



WRI INDIA  
— ROSS CENTER

FedEx



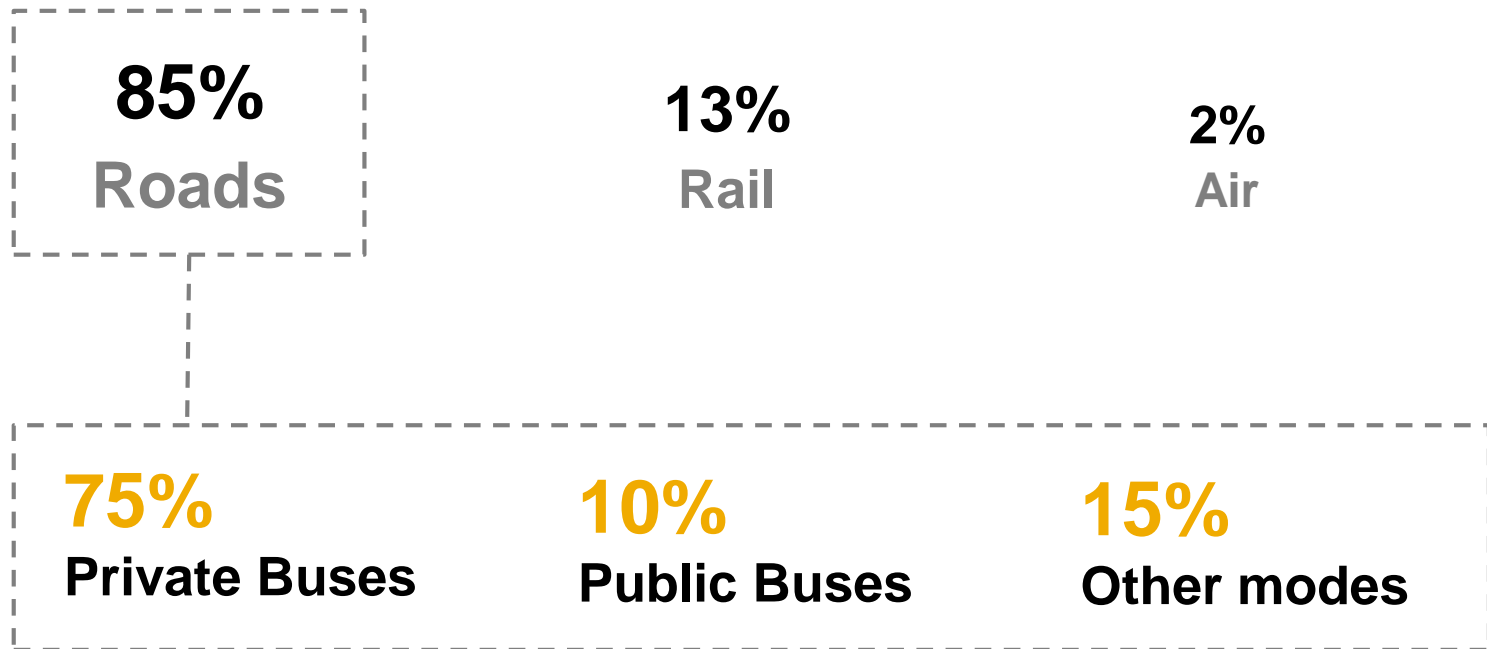
BUS  
KARO

# NATIONAL INVESTMENT PROGRAM ON BUS BASED PUBLIC TRANSPORT

Need for support from Central and State Governments

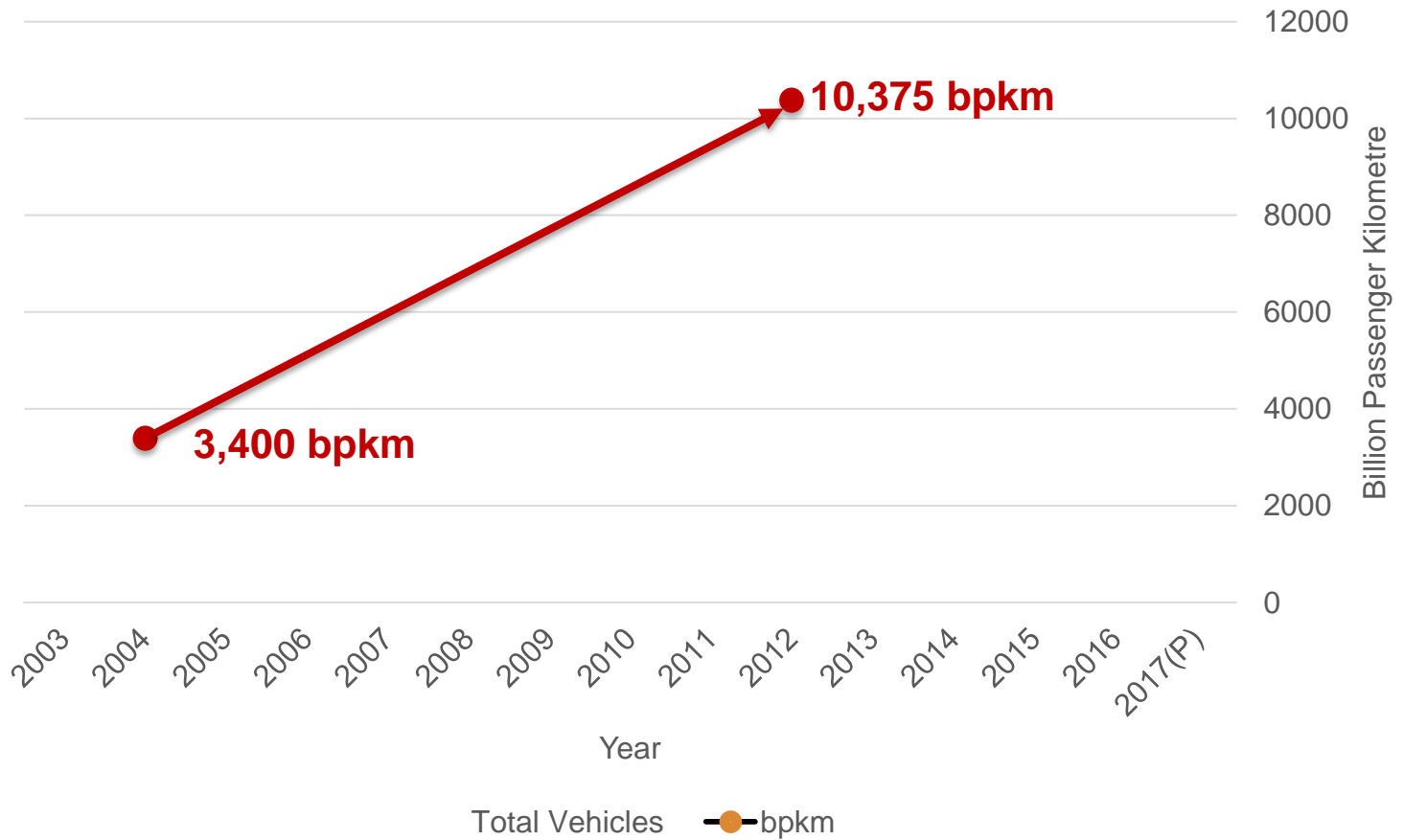
