Malaysia’s 2030 Agenda
Accessible and Sustainable Public Transport

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Prasarana Malaysia Berhad
Overview

1. Prasarana Malaysia Berhad: An Introduction
2. History of Public Transport in Malaysia
3. Our Governments’ Aspiration & The National Land Public Transport Masterplan
4. Where Prasarana Fits Into the Masterplan
5. Transit Oriented Development
1. Prasarana Malaysia Berhad - A Brief Introduction
Incorporated in 1998 by the Ministry of Finance, the Government-owned Prasarana Malaysia Berhad (Prasarana) was set up to facilitate, undertake and expedite public infrastructure projects.

Prasarana is also the asset owner and operator of the Ampang and Kelana Jaya LRT Lines, the Monorail Line, as well as the majority of the bus services in the Klang Valley, Penang and Kuantan.
Group Corporate Structure

Ministry of Finance (100%)

Dept. of Director General of Lands and Mines, Ministry of Natural Resources & Environment (1 share)

prasarana

rapidrail
Operations & Maintenance for Rail

rapidbus
Operations & Maintenance for Bus

prime
Non-fare businesses outside the group’s assets & operations

pride
Non-fare businesses within the group’s assets & operations

praise
Project development company
2. Brief History of Public Transport - Malaysia
History of Public Transport in Malaysia

- **1885:** Merdeka
- **1960:** Minibus is the most popular mode of public transportation
- **1965:** Minibus ceases operations & taken over by Intrakota
- **1970:** Syarikat Prasarana Negara Bhd established to assist bus industry reformation
- **1975:** Rapid KL established to restructure LRT, monorail & bus system
- **1980:** Star LRT begins operation
- **1985:** Putra LRT begins operation
- **1990:** Star & Putra LRT incorporated into Prasarana & renamed as Star line and Putra line respectively
- **1992:** Monorail begins operation in KL
- **1995:** Malaysia's first high-speed train, Klia Express between KL Sentral and Klia, and KL City Air Terminal Launched
- **1998:** Rapid KL takes over all public bus system in Greater KL & Klang Valley
- **2000:** Rapid KL takes over Star line & Putra line and rename it Ampang & Kelana Jaya line respectively
- **2003:** Rapid KL incorporated all LRT, Monorail & Bus System
- **2005:** Rapid KL takes over all public bus system in Greater KL & Klang Valley
- **2010:** GDP (2010) MYR 723.40 Billion

**Key Indicators:**
- GDP values (USD to MYR) based on Feb 2012 foreign exchange rate
- Population 8.16 Million
- Gross Domestic Product (GDP) MYR 7.43 Billion
History of Rail in Peninsular Malaysia

Keretapi Tanah Melayu Berhad (KTMB)

- **1885**: First Railway track in Malaysia was built stretching 12.8 km from the tin mining town of Taiping to Port Weld.
- **1885** also saw the introduction of the steam locomotive service.
- **Early 20th century**: Additional connections were completed from the northern states to Singapore, south of Peninsular Malaysia and also to southern Thailand, north of Peninsular Malaysia.
- **After WW II**, restoration on destroyed tracks were carried out. The British administration implemented the Malayan Railway Ordinance in 1948 streamlining rail administration, with the establishment of Malayan Railways Administration.
History of Urban Rail

1995: KTM Komuter, an electrified commuter train service introduced.

1995: Commuter service catering for Kuala Lumpur and surrounding suburban areas.

Consists of 3 lines, serving 45 stations along a route of 175 km.
### Urban Rail – K.Lumpur/ Greater K. Lumpur

<table>
<thead>
<tr>
<th><strong>KL MONORAIL</strong></th>
<th><strong>PUTRA LINE</strong></th>
<th><strong>STAR LINE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia’s only Monorail system used for public transport in Kuala Lumpur</td>
<td>A driver-less automatic system serving the most congested areas in Kuala Lumpur</td>
<td>Mostly at-grade outside of the city area and elevated in central Kuala Lumpur</td>
</tr>
<tr>
<td>Started operating in 2003</td>
<td>Started operating fully in 1999</td>
<td>Started operating in 1998 in conjunction with the XVI Commonwealth Games</td>
</tr>
<tr>
<td>8.6 km long running through the CBD area</td>
<td>29 km in length with 24 stations, 5 of which are underground.</td>
<td>27 km in length</td>
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Economic Transition Model

1. **Agriculture Era**
   - Labour Driven
   - Export of rubber, Tin, palm oil & timber

2. **Industrial Era**
   - Labour Driven
   - Manufacture of import substitution goods

3. **Technology Era**
   - Investment Driven
   - Export textile & electronic goods

4. **Knowledge Era**
   - Productivity Driven
   - Export high value added electrical & Electronic goods

5. **Innovative Era**
   - Knowledge and Service Driven
   - Knowledge-based Goods & services
Greater Kuala Lumpur / Klang Valley

SOUTHEAST ASIA
Land Use Plans - driving future demand...

