

# Major Issues in Transport:

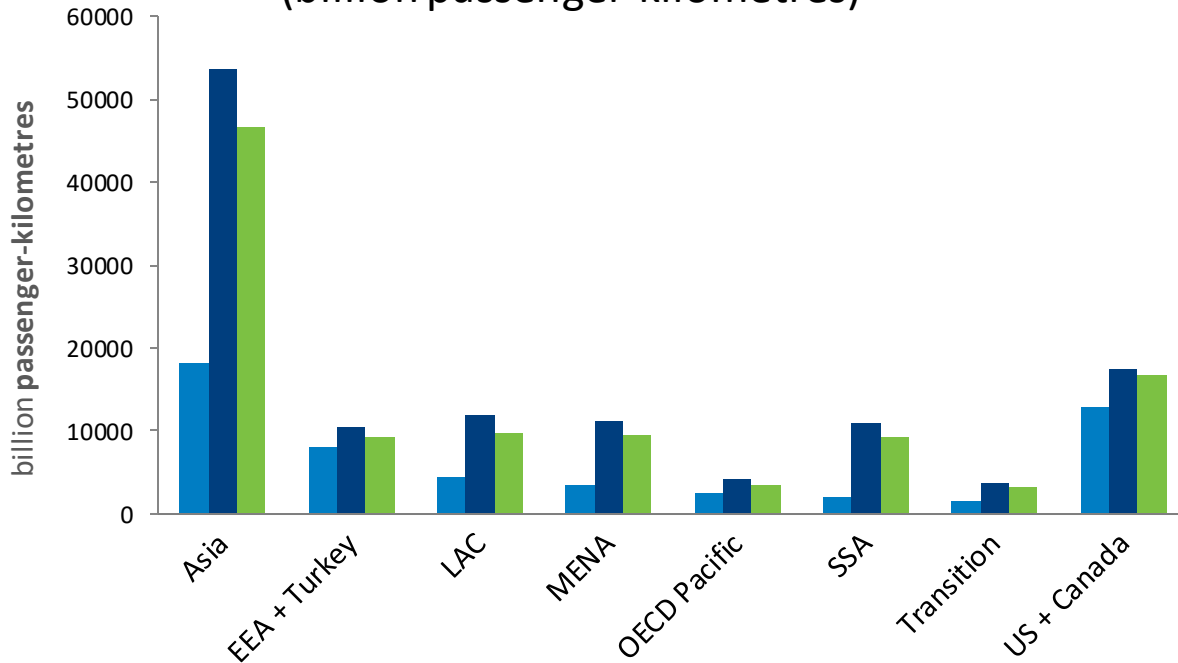
## 3 (b) Environmentally sustainable transport systems and services (ESCAP/CTR/2022/4)

