Land Public Transport Master Plan
GREATER KUALA LUMPUR / KLANG VALLEY

7th November 2013
MEETING THE
National Aspiration

MALAYSIA LPT
Towards Transformation

NLPTMP
Overview
Role and Targets

GKL/KV
Overview
URDP
BTP

JOURNEY AHEAD
VISION 2020
Meeting The National Aspirations

Vision 2020 Seeks to Achieve:
- DEVELOPED Nation
- HIGH Income
- Social HARMONY

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

Population Forecasted to Grow from 28 million in 2012 to 33 million in 2020.
DRIVING THE ASPIRATION

Transformation towards Vision 2020

VISION 2020

GOVERNMENT TRANSFORMATION PROGRAMME

NKRA (Urban Public Transport):
- Increase modal share
- Improve reliability and journey times
- Enhance comfort and convenience
- Improve accessibility and connectivity

ECONOMIC TRANSFORMATION PROGRAMME

NKEA (Greater Kuala Lumpur / Klang Valley):
- “To achieve a top-20 ranking in city economic growth while being among the global top-20 most liveable cities by 2020“ via 9 entry point projects (EPP)
- Key EPP - Greater KL/KV Connect is about public transport within urban city

10th MALAYSIA PLAN

- Building an environment that enhances quality of life
- “Developing a rakyat-centric public transport system”
- Formation of SPAD and introduce Land Public Transport Bill in 2010
The Government Transformation Programme (GTP) is an ambitious broad-based programme of change to fundamentally transform the Government into an efficient and rakyat-centred institution.

**OBJECTIVES**

- Priorities that matters most to the rakyat
- Delivering fundamental changes on a nationwide basis

The people asked to focus on 7 NKRA:

1. Reducing Crime
2. Fighting Corruption
3. Improving Student Outcomes
4. Raising Living Standards of Low Income Households
5. Improving Basic Infrastructure
6. Improving Urban Public Transport
7. Addressing Rising Cost of Living (introduced in July 2011)
• Defining the Vision and Targets
• Setting the Path for Land Public Transport Transformation
• Implementing the Policy
Background
National Land Public Transport Master Plans (NLPTMP)...

Role of NLPTMP

1. Intended to guide decisions on future land public transport
2. The Master plan is driven by a vision and a series of national objectives
3. It is based on a review of existing conditions and establishing goals and objectives for the future
4. As guide decisions on future land public transport

Achievement
To achieve Government aspiration
To make Public Transport as a Rakyat’s choice of mobility

Towards achieving:
- Increase mobility
- Livable cities
- Economic growth and transformation

Target 40% model share for public transport in the urban areas by 2030

Increase PT connectivity in Rural Area
### National Land Public Transport Master Plan
- Targets, Strategic Objectives and Policies

<table>
<thead>
<tr>
<th>Strategic Objectives</th>
<th>Key Policies (14)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physically well-connected</td>
<td>▪ Enhance urban connectivity</td>
</tr>
<tr>
<td></td>
<td>▪ Enhance rural and inter-city connectivity</td>
</tr>
<tr>
<td>2. Affordable and accessible to all</td>
<td>▪ Improve route-planning and explore alternative models to ensure accessibility to the under-served</td>
</tr>
<tr>
<td></td>
<td>▪ Build sustainable land public transport models which provide affordable services to public and financially viable for operator</td>
</tr>
<tr>
<td></td>
<td>▪ Increase accessibility for the mobility impaired</td>
</tr>
<tr>
<td>3. Convenient and offer high service levels and quality</td>
<td>▪ Raise service reliability of public transport</td>
</tr>
<tr>
<td></td>
<td>▪ Improve service standard for operators, drivers and vehicles</td>
</tr>
<tr>
<td></td>
<td>▪ Develop seamless experience for the user</td>
</tr>
<tr>
<td>4. Safe and Secure</td>
<td>▪ Ensure high standards of safety and security for operators</td>
</tr>
<tr>
<td></td>
<td>▪ Encourage and support safety initiatives</td>
</tr>
<tr>
<td>5. Better quality of life</td>
<td>▪ Promote healthy living</td>
</tr>
<tr>
<td></td>
<td>▪ Manage travel demand</td>
</tr>
<tr>
<td></td>
<td>▪ Encourage environmental sustainability</td>
</tr>
<tr>
<td></td>
<td>▪ Optimize PT infrastructure</td>
</tr>
</tbody>
</table>

