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Transport Policies to support Climate Action in Asia

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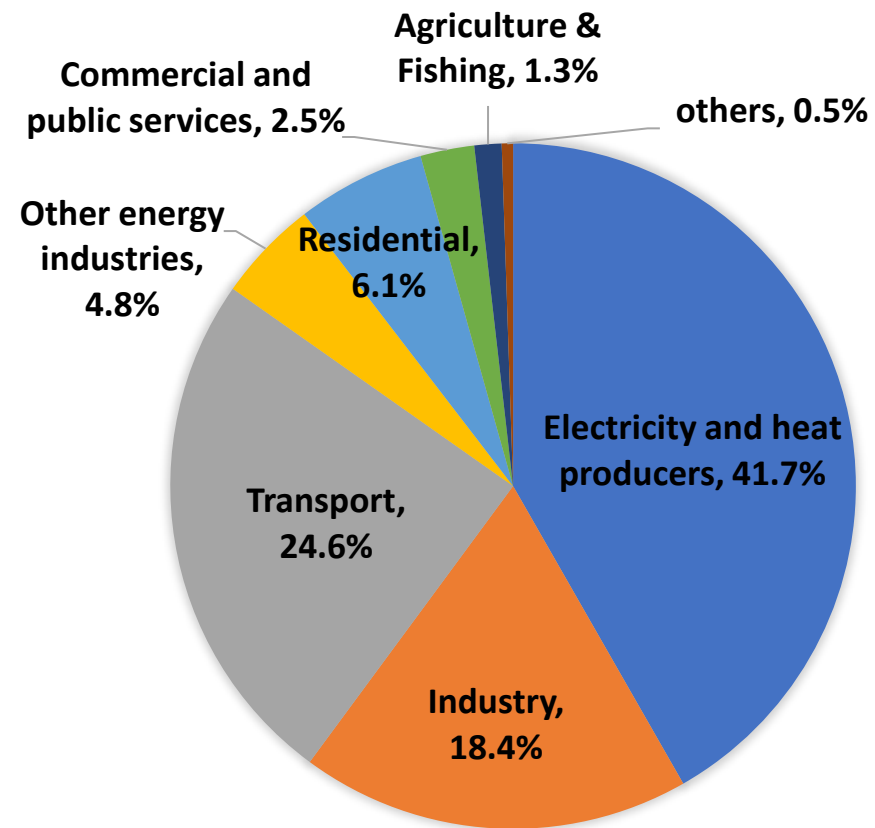
Introduction

- Transport: Contributor to the climate change and impacted by climate events
- Carbon intensive transport system
- Paris Agreement: to keep rise global average temperatures to below 2°C and closer to 1.5°C above pre-industrial levels
 - Mitigation and Adaptation Action
 - Nationally Determined Contributions- ambitious
- Sustainable Development Goal 13: Take urgent action to combat climate change
 - Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries (target 13.1)
- Rise in the number & intensity of climate-related disasters in Asia

Transport Emissions in Asia

- Transport sector accounts for 25% emissions from fuel consumption, 2018
- Road transport responsible for 75% emissions
- Passenger-59% and freight- 41% responsible global transport CO2 emissions
- Major GHG emitter countries are in Asia
- 41% growth of transport emissions in Asia, 2010-2019

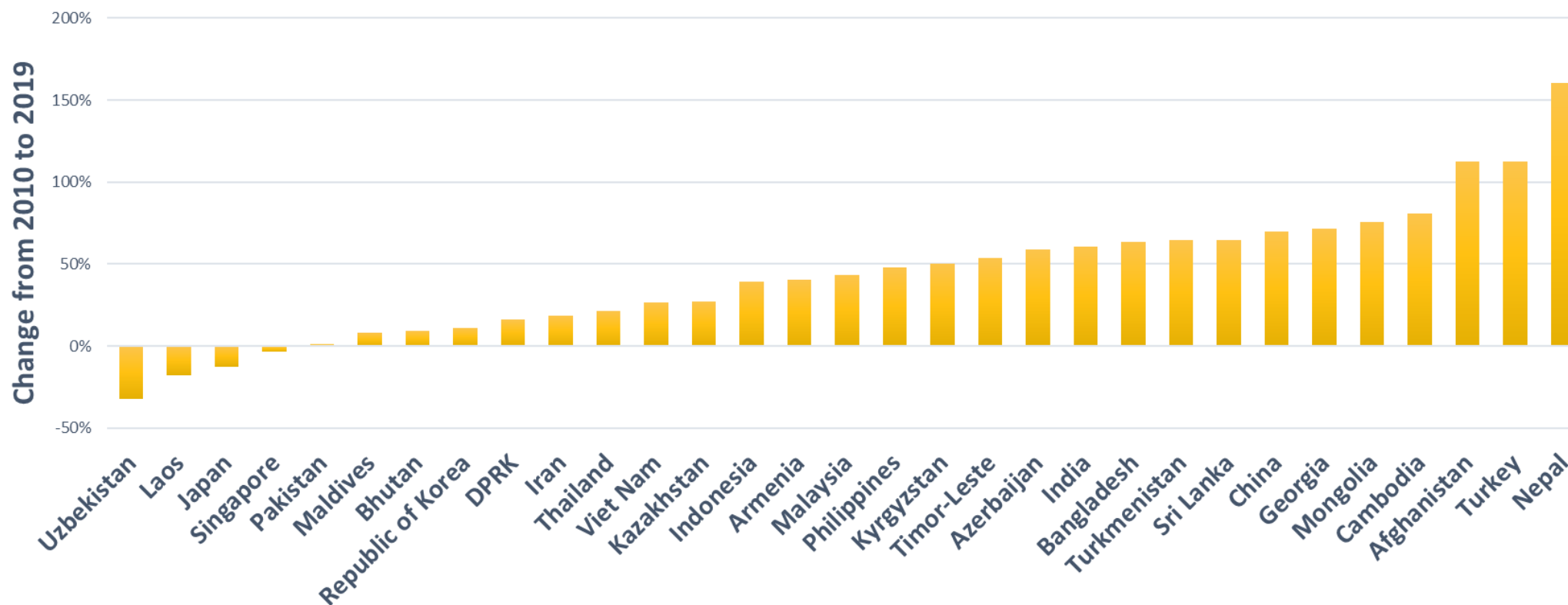
CO₂ emissions from fuel combustion by sector, 2018