# PASSENGER TRANSPORT IN INDIA

**Share of transport sectors** in the total passenger kilometres performed in 2012-13

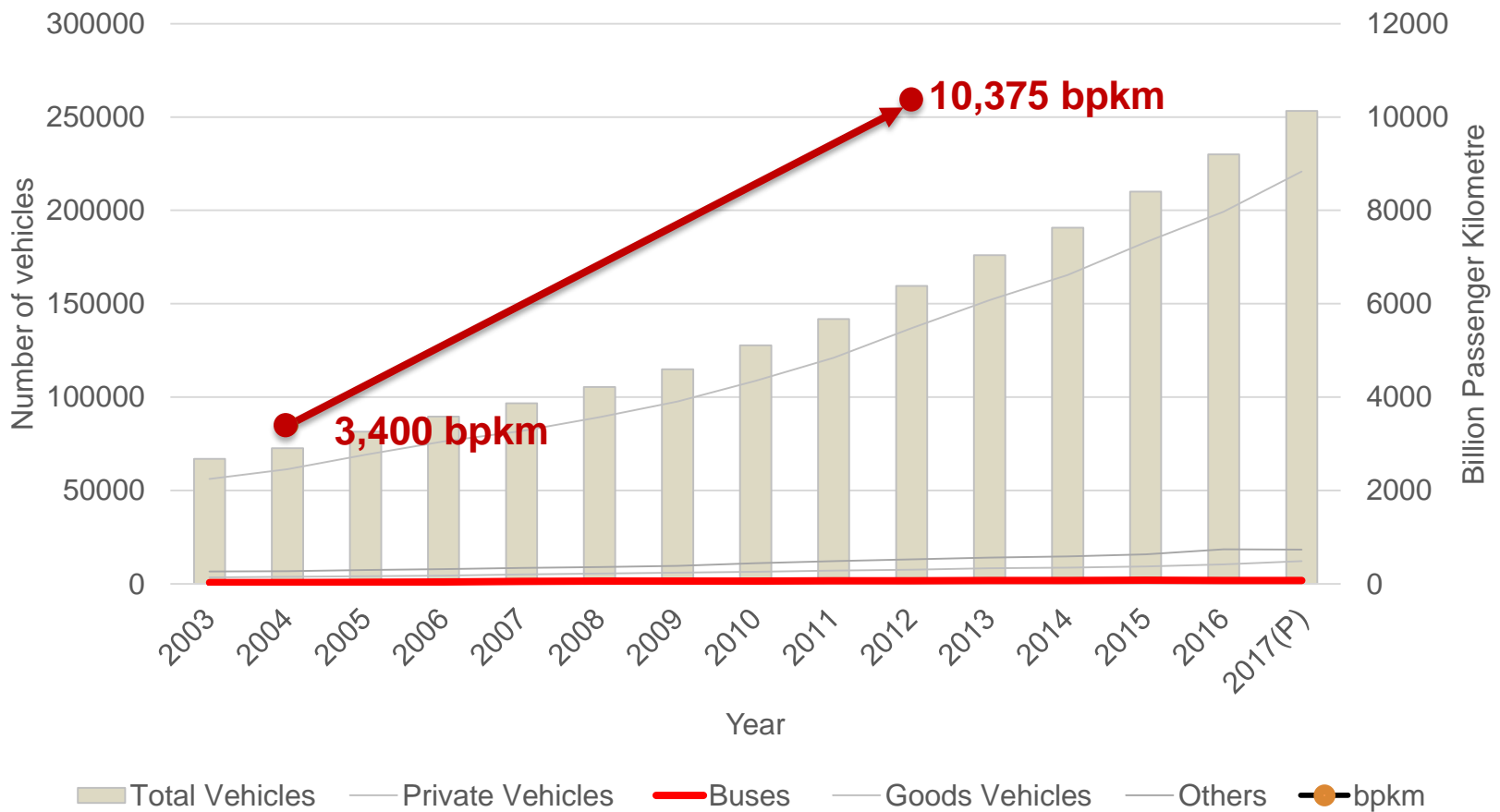


**Buses are the predominant mode of public transport in India**