- **Target 40% modal share for public transport in the urban areas by 2030 during AM peak periods**
- **Increase PT access in Rural Areas**
NLPTMP includes objectives and policies that shape plans and proposals of regional and sectoral LPT plans.
<table>
<thead>
<tr>
<th>National PT Policy</th>
<th>National PTMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional PTMP</td>
<td>Sectoral MP</td>
</tr>
<tr>
<td>Capital Region: Greater KL / KV</td>
<td>Freight</td>
</tr>
<tr>
<td>Greater KL/KV, Johor, Kedah, Kelantan, Melaka, Negeri Sembilan, Pahang, Selangor, Perak, Perlis, Penang, Sabah, Sarawak, Terengganu</td>
<td>Rail</td>
</tr>
</tbody>
</table>

**Interchange & Integration**  
Land Use Planning  
Travel Demand Management

**Urban Rail**  
**Bus**  
**Taxi**
Today, Greater Kuala Lumpur is an important geographical area in Malaysia

**Greater Kuala Lumpur:**
- **Malaysia’s financial centre** -
  - 83% employed in services sector
  - 17% in manufacturing and construction
- **Flat valley land** covering 0.85% of Malaysia’s land coverage)
- **7.2 million population** of 93.5% urban
- Land use governed under jurisdiction of 10 local authorities and 2 states
- PT modes available include **taxis, buses, monorail, light rail and heavy rail**
Pressing issues across our public transportation system today

<table>
<thead>
<tr>
<th>Issues faced by the public</th>
<th>Root cause</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rail</strong></td>
<td></td>
</tr>
<tr>
<td>Packed LRT, Monorail and KTM trains</td>
<td>Capacity constraint</td>
</tr>
<tr>
<td>Tough getting to certain stations</td>
<td>Feeder constraint - under utilized segments due to feeder shortages</td>
</tr>
<tr>
<td></td>
<td>Lack reinvestment the past 12 years</td>
</tr>
<tr>
<td><strong>Bus</strong></td>
<td></td>
</tr>
<tr>
<td>Unreliable service (timeliness and routes)</td>
<td>Lack of follow through in enforcement</td>
</tr>
<tr>
<td>Slow travel times</td>
<td>Non-conforming private operators, illegal route, schedule deviation and poor service levels</td>
</tr>
<tr>
<td></td>
<td>Eroding margins for operators exacerbated the lack of service coverage and quality</td>
</tr>
<tr>
<td></td>
<td>Industry structure and economics</td>
</tr>
<tr>
<td><strong>Taxi</strong></td>
<td></td>
</tr>
<tr>
<td>Poor driver conduct e.g. haggling, overcharging</td>
<td>Lack of follow through in enforcement</td>
</tr>
<tr>
<td></td>
<td>Industry structure and economics</td>
</tr>
<tr>
<td><strong>Network</strong></td>
<td></td>
</tr>
<tr>
<td>PT unavailability</td>
<td>Minimal PT coverage in certain areas</td>
</tr>
<tr>
<td>Excessive transfers to get to destination</td>
<td>Lack integration between modes</td>
</tr>
</tbody>
</table>
Mode Share 1970-2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Private</th>
<th>PT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>53</td>
<td>47</td>
</tr>
<tr>
<td>1990</td>
<td>63</td>
<td>37</td>
</tr>
<tr>
<td>2010</td>
<td>84</td>
<td>16</td>
</tr>
<tr>
<td>2012</td>
<td>81</td>
<td>19</td>
</tr>
</tbody>
</table>
Public transport modal share in KL CBD is targeted to triple by 2030

