Decarbonising the transport sector

URBAN MOBILITY–INTERNATIONAL PERSPECTIVE, DWIH
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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.


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 (2020): Energy Technology Perspectives
Vehicle Penetration: Global Comparison

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

- **4W/1000 popl.**
- **2W/1000 popl.**
- **Buses/1000 popl.**
Land Transport: India

Land Transport (%)

Freight
rail share
road share

Passenger
rail share
road share

2000-01 2010-11 2016-17

- rail share
- road share

2000-01  2010-11  2016-17
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%*

BENEFITS OF CYCLING