CO2 Emissions in Asia

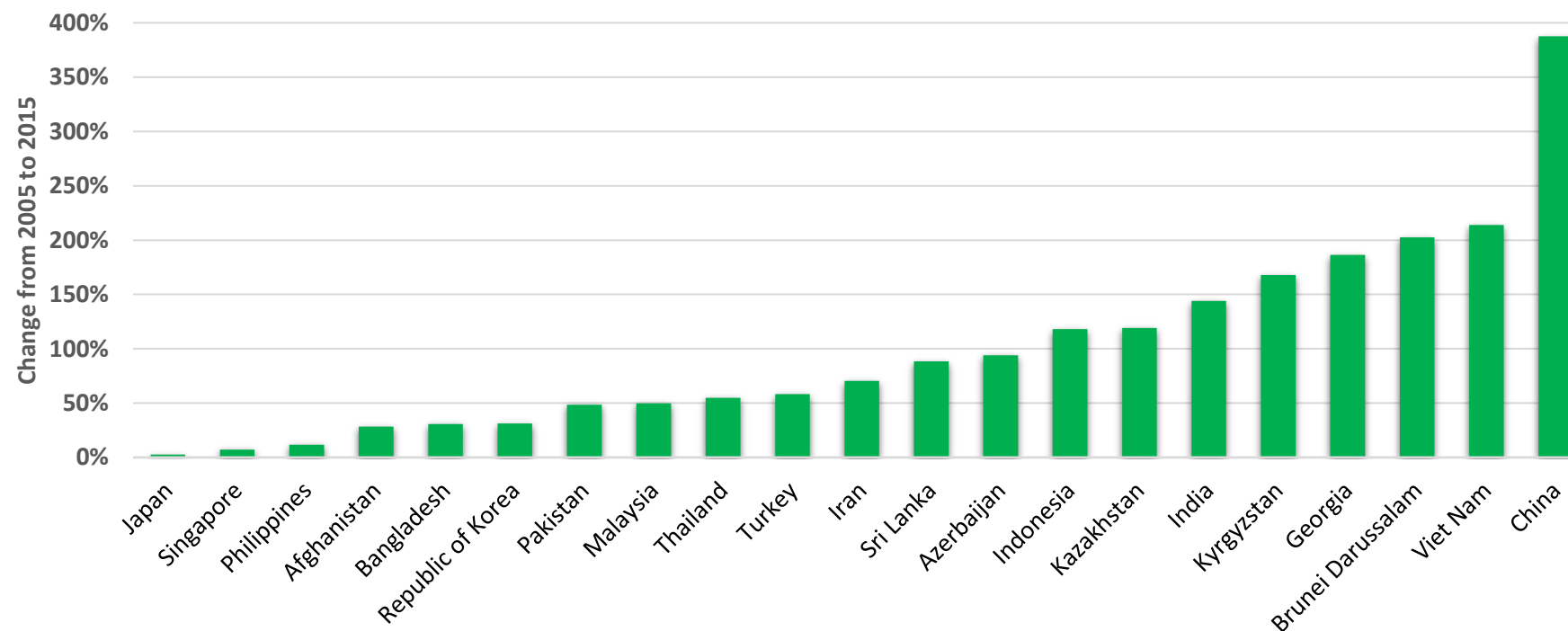
41% growth of Transport Emissions in Asia, 2010-2019