**Modal share target for Centre of Gravity I = KL (within Middle Ring Road I)**

- **Year**
  - 2010
  - 2012
  - 2015
  - 2020-25
  - 2030

- **Projected population growth - 2020**
  - 10mil
  - 6mil

<table>
<thead>
<tr>
<th>Mode Share Targets</th>
<th>Base (%)</th>
<th>Aggressive (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centre of gravity I = KL (within Middle Ring Road I)</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Surrounding I = KL (within Middle Ring Road II)</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Centre of gravity II = Shah Alam, Klang, Putrajaya, PJ (New Town)</td>
<td>35</td>
<td>50</td>
</tr>
<tr>
<td>Other key points = Selayang, Serdang, Rawang, Puchong, Subang/Sunway, Kajang etc</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>
### Elements of the Subsidiary Plans (1)

#### Urban Rail Development Plan (URDP)
- Provide increased PT capacity through enhancement to existing lines, extensions to existing lines and the provision of new routes
- **The Projects:**
  - Mass Rapid Transit (MRT): MRT 1 Sg Buloh - Kajang Line
  - Upgrading KTM
  - Extension LRT Kelana Jaya Line

#### Bus Transformation Plan (BTP)
- Feeder bus services to provide quick connection to primary and secondary corridors and also provide local services to suburban centres
- **The Projects:**
  - Bus Rapid Transit (BRT): Klang to Kuala Lumpur
  - Go Kuala Lumpur
  - Commuter Bus Improvement Plan (CBIP) - 19 Pilot project areas have been identified

#### Taxi Transformation Plan (TTP)
- A high quality door to door service as a mode of choice for city centre trips where cost is not a deciding factor
- **The Projects:**
  - Establish 1 Malaysia taxi Brand - Taxi Rakyat 1 Malaysia (TR1MA)
  - Driver training programme
  - Central customer service centre
<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interchange and Integration Plan (IIP)</td>
<td>Coordinate transport and development together by creating places that are well used and valued</td>
<td>✔ Ticketing Integration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✔ Interchange and Integration guidelines</td>
</tr>
<tr>
<td>Land Use Planning (LUP)</td>
<td>Seek to influence land use policies and planning process to favour LPT provision and performance</td>
<td></td>
</tr>
<tr>
<td>Travel Demand Management (TDM)</td>
<td>To encourage travel by more sustainable modes i.e. LPT and to reduce reliance on private vehicle</td>
<td>✔ Travel demand management (TDM) guidelines</td>
</tr>
</tbody>
</table>
The role of urban rail is as the main spine of the future public transport (PT) network. Its main function is to provide links to the center of Kuala Lumpur (KL), i.e., the primary corridor demand. The aim is to increase PT capacity through enhancement to existing lines, extensions to existing lines, and the provision of new routes. Additionally, urban rail serves as the key link between the city and the airport.
### Greater KL/KV LPTMP
### Existing Rail Network

<table>
<thead>
<tr>
<th>Rail Line</th>
<th>General Rail Category</th>
<th>Route length/ No. of stations</th>
<th>Peak Hour Headway</th>
<th>Current Daily Ridership</th>
</tr>
</thead>
<tbody>
<tr>
<td>KTM Komuter</td>
<td>Suburban Rail</td>
<td>157 km 50 Stations</td>
<td>15 min</td>
<td>95,000</td>
</tr>
<tr>
<td>LRT Ampang Line</td>
<td>Urban Rail/Metro</td>
<td>27 km 25 Stations</td>
<td>5 min</td>
<td>141,000</td>
</tr>
<tr>
<td>LRT Kelana Jaya Line</td>
<td>Urban Rail/Metro</td>
<td>29 km 24 Stations</td>
<td>2.5 min</td>
<td>160,000</td>
</tr>
<tr>
<td>Monorail</td>
<td>Urban Rail/Metro</td>
<td>8.6 km 11 Stations</td>
<td>5 min</td>
<td>57,500</td>
</tr>
<tr>
<td>KLIA</td>
<td>Suburban Rail/Airport Express</td>
<td>57 Km 5 stations</td>
<td>15 mins</td>
<td>11,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>277.6 km 115 stations</strong></td>
<td>5 min</td>
<td><strong>464,500</strong></td>
</tr>
</tbody>
</table>

