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2030 ASIAN TRANSPORT OUTLOOK: THE ROAD AHEAD  
FOR CARBON EMISSIONS AND AIR QUALITY

# SHAPES AND SHIFTS OF TRANSPORT SECTOR IN ASIA

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**BAOQ**  
BETTER AIR QUALITY  
CONFERENCE



# Foundation of ATO



**373 national indicators,**  
53% have multi-year data,  
20% have 2021 data ,  
10% have more than 2 sources,  
30% have more than 1 source,

**281 urban indicators,**  
~80% have multi-year data,  
~70% have more than 1 source

- 51** Economies (ADB Members + Russia and Iran )
- 460** Urban Centers (412 Asia-Pacific, 48 International)
- 46** Urban Centers with a detailed review *\* To be increased to 50*

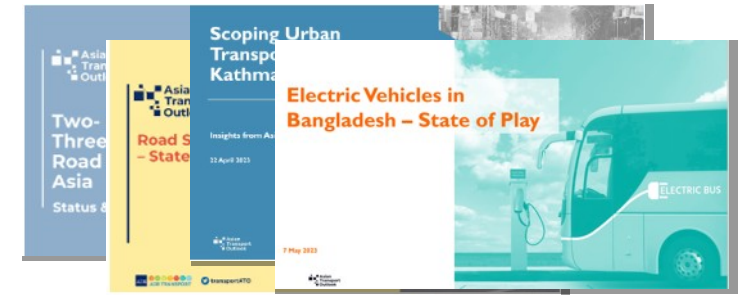
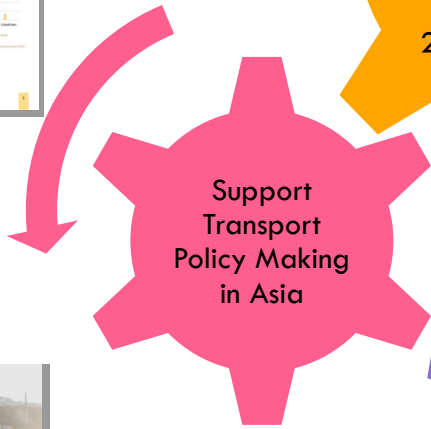