# PASSENGER TRANSPORT IN INDIA



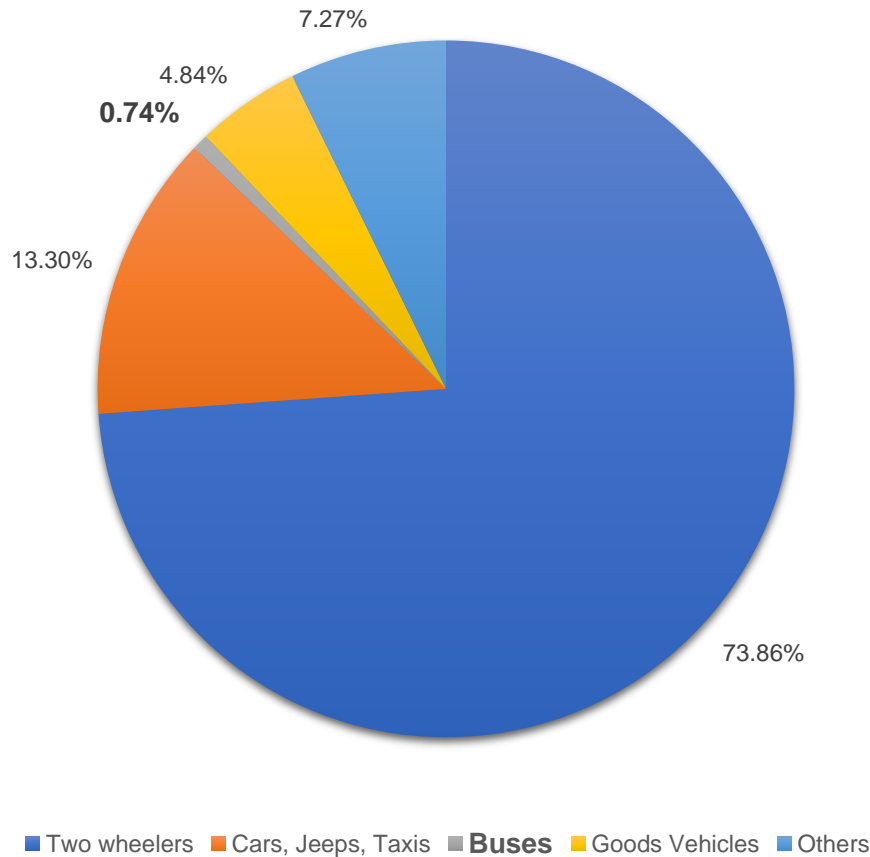
# PASSENGER TRANSPORT IN INDIA



Even when the passenger kilometers travelled has increased exponentially, the number of buses has remained almost stagnant.

