

TOD FOR TRANSITIONING BENGALURU INTO A COMPACT AND SUSTAINABLE CITY

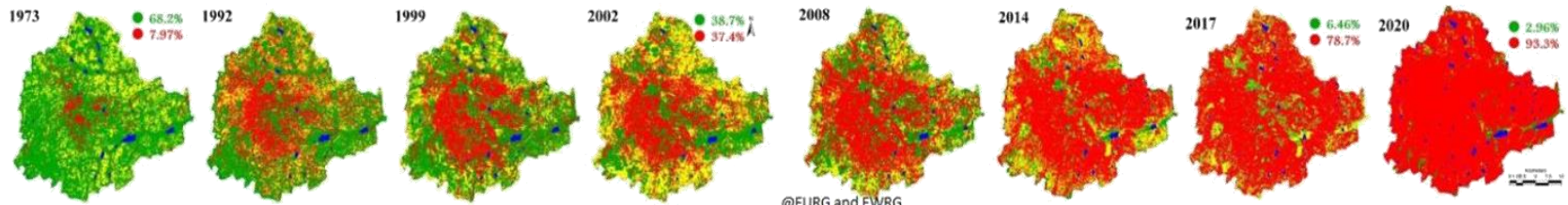
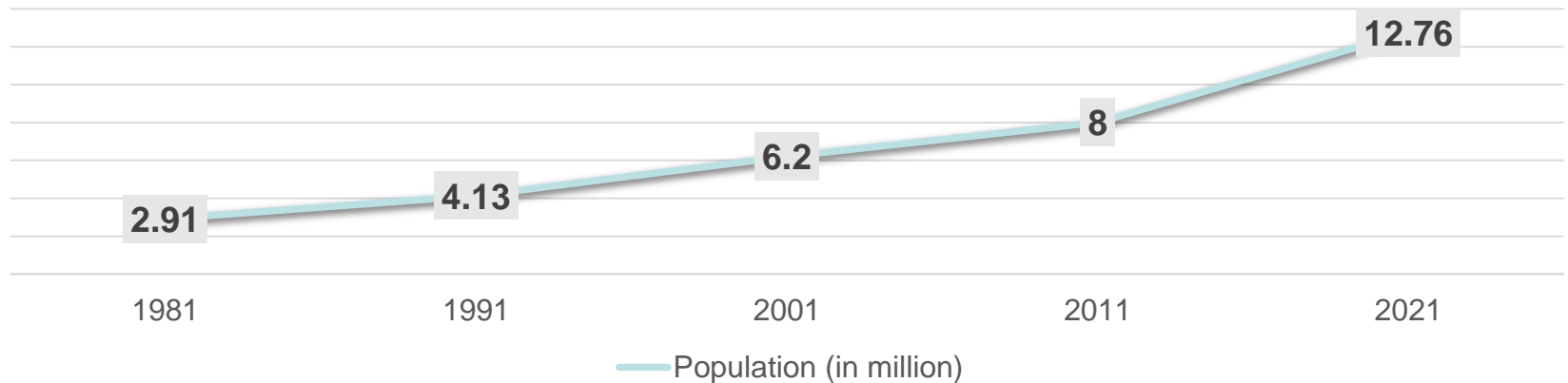


shaping the way cities move

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**Commissioner
& E/o Additional Chief Secretary to Government
Directorate of Urban Land Transport**

BENGALURU'S GROWTH - FROM PENSIONER'S PARADISE TO FOURTH LARGEST TECHNOLOGY HUB IN THE WORLD



Bangalore Metropolitan Area - **1219 sq. km.**

Impacts of unbridled growth:

Urban sprawl, Increased trip lengths, Increasing reliance on private vehicles; > 10 million, Depletion of green spaces and water bodies.