**Key**
- KTM
- KLIA (ERL)
- KLIA (ERL)
- Ampang Line
- Putra Line
- Monorail

*Strictly Confidential and for Internal Use Only*
The Urban Rail Development Plan
Desired outcome of the plan

- 34.5km / million people
- More people are within 75min to work
- More people able to travel to KL within 75min
- Reduce negative impact (pollution)

NETWORK SUPPLY
ACCESSIBILITY
TRAVEL TIMES
IMPEACT ON THE ENVIRONMENT

- 48,000 cars equivalent or 12 lanes of traffic are moved during peak hour by 2020 due to MRT1, MRT2 and MRT3 service ready in a traffic single direction
- Shorter wait time, quicker travel time and improved reliability of train service for communities from Klang - Shah Alam - Subang to KL
- Improved employment opportunity with increased accessibility
- Spurring economic activities through increased economic activities and investments

Estimate ridership (trips) per day increases by 5X to 2.3 Million is key to achieve modal share of 50%
The URDP
The Spine for GKLKV Land Public Transport Network

- Rail is the most efficient mode of transport
- There is a need to alleviate stress on existing lines
- Extension of network allows for more interchanges and better reach to areas of high population growth
MRT BACKGROUND

- Population catchment = 1.2 Million
- Daily Ridership = ~400,000
- Length = 51km (9.5km underground)
- Station = 31 (elevated 24, under 7)
- Project duration = 2011 - end 2016/early 2017
KELANA JAYA LINE
Project Started : 29 Oct 2008          Planned Completion : 30 Jun 2015
PDF Stage          : Execute
Project Budget   : RM 3.5 billion
Project Owner    : Syarikat Prasarana Negara Berhad

Technical
Daily Ridership   : 226,666          Length    : 17 km (Fully elevated)
No of Station     : 13
Overall work as at end Sept 2013 - 56.48% completed

AMPANG LINE
PDF Stage          : Execute
Project Budget   : RM 3.5 billion
Project Owner    : Syarikat Prasarana Negara Berhad

Technical
Daily Ridership   : 163,224          Length    : 17.7 km (Fully elevated)
No of Station     : 11
Overall work as at end Sept 2013 - 34.32% completed

The URDP
LRT Line Extension Project
LRT Line Extension Project consists of extending KLJ Line from Kelana Jaya and AMG Line from Sri Petaling to Putra Heights with an integrated station at Putra Heights Terminus
# LRT Line Extension Project

## Park & Ride Facilities

### KELANA JAYA LINE

<table>
<thead>
<tr>
<th>Nos</th>
<th>Station</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Station 2</td>
<td>Ara Damansara</td>
</tr>
<tr>
<td>2</td>
<td>Station 3</td>
<td>Glenmarie</td>
</tr>
<tr>
<td>3</td>
<td>Station 4</td>
<td>Subang Jaya</td>
</tr>
<tr>
<td>4</td>
<td>Station 7</td>
<td>USJ 7</td>
</tr>
<tr>
<td>5</td>
<td>Station 10</td>
<td>USJ 10</td>
</tr>
</tbody>
</table>

### AMPANG LINE

<table>
<thead>
<tr>
<th>Nos</th>
<th>Station No</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Station 1</td>
<td>Awan Besar</td>
</tr>
<tr>
<td>2</td>
<td>Station 2</td>
<td>Kg. Muhibbah</td>
</tr>
<tr>
<td>3</td>
<td>Station 4</td>
<td>Bukit Jalil Highway 2_Giant</td>
</tr>
<tr>
<td>4</td>
<td>Station 6</td>
<td>IOI Mall LDP</td>
</tr>
<tr>
<td>5</td>
<td>Station 7</td>
<td>Tesco LDP</td>
</tr>
<tr>
<td>6</td>
<td>Station 8</td>
<td>Bandar Puteri Puchong</td>
</tr>
<tr>
<td>7</td>
<td>Station 13</td>
<td>Putra Heights</td>
</tr>
</tbody>
</table>
GREATER KUALA LUMPUR/KLANG VALLEY