Change in transport CO2 emissions in Asia, 2010-2019



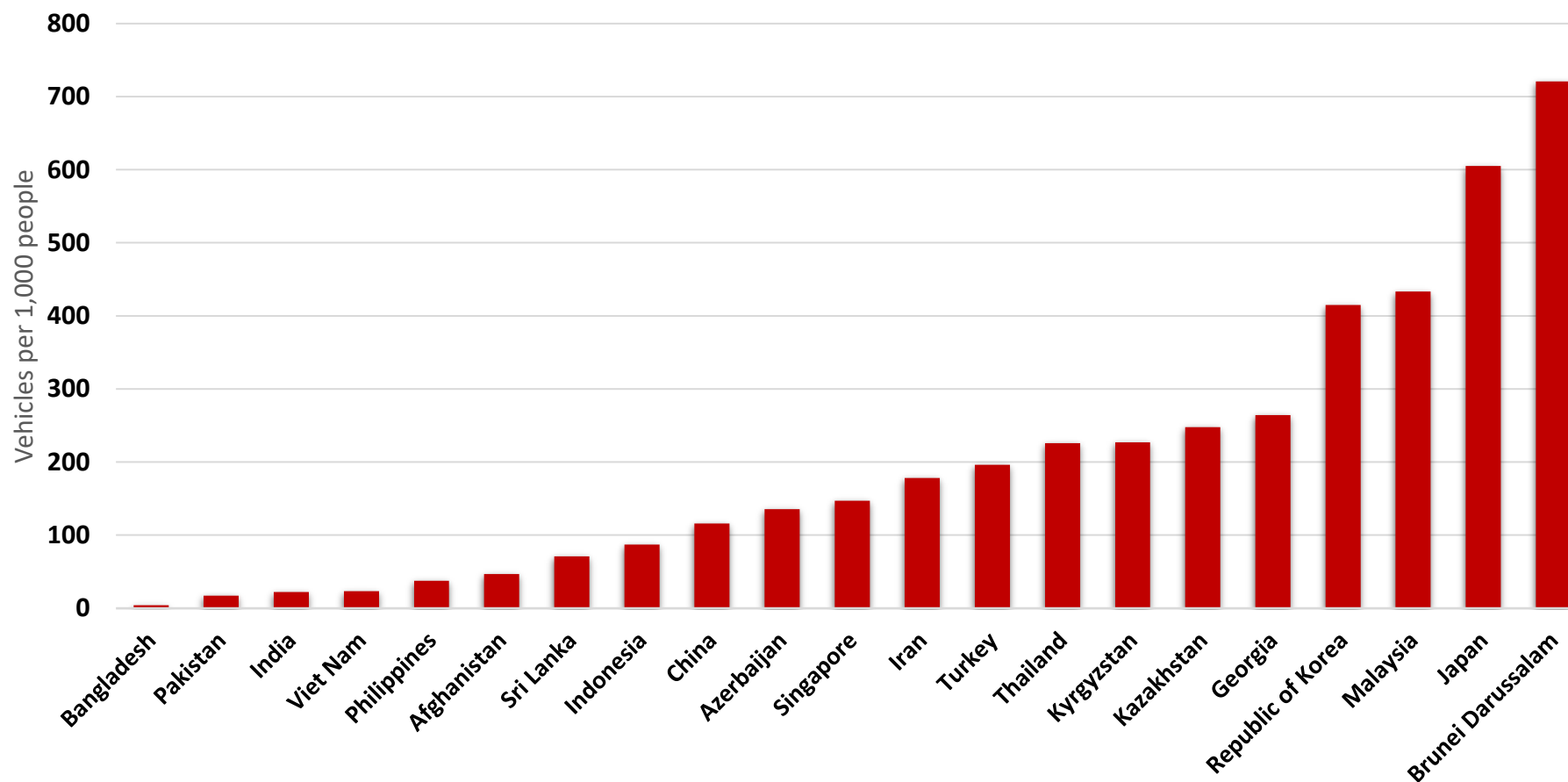
Source: SLOCAT, Transport and Climate Change, 2021

Growth in Car Ownership, 2005-2015



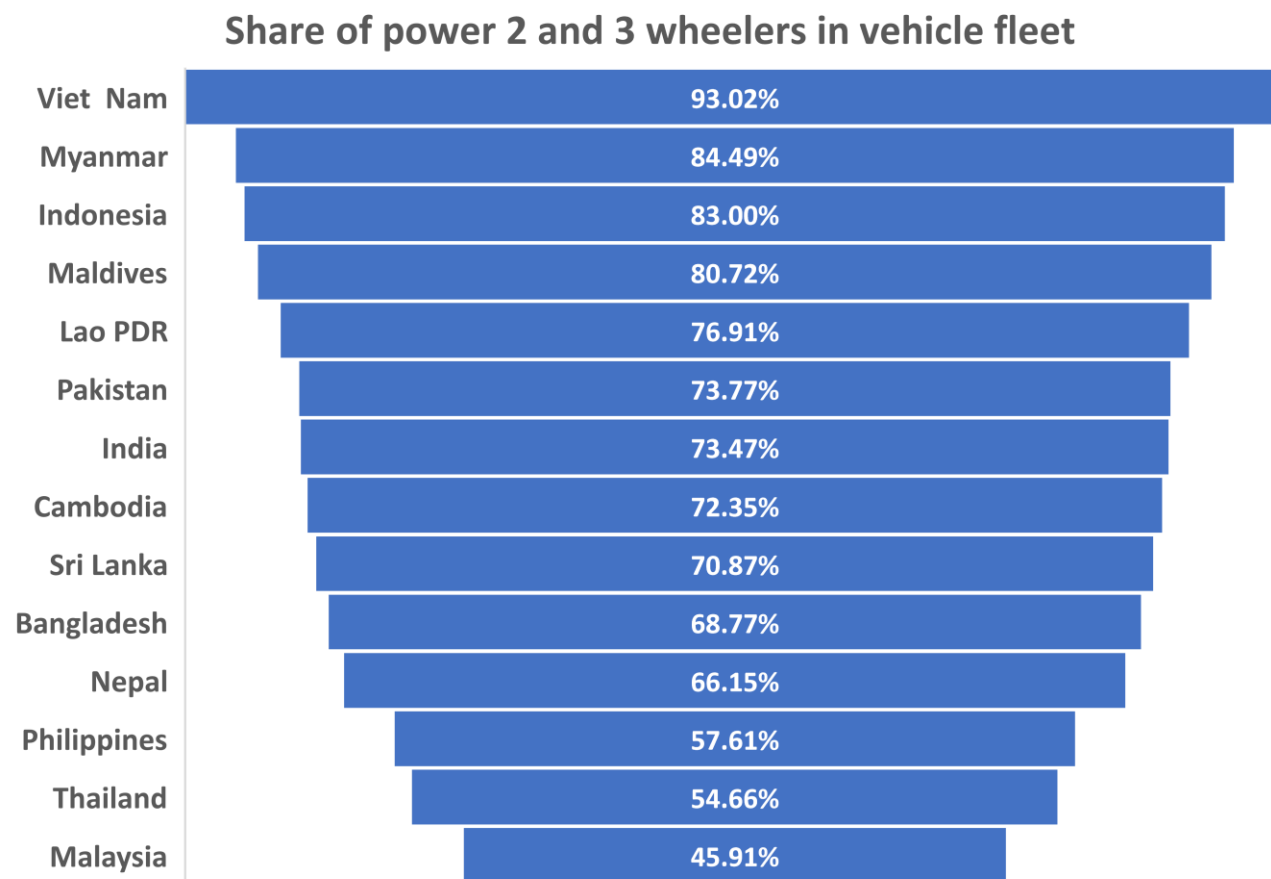
Source: <https://www.oica.net/category/vehicles-in-use/>