INVESTMENT IN PUBLIC TRANSPORT

City Bus services

- Number of buses (2022) - **6798**;
Electric Buses – 210
- **Electric buses under induction: 1101**

Metro services

55.95 km operational

Metro expansion

- under construction **119.6 km**
- In planning stage: **81.65 km**
- **Targeted to reach 317 km by 2035**

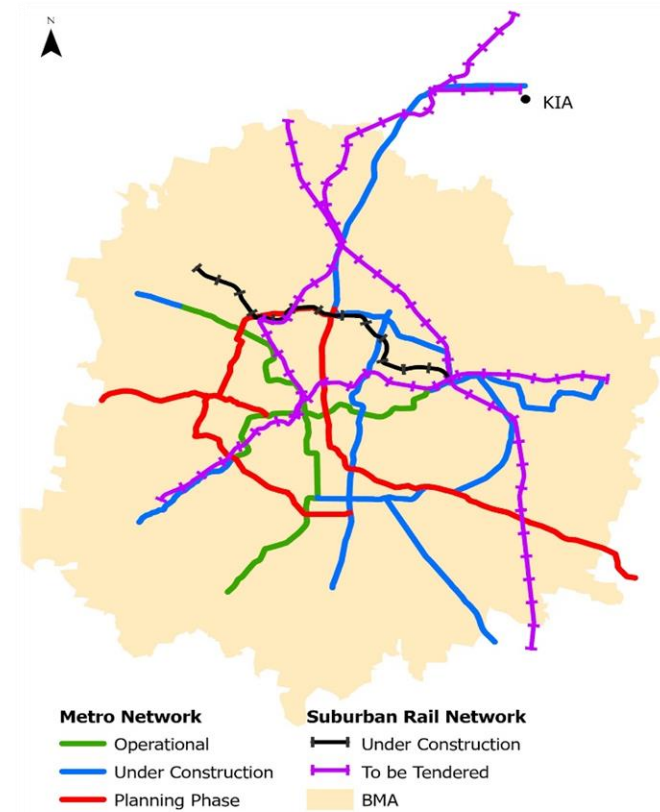
Suburban Rail under implementation

4 corridors - 148.17 km

Cost (est.) - Rs. 15767 Cr.

CMP targets (2035):

- ☐ **70% mode share by public transport**



UNPLANNED DEVELOPMENT AROUND STATIONS - A PHASE-1 METRO STATION

→ 2011 – Start of metro operations



2003



2014



2021

UNDESIRED TRANSFORMATION AROUND STATION AREA

16% residential plot
area changed to
commercial

Need for mixed land use

No substantial
increase in
densification

Avg. FAR utilized
2014 – 1.4
2021 – 1.7
Permissible FAR –
upto 3.25



Increase in rental values.