ASIAN DEVELOPMENT BANK

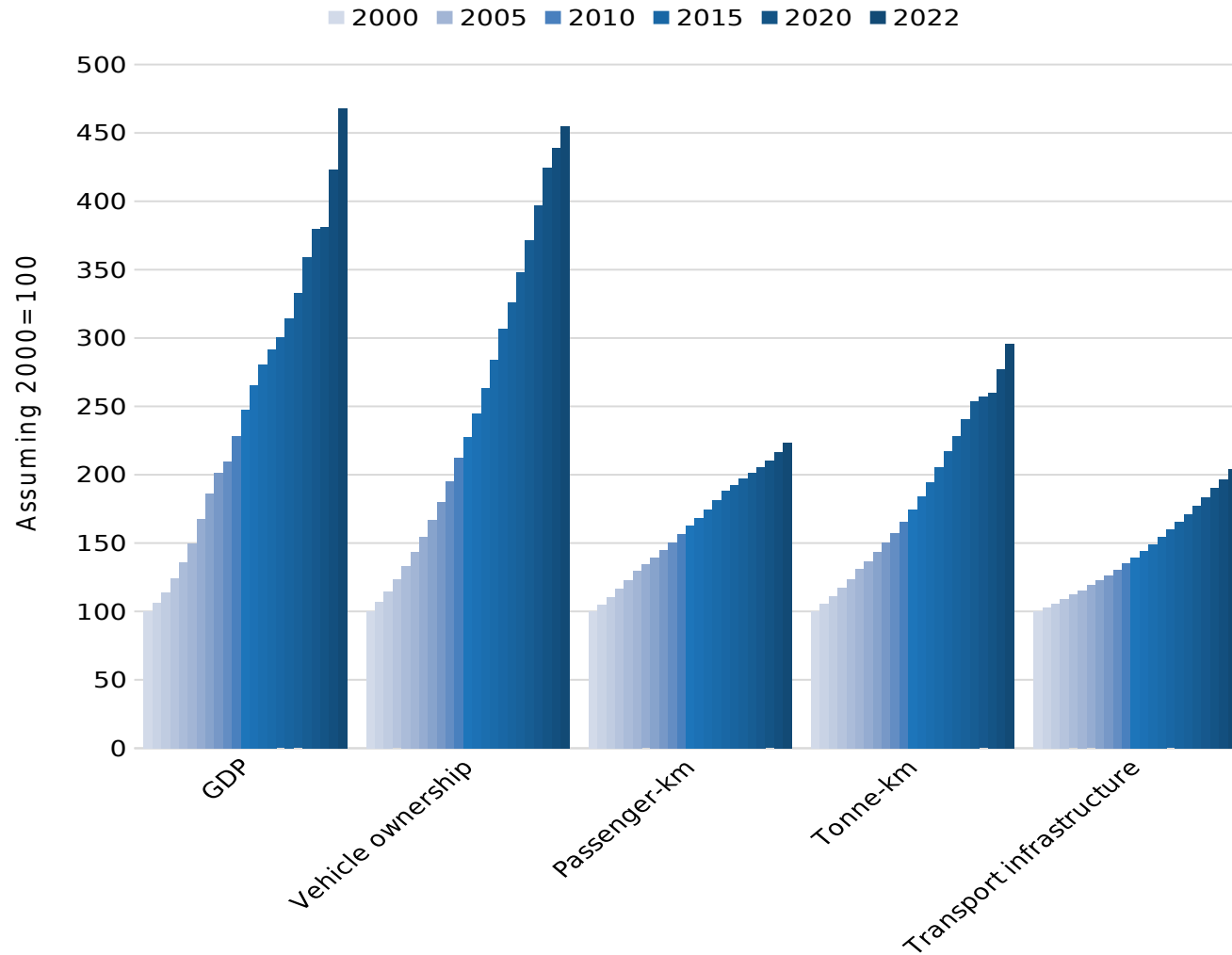


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# Key Objectives of ATO

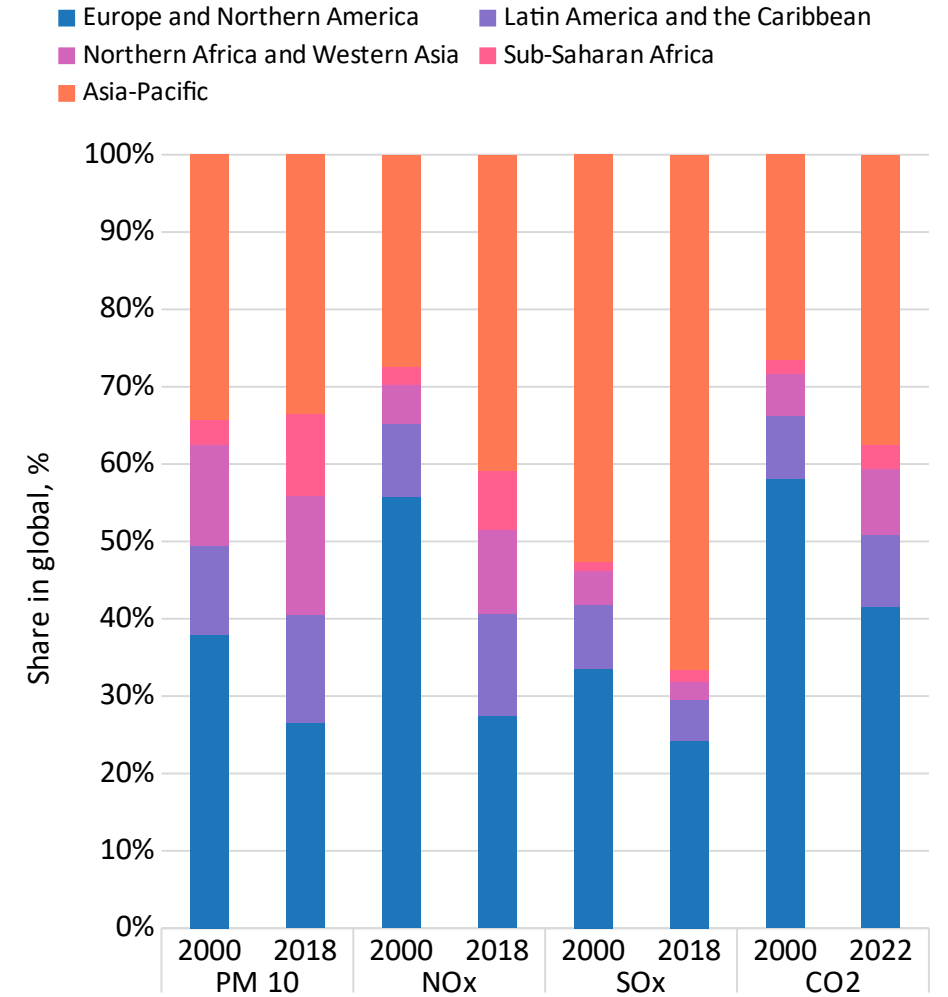


# Drivers of Transport Sector in Asia



Source: World Bank, Country Official Statistics

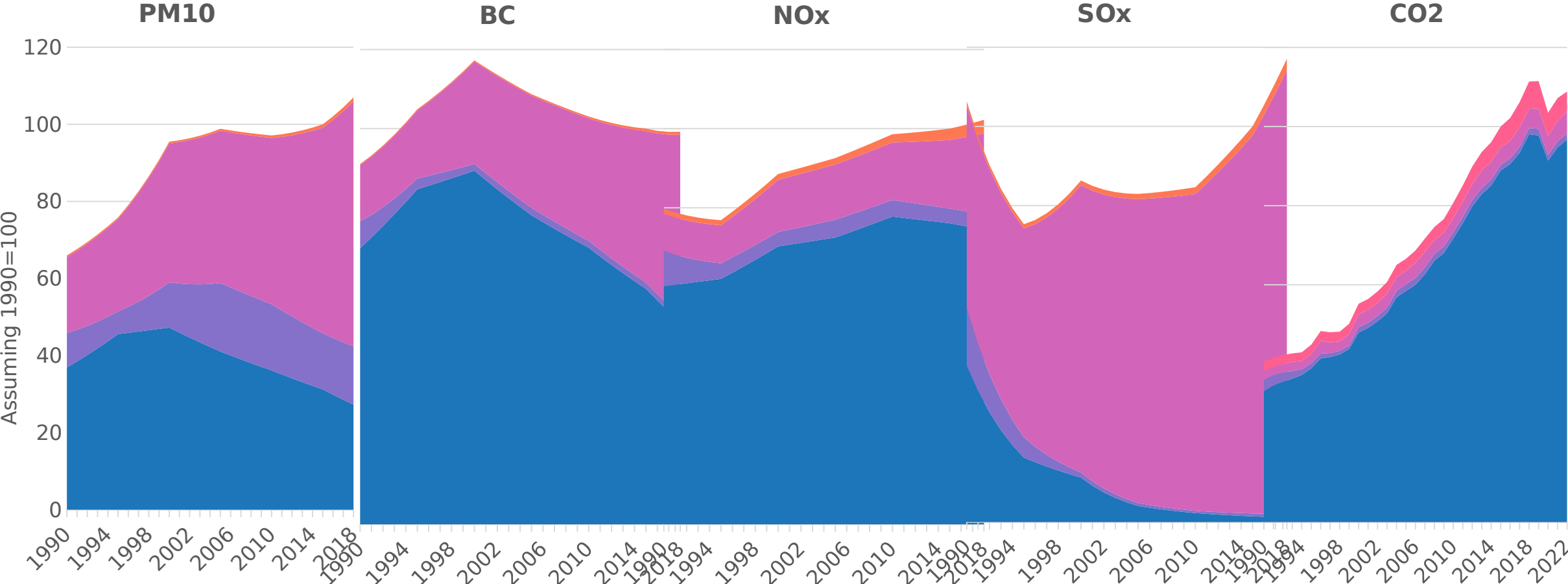
## Transport sector emissions share by region