Car Ownership per 1000 people in Asia, 2015



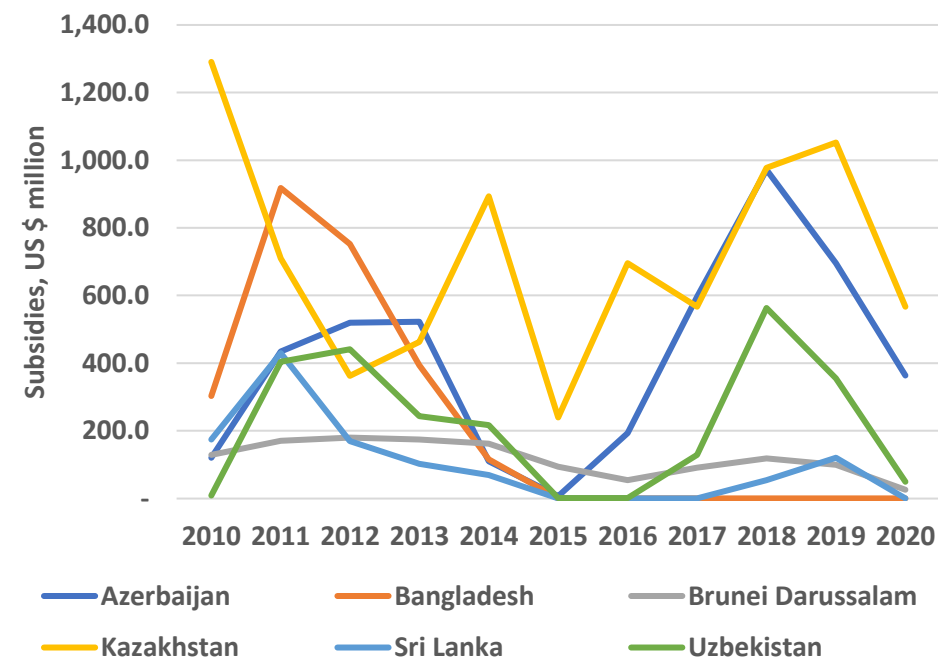
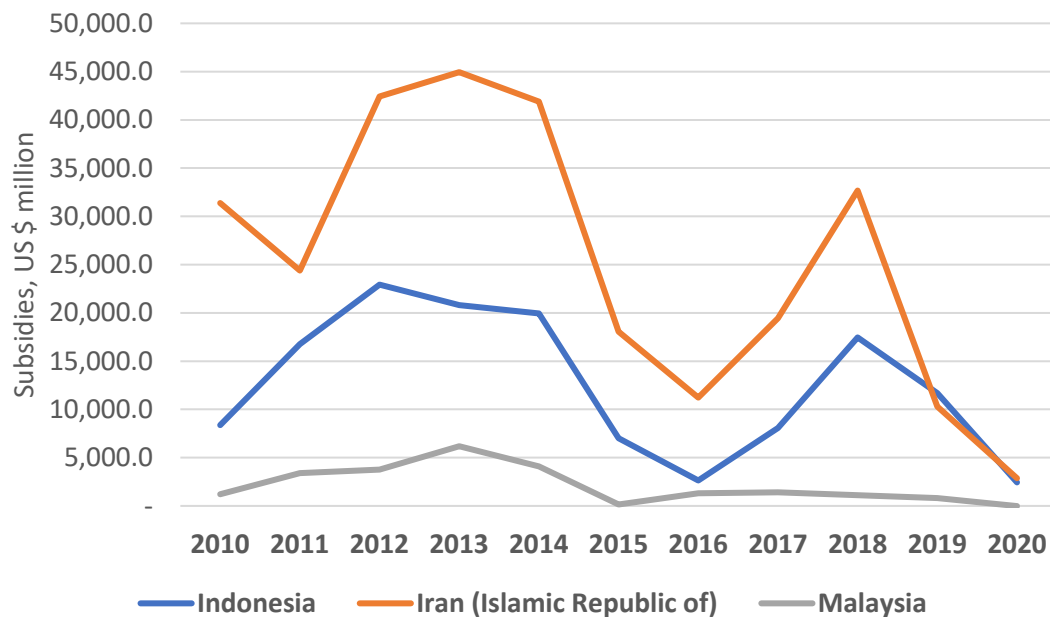
Source: <https://www.oica.net/category/vehicles-in-use/>