- Urban expansion to east and north
- Intensification in city centre

Legend:
- Residential
- Commercial
- Institutional
- Industrial
- Forest
- Empty land

Areas with greater intensification

Projected population growth

6mil in 2010

by 2020

10mil
The development associated with the Land Use Plans will drive future travel demands. Over 3.0 million trips (all modes) in the peak period…….

…increasing the pressure on the transport system. Movements to other primary centres will grow. Orbital movements will also grow.
3. Our Government’s Aspiration &
The National Land Public Transport Masterplan
GOVERNMENT ASPIRATION

1. Reducing Crime
2. Fighting Corruption
3. Improving Students Outcomes
4. Raising Living Standards of Low-Income Households
5. Improving Rural Basic Infrastructure
6. Improving Urban Public Transport
7. Addressing Cost of Living

- Improve vehicle availability
- Improve reliability and journey times
- Enhance comfort and convenience
- Improve accessibility and connectivity
- Regulatory restructuring
The National Land Public Transport Masterplan

1. A Masterplan that supports Malaysia’s efforts to become a high income nation by delivering a high impact public transport transformation.

2. Intended to guide decisions on future land public transport.

3. It is based on a review of existing conditions and establishing goals and objectives for the future.

4. Guide for improving access in rural areas that are underserved & to improve connectivity between regions.
Development Plans for Greater KL/Klang Valley

- Strategic thrusts:
  - Collaborative Planning
  - Regulatory Strengthening
  - Service Monitoring
  - Infrastructure & Capacity Building

- Policy on Integrated Planning (mode, ticketing, fare, spatial)

- Policy on land use, urban development, community requirements, traffic management
GREATER KL/KLANG VALLEY PT MASTERPLAN

- Urban Rail Development Plan (URDP)
- Bus Transformation Plan (BTP)
- Taxi Transformation Plan (TTP)
- Interchange & Integration Plan (IIP)
- Land Use Planning (LUP)
- Travel Demand Management (TDM)
Urban Rail Development Plan

1. Development of rail network such as LRT Line and MRT Lines seeks not only to expand the public transport network, but also to meet the expectations and contribution to the economic growth of Kuala Lumpur and Greater Kuala Lumpur.

2. The corridors of future lines, for example, were identified with consideration of catchment area, CBD areas, and potential growth areas for possible revival and regeneration.

3. The URDP also assesses the changes in future land uses which results in change of travel patterns and demands of the rising urban population.
Increasing The Public Transport Modal Share

- **Target** is to have 40% PT Modal share by 2030

- **Connectivity enhancement** is needed between various transport networks that will help increase it

- Rapid Urbanization in Klang Valley will reach **75% by 2020**

- Exists a need to enable a smooth flow of people by enhancing connectivity
KL / Greater KL : Rail Corridor

Existing Rail

KTM Upgrade
LRT Extensions
(Kelana Jaya Line)
(Ampang Line)
MRT 1
MRT Circle Line
MRT North South Line

KL Monorail Extension
Putrajaya monorail
Freight Relief Line
LRT 3

LEGEND

Existing Routes
- KTM Komuter
- LRT - Kelana Jaya Line
- LRT - Ampang Line
- KL Monorail
- ERL

New Development
- Upgrading KTM Komuter
- LRT - Kelana Jaya to Putra Heights
- LRT - Seri Petaling to Putra Heights
- MRT 1 - Sg. Buloh to Kajang
- MRT Circle Line to Kajang
- MRT Circle Line
- MRT North South Line
- KL Monorail Extension
- Putrajaya Monorail
- Freight Relief Line
- LRT-Kelana Jaya to Klang
4. Where Prasarana Fits In
RAIL NETWORK
Urban Rail Network

Future Integration
Existing urban rail systems in Greater KL

- **Ampang Line**: Light Rail Transit System operated by a **driver**
  - 30 units of 6-car trains, with capacity of 1,000 per train
  - 2.87 min headway at peak hours

- **Kelana Jaya Line**: Automatic Light Rail Transit System -driverless
  - 35 units of 2-car trains and 35 units of 4-car trains, with capacity of 740 per train.
  - 2.38 min headway at peak hours

- **Monorail**: Monorail system operated by a **driver**
  - 7 units 2-car trains and 5 units of 4-car trains, with capacity of 214 and 430 per train.
  - 4.00 min headway at peak hours

**Key Statistics**

- **60 stations**, covering **65 kilometers**
- **650,000 daily ridership**
- **Service Reliability**: **99.7%**
Average Daily Ridership

- Rail
  - MRL ridership expected to increase by 8% with new 4-car train
  - 27% expected increase due to opening of LEP