Source: EDGAR

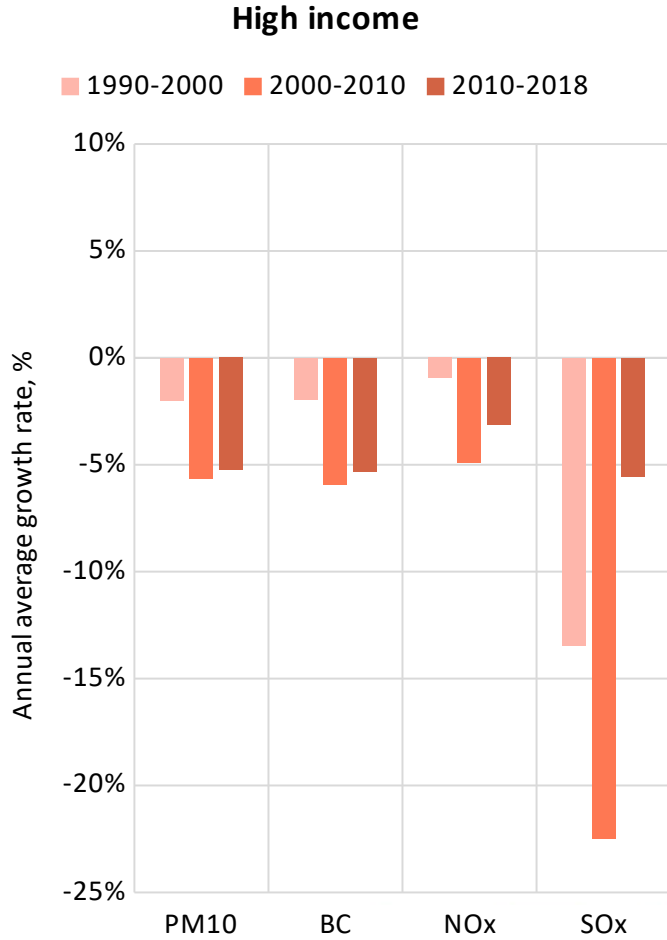
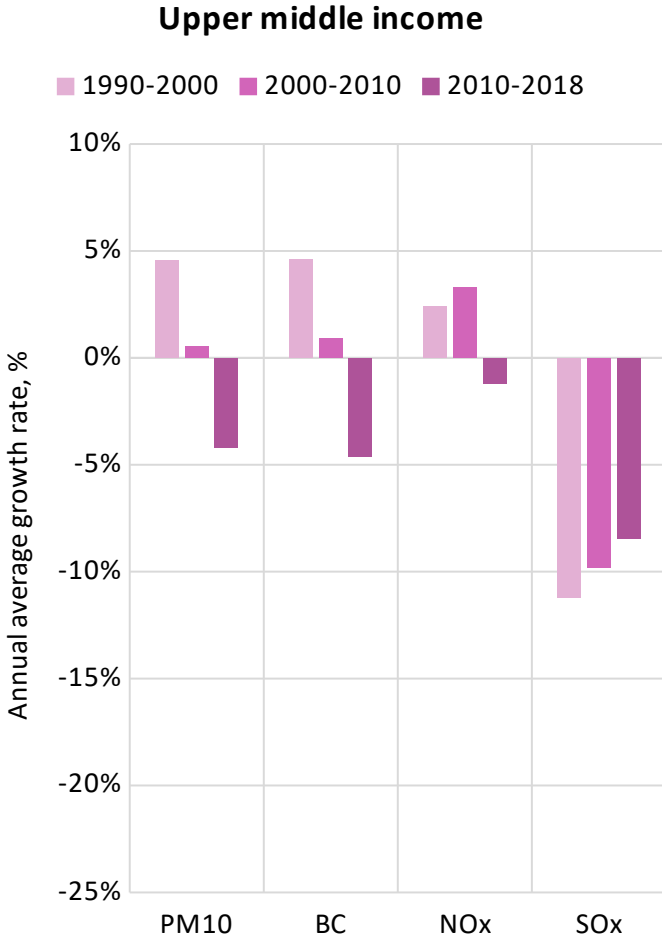
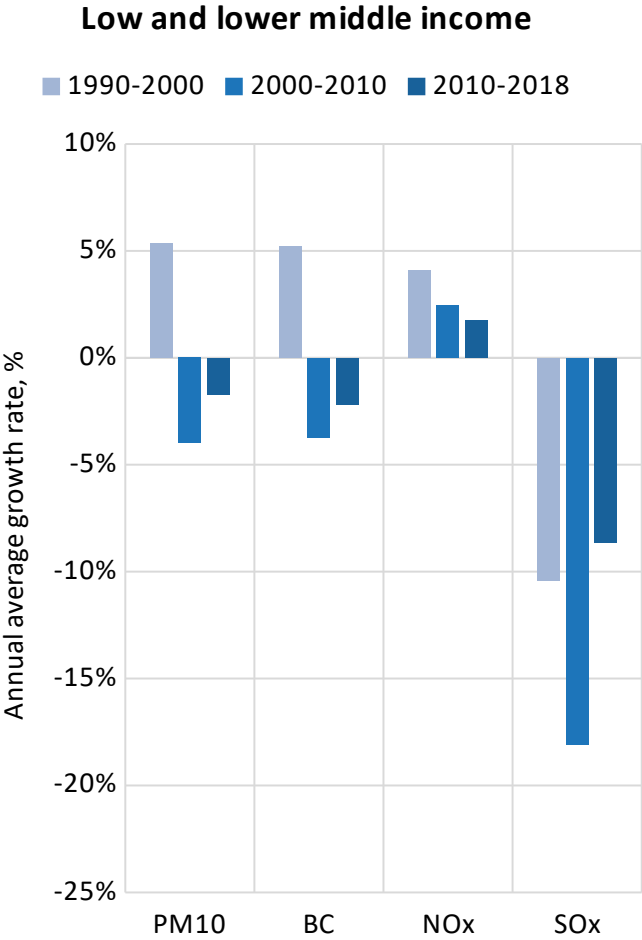
# Transport Sector Emissions by Mode

