

Probability and Feasibility of Clean Mobility Adoption in Urban Freight Sector in Bihar



BACKGROUND

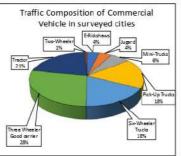
- As per study by NITI Aayog, 70% of Indian goods and services are operational through road routes and 17.5 % through rail routes. It has a crucial role in propelling economic development and social integration within and inter state both.
- India has more than 2.8 million registered commercial vehicles that run over 100 Billion kilometers per year. It comprises only about 2% on-road vehicle share which is responsible for about 40% of emission and 33% of fuel consumption from road transport
- Bihar will attain 34% of urbanization growth by 2031, which will result in demand of more e-commercial activities and movement of goods. Bihar has witnessed an annual growth of 7% in passenger vehicles, 9% in private vehicles, and 4% in commercial vehicles.
- Among all registered vehicles (3-W, LCV, MCV, HCV) in between year 2017-22, 82% were diesel, 14% were electric (mostly 3-Wheelers) and 4% were CNG as shown in figure below.

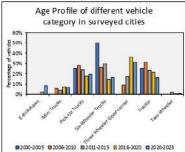


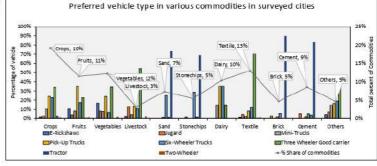
RESEARCH QUESTION

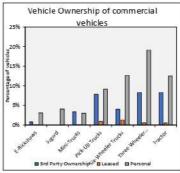
- If commercial sector transportation has significant potential to contribute to clean mobility transition pathways, what is baseline data to be considered in terms of type of goods or services and vehicle types plying within inter and intra-cities of Bihar and Jharkhand.
- If certain commercial sector and vehicle type has greater potential of clean mobility transition, what could be the encouraging policy framework, technological options, and infrastructural reforms required for addressing anxiety and henceforth smooth adoption in major economic hubs of both the pilot states.

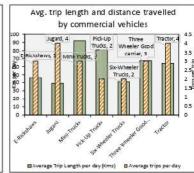
KEY FINDINGS











METHODOLOGY



WHY?

WHAT?





Which vehicle segment is more important or have potential of transition

Vehicle owners and manufacturers perspective to infer probability of adoption or transition



commodities transported in type of commercial vehicles

Payload characteristic of vehicle carrying specific kind of commodity

To analyze weather the current policies are fishable enough to achieve the target.

MUZAFFARPUR

PATNA BHAGALPUR

-ROHTAS

-GAYA



destination location for the exchange of commodities

Trip characteristic of vehicle such as delivery time, parking, driving conditions

Infrastructure reforms adoption of electric commercial vehicles in major routes.

OBJECTIVE: Investigating

characteristics of

transportation in

commercial sector

emerging economic

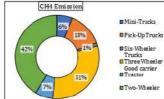
hubs for exchange

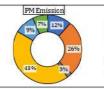
and services within

of priority goods







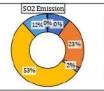


Mini-Trucks ■ Pick-Up Trucks Three Wheeler Good carrier
Tractor



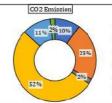
Mini-Trucks Pick-Up Trucks





Mini-Trucks Pick-Up Trucks

Six-Wheeler Trucks Good carrier ■ Two-Wheeler



■ Pick-Up Trucks ■ Six-Wheeler Trucks m Tractor

■ Mini-Trucks