- 11% increase due to completion of station integration

- 2010-2017 ridership: 361, 400, 467, 503, 528, 564, 716, 859

- 2017 ridership: 1.5 million (1 million)
Line Extension

**Ampang Line**
- Partially opened in phases starting October 2015
- Extension of 17.7 km and 13 stations and Park ‘n’ Rides’
- Serving South-East Corridor of Klang Valley

**Kelana Jaya Line**
- To be fully operational by June 2016
- Extension of 17.4 km and 12 stations with Park ‘n’ Rides
- Several stations having integration with other rail operators to enhance transfer
Expanding Our Fleet

- Fleet Expansion to cater for additional capacity due to existing load factor
- Expansion exercise to eventually phase out ageing fleet (2 > 4 car sets; 4 > 6 car sets; coupled with signaling migration)
- Procured from China and Canada
- Train sets are better equipped
Rapid Bus Network

**RAPIDKL**

Number of Buses: **1,347**

Total Routes: **165**
- Main: 83
- Local: 64
- Town: 4

Premium Services:
- BET: 6
- Ekspress: 3
- Shuttle: 2
- GoKL: 2
- PJ CityBus: 1

Total number of Bus Hubs: **4,446**

Average Daily Ridership: **348,000**
5. TRANSIT ORIENTED DEVELOPMENT
“Changing The Lifestyle Of The Community”
Concept of Transit Oriented Development

- Residential
- Offices
- Public Transport
- Retail
- Public Facilities
1. **MIX**
   - Mixing the socio demographic through a mix of development price range
   - Trip lengths are reduced by providing diverse and complementary uses & access to food
   - Short commutes

2. **DENSIFY**
   - Residential and job densities support high quality transit and local services

3. **COMPACT**
   - The development is an existing urban area
   - Travelling through the city is convenient

4. **SHIFT**
   - The land occupied by motor vehicles is minimized

5. **WALK**
   - The pedestrian realm is safe complete, active, vibrant, temperate and comfortable.

6. **CYCLE**
   - The cycling network is safe and complete
   - Cycling parking and storage is ample and secure

7. **CONNECT**
   - Walking and cycling route are short, direct and varied (shorted than motor vehicle routes)
   - Fast and reliable virtual connectivity

8. **TRANSIT**
   - High quality transit is accessible by foot
How will Transit Oriented Development benefit the people?

- Create a **cleaner environment**, reduce traffic congestion and number of private vehicles
- Occupants of TOD can work, play and perform *daily activities* ‘on and along the line’
- Resolve the issue of "first mile" and "last mile" by creating opportunities and *choices* for the riders and residents of TOD
- Foster distinctive, **attractive communities** with strong sense of place in a walkable neighbourhood
- Wide-ranging **connectivity** will be achieved once LEP, MRT and LRT3 lines are completed.
User experience will be enhanced through seamless and fast connectivity.

**Interface**
- Cashless Payment
- Mobile Device
- Digital Signage
- Communities

**Lifestyle Elements**
- Comos, KL e-mobility
- Retail
- Laundry
- Clinic
- Post Office
- Entertainment
- Payment Kiosk
- Schools
- Mosque
- Office
- Residence

**Smart Enabler**

**Public Transport**
- Public Transit Card
- Public Information System
- Mobile Applications

**Property Development**
- Energy management
- Integrated Parking Management

**Municipal**
- Sustainable energy, water and waste management
- Intelligent Parking Guidance

**Enterprise**
- Network Services
- Retail and Payment Services

**Consumer**
- Mobile Payment Services
- Advertisement and Entertainment Content
Proposed TOD: Kuala Lumpur CBD

Along Existing LRT Line: Location: Dang Wangi
Proposed TOD: Greater Kuala Lumpur

Along Future Proposed LRT3 Corridor
Proposed TOD: Greater Kuala Lumpur

- LRT3
- Clubhouse
- BRT
- SOHO
- Roof Garden
- Affordable Homes
- Surau
- Public Parking

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Environmental Benefits – Prasarana’s Efforts

Introduction of Enviro500 Buses

Electric Buses for BRT
Enhancing Social Values

• Public transport plays an important role in solving the problem of congestion and pollution, and ill effects of population growth in urban areas.

• Public Transport provides convenience for commuting to places of recreation and entertainment, by promoting a better quality of life.

Connectivity for hassle free walking

Providing convenience for commuters

Recreation Parks Accessible by Public Transport
Objective:
Living within 400m of LPT service

Population 80%

Key Economic importance for the nation 37%

Increased Mobility

Livable Cities

Malaysia is undergoing rapid economic growth, aspires to achieve GNI per capita USD 15,000 in 2020 from USD 9,970 in 2009. 
THANK YOU!

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