

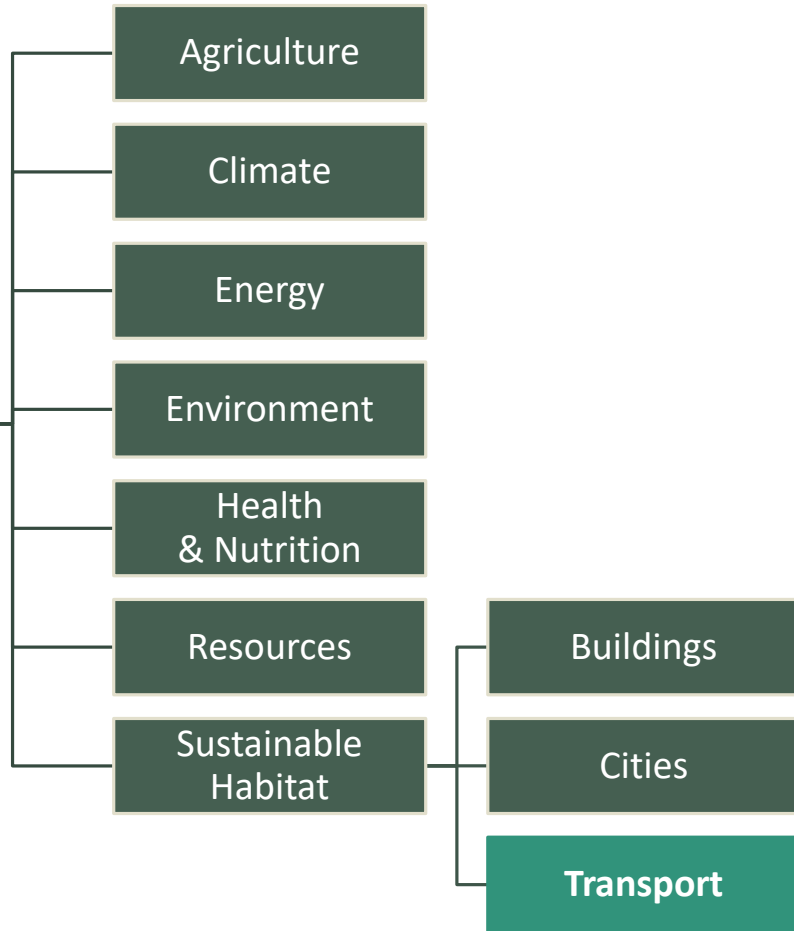
Decarbonising the transport sector

URBAN MOBILITY–INTERNATIONAL PERSPECTIVE, DWIH
JULY 28, 2020

SHARIF QAMAR

CENTRE FOR SUSTAINABLE MOBILITY, TERI

About TERI



Centre for Sustainable Mobility

Promotion of **energy-efficient, environment-friendly, sustainable and inclusive development** of the India's transport sector.

Urban Transport

- Urban transport planning
- Non-motorized transport
- Public transport
- Informal modes of transport

Regional Transport

- Conventional rail systems
- High speed rail
- Ports and shipping

Transport and emissions

Global emissions from transport

Road transport contributes increasingly to global energy consumption.



In 2015, the transport sector accounted for 28 per cent of overall global energy consumption.

Source: IEA (2015): *World Energy Outlook*



Energy consumption by road transport will rise globally.