Madan B. Regmi, DEng  
Transport Division  
24 November 2022

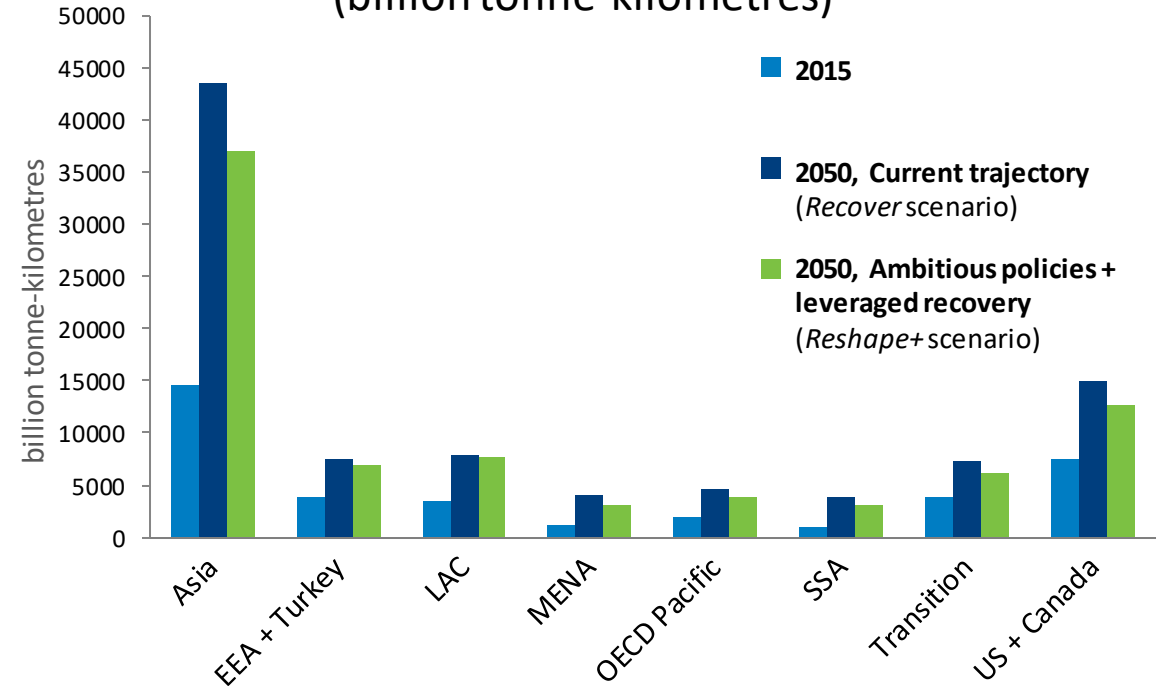


# Growing Transport Demand

**Passenger transport demand**  
(billion passenger-kilometres)