# PASSENGER TRANSPORT IN INDIA

## Share of buses in the total vehicle fleet



- **0.74%** of the total vehicle fleet are buses
- **0.06 %** of the total vehicle fleet are public buses

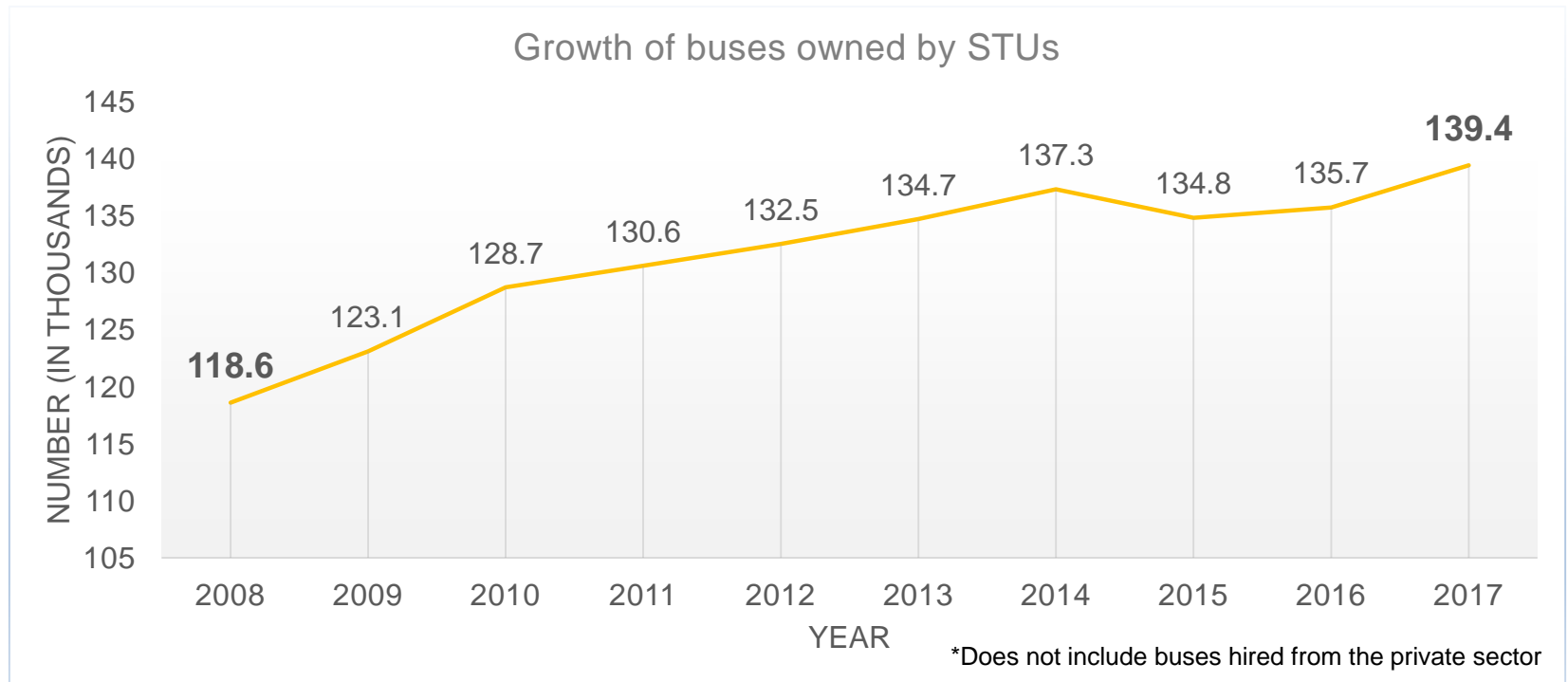
# PUBLIC BUSES – OVERVIEW

Provision of Public Bus Transport is largely a responsibility of the state owned bus agencies:

- State Road Transport Corporations (eg: BMTC, APSRTC)
- Transport Departments (eg: CTU, ST Haryana)
- Municipal Undertakings (eg: BEST, AMTS)
- Special Purpose Companies (eg: PMPML, AICTSL, CRUT)

# PUBLIC BUSES – OVERVIEW

**139,386** public buses were owned by STUs in 2016-17



- **20,800** buses added in last 10 years
- Major support came in from **Jawaharlal Nehru National Urban Renewal Mission**

# PUBLIC BUSES - JNNURM SUPPORT

## Bus Funding Scheme I

one time financial support to states (mission cities) for purchase of buses for city bus services and BRTS

**2009 – 2012**  
Year

**15,260**  
buses

**61**  
cities

## Bus Funding Scheme II

Procurement of buses and ancillary infrastructure to all cities/towns/urban agglomerations