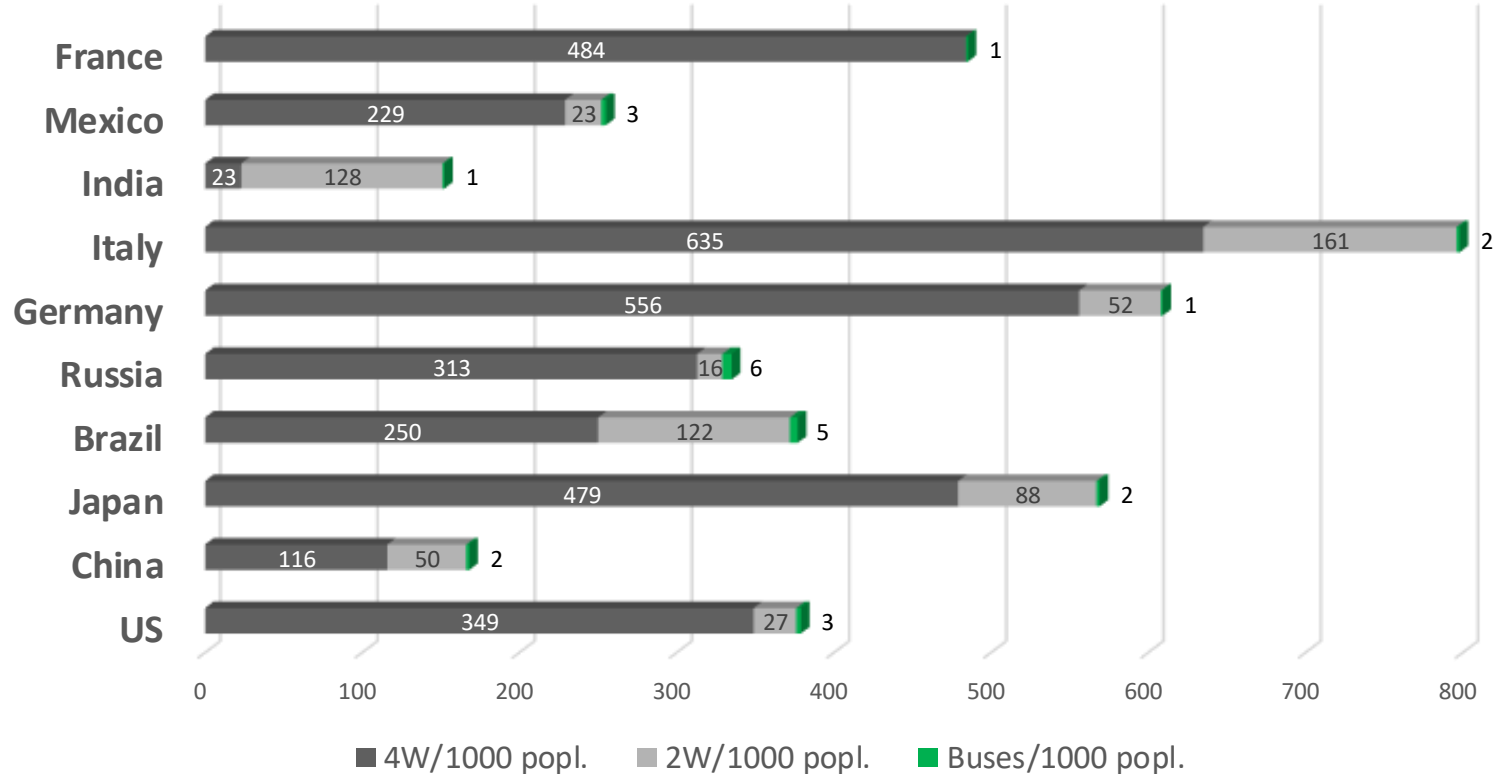


Without countermeasures, the energy consumption of road traffic will rise up to 70 per cent by the year 2050.