Road Rail Navigation Aviation



Source: EDGAR

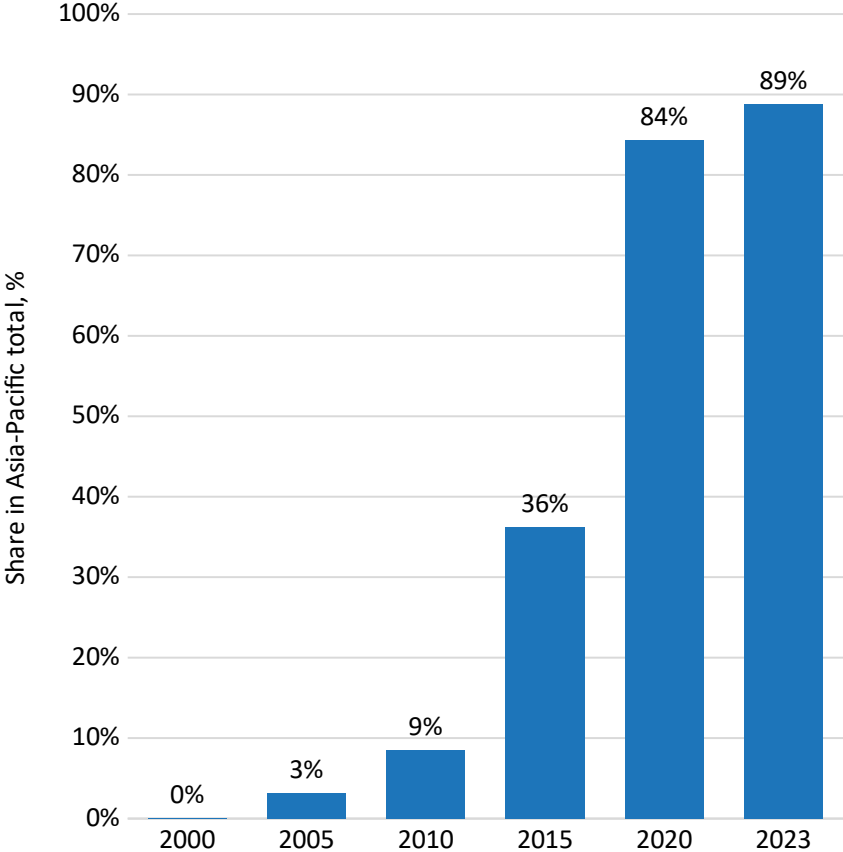
# Road Transport Air Pollutant Emissions by Income Level



Source: EDGAR

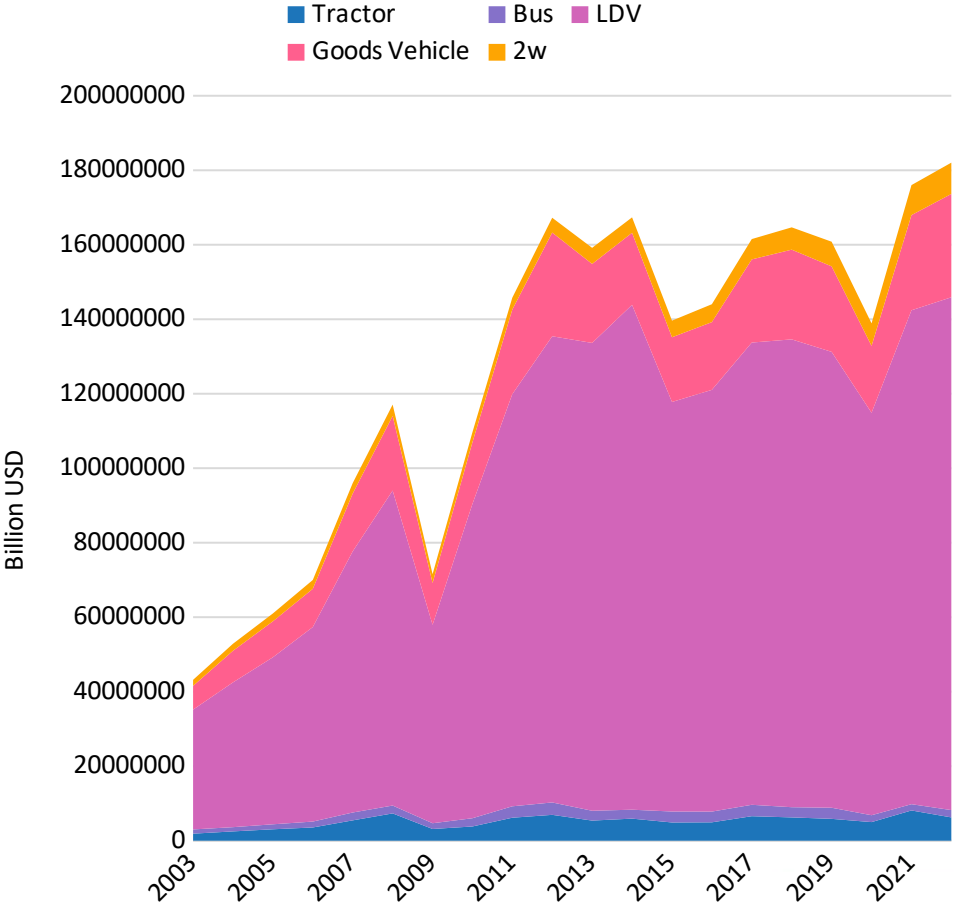
# State of Clean Vehicles in Asia

Share of countries with Euro 4 or better LDV emissions standards implemented (in terms of vehicles registered)



Source: Clean Air Asia, Country Official Statistics

Vehicle imports in Asia-Pacific (Used and New)