BUS TRANSFORMATION PLAN
Rationalisation of bus networks and introduction of new concepts (i.e. BRT & BET)

CBIP (GKLKV) : Phase 1 & 2

• Aims to ensure sustainability of service
  • Profitable routes would be divided amongst operators
  • Operators are required to ply social routes to ensure better reach
  • Bus service would act as feeders to rail networks
  • Cost model would be changed to a “pay per km travelled” model

Bus Rapid Transit (BRT) & Bus Express Transit (BET)

• BRT would be introduced for more efficient movement
• BET increases reach and maximises existing infrastructure by introducing routes through under used highways
• 12 corridors were identified
• Projected to double AM peak ridership by 2015
BRT in Greater KL/Klang Valley

1. BRT is identified as one of initiatives under National Key Results Area (NKRA) - Urban Public Transport (UPT), under the Malaysia’s Government Transformation Program (GTP).

2. 12 BRT corridors were identified in Greater KL/KV Public Transport Master Plan.

3. KL - Klang BRT is also planned as the 1st BRT under Greater KL/Klang Valley Public Transport Masterplan.

4. The corridor is planned to pass through 3 main roads in Klang Valley i.e. Federal Highway, Jalan Syed Putra or Jalan Tun Sambanthan.

5. SPAD is currently reviewing the initial concept design of BRT KL - Klang.
Proposed KL-Klang BRT Corridor

Stations:
1. Pasar Seni
2. Dayabumi
3. Kuala Lumpur Rail
4. KL Sentral
5. Travers
6. Brickfield
7. Mid Valley
8. Universiti
9. Gasing
10. Taman Jaya
11. Asia Jaya
12. S51
13. Seri Setia
14. Setia Jaya
15. Subang Jaya
16. Glenmarie
17. Batu Tiga
18. Stadium Shah Alam
19. Kayangan
20. Shah Alam
21. UITM
22. Padang Jawa
23. i-City
24. Bukit Raja
25. Berkeley
26. Bukit Kuda
27. Bandar Kelang
(2 reserve stations)

Construction period
Phase 1: Nov 2014 - Apr 2016
Phase 2: July 2015 - Dec 2016

Kota Darul Ehsan
Bt. 3 Toll Plaza
Sg. Rasau Toll Plaza

Length: 33.5 km x 3km radius
Catchment Area: 256 km2
Population: 1.58 million
Employment: 1.02 million
Going forward - Proposed BRT Corridors

1. Kuala Lumpur - Klang
2. Taman Melawati - Puchong
3. Puchong – Kuala Lumpur
4. Ampang – Kuala Lumpur
5. Kinrara - Damansara
6. Bandar Sunway – USJ 6
7. Ampang - Kepong
8. Kota Damansara – Shah Alam
9. Shah Alam – Putra Heights
10. Putra Heights - Putrajaya
11. Putrajaya - Kajang
12. Kerinchi – Alam Damai
Asia Jaya
Greater KL/KV LPTMP
Commuter Bus Improvement Plan (CBIP)

Current Scenario

- Too Many Operators operating within the same corridor
- No Bus Right of Ways
- Unhealthy competition

Moving Forward

Introducing Commuter Bus Improvement Plan (CBIP)

Phase 1

- Reduced duplication
- Upgrade bus facilities
- Improve services
- Create new bus lanes
- Serve additional social routes
- Improve feeder at KTM Komuter
- Cover 75% population residing within 400m of PT modes

