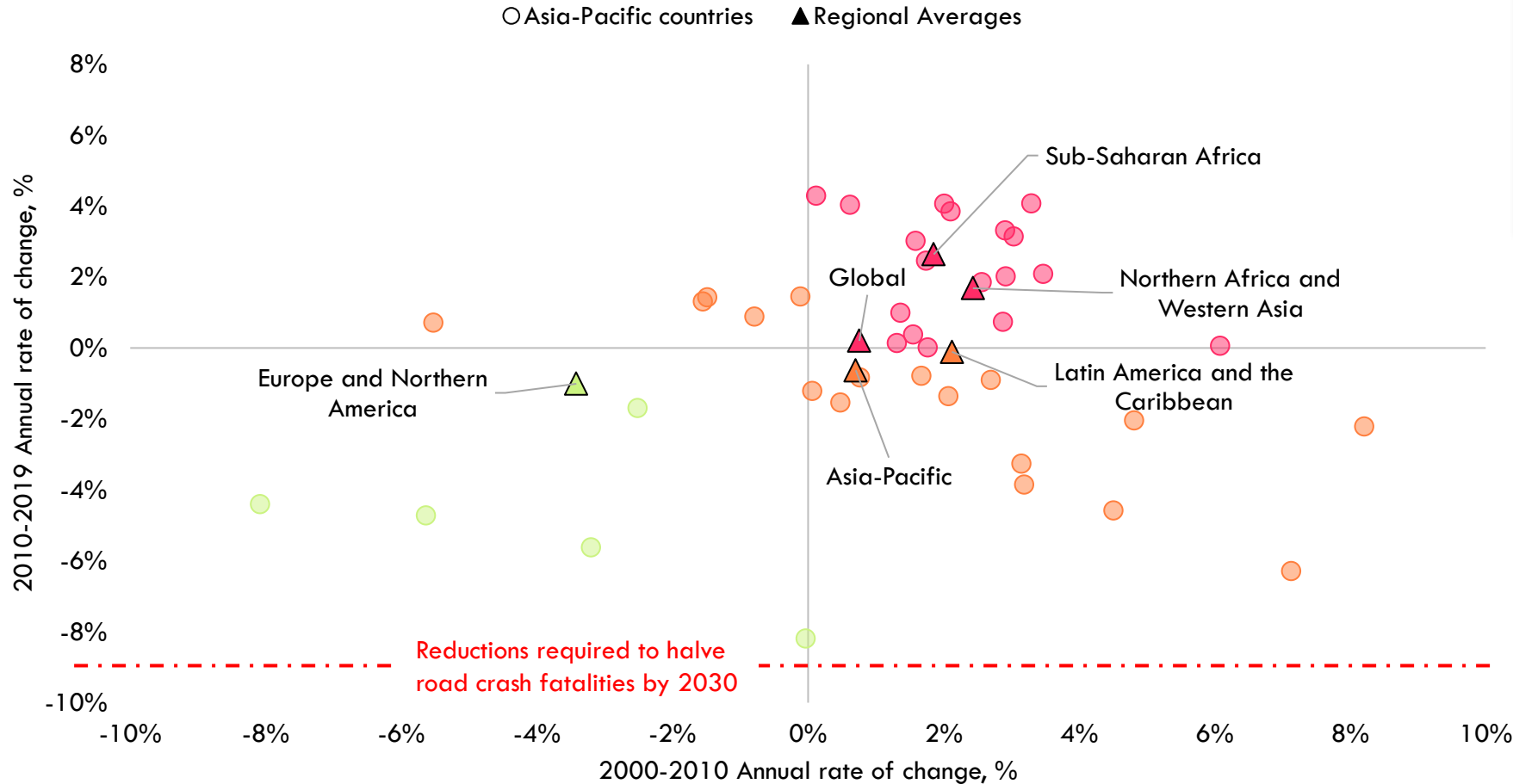
Translating data into
knowledge with Asian
Transport Outlook