Source: IEA (2022): *Energy Technology Perspectives*

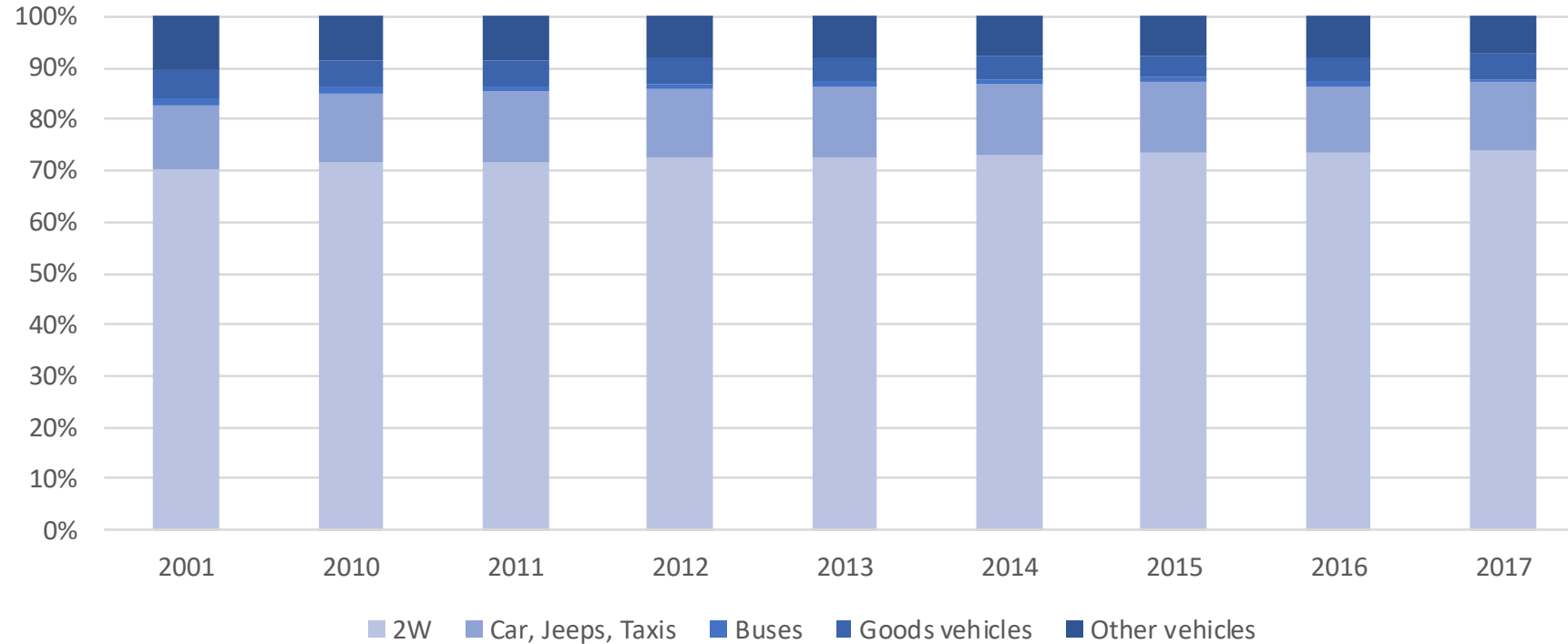
Vehicle Penetration: Global Comparison

Penetration of different types of vehicles - Top 10 countries in terms of total registered vehicles

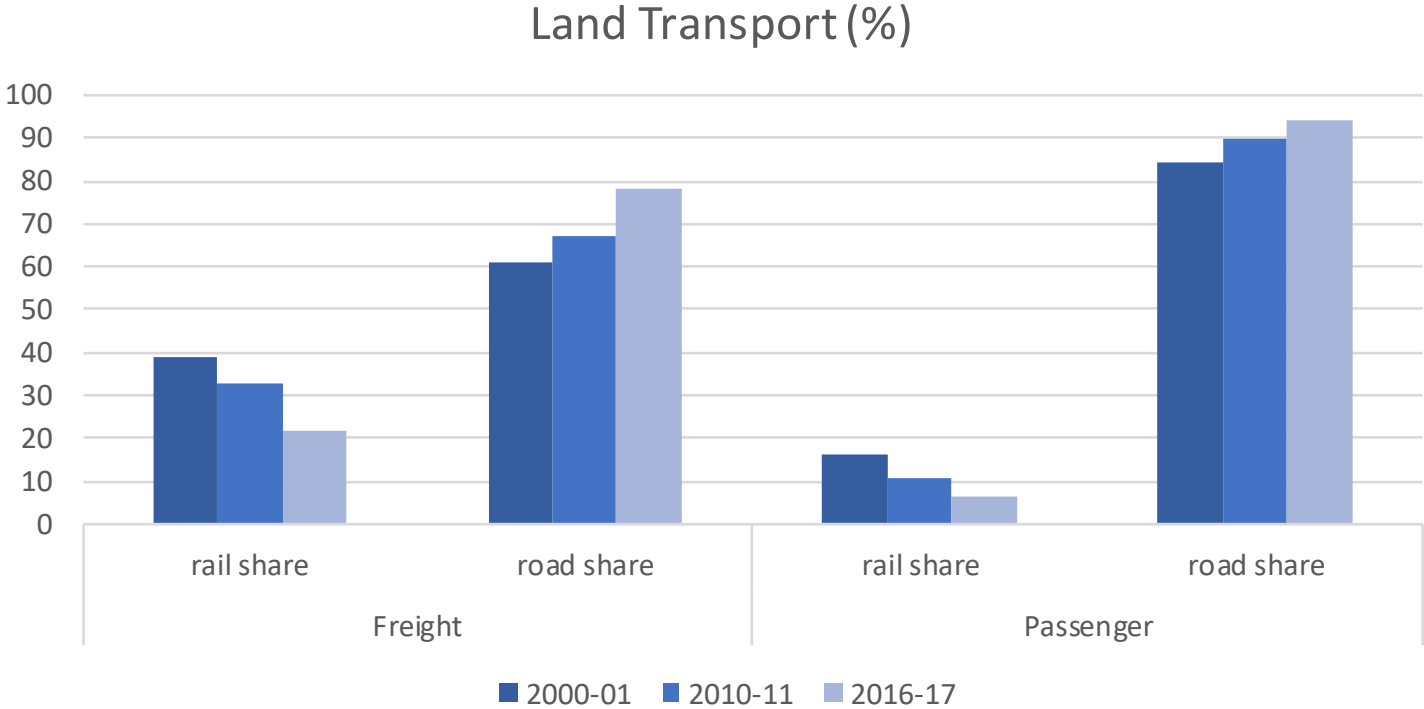


Vehicle Registration Trend

Mode-wise Share of Registered Vehicles in India (%)