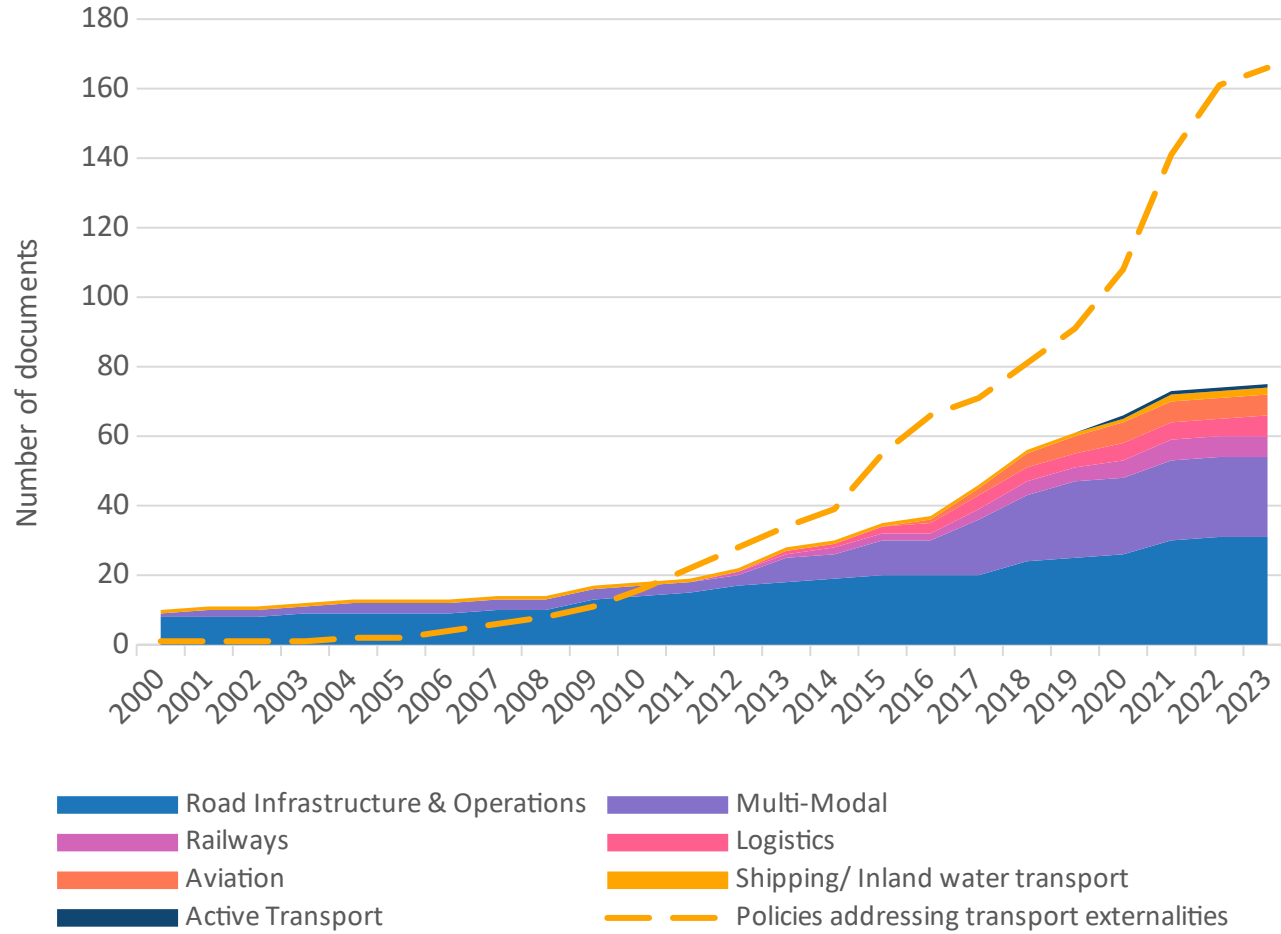
Source: Trademap



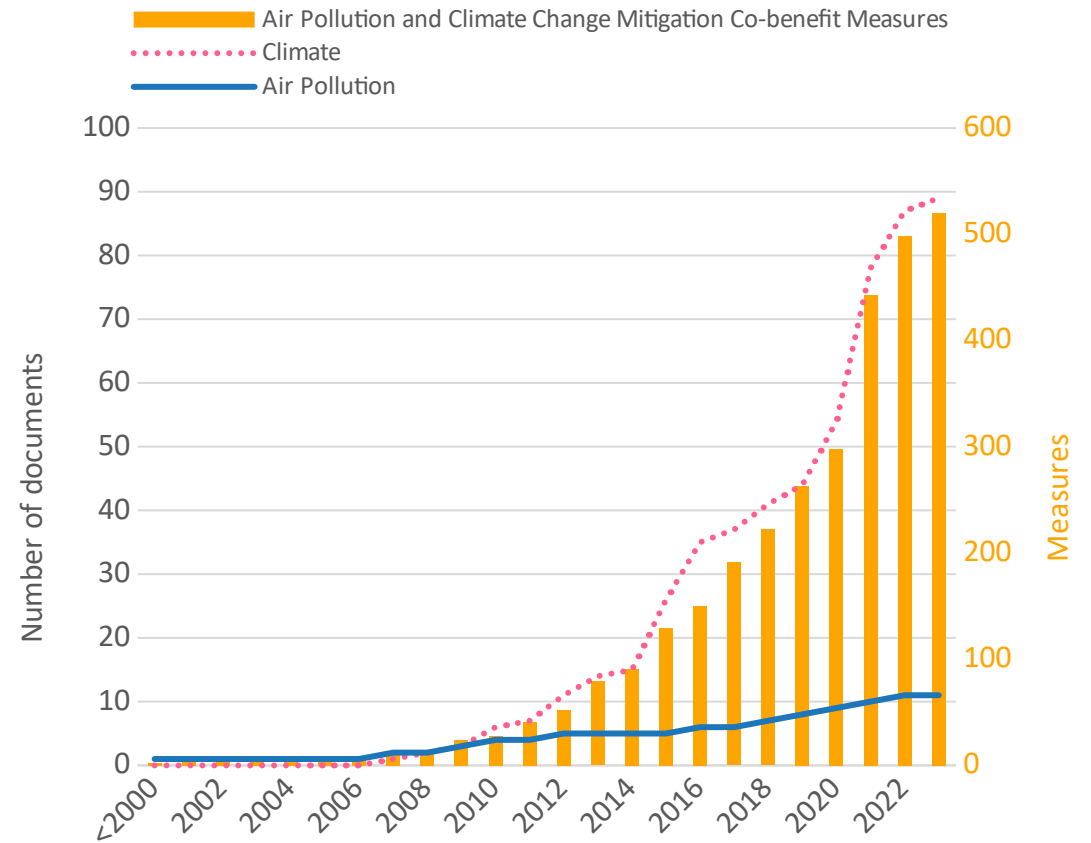


# Evolution of Transport Policies in Asia

## Transport-related policy documents from 15 countries



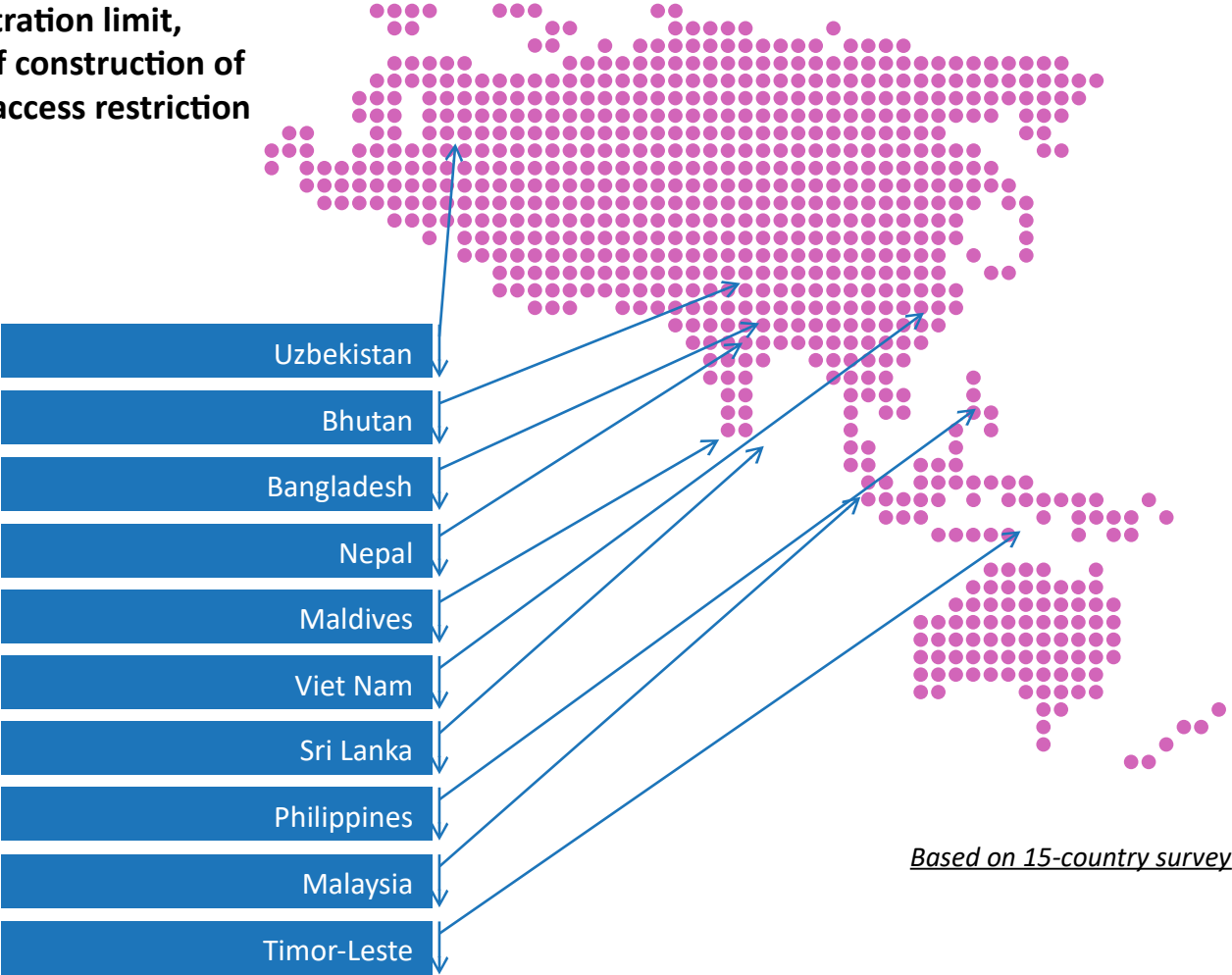
