AN OVERVIEW OF MAJOR TRANSPORT INFRASTRUCTURE DEVELOPMENT IN MALAYSIA

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INTRODUCTION

• Malaysia is still a developing country in which transport development could boost national economy.

• Transport issues in urban areas:
  • Traffic congestion: long queue and delay
  • Urban sprawl
  • Noise and pollution
  • Low ridership of public transport

• Transport issues in sub-urban/ rural areas:
  • Accessibility
  • Network connectivity
OBJECTIVES OF TRANSPORT INFRASTRUCTURE DEVELOPMENT

• Public Transport Infrastructure
  • To improve mobility, as a means to combat traffic congestion especially in urban area such as Klang Valley
  • To provide alternative mode of transport
  • To provide multi-modal transport

• Highway Construction
  • To improve accessibility and connectivity especially in East Coast and East of Malaysia
A. PUBLIC TRANSPORT INFRASTRUCTURE DEVELOPMENT
1. SUNWAY BRT LINE

NOW OPEN!
BRT - SUNWAY LINE

MALAYSIA’S 1ST
BUS RAPID TRANSIT (BRT) SYSTEM

7 STATIONS!

SUNWAY
SETIA JAYA STATION
MENTARI STATION
SUNWAY LAGOON STATION
SUN U-MONASH STATION
SUNMED STATION
SOUTH QUAY STATION
USJ7 STATION

FREE RIDES - 2 JUNE 2015 ONWARDS FOR A LIMITED TIME ONLY!
2. MRT SBK LINE

- 51 km connecting Sungai Buloh to Kajang, 31 stations in total
- 9.5 km underground at CBD, 7 stations
- Total capacity: 1,200 passengers
- Cost: RM 23 billion
The Sungai Buloh - Serdang - Putrajaya (SSP) Line

Elevated length - 38.7 km
Underground length - 13.5 km
Total length - 52.2 km

Elevated stations - 26
Underground stations - 11
Total number of stations - 37

Park & Ride - 9,200 parking spaces

Expected passenger volume in 2022 - 533,000 passengers per day

Interchange stations - 11
(interchange to KTM, LRT, Monorail, ERL, HSR)

Journey time - 85 minutes from Kwasa Damansara to Putrajaya Sentral

Phase 1 Completion - July 2021
Phase 2 Completion - July 2022

The operation of SSP line starts from Kwasa Damansara to Putrajaya

©TheStar Graphics
4. LRT 3 LINE

TRANSIT ALIRAN RINGAN 3 (LRT3)
BANDAR UTAMA-KLANG

Anggaran nilai projek
RM9 bilion

Laluan sepanjang
37 km
(2km bawah tanah)

26
Stesen hentian
(1 merupakan stesen bawah tanah)

Dijangka siap
Ogos 2020
4. HIGH SPEED RAIL

S’pore to KL: Getting up to speed

The dream of zipping from Singapore to Kuala Lumpur in 90 minutes took another step towards being realised, with the announcement of Jurong East as the site for the Singapore terminus. We compare the high-speed rail option to other transportation modes.

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**Cost of High-Speed Rail**
- Estimated: RM40 billion ($14.8 billion). However, one railway expert said it could range from $15 million to $40 million ($30 million to $80 million) per km, depending on the complexity of construction. Going by a distance of 340km, this could mean a range of $10.2 billion to $27.2 billion.

**Completion Date**
- Possibly 2025 to 2030.
- While initially targeted for 2020, experts said some time between 2025 and 2030 would be more realistic.
- Malaysian Prime Minister Najib Razak said the construction would take approximately five years, while the design and tender phases would take one year each.

**Technology**
- Two to three times faster than normal railways, with speeds above 250kmh.
- Besides specialised tracks and rolling stocks, some systems also use magnetic levitation, which employs a powerful magnetic field to suspend trains above the rails.
- Advanced signaling system to monitor train locations and prevent collisions.