Mel Eden

5 Dec. 2023

WE ARE OFF-TRACK

Road crash fatality annual change in 2000-2010 vs 2010-2019



Road Safety Profiles

Bangladesh Road Safety Profile

Population (2023): 173 Million
 Below 18 years old: 31%
 CDP, PPP (2022): 1,27 Trillion USD
 Lower middle income

Share of road crash fatalities by mode (2019): Motorcyclist 27%, Pedestrian 20%, Car 10%, LCV 10%, Others 23%

Cost of road crash fatalities and serious injuries (2016): 11.3 Billion USD
 As a share of GDP: 2%
 Health expenditure: 5%

Annual average growth rate: 2004-2019: 4.0%, 2010-2019: 0.3%

Road infrastructure availability (2023): 1.1 kilometers per thousand population
 Road infrastructure density (2023): 1,400 meters per sqkm
 Motorways, share (%): 37%

Share of road infrastructure with 3-star or better safety rating for each road user category: Motorcyclist 20%, Vehicle occupant 11%, Pedestrian 1%

Motorization rate, total vehicles (2023): 29 vehicles per thousand population
 LDV: 5 per thousand population
 Buses: 1 per thousand population

Top 10 road safety-related policy measures by typology, share in total

Report improvement	8%
Transport law	6%
General infrastructure improvement	6%
Transport demand management	6%
Police improvement	7%
Transport finance	6%
Transport planning	6%
Industry measures	6%
Traffic management	5%
Capacity building	5%

ASIA-PACIFIC ROAD SAFETY OBSERVATORY

Shift 20% passenger traffic from road to rail by 2030
 All village roads would be converted to asphalt standard by 2041

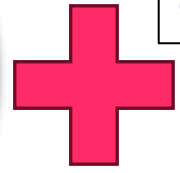


WHAT COUNTRIES ARE COMMITTING FOR ROAD SAFETY

265 unique measures

1,044 documents

- Transport Laws/ Regulations
- National Development Policy
- Long-term Strategies
- Nationally Determined Contributions
- National Report to International/ Regional Processes
- Other Transport-related Policy
- National Transport Policy
- Transport Subsector Policy



Plans and targets (37)

- prevention of construction of roads
- adaptation transport laws, regulations and programmes
- development of transport asset management plan/policy
- development of public transport plan/ policy
- development of automotive plan/ policy
- development of air pollution plan/ policy
- development of national development plan/ policy
- convention on road traffic 1968
- Plans and targets (37)
- development of e-mobility transport plan/policy
- development of climate change/ low carbon plan/ policy
- development of active transport plan/ policy
- development of national energy plan/ policy
- development of transport plan/ policy
- development of other transport-related plan/ policy
- target - transport energy consumption
- convention on the international transport of goods under cover of 19 caravans for convention signs
- convention on the rights of persons with disabilities 2016
- development of aviation plan/policy

Infrastructure (48)

- express lanes/ public transport priority
- general infrastructure improvements
- measures to improve rural-urban connectivity
- technical standards for rail infrastructure
- implementation of vertical deflections on roads
- upgrading high risk locations for road safety
- design standards for sidewalks and bicycle paths
- Infrastructure (48)
- general inland waterways (iwb) improvement
- implementation of narrowing of roads
- brt infrastructure expansion
- technical standards for road infrastructure
- routine transport asset maintenance
- convention on road signs and signals 1968
- implementation of horizontal deflections on roads
- bunkering infrastructure for alternative fuels
- freight rail infrastructure improvement

Services (31)

- transport services adaptation
- pricing control for app-based mobility
- measures to increase car occupancy
- mobility-as-a-service (maas)
- general innovations and digitalization
- intelligent transport systems (its)
- Services (31)
- reduction of transport/ logistics costs
- general commuter trip reduction

Vehicles (39)

- vehicle electronic stability control standards
- fiscal incentives for evs and components
- alternatively-powered rolling stock
- technologies to improve vehicle safety
- road-side vehicle technical checks
- combined passenger and freight flows
- vehicle safety standards
- vehicle seatbelt anchorage standards
- vehicle pedestrian protection standards
- energy efficient vehicle purchase incentives
- vehicle child restraints standards