## Example cobenefit of air pollution and climate change mitigation transport measures



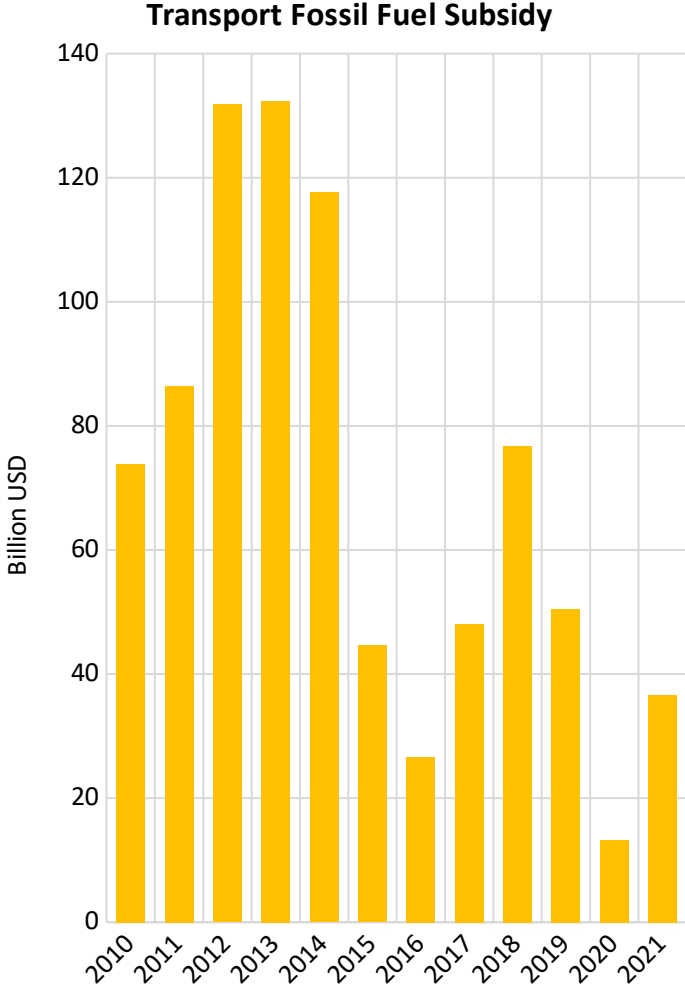
Source: National Policies

# Managing Transport Demand

Vehicle registration limit,  
Prevention of construction of  
roads, Road access restriction