Displacement
observed

Increased parking on streets around station area

Access to station by
walk difficult

DEVELOPMENTS ADJOINING A PHASE-1 STATION - 10+ FLOORS OF PARKING IN EACH TOWER



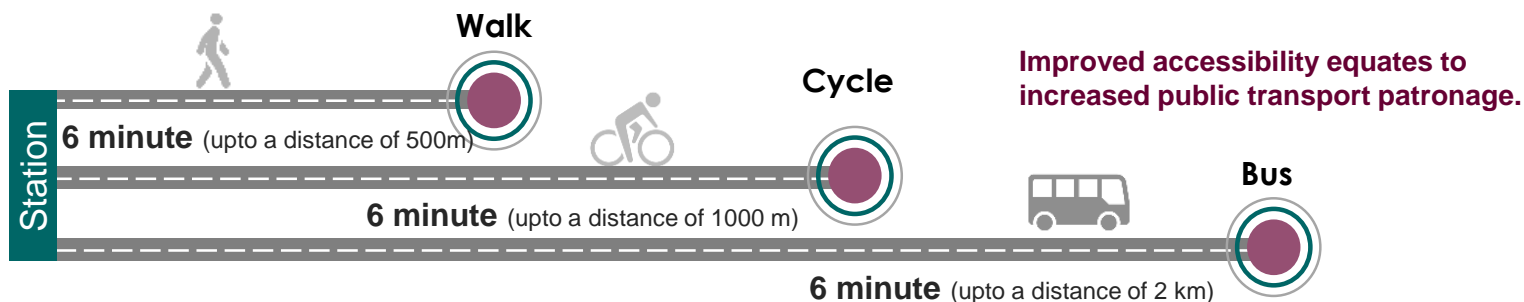
Multilevel
Parking

Multilevel
Parking

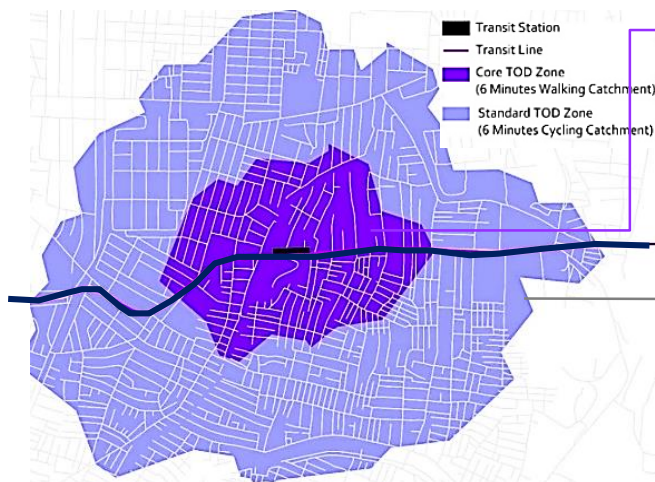
LEVERAGING INVESTMENT ON MASS TRANSIT

TRANSIT ORIENTED DEVELOPMENT (TOD) POLICY FOR BENGALURU

To enable more people to live, work or play within 6-6-6 access to stations/ bus terminals



TOD Zone Delineation: Based on accessibility criteria



Core TOD Zone

The area within a 6-minute walk to the station. This broadly translates to a distance up to 500 meters from the transit station.

Standard TOD Zone

The area within a 6-minute cycling distance to the station broadly covers a distance up to 1000m around the station and is amenable for both walking and cycling.

SIX

TOD OBJECTIVES



1

High mode share of public transport.

- Integrated Transit
- Reduced parking norms



2

Provide built environment & associated infrastructure conducive for NMT

- Adherence to design standards
- Plugging connectivity gaps
- Connectivity to transit station



3

Implement mixed-land use leading to shorter commutes and reduced travel demand.

- Transit supportive land use
- Land pooling / amalgamation
- Land value capture
- Densification – differential FAR as per various TOD typologies



4

Inclusivity for all economic classes, gender, age, and abilities in the design of TOD

- Barrier free design
- Affordable housing
- Informal sector integration



5

High-quality of life through place making and sustainable practices.

- Conservation of Heritage & environment
- Resource efficient infra - water and energy conservation
- Focus on creating safe and vibrant public spaces



6

Build enabling framework to deliver TOD projects of high-quality.