**2013 – 2014**  
Year

**9532**  
buses

**111**  
cities

**Total number of buses purchased = 24,792**



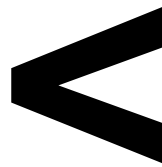
# PUBLIC BUSES – AVAILABILITY/EXTENT OF SUPPLY

*Availability of buses or extent of supply is measured as number of buses per lakh population*

## Existing bus supply

**10.4**

buses per lakh population  
*(at national level)*



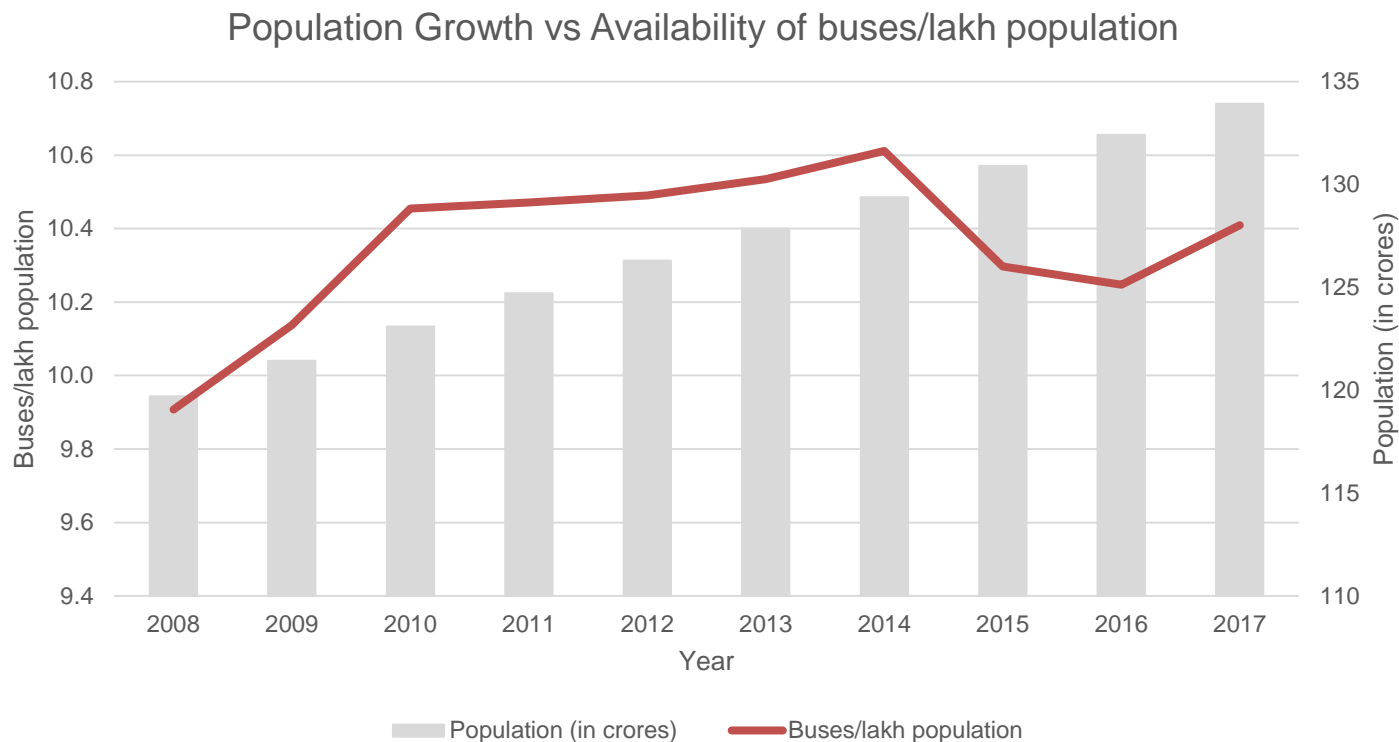
## Proposed bus supply as per standards

**40 – 60**

buses per lakh population

*Source: Schipper, Lee 2008*  
*Source: Ministry of Housing and Urban Affairs*

# PUBLIC BUSES – AVAILABILITY/EXTENT OF SUPPLY



The number of buses/lakh population has remained constant over the last decade, even though there has been steep increase in the population

