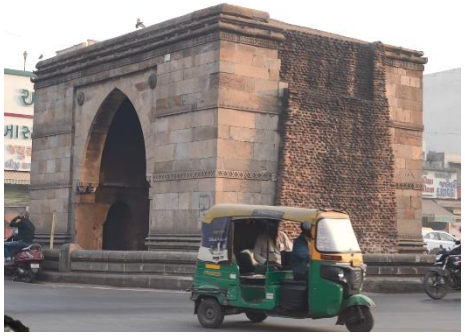
सत्यमेव जयते
Government of Gujarat

सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF HOUSING AND URBAN AFFAIRS

स्वच्छ भारत
एक कदम स्वच्छता की ओर

17th Urban Mobility India Conference & Expo 2024
*Standardization and Optimization of Urban Transport Solutions*



# PLANNING LOW EMISSION ZONE IN THE CORE AREAS OF INDIAN CITIES

UKaid from the British people
HIGH VOLUME TRANSPORT APPLIED RESEARCH
DT Global
CRDF CEPT RESEARCH AND DEVELOPMENT FOUNDATION
CEPT UNIVERSITY

# CONTEXT OF INDIAN CITIES

**10%**
Yearly Increase
Exponential growth of personalised vehicles

Dependency on private and intermediate public transport

**42** Indian cities
Among top 50 polluted cities in world

India ranking 3rd in World's most polluted countries in 2023

Rising proportion of fatalities in road crashes

**25-27**
Kmph
Yearly Increase
Worsening congestion

**87%**
Transport sector

Rising GHG Emission from Transport (222 million tonnes CO2)

**Deteriorating quality of life**

*Source: Road Transport Yearbook (2020).; Tomtom Index; https://www.iqair.com/us/world-most-polluted-countries; Our World in Data. (2023). Retrieved from https://ourworldindata.org/emissions-by-sector; ICCT, FACT SHEET INDIA – Health Impacts of Air Pollution From Transportation Sources in Delhi (2010 – 2015)*

# CONCEPT OF LOW EMISSION ZONE

**Low Emission Zone is a regulatory measure to tackle air quality challenges, in which access is restricted in a defined area for polluting vehicles.**

Vehicles with higher emissions

- cannot enter the area, or
- must pay higher charges for access.