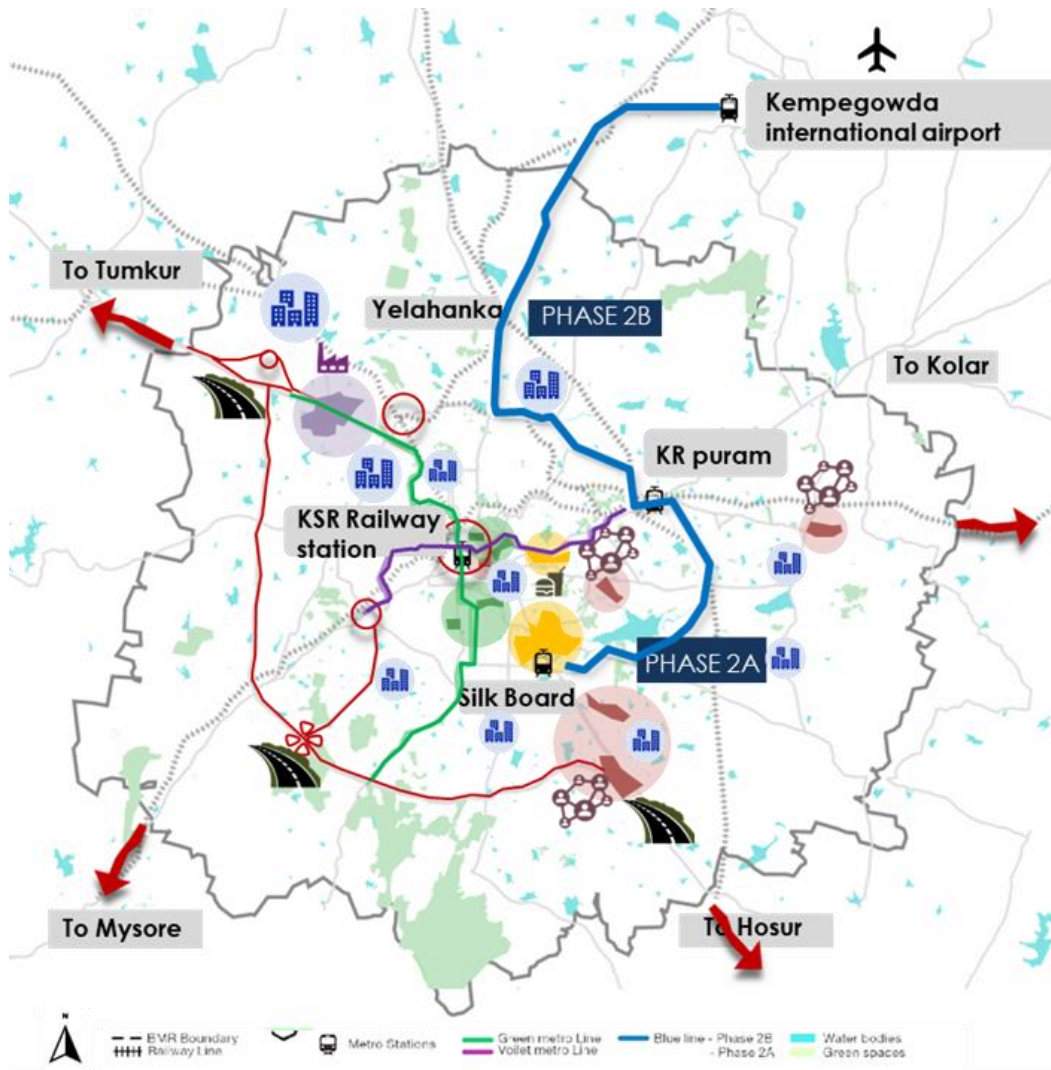
- Capacity Building
- Preparation of TOD Zone Plans
- EODB – expediate approval process
- Anchor TOD projects to catalyze development

LEVERAGING TECHNICAL ASSISTANCE FROM ADB

Objectives of TA:

- Preparation of pilot TOD plans for 2A and 2B metro stations and preparation of TOD implementation framework.
- Preparation of MMI plans for all phase 2A, 2B metro stations.
- Capacity building and formulation of communication strategy for TOD and sustainable mobility

TOD OPPORTUNITIES - PHASE 2A & 2B METRO



DEMOGRAPHY

Estimated 2021
2.2 Mil
 Projected 2041 with
3.3 Mil TOD

ECONOMY

60%
 of Bengaluru Urban
 district's IT and
 Professional Services
 employment is located
 along the corridor