Powered 2 and 3 wheelers



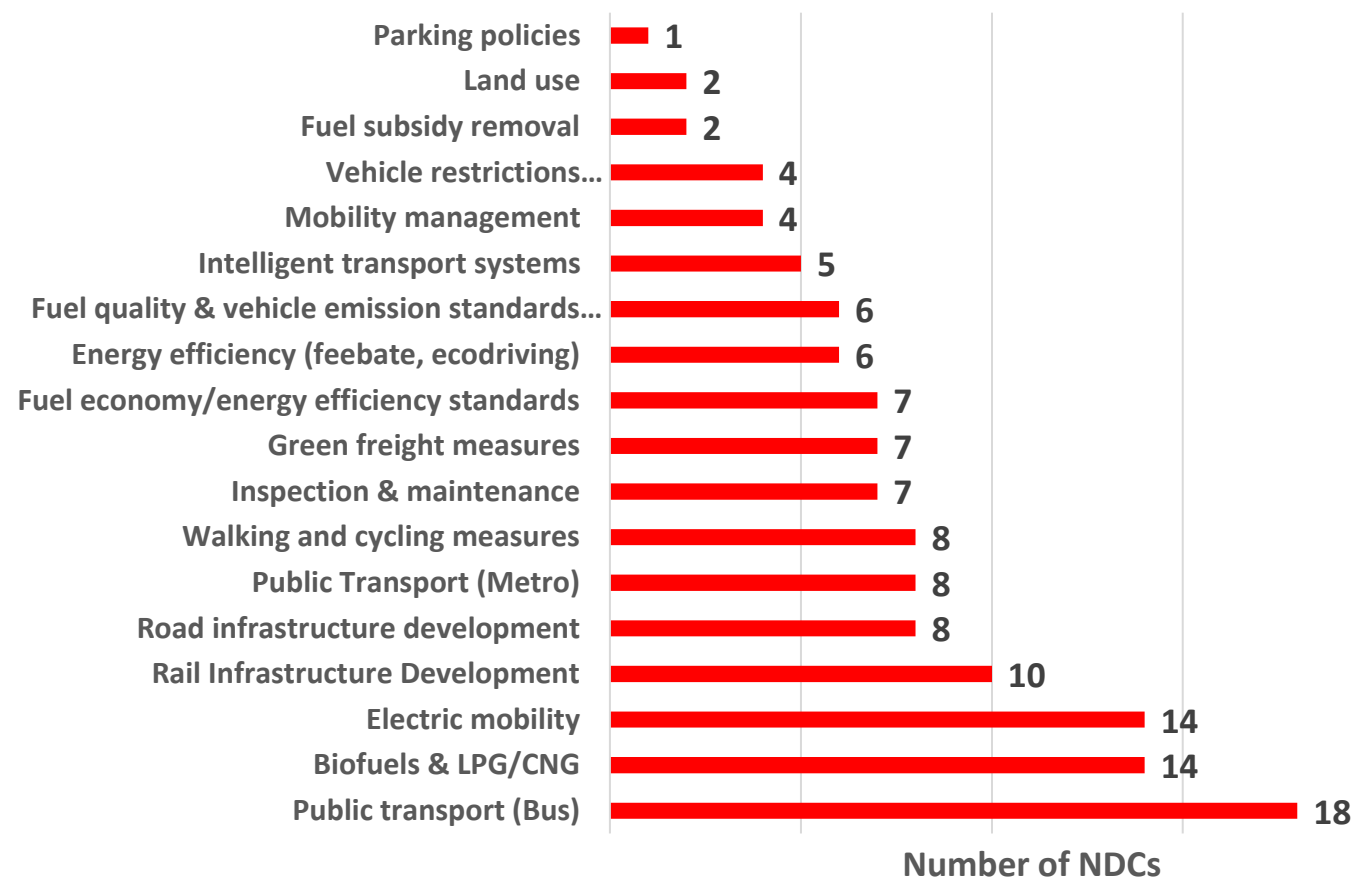
Source: WHO, 2018

Fossil Fuel Subsidies in Asia



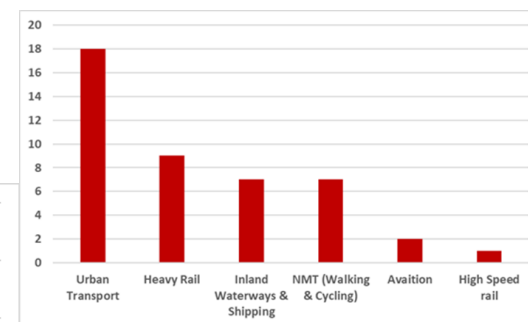
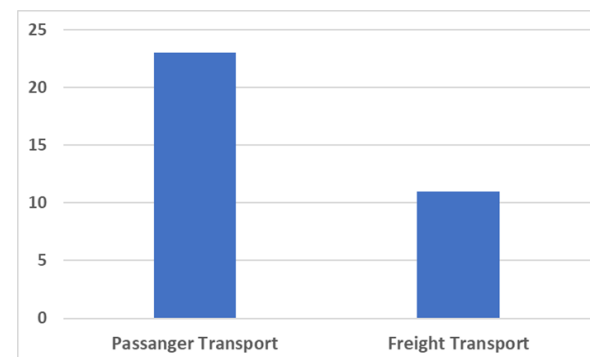
Source: IEA