**London**

Charges polluting vehicles to access the city

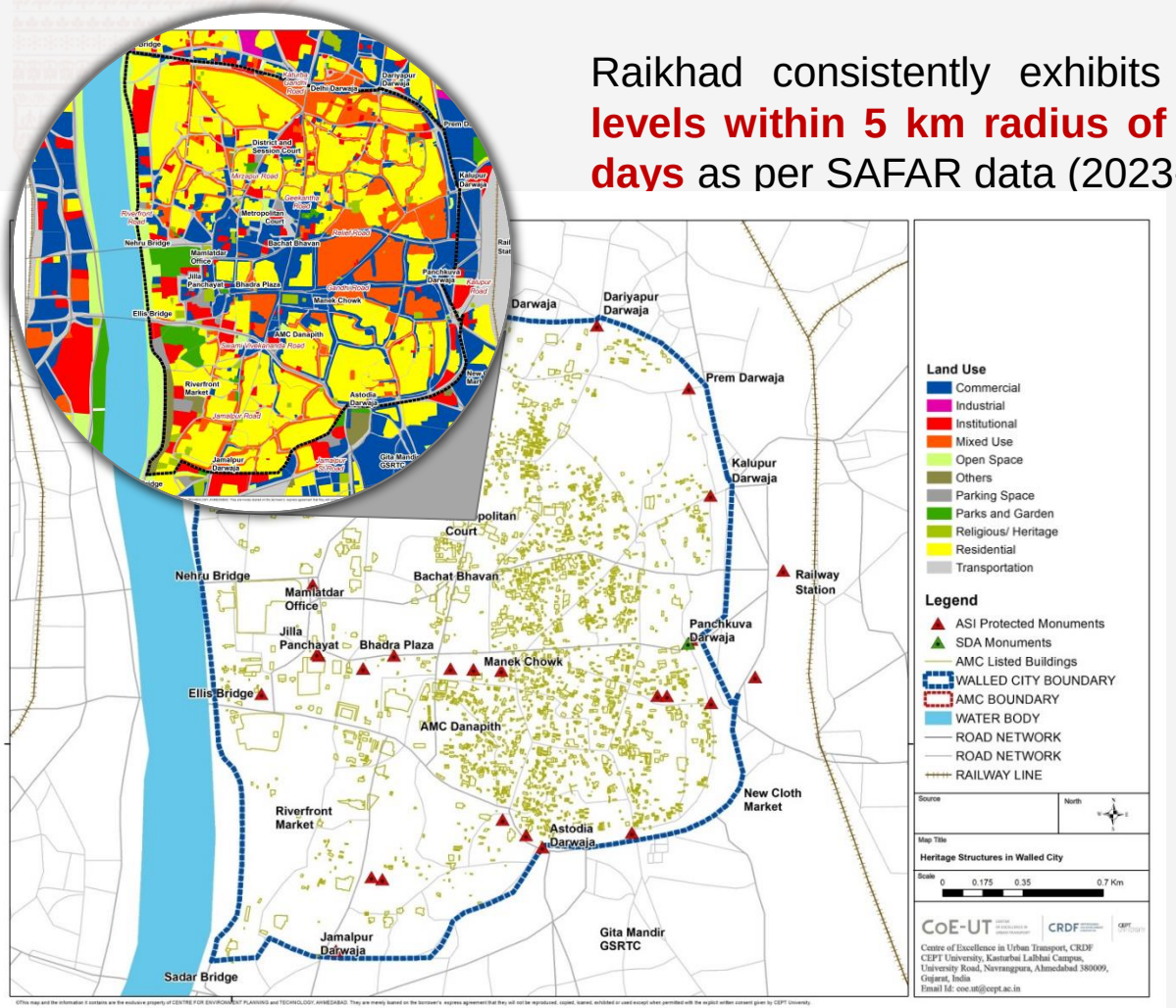

**Kevadia**

Restrict polluting vehicles to protect environment


*Source: SLOCAT Quick Wins on Transport, Sustainable Development and Climate Change*
*ITDP. (2023). The Opportunity of Low Emission Zones: A Taming Traffic Deep Dive*

# LEZ IN INDIAN CITIES – CASE OF AHMEDABAD

Raikhad consistently exhibits the **highest daily PM 2.5 levels within 5 km radius of the city for 100 out of 150 days** as per SAFAR data (2023-24).




**UNESCO's World Heritage City** with presence of 2,700 historic buildings

**Hub of economic activity** – traditional markets, wholesale and retail, key transportation nodes

**Kalupur Railway Station Redevelopment** - Ongoing investments

**How do we make core city attractive and liveable?**

# CHARACTERISTICS OF WALLED CITY

Walk trips account for 64% of internal trips with average trip length of 1.2 km

Mode Share of PT and IPT, for Walled city trips is 24% while in AMC 16%

Two-wheelers accounting for 42% of trips in the walled city

Three-wheeler goods vehicles dominate the freight operations by 60% of incoming trips during 11 a.m. to 5 p.m