Funding and financing (12)

- budget/ identification of road safety projects
- general economic instruments
- transport asset management funding strategy
- request for financial support to develop transport
- budget/ identification of public transport projects
- investment in public awareness raising
- investment in financial instruments for transport
- general transport financing
- budget/ identification of active mobility projects
- reference to finance mechanisms within country
- investment required for specific projects

Operational (14)

- bac limit for young/ novice drivers
- vehicle taxes
- 70 kph road-side checks on speeding
- helmet law applies to all engine types
- helmet law applies to motorcycle drivers and adult passengers
- national child restraint law
- helmet law requires helmet to be properly worn
- seabelt law applies to rear seat passengers
- regulation on school zones for road safety
- number of vehicle registration limit
- child restraint law requires use until 10 yrs/135 cm
- helmet law specifies helmet standards
- helmet law applies to all road types
- traffic management
- helmet law specifies helmet standards
- national law on mobile phone use while driving
- law restricts child passengers on motorcycles
- 0.05 g/dl
- national speed law

Fuels (14)

- lpg/ cng/ lng emission standards for aircraft
- hydrogen
- development of biofuel plan/policy
- fuel quality
- fuel tax
- fossil fuel subsidy elimination
- renewable energy

Data and information (12)

- data and information (12)
- collection and analysis system for accident data
- general data repositories and data collection
- transport asset condition assessment

Institutional setup (15)

- general transport institutional reform
- lead agency on road safety
- coordinate planning across government agencies
- reporting, transparency, feedback mechanism
- Institutional setup (15)
- lead agency on road safety is funded
- air traffic management
- national road safety strategy is funded

Building capacities (16)

- training of enforcement authorities
- acceleration of road inspection and auditing agencies
- adoption-related education and training
- employment in transport, communication, and storage
- certification
- Building capacities (16)
- general capacity building
- general education and behavior change

3,156 of which have road safety element

4900+ total policy measures

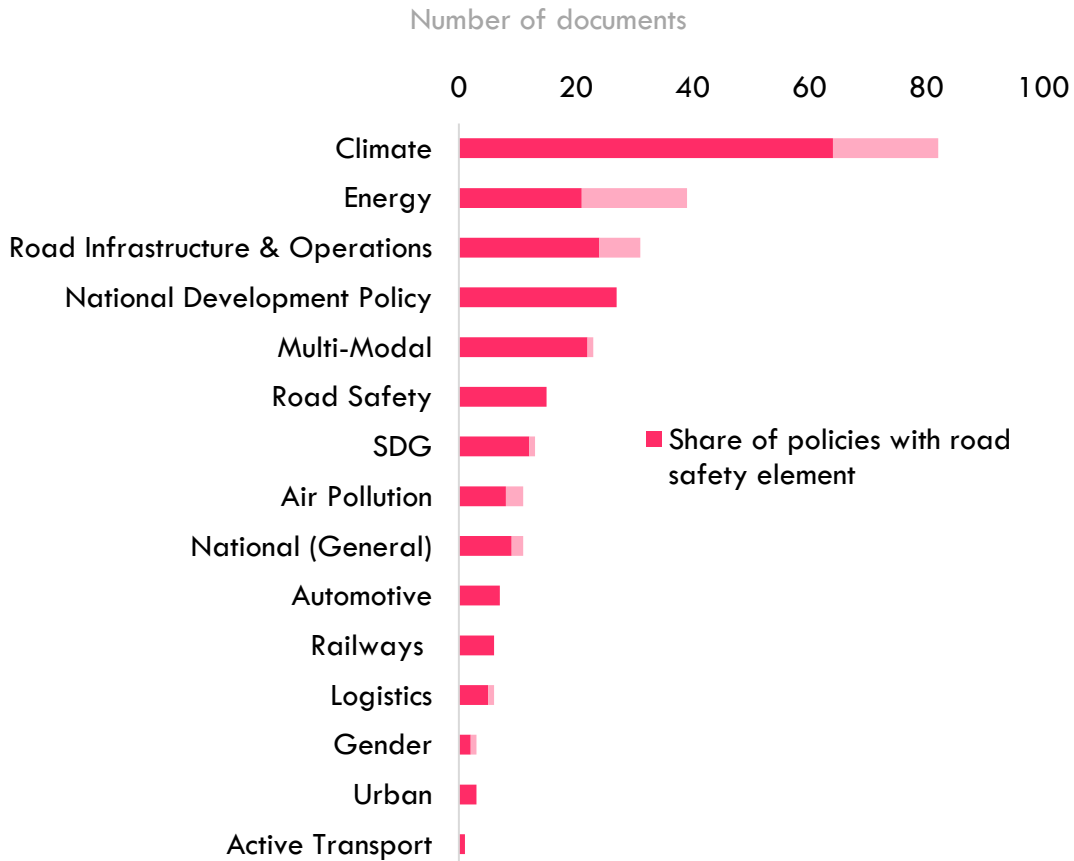
Recorded from 290+ policy documents for a sample of 15 economies*