**Freight transport demand**  
(billion tonne-kilometres)

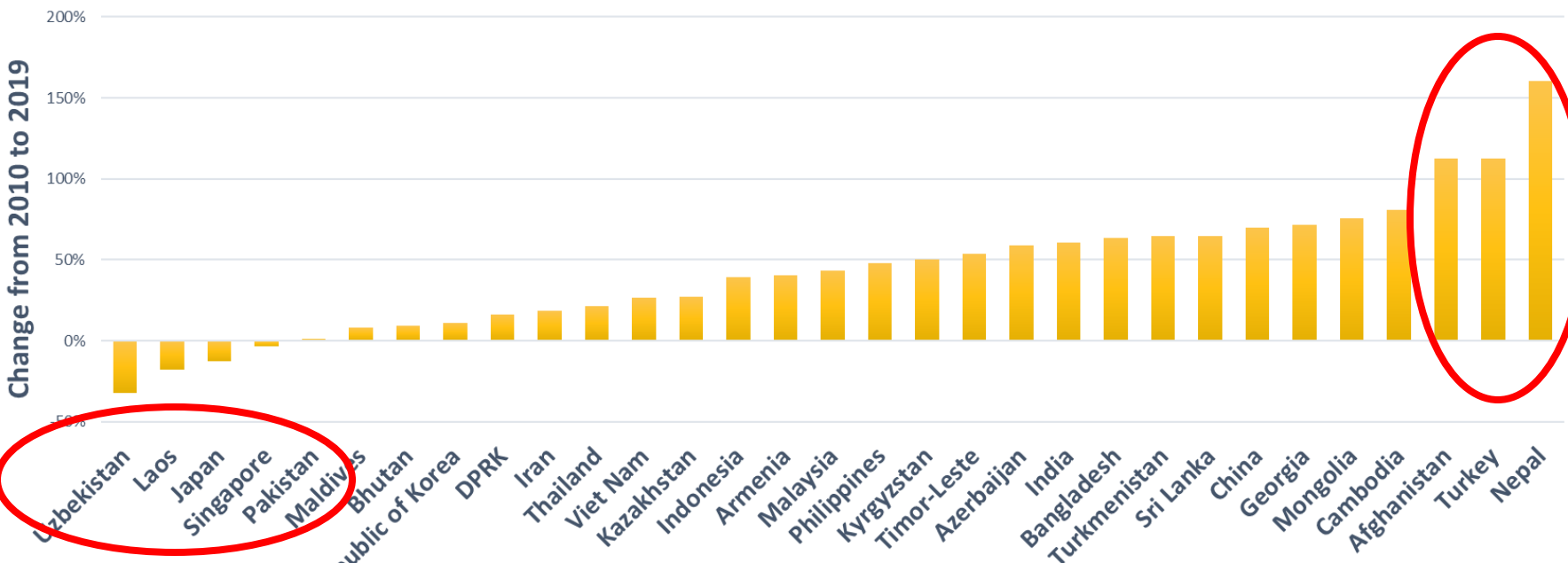


Source: ITF Transport Outlook 2021

# Growing Emissions

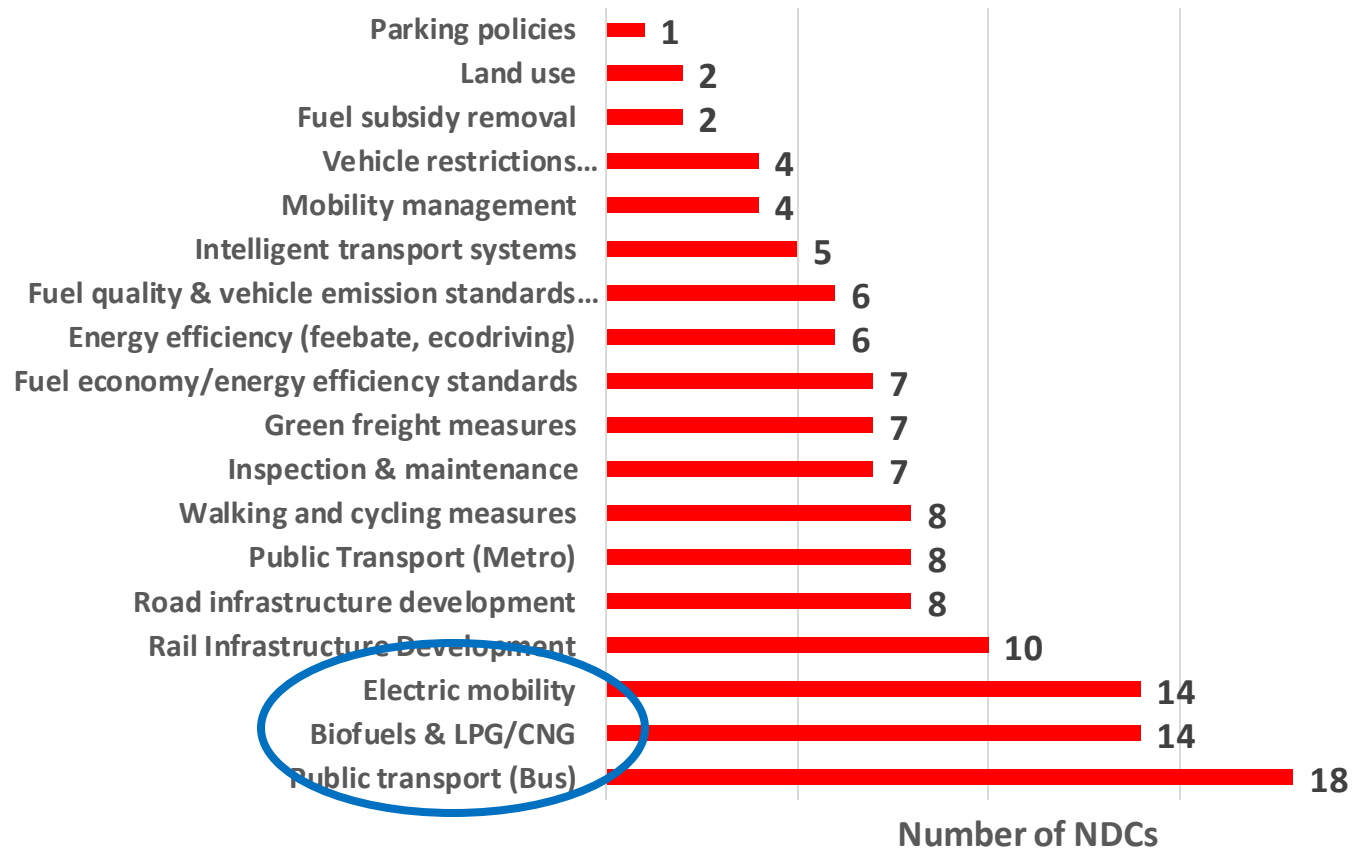
41% growth of Transport Emissions in Asia, 2010-2019