# PUBLIC BUSES - BUS SUPPLY AT STATE LEVEL

Buses per lakh population in major States and UTs



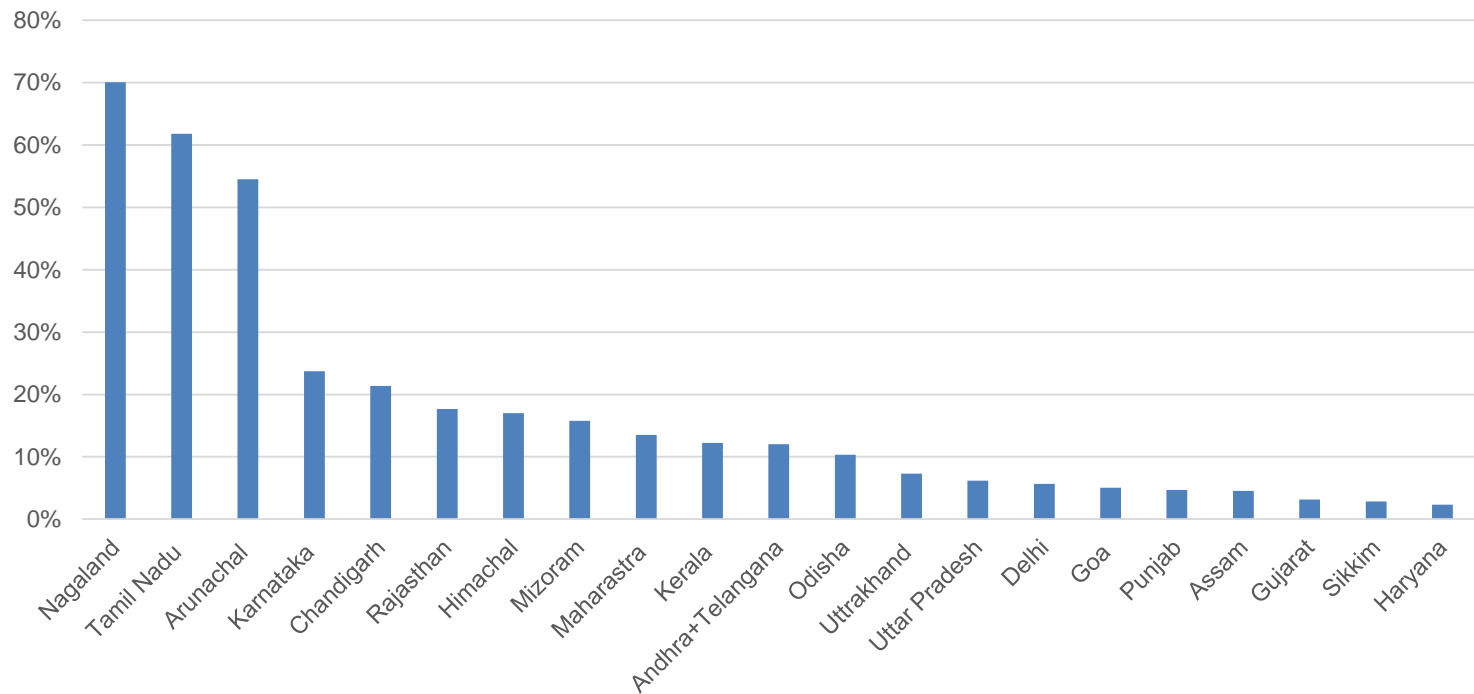
The availability of buses in states varies greatly with upto 54 buses per lakh population in Chandigarh and less than 1 bus per lakh population in Bihar