*Bangladesh, Bhutan, Indonesia, Kazakhstan, Lao People's Democratic Republic, Malaysia, Maldives, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Timor-Leste, Uzbekistan, Viet Nam

A BROADER VIEW OF ROAD SAFETY POLICY IN ASIA

Road safety policy landscape

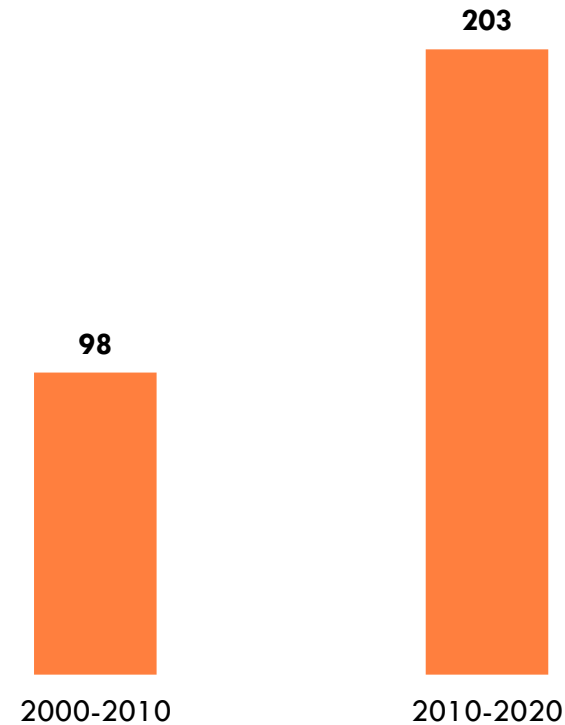
Policy documents with direct and indirect road safety measures



Source: National Policies

... has become more diverse

Number of unique road safety-related policy measures



... and more “dense”

Road safety-related policy measures per policy document



Source: National Policies

ROAD SAFETY DIRECT AND INDIRECT TARGETS

132 road-safety related targets in 15 sample countries

Road crash fatality target

Philippines

Fatality rate per 100,000 population reduced from 8.0 to 1.68 by 2028

[Philippine Development Plan 2023-2028]

Road crash fatality target

Bangladesh

Road accident death rate to 13 per 100,000 by 2025

[Eighth Five Year Plan]

Road crash injuries target

Thailand

The number of serious injuries from road accidents in 2027 must be less than 106,376.