# POSSIBLE INTERVENTIONS

## Avoid

### Managing Freight Movements

- Plan efficient routes and timings

## Shift

### Mobility Management

- Improving walkability
- Management of vehicular movement
- Parking management

### Enhancement of Public Transportation

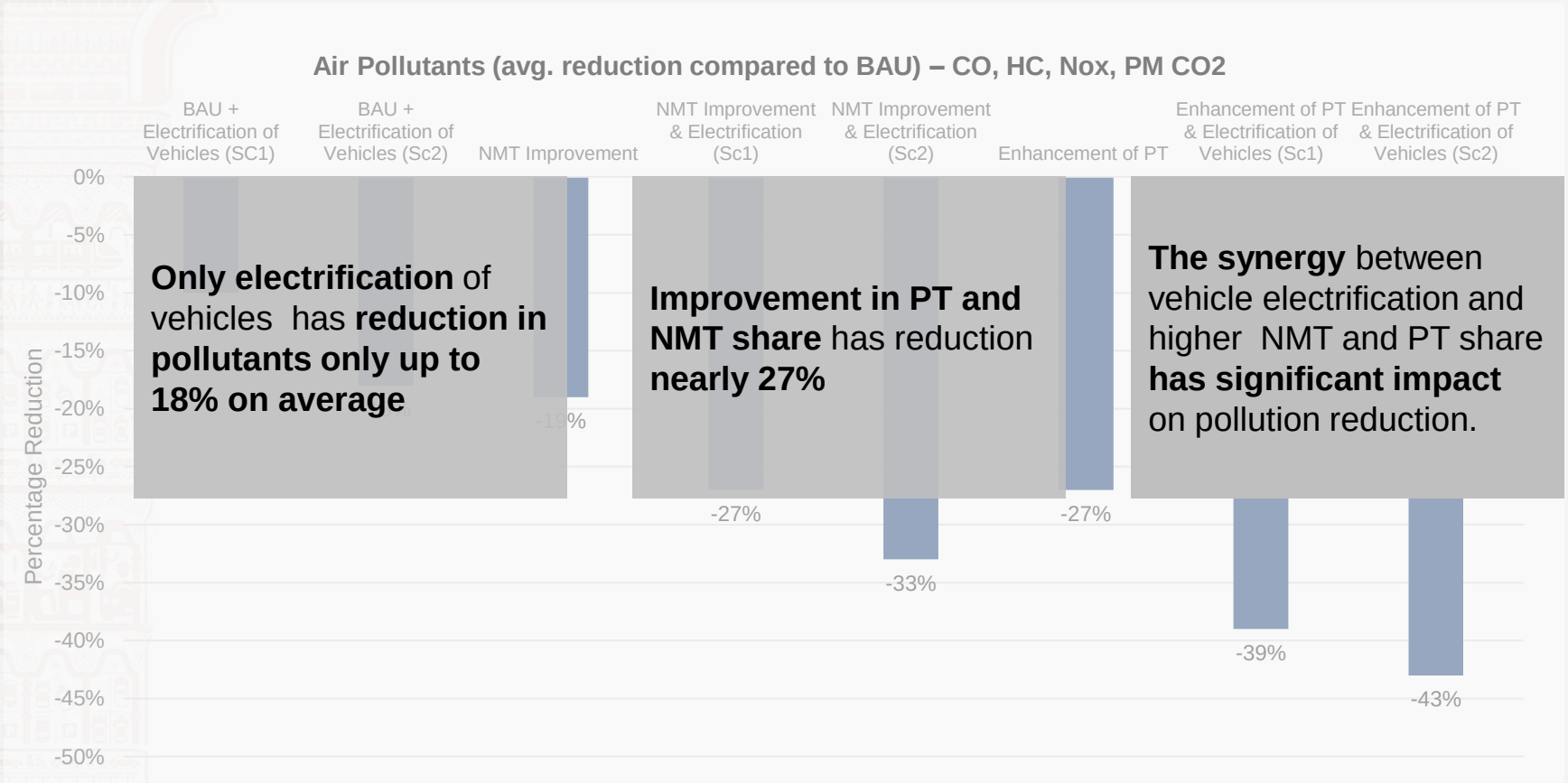
- Enhancing service quality and quality
- Integration of PT, IPT and NMT
- Improving last mile connectivity

## Improve

### Vehicle Technology Intervention

- Phasing out highly polluting vehicles
- Electrification of two-wheelers, passenger and goods three-wheelers and LCVs.
- Awareness creation
- Infrastructure development

# IMPACT OF INTERVENTIONS



# KEY QUESTIONS

Q1. How should **LEZ be defined in the context of Indian cities**? Should it include vehicle technology improvements and entry regulations only?

Q2. What will be the **role of technology in LEZ implementation and regulation**

Q3. What should be the **first steps towards LEZ implementation**?

# Thank you