# PUBLIC BUSES - AGE OF BUSES

**22% (31276 buses)** of the existing total fleet are over aged\*

\*as per aging criteria of various transit agencies

Percentage of over aged buses in major States and UTs



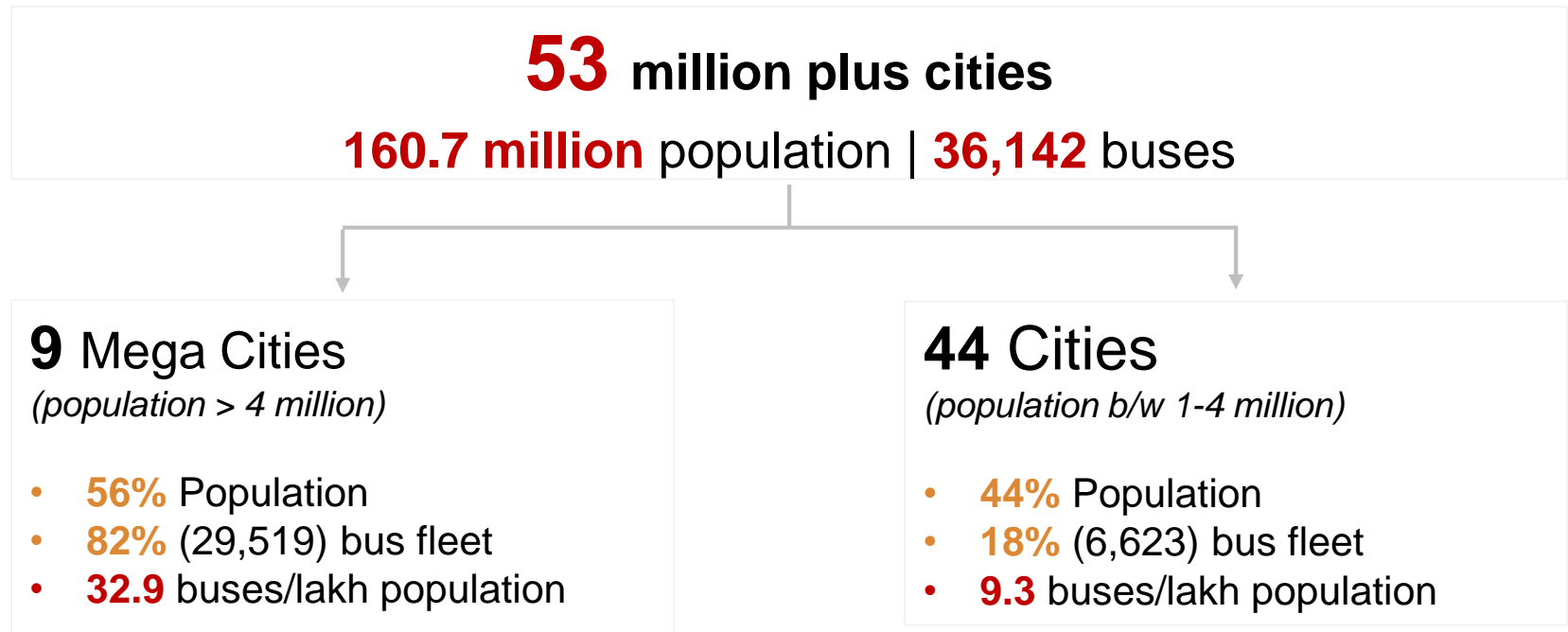
# URBAN BUS SECTOR – OVERVIEW

<b>Category</b> <i>(as per Census 2011)</i>	<b>Number</b>	<b>Number with organised bus service</b>	<b>Total Population (millions)</b>
<b>Urban Settlements</b>	<b>7935</b>	-	377
<b>Class I Towns/UAs</b> <i>(population &gt; 100,000)</i>	<b>468</b>	<b>127</b> (27%)	264.9
<b>Million plus cities</b> <i>(population &gt; 1,000,000)</i>	<b>53</b>	<b>52</b> (98.1%)	160.7

- 98.1% million plus cities and 27% Class I Towns/UAs have organised bus services
- In remaining cities - public transport services are unorganised often provided by private bus operators or Intermediate Public Transport (IPT)