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**Speed**
- **By High-Speed Rail**
  - 90 mins
  - Frequency: To be decided
  - Operator: To be decided

- **By Train**
  - Woodlands station to KL Sentral station: Six hours 40 mins
  - Frequency: Three trips daily
  - Operator: KTM

- **By Air**
  - Changi Airport to Kuala Lumpur International Airport: One hour
  - Frequency: Dozens of flights per day
  - Operator: More than a dozen airlines

- **By Coach**
  - From Singapore to KL (via the Causeway or Second Link): Five hours
  - Frequency: Dozens of trips per day
  - Operator: More than a dozen bus operators

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A magnetic levitation train on an experimental track in Tsuru, 100km west of Tokyo.
KL-S’pore in just 90 minutes

A high-speed rail link is to be built between Kuala Lumpur and Singapore that will cut travel time to just 90 minutes. Prime Minister Datuk Seri Najib Tun Razak and his counterpart Lee Hsien Loong said the connection, expected to be completed in 2020, would be a game changer, transforming the way Malaysia and the island republic do business and interact with each other.

See reports on Pages 6 and 7
High speed rail will provide non-stop services to major regional centres and intercity services.

- Direct non-stop service
- Potential intercity stops
- Phase I stops
- Phase II stops

Average speeds of 350 to 450 kmph

Creating seamless and faster journeys
Door-to-door journey time in hours

<table>
<thead>
<tr>
<th>Mode</th>
<th>Time (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car</td>
<td>~5.0</td>
</tr>
<tr>
<td>Bus</td>
<td>~6.0</td>
</tr>
<tr>
<td>Air</td>
<td>~4.0</td>
</tr>
<tr>
<td>HSR</td>
<td>~1.5 - 2.0</td>
</tr>
</tbody>
</table>
KL-S’pore High Speed Rail

Billed as a game changer, the HSR will reduce the 350km land journey from Singapore to KL to just 90 minutes. BT takes a closer look at this massive joint project that will become a reality by around 2026.

- Feb 2013: Singapore and Malaysia form HSR work group
- Apr 2014: Land Transport Authority calls tender to study engineering feasibility
- May 2015: Joint Request for information exercise called, 14 companies invited to present ideas
- Jul 2015: Singapore and Malaysia sign non-binding Memorandum of Understanding on HSR
- Aug 2016: Jurong East chosen as site for Singapore’s terminal station
- End 2016: Call for tender for Joint Development Partner; LTA to call tender for advance engineering studies
- Late 2017: Advance works and construction
- 2018-25*: Tender for private company to provide and maintain HSR assets
- 2023*: Singapore and Malaysia to sign legally binding bilateral agreement
- 2026*: HSR begins service

- Express train can reach top speed of over 300km/h
- 90 mins: Travel time of the express train
- 8: Total number of stops, including terminal stations

BT Infographics
BT Graphics: Leo U-Win, Lyrie Rahmat
EAST COAST RAILWAY LINE

• Connect townships: Port Klang, Integrated Transport Terminal Gombak, Bentong, Mentakab, Kuantan, Kemaman, Kerteh, Kuala Terengganu, Kota Bharu and Tumpat
• Estimated cost RM 55 billion
• Total length: 600 km
China set to build, finance Malaysia's East Coast Rail Line project
B. HIGHWAY CONSTRUCTION
1. EAST KLANG VALLEY EXPRESSWAY (EKVE)

- Dual-two lane tolled highway between Bandar Sungai Long and Ukay Perdana
- Total length: 36.16 km
- Benefits:
  - To disperse traffic for eastern Kuala Lumpur
  - Ease congestion on the existing MRR2
  - Catalyst for new developments in Semenyih and Kajang
2. SUNGAI BESI-ULU KELANG EXPRESSWAY (SUKE)

- 31.8 km in length, 3-lane, dual carriageway
- Benefits:
  - Alternative to MRR II
  - Relieve congestion and improve traffic condition at major road
  - Direct link between new growth cheras-Kajang to Segambut/Kepong
3. PAN BORNEO HIGHWAY

It was first talked about in the 1960s and when Malaysia was formed.

The current trunk road is a two-lane single carriageway. The completed highway will be entirely four-lane dual carriageway.

The highway between Sarawak and Sabah is estimated at about 1,700km. Sarawak’s portion will span 1,076km.

Travel time across Sarawak should reduce from about 19 hours to 12 hours.

The targeted completion is 2023.

Highway construction will lead to a multiplier effect of four times to the economy, based on studies of the North-South Expressway.
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THANK YOU

from

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