Change in transport CO2 emissions in Asia, 2010-2019



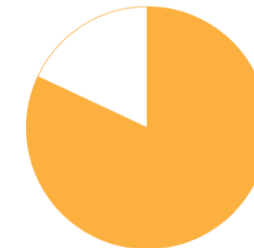
- Major GHG emitters in Asia
- Transport sector - 25% emissions
- Road transport > 75% emissions
- Passenger- 59% and freight- 41% of global transport CO2 emissions

# Transport Strategies in Asian NDCs



98%

of NDCs mention transport



82%

of NDCs include transport measures

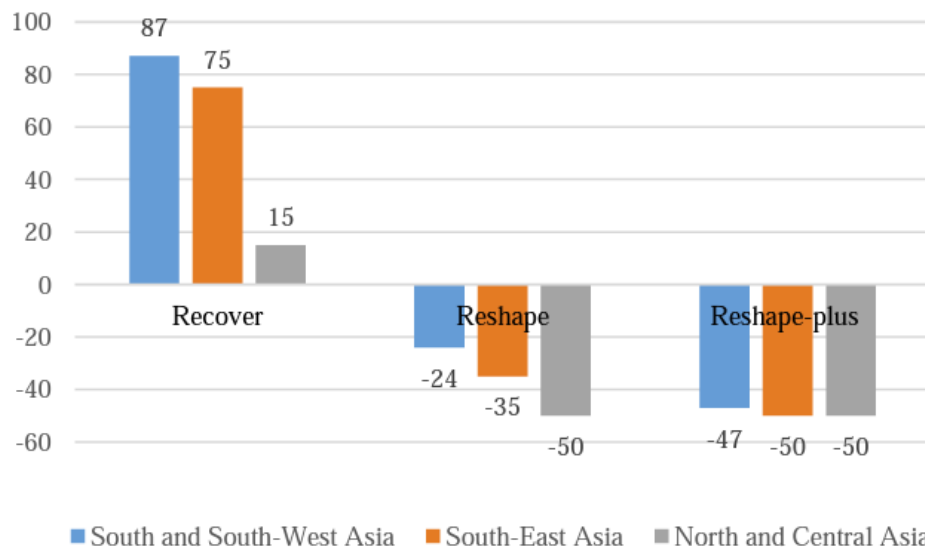


18%

of NDCs set CO2 reduction targets

# Freight Emission Scenario

Estimated change in non-urban freight transport-related carbon dioxide emissions, 2015–2050, by scenario (Percentage)



Sources: ITF, *ITF North and Central Asia Transport Outlook*; *ITF Southeast Asia Transport Outlook*; and *ITF South and Southwest Asia Transport Outlook* (Paris, 2022).

- Share of **renewable transport** accounts for only **2 per cent** of all the energy consumed in the transport sector in Asia and the Pacific.
- In the majority of the ESCAP members, the **final energy consumption share of road transport** was over **70 per cent**.
- **60 per cent** of urban passenger **carbon dioxide emissions** in Asia were emitted by **private vehicles**.
- IEA estimates that the global private passenger vehicle fleet will grow by more than 30 per cent between 2020 and 2030.