Source: National Policies



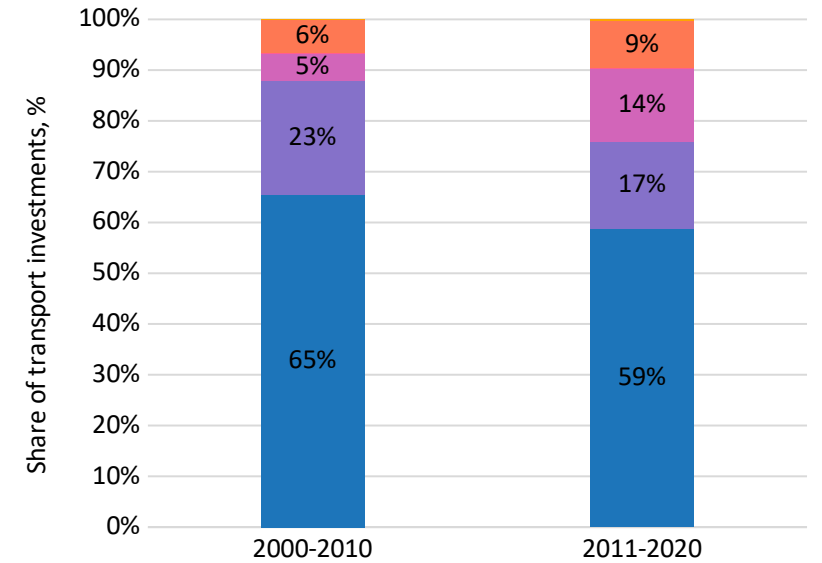
Source: IEA

# Modal Shift

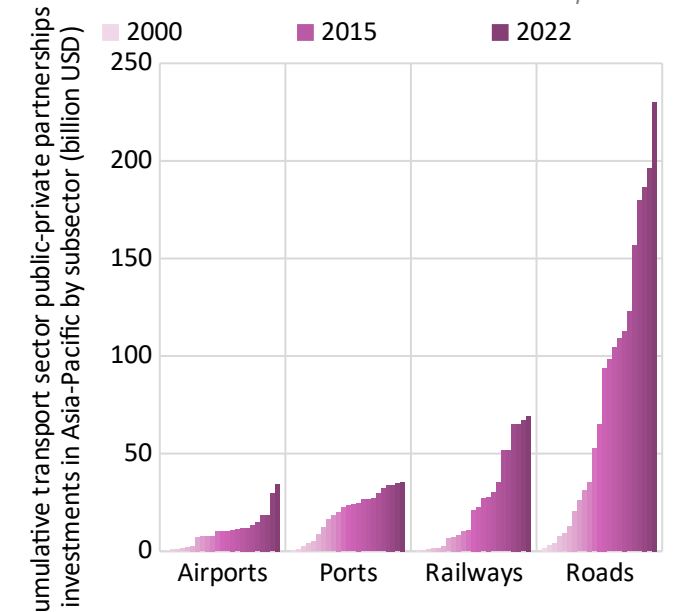
## Modal Shift Targets in Asia-Pacific



Source: National Policies



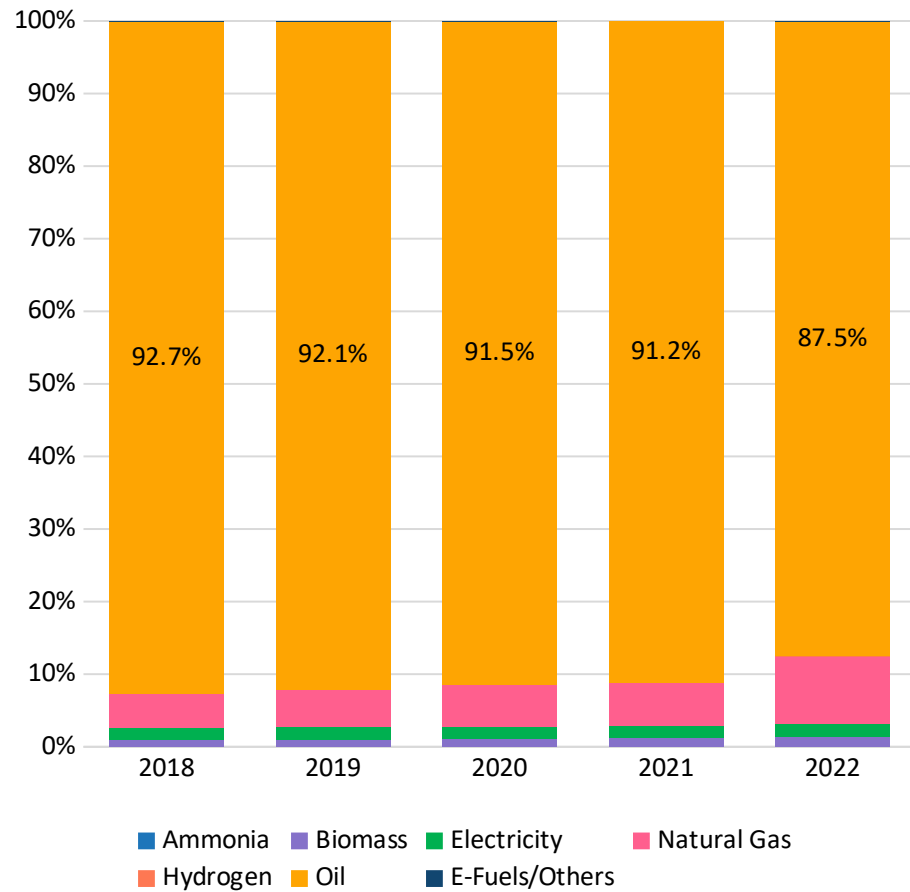
Source: Asian Transport Outlook



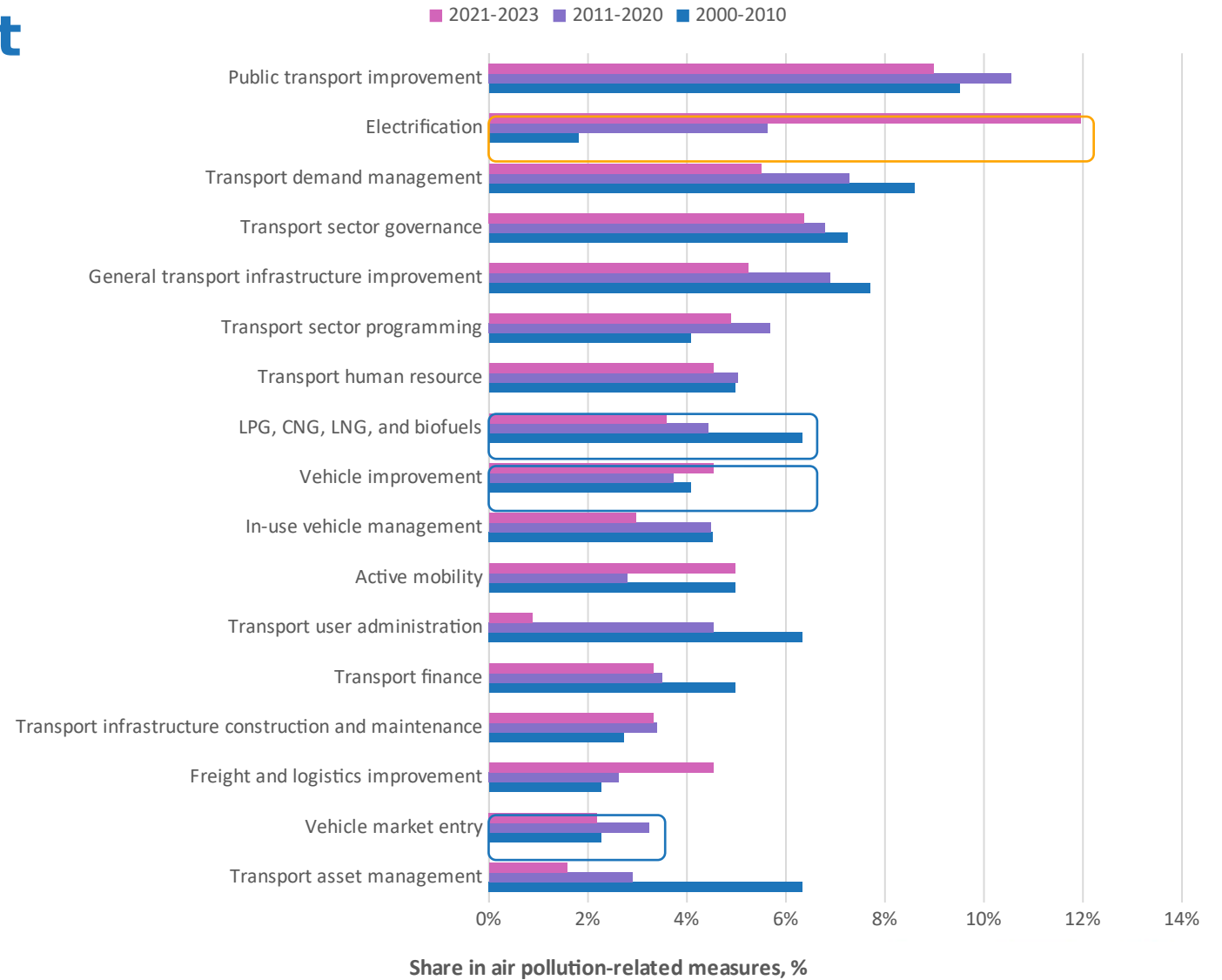
Source: World Bank

# Electrification of Transport

## Transport Sector Energy Demand



Source: DNV-Energy Outlook 2023



Source: National Policies

# Shifting the Shape



**Road PM10 per GDP** = -52%  
**Road PM10 per capita** = -30%  
**Road PM10 per vehicles registered** = -56%  
*Total absolute decrease* = -75 thousand tonnes