[Thailand Road Safety Master Plan 2022-2027]

Vehicle safety standards

Pakistan

By 2030, 100 percent of new and used vehicles (produced, sold, or imported) meet or exceed UN Regulations and Vehicle Technical Regulations

[National Road Safety Strategy 2018-2030]

Helmet wearing rate

Viet Nam

To increase helmet wearing rates among children in Vietnam to over 80% by 2030

[National Child Helmet Action Plan]

Road crash fatality target

Lao PDR

Reduce the rate of deaths and serious injuries to 70% by 2035

[2021-2030 National Road Safety Strategy and 2021-2025 Action Plan]

Road crash fatality target

Malaysia

Achieve at least 50% reduction in the number of deaths caused by road crashes by 2030

[Malaysia Road Safety Plan 2022-2030]

Star rating for existing roads

Lao PDR

75% of major roads in the city with safety rating of three stars or higher by 2025

[2021-2030 National Road Safety Strategy and 2021-2025 Action Plan]

Mode share target

Bangladesh

To achieve a shift in passenger traffic from road to rail of up to around 20% by 2030

[Intended Nationally Determined Contributions]

Education

Thailand

100% of traffic participants are educated and disseminated with knowledge and law on traffic order and safety and skills in safe traffic by 2030

[National Strategy for ensuring road traffic order and safety]

Mode share target

Malaysia

Percentage of urban public transport modal share = 50% by 2040

[National Energy Policy 2022-2040]

Road crash fatality target

Pakistan

Save at least 6,000 lives than would otherwise have been lost by 2030.

[National Road Safety Strategy 2018-2030]

Database

Viet Nam

Traffic safety database must be developed and completed with modern technology, synchronous connection by 2030

[National Strategy for ensuring road traffic order and safety for the period 2021-2030]

Active transport infrastructure

Bhutan

75% of urban road should be covered with dedicated NMT tracks by 2050

[Low Emission Development Strategy (LEDS) - Surface Transport]

Road rehabilitation

Lao PDR

Rehabilitate 2,800 km of roads, bridges and expressways in accordance with ASEAN technical standards by 2025

[9th Five-Year National Socioeconomic Development Plan]

ROAD SAFETY RELATED POLICY MEASURES

← 3160 road-safety related measures in 15 sample countries →

Side checks on helmeting, and seatbelt-wearing

Nepal

the compulsory use of seatbelts for front-seat car passengers and the use of helmets

Road Safety Action Plan (2021-2030)]

Accreditation

Pakistan

By 2030 Pakistan has a cadre of internationally accredited Road Safety Auditors.

[National Road Safety Strategy 2018-2030]

Audit

Philippines

Maintain at least three (3) safety star ratings in more than 50% of roads nationwide

[Philippine Road Safety Action Plan 2023-2028]

Vehicle registration limits

Maldives

Vehicle control mechanism, including issuance of certificate of entitlement to register vehicles in the Greater Male' Region

[Strategic Action Plan 19-23]

Quality assurance

Bhutan

Various Quality Assurance measures shall be developed and continuously reviewed

[Road Sector Master Plan (2007-2027)]

Fossil fuel subsidies

Bhutan

Phase out subsidies to encourage conservation and use of alternative energy

[The Alternative Energy Policy 2013]

Weight and freight load limits

Uzbekistan

Implement a system of weight and dimensional control

Draft Strategy for the Development of the Transport System of the Republic of Uzbekistan until 2035]

Funding mechanism

Sri Lanka

From 2020 onwards, 5% of transport investment allocation for safety improvement

[Sustainable Sri Lanka 2030 Vision and Strategic Path]

BAC limit, drug use

Viet Nam

Regularly and continuously implement campaigns to patrol, control and handle violations of alcohol concentration and drug use.

[National Strategy for ensuring road traffic order and safety]

Automated enforcement

Thailand

Install a speed detection camera that detects motorcycle license plates.

[Thailand Road Safety Master Plan 2022-2027]

Public transport integration

Nepal

Make provisions for bus terminals, bus stops, taxi stands and bicycle stands and transfer facilities

[National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040)]

Active transport

Bangladesh

Creating special lanes for pedestrians

[Perspective Plan 2021-2041]

Post-crash care

Kazakhstan

Medical rehabilitation and support of victims and close dead as a result of the road accidents

The road traffic: The Law of the Republic of Kazakhstan of 11 July 2014 No. 194-V]

Database

Sri Lanka

Maintain a database for accident hotspots, injury types and costs of damages.