Transport Strategies in NDCs



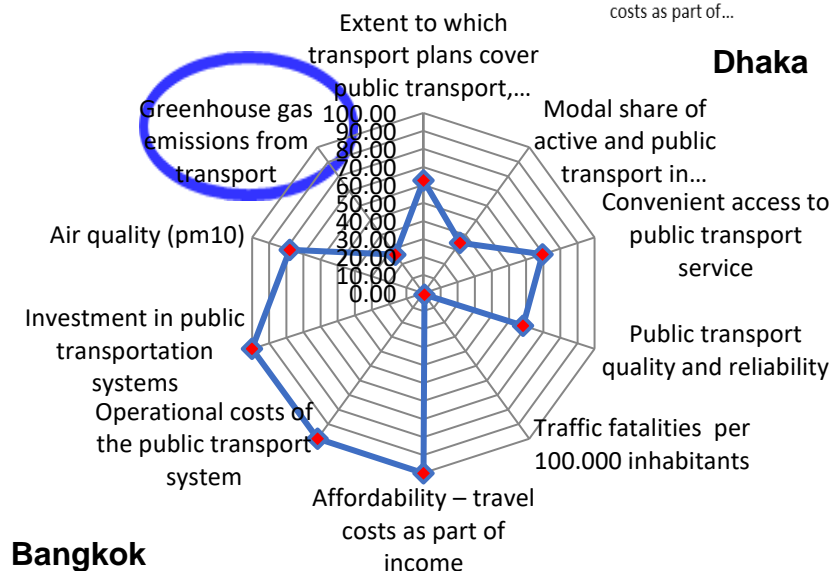
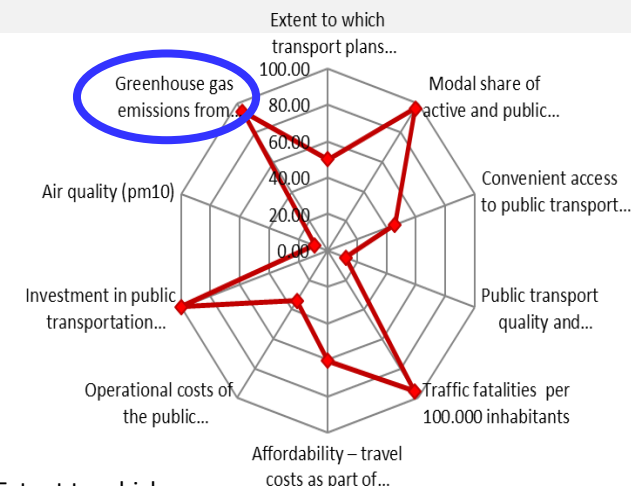
Source: UNFCC

- Contains transport action – but not specific
- Limited countries have transport emissions reduction targets

