सत्यमेव जयते
GOVERNMENT OF KERALA

आज़ादी का अमृत महोत्सव

सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF HOUSING AND URBAN AFFAIRS

स्वच्छ भारत
एक कदम स्वच्छता की ओर

TOD AND URBAN RAIL IN INDIA

5 LESSONS FROM 5 ASIAN CITIES

FOR

GOOD TOD DESIGN

AND

IMPLEMENTATION IN INDIA

15th Urban Mobility India Conference & Expo2022

STUDY OBJECTIVE^

- **Assessed the policy and regulatory frameworks created for TOD and LVC in Indian cities and their implementation status.**
- **Assessed the implementation in Indian cities against proven successful TOD examples from other Asian cities***
- **Assessed the efficacy of TOD policy measures undertaken in Indian cities.**
- **Identified potential solutions to deal with challenges faced by the Indian cities in implementing TOD.**

^ ADB study was jointly undertaken by WRI and CRISIL; scope abstract is one undertaken by CRISIL

* 5 Cities Studied: 1. Hong Kong, China, 2. Seoul 3. Singapore 4. Shenzhen 5. Taipei,China.

Accessible : https://www.adb.org/publications/india-transit-oriented-development-land-value-capture

LESSON 1: OUTCOME BASED APPROACH REQUIRED

OUTCOME BASED APPROACHES

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International cities

- **Well defined and measurable outcomes for**
  - **share of public transport journeys in peak time traffic**
  - **compact development in transit influence areas**
  - **travel time between important nodes**
  - **dis-incentivising use of private vehicles**

Indian cities

- **Indian cities do not have outcome based approach**
  - **National TOD policy provides guidance on outcomes, but the city level plans do not take a targeted approach for achieving TOD**
  - **Transportation plans are inputs oriented – an infrastructure project rather than taking an integrated view of improving mobility**
  - **Travel modes compete with each other rather than complementing each other**

OUTCOME BASED APPROACHES: SOME EXAMPLES

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Singapore Concept Plan

- 80% homes < 10 min walk from MRT station
- 85% public transit trips under 20km within 45 minutes
- 75% of all peak-period journeys on public transport
- Rail density targeted at 54 km per million population

HK Railway Dev Strategy

- Densification of brownfield areas
- Economic returns in terms of travel time saving
- Increased share of railways
- Creating job opportunities near transit stations

Seoul Metro Vision

- Access to urban railway within 10 minutes by foot
- 10% increase in transportation share
- 10% decrease in congestion cost

Shenzhen TOD

- 50% of population or commuter traffic demand in influence area
- Commercial nodes served by at least two transit corridors
- Road density of 6 to 8 km per sq km

LESSON 2: PLANNING FRAMEWORK AMENABLE FOR TOD

PLANNING FRAMEWORK AMENABLE FOR TOD

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International cities

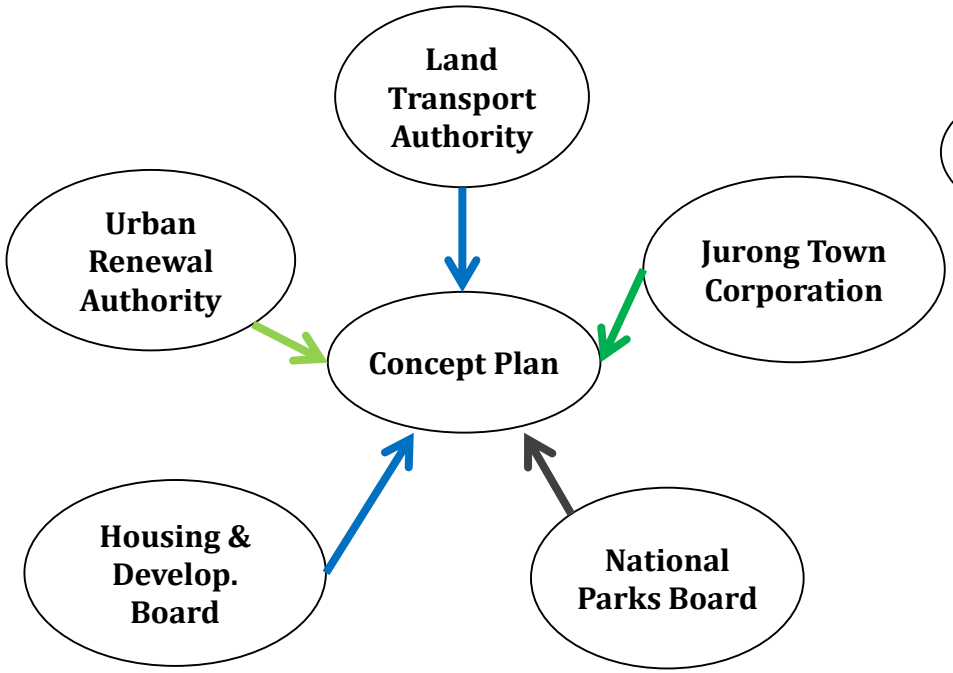
- Unified or/ and coordinated land-use and transportation planning framework
- Planning for every node according to development potential
  - Provision for change in land-use plan while planning for MRT projects
- Strategies to encourage development in the proximity of public transit
  - Commercial development, public amenities and affordable housing planned in the vicinity of public transit.
  - Proposals to improve access to public transit from existing commercial nodes