[National transport Policy of Sri Lanka]

Seatbelt anchorage standards

Thailand

Safety-belt anchorages R14

[Thailand's Electric Vehicle policies]

Vehicle scrappage

Malaysia

Develop and enforce regulations for vehicles' end of life (commercial & private vehicle)

[National Transport Policy 2019-2030]

Behavioural change

Sri Lanka

Encourage vehicle insurance companies to introduce vehicle insurance policy that entails insurance premium based on driving behaviors to control road accidents.

[Public Investment Program 2021]

Education

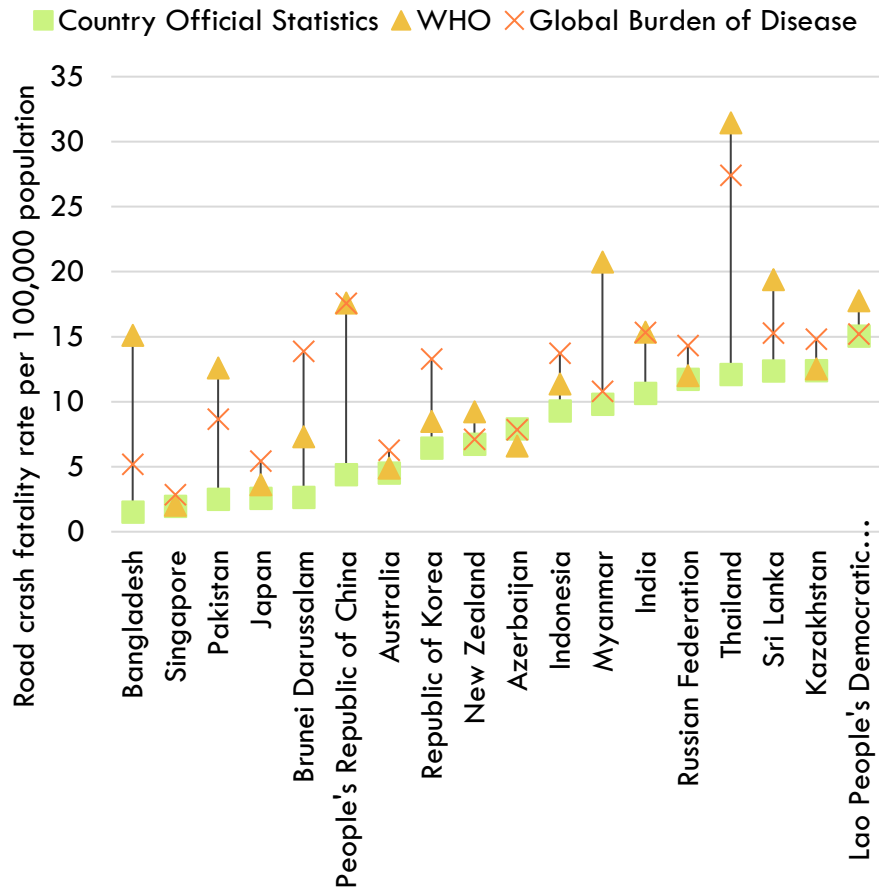
Bangladesh

A special program for road safety will be implemented in schools as part of the national curriculum

[National Land Use Policy 2010]