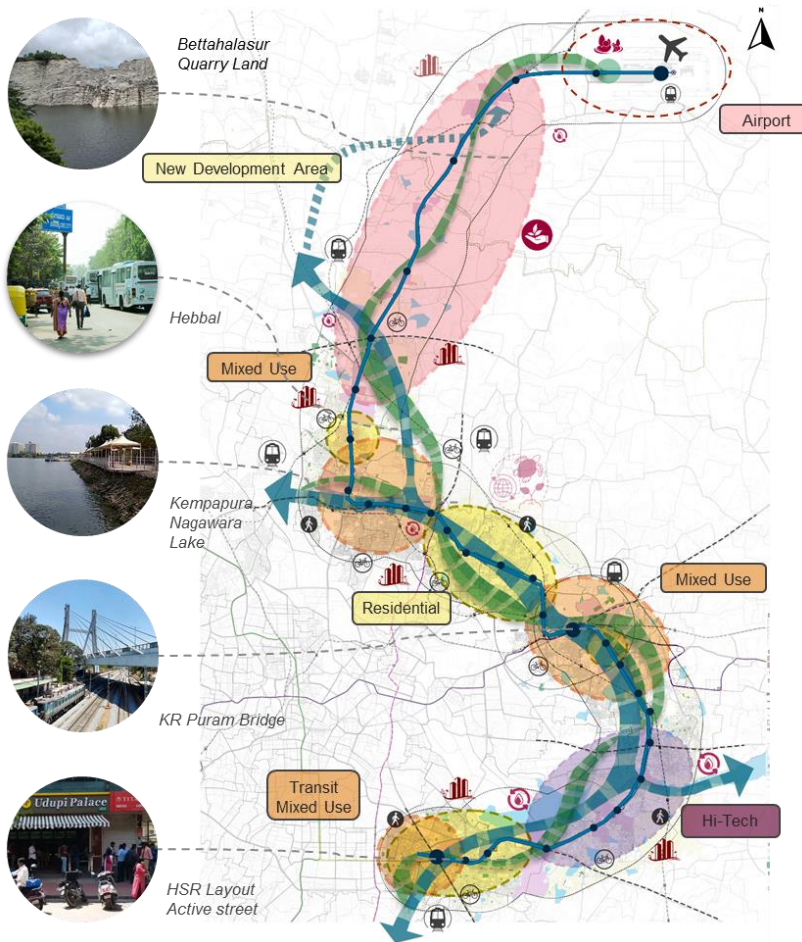
DEVELOPMENT

50-60%
 Share of corridor in
 commercial office space
 transactions in the city

ENVIRONMENT

4.57%
 of the city is
 under blue cover
22.8%
 of the city is
 under green cover

TOD CATALYSTS: STRATEGIC PILOT NODES



- 1** 6 nodes around metro selected to pilot and demonstrate the benefits of TOD in different urban contexts.
- 2** Pilot TOD Zone Plans, associated statutory regulations and framework for implementation of TOD and MMI under preparation
- 3** MMI plans to be prepared for all 30 stations.

FINANCING MECHANISMS – LAND VALUE CAPTURE

Provisions under the KTCP Act for Value Capture Financing

- Levy and collection of cess for the purpose of establishing Mass Rapid Transport System, investments in MMI and other public transit systems etc.
- Levy of Premium FAR charges - to be utilized for MRTS and infrastructure augmentation

Land Value Capture through Property Development

- Raising revenue by leasing out large land parcels to corporates for ex: big retail enterprises, commercial ventures etc.

Land Value Capture through Innovative Financing

- Offering rights to corporates - naming rights, advertisement rights, rights for commercial spaces and direct access/connectivity to the stations



Example: 13.9 acres leased to IKEA adjacent to a terminal metro station in north-west part of Bengaluru

ENABLING EFFECTIVE IMPLEMENTATION OF TOD & MMI

PEOPLE – CONSENSUS

- Building **consensus among all public agencies** to align with TOD led planning
- Building **citizen and private sector support** for TOD through long-term communication plan

PEOPLE – CAPACITIES

- Identifying areas of **capacity development** among planning and mobility agencies
- Developing tools and manuals that can support planning and implementation beyond the period of the TA

Status of Capacity Building Initiatives

- High Level Convening conducted to sensitize decision makers and key opinion makers in the city.
- Capacity Building Workshop (module 1) conducted for 30 officials from various departments. Module 2 planned from Nov 7th
- Manual for planning and implementation of TOD & MMI prepared

INSTITUTIONAL STRUCTURES

- **Institutional integration** and allocation of roles and responsibilities for planning, implementation and management for TOD and MMI

PROCESSES – STATUTORY

- **Alignment with the Legal Acts** and Processes
- **Integration with the Revised Master Plan** through pilot plans and zoning regulations

DATA – TRANSPARENCY

- Identifying **essential data needs and mandates** for sharing and integration to offer **better information** to citizens and **build institutional capacity for data-driven planning**.

Scaling TOD to other station areas

- **Learnings** from implementation of pilot TOD zone plans **to guide TOD for other metro and suburban rail station areas**



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THANK YOU

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