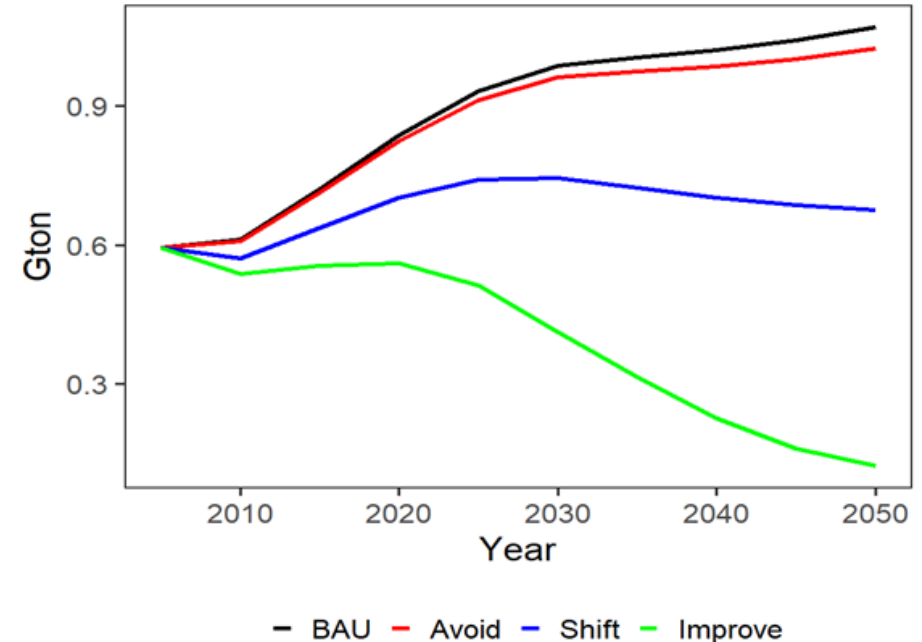
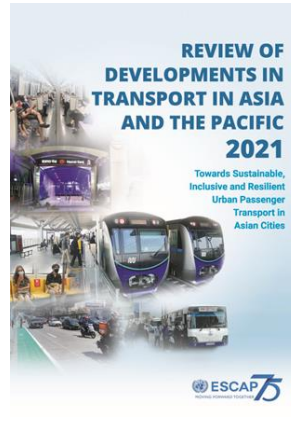
# Integrated Transport and Energy Modelling

## 6 scenario analyzed

- A reduction of transport demand (Avoid)
- Mass-transit development (Shift)
- Car sharing (Shift)
- Energy efficient improvement (Improve)
- Electric mobility (Improve)
- Carbon pricing (Improve)

## CO2 reduction by 2050

- Electric mobility (Improve) -72%
- Energy efficiency (Improve) -66%
- Car sharing (Shift) -20%
- Demand reduction (avoid) -10%



## Electric mobility & energy efficiency improvement

- Technology dependent
- Investment needs
- Technical capacity of countries

# The Way Forward

## ■ Asia-Pacific initiative on electric mobility

- Call for switch to electric vehicles, reduce GHG emissions at COP26/27
- Potential to accelerate transition to electric mobility in public transport-share of renewable energy in grid
- Advocate exchange of experience and peer learning
- Stakeholders' consultation and policy support to selected countries

## ■ Voluntary participation

Supported at a regional meeting

**Bhutan, Cambodia, Fiji, Indonesia, Nauru, Nepal, Philippines, Sri Lanka, Thailand, Tuvalu, Viet Nam**

## ■ Regional cooperation mechanism on low-carbon transport

- Refine transport specific targets in NDCs
- Identification of national and regional low and zero carbon goals and actions
- Strengthening linkage between regional and global dialogues

## ■ Aligned with Regional Action Programme

Supported at a regional meeting

# Issues for Consideration

The Committee may wish to:

- (a) support the establishment of a regional cooperation mechanism on low carbon transport as a way to contribute to reducing GHG emissions
- (b) support the Asia-Pacific initiative on electric mobility as a way to accelerate the transition to electric mobility in public transport
- (c) share updates and selected highlights with regard to national, subregional and multilateral policies and initiative related to environmentally sustainable transport systems and services