Phase 2

New Business Model will be introduced

- Priority will be given to existing operator who has first right of refusal
- Fare-box collection to be transferred to PT Fund
- Payment to operators: Contractual based on service vehicle-km *
- Cover more than 75% population residing within 400m of PT modes
CBIP: Phase 1
Existing Network - Primary Trunk Corridors

RapidKL: 15 routes
Metro: 8 routes
Selangor Omnibus: 6 routes
SJ Bus: 5 routes
Total: 34 routes

RapidKL: 9 routes
Metro: 3 routes
Len Seng: 1 route
Total: 13 routes

RapidKL: 8 routes
Metro: 3 routes
Setara Jaya: 1 route
Total: 12 routes

RapidKL: 14 routes
Metro: 5 routes
Setara Jaya: 3 routes
Sri Indah: 2 routes
Total: 24 routes

Corridors: 5
Routes: 233
- Primary Trunk: 121
- Secondary Trunk: 67
- Feeder: 45
- Others: 8
CBIP : Phase 1
Draft Revised Network - Primary Trunk Corridors
(Subject to SPAD’s LC approval)

- **RapidKL**: 12 routes
  - Selangor: 8 routes
  - Total: 26 routes

- **Cheras Corridor**
  - RapidKL: 8 routes
  - Setara Jaya: 1 route
  - Total: 9 routes

- **Pahang Corridor**
  - RapidKL: 8 routes
  - Len Seng: 1 route
  - Total: 9 routes

- **Damansara Corridor**
  - RapidKL: 2 routes
  - Total: 2 routes

- **Ipoh Corridor**
  - RapidKL: 5 routes
  - Metro: 5 routes
  - Total: 10 routes

- **Klang Lama Corridor**
  - RapidKL: 5 routes
  - Sri Indah: 2 routes
  - Total: 7 routes

- **SG Besi Corridor**
  - Metro: 5 routes
  - Total: 7 routes

- **Amphang Corridor**
  - RapidKL: 8 routes
  - Setara Jaya: 1 route
  - Total: 9 routes

- **Persekutuan Corridor**
  - RapidKL: 10 routes
  - Metro: 4 routes
  - Causeway Link: 1 route
  - Cityliner: 2 routes
  - Wawasan Sutera: 1 route
  - Seranas: 1 route
  - Total: 19 routes

- **Corridors**: 8
  - Routes: 290
  - Primary Trunk: 93
  - Secondary Trunk: 110
  - Feeder: 77
  - Others: 10
Greater KL/KV LPTMP
CBIP: Improving the facilities for the public

1. Hentian Akhir Bandar (HUB)
   - For end destination in city center (DBKL)
     - Pasar Seni
     - Munshi Abdullah
     - Jalan Tun Perak
   - Construct at other Local Authorities

2. Upgrade bus stop
   - 1300 bus stops has been upgraded since 2010
   - More will be build from 2013 - 2015
   - Covering 12 local authorities

3. Bus Panel Information
   - Cover all bus stop in GKL
   - Installation in stages from 2014 onwards
The Greater KL/Klang Valley LPTM Phasing of various elements

| Year | Bus Stop infrastructure | Bus Network planning | Bus Regulation Transition | Taxi Regulation Transition | BRT Corridors | Real Time information | Fares integration | LRT1 & 2 Extensions | Initial TDM Measures | MRT1 (SB-K) | KTM Upgrade | Freight Relief Line | MRT Circle Line (& extension) | MRT N-S Line (& extension) | LRT3 Kelana Jaya- Klang | Road User Charging | KL Monorail Extension | Putrajaya Monorail | KL Monorail Metropolis Ext. | Outer Orbital Line | Performance Monitoring |
|------|-------------------------|----------------------|---------------------------|---------------------------|-------------------------|--------------------|---------------------|-------------------|---------------------|--------------|---------------|---------------------|---------------------------|-------------------------|--------------------------|---------------------|----------------------|--------------------------|--------------------------|------------------------|
| 2011 | 
| 2015 | 
| 2020 | 
| 2025 | 
| 2030 | 