Indian cities

- Statutory land development plans / master plans and mobility plans prepared in isolation
- No framework for station area plans or for node level assessment
- TOD approach is missing and if present fails to have an implementation mechanism

INTERNATIONAL LEARNINGS

- **Singapore - Concept Plan – centralized guidance document for land-use master plan and transportation master plan and for identifying land development projects**

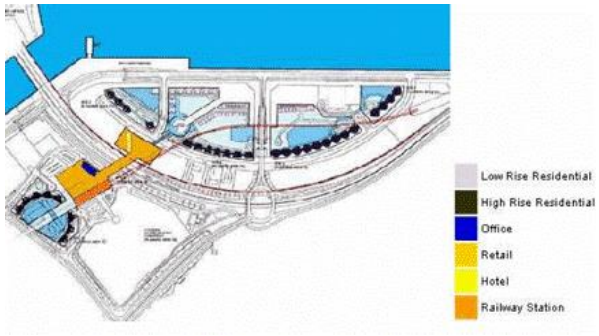


- **Taipei,China and Hong Kong, China - MRT agencies- MTR Corporation Limited (MTR) - Hong Kong and Department of Rapid Transit Systems (DORT) – Taipei,China are empowered to undertake**

Provision of MRT service + **Property development**

INTERNATIONAL LEARNINGS

- **MTRC Hong Kong, China - land development plan prepared for every station area and feasibility study carried out for development potential and accordingly the land-use master plan for city changed**



Tung Chung Station's master plan

- **Taipei,China – Restrictions on development outside TOD zone, relaxed floor space regulations around transit stations;**

	First level stations	Second level stations
Core area	30%	20%
General area	15%	10%

- **Shenzhen: FAR outside TOD zone to be less than 60% of minimum FAR in TOD zone**

LESSON 3: ENABLING INSTITUTIONAL FRAMEWORK

INSTITUTIONAL FRAMEWORK

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International cities

- **Roles aligned to institutions best positioned to perform that task**
  - Property development around the stations best left to the agency implementing the metro project - DORT in Taipei,China MTRC in Hong Kong, China
- **Mechanisms established to ensure coordination in various institutions**
  - Concept Plan in Singapore prepared by five key institutions together
  - LTA prepares guidelines for integration of properties with transit stations, CEO of LTA on URA's Board

Indian cities

- **Institutional framework designed to implement infrastructure projects but not to ensure integrated development of an area**
  - MRT agencies are involved only in project implementation and not in integrated development of the area
  - Institutional framework is disjointed for land-use planning, transport planning, infrastructure planning
- **Planning framework and policy framework inadequate or disjointed to guide institutional roles**
  - A common policy and planning framework can facilitate coordinated and outcome-based approach

LESSON 4: URBAN REGENERATION REQUIRES A PROACTIVE APPROACH AND CANNOT BE LEFT TO THE MARKET

URBAN REGENERATION

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International cities

- A city-wide perspective on redevelopment/ regeneration of old settlements
  - Seoul's downtown redevelopment master plan, 1978 and subsequent urban renewal plans
  - Hong Kong's Railway Development Strategy 2014 identifies 'densification of brownfield areas' as an objective

Indian cities

- Urban regeneration dealt with in a piece-meal manner by various project implementation agencies
- City-wide planning required to identify areas requiring regeneration, creating schemes for regeneration activities

LESSON 5: SUCCESSFUL LAND VALUE CAPTURE IS AN OUTCOME OF GOOD TOD IMPLEMENTATION AND NOT CAUSE FOR IT

LAND VALUE CAPTURE

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International cities

- High real estate prices and inelastic real estate demand - a common characteristic in international cities
- Land valuation capturing market prices – allowed government agencies to capture market valorisation due to development

Indian cities

- High real estate prices and inelastic real estate demand – not traits of most Indian cities, but land value capture not to be recognized as a target of TOD implementation but an outcome
- Framework to capture market price trends in official prices – lacking in many cities
  - Land based capture tools will not be effective way of financing in this situation

SUMMARY

- **TOD entails an integrated approach towards land-use planning, transportation planning, property development, housing and infrastructure creation**
- **Plans to be outcome oriented and which can be quantified**
- **Institutional fragmentation / overlapping responsibilities is a reality; a common plan for all to follow can achieve the much needed alignment**
- **Proactive urban regeneration and 'not market driven approach' needed**
- **Land value capture is an outcome of successful TOD implementation**

Thank you

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