# BUS SERVICE LEVELS IN URBAN AREAS

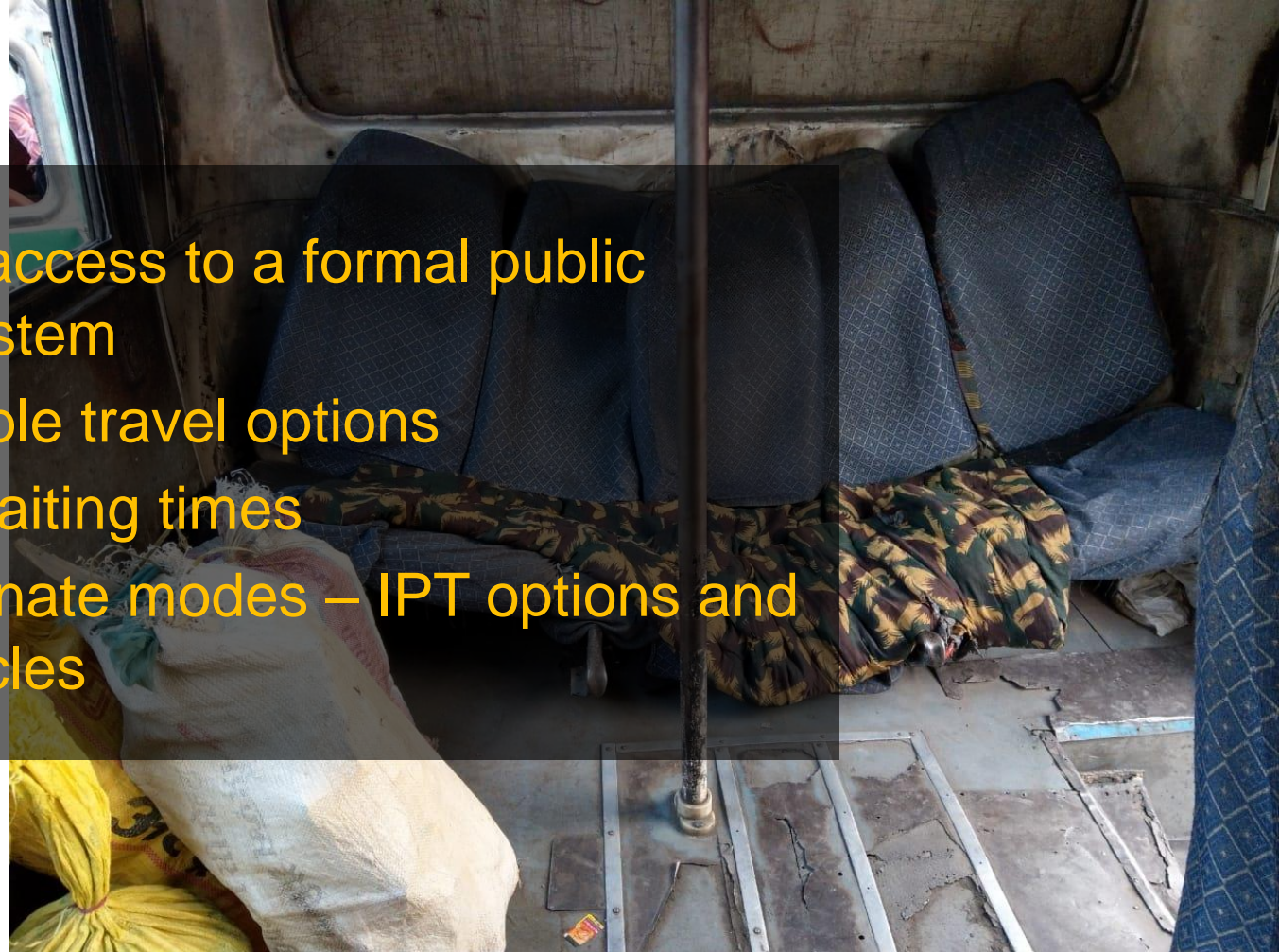
## CASE - MILLION PLUS CITIES



- 82% of the bus fleet in the 53 million plus cities is operational in only 9 cities
- Disparity in services – 32.9 Buses per lakh population in mega cities vs 9.3 buses/lakh population in other cities
- This service disparity will be more aggravated in Class I Towns/UAs

# DECLINE IN BUS SERVICES

- Decreased access to a formal public transport system
- Uncomfortable travel options
- Increased waiting times
- Shift to alternate modes – IPT options and private vehicles



# BUS REQUIREMENTS – 2021 AND 2031

	Year	Urban Areas	Rural Areas (intercity)	Total
Population	2021	530 million	856 million	1386 Million
	2031	600 million	946 million	1546 million
Buses required per lakh population		60*	40**	
Number of buses required	2021	318,000	343,000	<b>661,000</b>
	2031	360,000	378,463	<b>738,463</b>

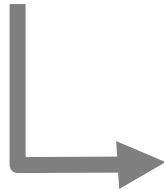
*These are the number of buses to be operated as organised bus service.*



# KEY CHALLENGE TO IMPROVE BUS SYSTEMS

**Financial burden of the STUs:** Revenue earned by STUs is less than the operating cost

**74%** cost recovery  
*for all STUs (2016-17)*



**47%** cost recovery  
*for urban STUs (2016-17)*

*Cost Recovery: Operational expenditure recovered from total revenue earned*

# SUPPORT FROM NATIONAL GOVERNMENT – EXISTING

## FAME I

demand Incentive scheme for adoption of EVs

**2015 – 2019**

Year

**465**

buses

**9**

cities

## FAME II

demand Incentive scheme for adoption of EVs

**2019 – 2021**

Year

**5595**

buses

**64**

cities

# PROGRAMMES EXISTING IN OTHER COUNTRIES

Country	Name of Program	Year
Australia	Reform and Investment Program	2008
Chile	National system of Investment (SNI) urban Transport	1950s
Columbia	National and Mass Transit policy	1996
England	Local Major Transport Schemes	1968
France	Public Transport in dedicated rights of way	1994
Mexico	Federal Support programme for Mass Transit (PROTRAM)	2008
Netherlands	Multiple year Programme for Infrastructure – Spatial Planning and Transport (MIRT)	1960s
New Zealand	National Land Transport Programme	1997
Poland	Urban Transport in Metropolitan Areas	2004
China	Ten Cities Thousand vehicles	2009
USA	Federal Transportation Program	2016

# KEY QUESTIONS

1. Should MoHUA also look at supporting buses, apart from metro rail projects?
2. What are the key funding and institutional considerations that should be considered for a new program?
3. What were the learnings from JNNURM and how other bus funding projects like electric buses by DHI?
4. What role can the stakeholders – national Government, State/City Government and the Private sector play?
5. How can new business models, private sector investments be leveraged in the new scheme?