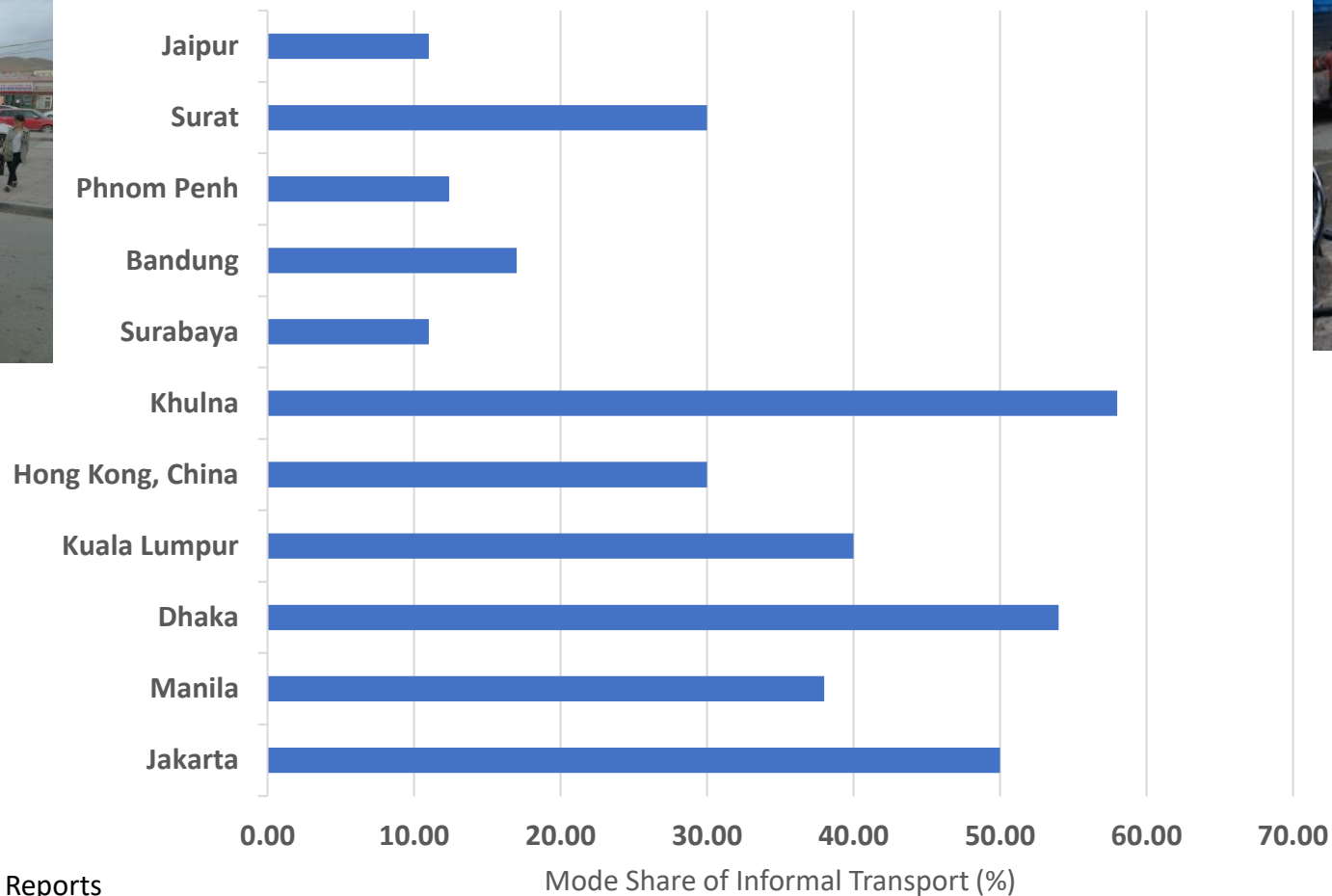


Measuring Sustainability- SUTI

No	Indicators	Measurement units	Weights	Range	
				MIN	MAX
1	Extent to which transport plans cover public transport, intermodal facilities and infrastructure for active modes	0 - 16 scale	0.1	0	16
2	Modal share of active and public transport in commuting	Trips/mode share	0.1	10	90
3	Convenient access to public transport service	% of population	0.1	20	100
4	Public transport quality and reliability	% satisfied	0.1	30	95
5	Traffic fatalities per 100,000 inhabitants	No of fatalities	0.1	10	0
6	Affordability – travel costs as part of income	% of income	0.1	35	3.5
7	Operational costs of the public transport system	Cost recovery ratio	0.1	22	100
8	Investment in public transportation systems	% of total investment	0.1	0	50
9	Air quality (pm10)	µg/m3	0.1	150	10
10	Greenhouse gas emissions from transport	CO2 Eq. Tons	0.1	2.75	0
SUM			1.00		



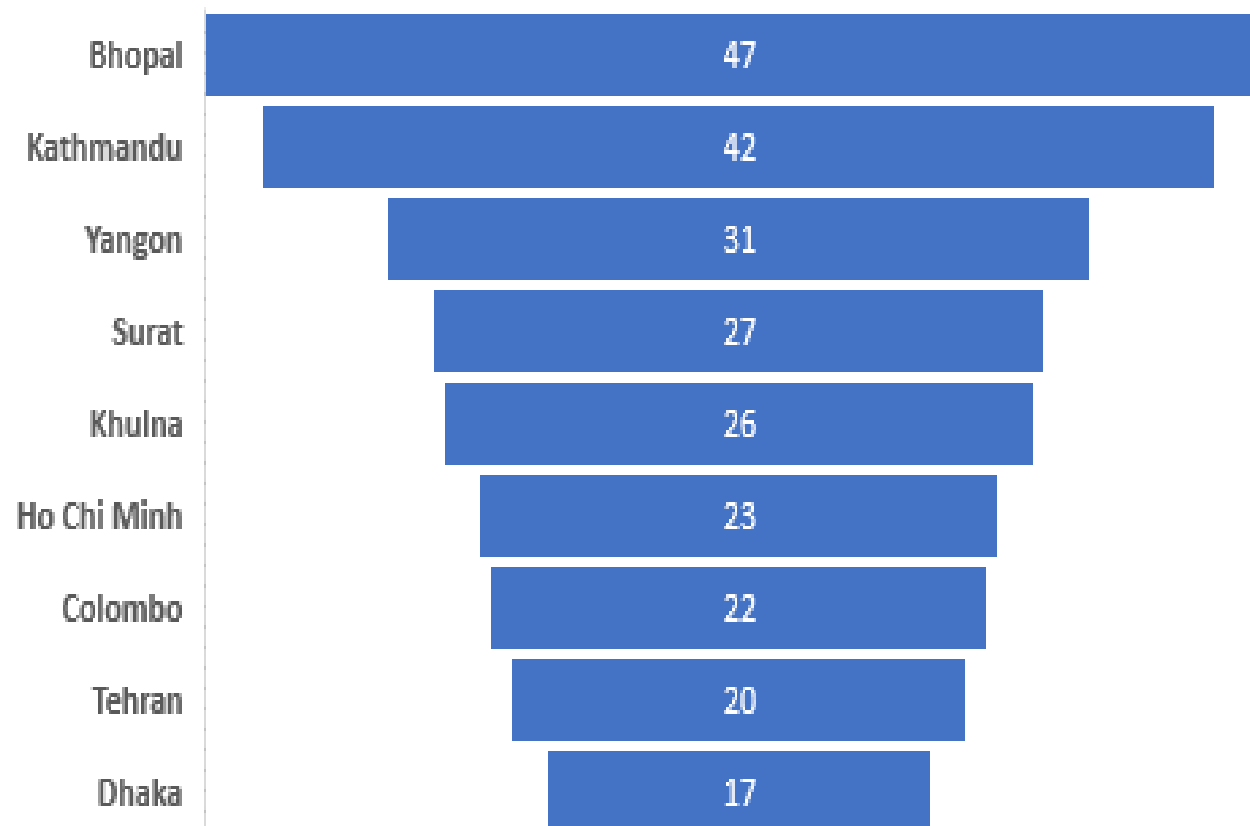
Share of Informal Transport



Source: ESCAP, Mobility Assessment Reports

Active Mobility

Share of active mobility



ASI Framework- Mitigation Opportunities in Transport

AVOID

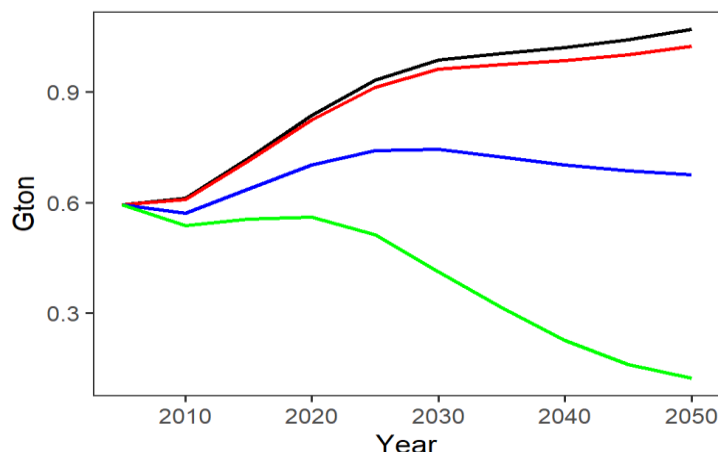
- Reducing travel demand
- Compact city planning
- Post-COVID-19: Teleworking, use of ICT, 15-minute city
- Discourage private mode