Land Transport: India



Implications: Penetration of Private Transport

Energy Security

Air pollution and poor ambient air quality

Road safety

Issues of equity

Parking space constraints

Increasing congestion

Solutions

Better planning/Reduced travel demand

Restrictive car ownership policy

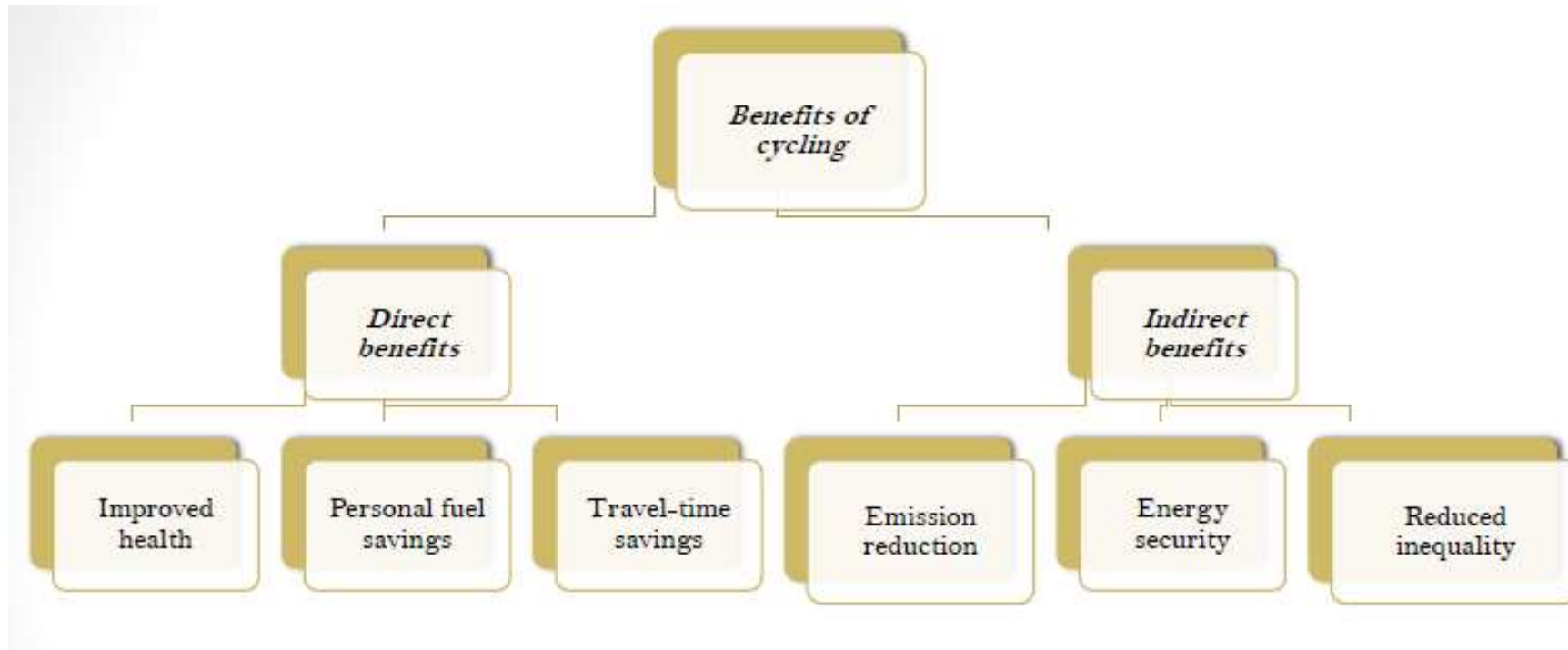
Planning city roads for NMT and not cars

Improving/augmenting public transport systems

Efficiency improvement

Higher penetration of alternative fuel technologies, including EVs

BENEFITS OF CYCLING



Substitution of short distance work trips presently being undertaken by 2Ws and 4Ws

Three scenarios of trip substitution: 50%, 75% & 100%*

*<https://www.teriin.org/sites/default/files/2019-01/Benefits%20of%20Cycling%20in%20India%20-%20Report.pdf>

BENEFITS OF CYCLING

