Promoting Public Transport in Bangkok

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Energy Efficiency Transport and Behaviour Workshop
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1. Integrated Mass Transit System in Bangkok
2. Land Use Planning in Bangkok
1. Integrated Mass Transit System in Bangkok
Bangkok Profile

- Bangkok’s population in 2011 Register: 5.703 mil.
- Thailand’s population: 65.4 mil.
- Total Area = 1,569 Sq.km.
- 1,000 skyscrapers, ranks 17th the world's tallest city.
- Total Road Length: 4,076 km.
- Number of Car: 5 Mil.
- Currently, the city has to accommodate over 15 million people, comprising its inhabitants and those who come from every part of the country and also many other countries, who generate millions of trips each day.
• Currently, travellers generate in excess of 22 million trips per day; by 2021 the number is estimated to increase around 26.2 million trips a day
Integrated Mass Transit System in Bangkok

Trunk Routes
BTS: Bangkok Mass Transit System (Sky Train),
MRT: Mass Rapid Transit (Subway), Airport Rail Link

Secondary Services
BRT (Bus Rapid Transit), Buses, Public Vans and Boats (Canal transport)
The purple line will be operated 6 August 2016
Shares of Commuters

Total Commuters
22 Million Trips/Day

Bus 36%
8 M. Trips/Day

Mass Transit 5%
BTS 0.7 M. Trips/Day
MRT 0.25 M. Trips/Day
ARL 0.05 M. Trips/Day

Car & Bike 57%
12.50 M. Trips/Day

Mass Rapid Transit Authority of Thailand
Bangkok’s Road Area in Comparison with Other Cities

- NEW YORK: City Area 62%, Road Area 38%
- BANGKOK: City Area 95%, Road Area 5%
- TOKYO: City Area 77%, Road Area 23%
The top 10 Observed roads with snail-pace traffic flow

<table>
<thead>
<tr>
<th>Road</th>
<th>Section</th>
<th>Average Rush Hour Speed (km/hr)</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>2007</td>
</tr>
<tr>
<td>Phaya Thai</td>
<td>From the Victory Monument to Sam Yan Intersection</td>
<td>13.05</td>
</tr>
<tr>
<td>Rama I</td>
<td>From Phloen Chit Intersection to Kasat Suke Intersection</td>
<td>14.59</td>
</tr>
<tr>
<td>Surasak</td>
<td>From Surawong Intersection to Charoen Rat-Chan Intersection</td>
<td>15.01</td>
</tr>
<tr>
<td>Ratchadamri</td>
<td>From Sala Daeng Intersection to Pratu Nam Intersection</td>
<td>10.91</td>
</tr>
<tr>
<td>Ratchawithi</td>
<td>From Bang Phlat Intersection to the Victory Monument</td>
<td>11.64</td>
</tr>
<tr>
<td>Ratchadamnoen</td>
<td>From Pom Phadet Intersection to Yak Phra Rupe Ror 5 Intersection</td>
<td>11.37</td>
</tr>
<tr>
<td>Sathon</td>
<td>From Wireless Road Intersection to Sathon-Charoen Krung Intersection</td>
<td>11.01</td>
</tr>
<tr>
<td>Silom</td>
<td>From Sala Daeng Intersection to Bang Rak Intersection</td>
<td>11.67</td>
</tr>
<tr>
<td>Samsen</td>
<td>From Kiak Kai Intersection to Bang Lamphu Intersection</td>
<td>10.72</td>
</tr>
<tr>
<td>Sukhumvit</td>
<td>From Bangna Intersection to Intersection under Ploen Chit Expressway</td>
<td>14.11</td>
</tr>
</tbody>
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• Formerly public vans were illegal before being organised to increase safety and registered to provide services on routes approved by the BMTA (Bangkok Mass Transit Authority). With easy accessibility and connectivity to major communities. They offer flexible rerouting, easily adjustable of a number of fleet in each direction.
MRTA has prepared park & ride areas for MRT passengers who want to park their cars and take MRT subway to their destinations. MRTA has started park & ride service since August 13, 2004. Currently there are 12 park & ride areas including 2 parking buildings and 10 ground-level parking lots with total 3,000 spaces, located at 9 stations along the route of MRT Chaloem Ratchamongkhon Line.
• The parking fee for MRT passenger is 15 Baht (40 Cents) per 2 hours.

• The parking fee for non-MRT passenger is 40 Baht (1 Euro) per hour (except Petchaburi Station, Sukhumvit Station, and Queen Sirikit National Convention Centre Station 50 Baht (1.25 Euro) per hour).

• The monthly parking fee for Park & Ride Building, Lat Phrao Station is 1,250 Baht (31 Euro) per month and the monthly parking fee for other parking lots is 1,500 Baht (38 Euro) per month.
BMA (Bangkok Metropolitan Administration)’s 9 Principle Measures for the Development of Sustainable Transport

1) Prioritise modes of transport
2) Extend SkyTrain Lines – the Bangkok Mass Transit System
3) Expedite implementation of the Bus Rapid Transit (BRT)
4) Develop the light rail and monorail transit
5) Promote canal transport
6) Provide necessary conveniences for using public transport such as shuttle bus services, skywalks, interchanges, park&ride facilities, common ticketing systems, etc.
7) Improve footpaths
8) Increase bicycle routes
9) Encourage public participation
The top reasons people give up on BTS&MRT, according to the researchers:

1. Fare price is a little too high

2. Experienced inconvenience at a transfer stop and station
   - Park and Ride
   - Accessibility
   - Ticket System

3. Insufficient Information
Comparing the passenger fares of BTS&MRT according to the cost of living

Passenger fares from starting station to the end station
The integrated ticketing system that will let you zip in and out of the BTS and MRT with ease will be called the Mangmoom (Spider) Card. The planning of this integrated ticket can be used to go anywhere in Bangkok using the BTS and MRT and, soon, the Airport Link, buses, expressways, boats, vans and taxis.
2. Land Use Planning in Bangkok
Land Use Regulations have an important role on building control and development.

- Density control by definite of the maximum floor area ratio (FAR) and the minimum open-space ratio (OSR).

- Set back open space along the main roads : 2 meters with planting.

- Set back open space along the main canals : 3 – 6 meters with planting.

- Control of building height and size.

- Incentive to investment by the bonus system for some buildings.
Set back & planting along the main roads

2 metres
Development with the FAR Bonus (BONUS)

Various Values of Floor Area Ratio (FAR)

Extra Open Space

Open Space

Road

BONUS

(Less than 5 times of the extra open space)
Providing the extra public parking in the building which located within 500 m. of the BTS or MRT platform.
Thank you...

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