SHIFT

- Public Transport- BRT, Metro, Bus
- Non-Motorized modes
- Energy efficient modes
- Car sharing

IMPROVE

- Improve energy efficiency
- Electric mobility
- Alternate fuels

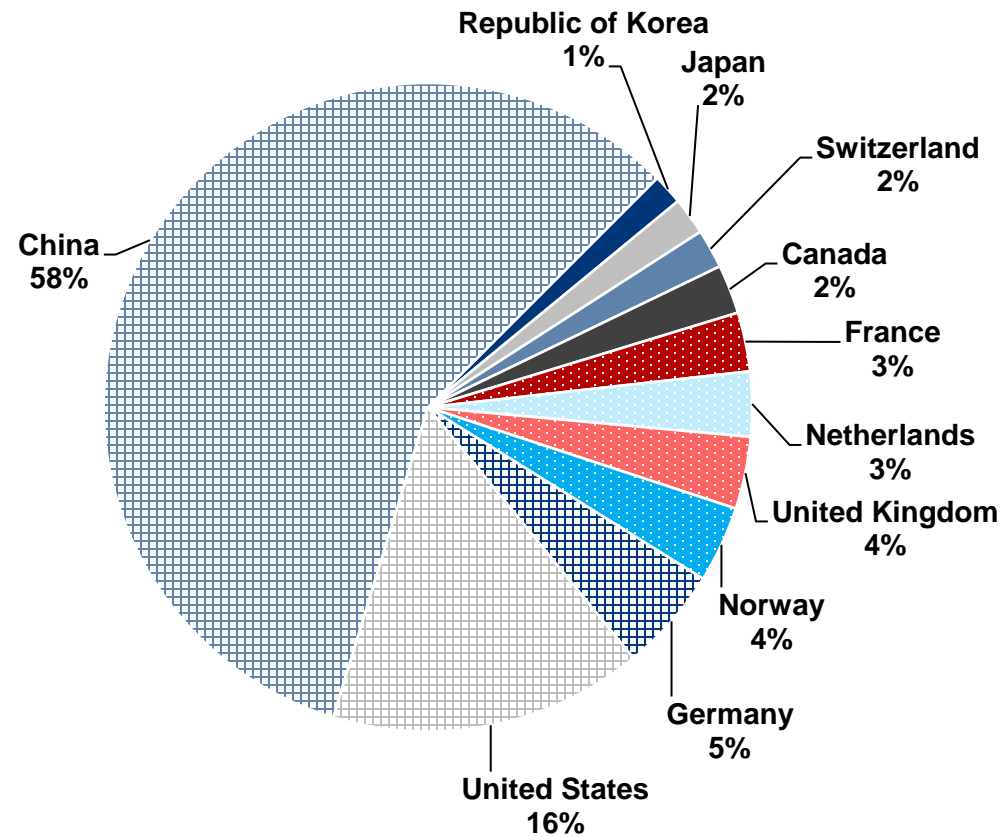


— BAU — Avoid — Shift — Improve

Model analysis of 5 scenarios

- Energy efficiency
- Electric mobility

New Energy Vehicle Sale in 2019



Key Policy Challenges towards Decarbonization

- More focus on passenger transport
- Enhancing energy efficiency of informal transport
- High share of 2 and 3 wheelers - decarbonize
- Initiative in the freight transport
- Still lack clear trajectory what will lead to carbon neutral in transport
- More efforts in planning and policies
- More focus on implementation and scaled up implementation
- Diffusion of technology
- Collaboration among researcher and policy makers

Regional Initiative on Transitioning to EV in Public Transport

- **National EV Policies and Strategies**
 - Pilot countries – Georgia, Laos, Nepal, and Thailand
 - Review of current policies and opportunities
 - National stakeholders' consultation workshops- 2022
- **Regional EV Initiative**
 - Regional policy guidelines and case studies
 - Regional Initiative on EV
 - Regional and Subregional Meeting on EV
- **Collaboration and Partnerships**
 - UNEP, GGGI, Research Institute of Highways, China
 - GIZ- Sustainable Mobility in Metropolitan Region in ASEAN Project
 - King Mongkut University of Technology, Thonburi, Thailand



Concluding Remarks

- Transport strategies & plans with specific emission reduction targets**
 - Cover passenger and freight, modes- NMT, Public transport, 2/3 wheelers and informal
 - Monitoring and carbon accounting

- Scaled-up implementation**
 - Current pace not enough to be carbon neutral by 2050
 - Integrated planning and cross-sectoral coordination
 - Partnerships- Global Initiatives and Alliances, Private sector

- Financing and Diffusion of Technology- NDCs linked to additional support**

- Strengthen Transport Ministry's involvement - visioning, scenario analysis and modelling- encourage evidence-based decisions**

- Prioritize Adaptation**



REVIEW OF DEVELOPMENTS IN TRANSPORT IN ASIA AND THE PACIFIC 2021

Towards Sustainable,
Inclusive and Resilient
Urban Passenger
Transport in
Asian Cities



Thank You

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www.unescap.org/kp/2021/review-developments-transport-asia-and-pacific-2021