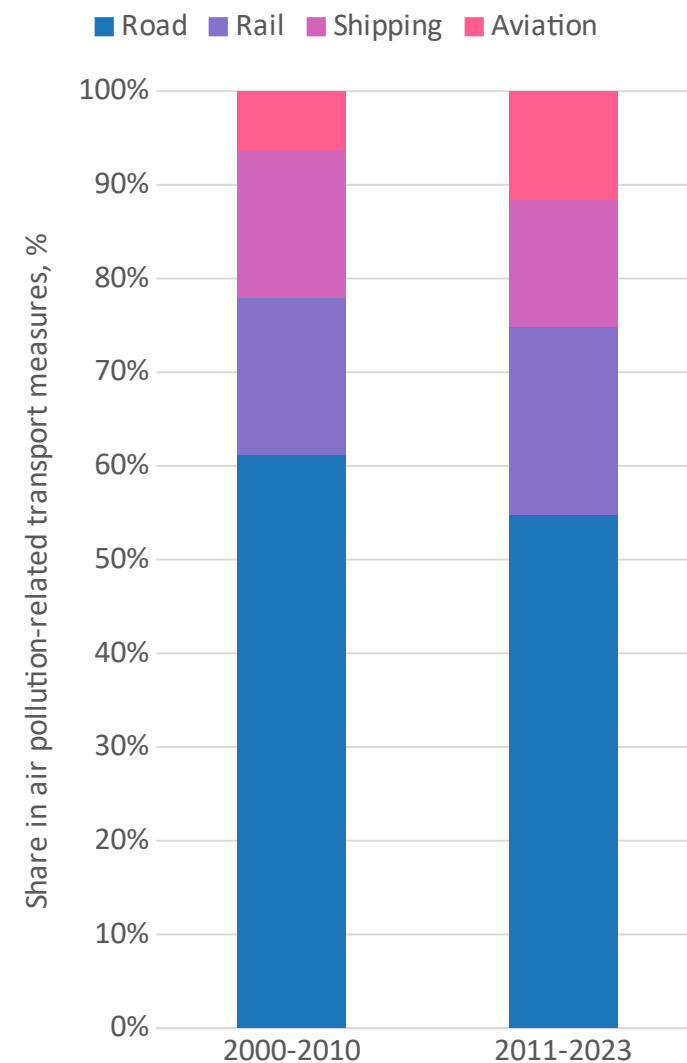
**Road crash fatality per GDP** = -43%  
**Road crash fatality per capita** = -13%  
**Road crash fatality per vehicles registered** = -48%  
*Total absolute decrease* = -42,000 premature deaths



**Road CO2 emissions per GDP** = -34%  
**Road CO2 emissions per capita** = +22%  
**Road CO2 emissions per vehicles registered** = -34%  
*Total absolute increase* = 573 million tonnes

Source: EDGAR, WHO, World Bank, UNStats, Country Official Statistics

Air pollution-related measures by mode



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

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