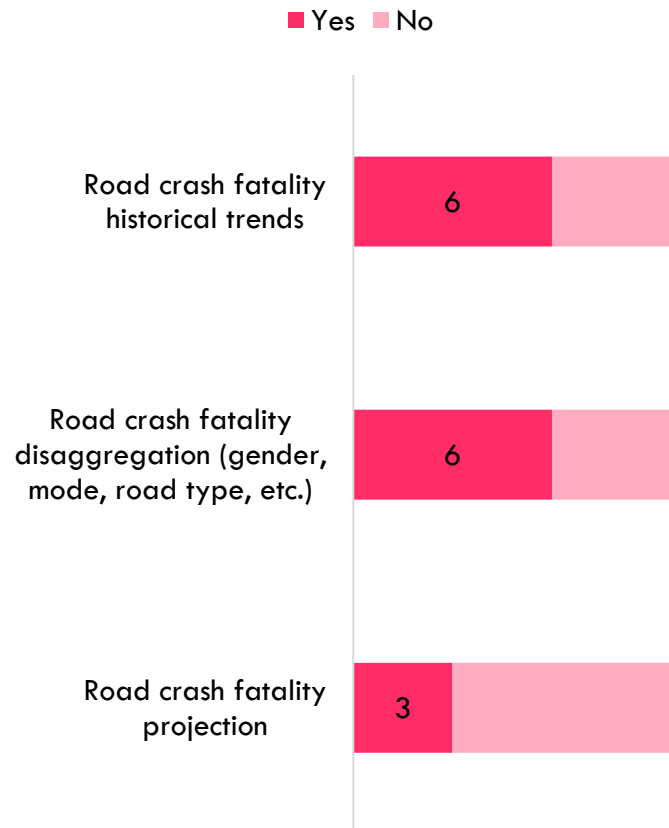
NEED FOR BETTER DATA IN ROAD SAFETY

Road crash fatality rate comparison by source, 2019



Source: Country Official Statistics, WHO (2021), GBD (2019)

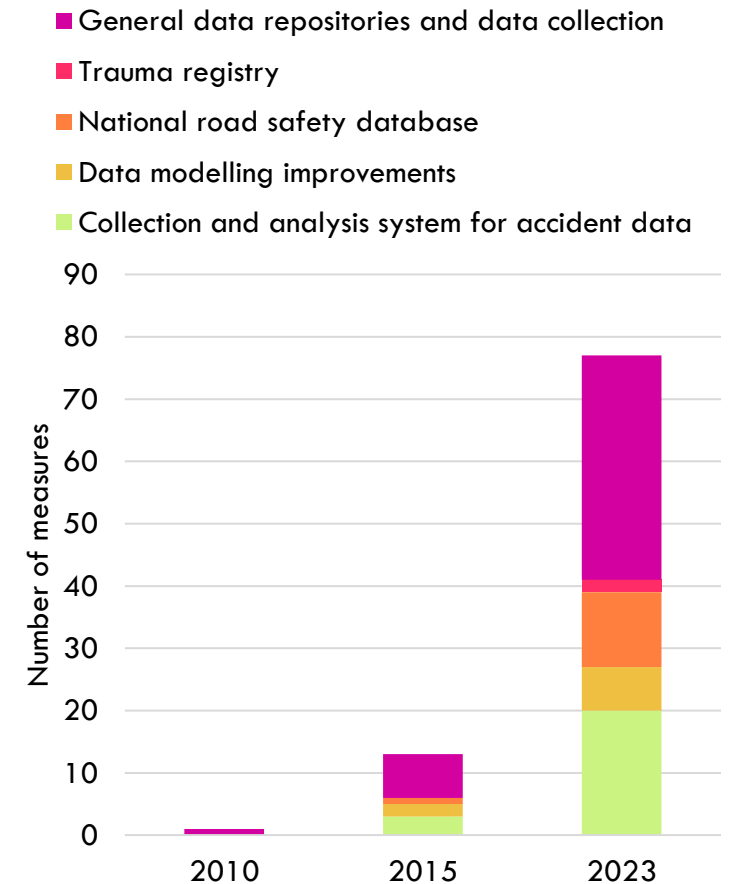
Road safety strategies with analysis of fatality trends (survey in 10 countries*)



Source: Road Safety Strategies

*Bangladesh, Lao People's Democratic Republic, Malaysia, Maldives, Nepal, Pakistan, Philippines, Thailand, Uzbekistan, Viet Nam

Measures on data systems improvement for road safety



Source: National Policies

“ATO translates data into insights, policies, and investments”

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