- "Proposal": Proposal
- "Implementation subject to viability in terms of travel demand, feasibility etc": Implementation subject to viability in terms of travel demand, feasibility etc

- Phase 1
- Phase 2

- "extension": Extension
### THE JOURNEY AHEAD

<table>
<thead>
<tr>
<th>Year</th>
<th>Rail</th>
<th>Bus</th>
<th>Integration</th>
<th>Travel Demand</th>
</tr>
</thead>
</table>
| 2015 | • KTM Komuter Enhancement  
      • LRT extension and expansion  
      • KL Monorail extension and expansion | • CBIP-pilot projects  
   • Bus Rapid Transit (KL-Klang)  
   • Bus Stop Programme  
   • CBIP GKLKV (Phase 1)  
   • Performance Monitoring Hub System (PMHS) | • Automated Fare Collection  
   • Pedestrian Linkages (Skywalk)  
   • Drop off, Park ‘n’ Ride  
   • KTM Station upgrade | • Parking Controls  
   • Journey Planner  
   • Car Free Zone |
| 2020 | • MRT Line 1  
   • Monorail Putrajaya/Cyberjaya | • Full implementation of CBIP for nationwide  
   • BRT KL & JB | | |
| 2030 | • MRT Line 2 & 3  
   • HSR  
   • RTS  
   • Urban Rail Penang & JB | • More BRT line in KL e.g. Puchong, Ampang etc  
   • BRT Kuching, KK | • Implementation of PT ‘push factors” e.g. ERP etc | |

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**Other Capital Cities**

- **2015:** 25%
- **2020:** 30%
- **2030:** 40%
“The National LPT Master Plan and GKL/KV LPT Master Plan was approved by Cabinet on 16th October 2013”
THANK YOU
# LRT Line Extension Project

## Park & Ride Facilities

### KELANA JAYA LINE

<table>
<thead>
<tr>
<th>Nos</th>
<th>Station</th>
<th>Projected Bay</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ara Damansara (Station 2)</td>
<td>719 Cars, 140 M/C / Bicycles</td>
</tr>
<tr>
<td>2</td>
<td>Glenmarie (Station 3)</td>
<td>1,114 Cars, 220 M/C / Bicycles</td>
</tr>
<tr>
<td>3</td>
<td>Subang jaya (Station 4)</td>
<td>1,384 Cars, 290 M/C / Bicycles</td>
</tr>
<tr>
<td>4</td>
<td>USJ 7 (Station 7)</td>
<td>1,475 Cars, 290 M/C / Bicycles</td>
</tr>
<tr>
<td>5</td>
<td>USJ 10 (Station 10)</td>
<td>679 Cars, 130 M/C / Bicycles</td>
</tr>
</tbody>
</table>

### AMPANG LINE

<table>
<thead>
<tr>
<th>Nos</th>
<th>Station</th>
<th>Projected Bay</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Awan Besar (Station 1)</td>
<td>1,825 Cars, 365/73 M/C / Bicycles</td>
</tr>
<tr>
<td>2</td>
<td>Kg. Muhibbah (Station 2)</td>
<td>200 Cars, 40/10 M/C / Bicycles</td>
</tr>
<tr>
<td>3</td>
<td>Bukit Jalil Highway 2_Giant (Station 4)</td>
<td>1,068 Cars, 214/73 M/C / Bicycles</td>
</tr>
<tr>
<td>4</td>
<td>IOI Mall LDP (Station 7)</td>
<td>417 Cars, 83/17 M/C / Bicycles</td>
</tr>
<tr>
<td>5</td>
<td>Tesco LDP (Station 8)</td>
<td>750 Cars, 150/30 M/C / Bicycles</td>
</tr>
<tr>
<td>6</td>
<td>Bandar Puteri Puchong (Station 8)</td>
<td>802 Cars, 160/32 M/C / Bicycles</td>
</tr>
<tr>
<td>7</td>
<td>Putra Heights (Station 13)</td>
<td>1002 Cars, 200/40 M/C / Bicycles</td>
</tr>
</tbody>
</table>