Sustainable Transport & Investment Opportunities in Indonesia

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Outline

- Transportation Overview: Facts and Problems
- Urban Transportation Plans and Development
- The Challenges and Opportunities
- Conclusion
Outline

Transportation Overview: Facts and Problems
The global climate agreement requires national strategies for sustainable growth.

Source: Achmad Zacky Ambadar, "Sustainable Urban Transport Initiative", First Supported Nationally Appropriate Mitigation Action (NAMA) in Indonesia, Workshop on Capacity Development of NAMAs Preparation for International Support, Jakarta 7 May 2013
Very Dramatic Modal Shifting (including NMT)

**Sharp Increase in Vehicle Registered**

<table>
<thead>
<tr>
<th>Year</th>
<th>Motorcycles</th>
<th>Cars</th>
<th>Trucks</th>
<th>Buses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1,000,000</td>
<td>2,000,000</td>
<td>300,000</td>
<td>500,000</td>
</tr>
<tr>
<td>2010</td>
<td>7,000,000</td>
<td>8,000,000</td>
<td>1,000,000</td>
<td>2,000,000</td>
</tr>
</tbody>
</table>

**Significant Increase in Household Car and Motorcycle Ownership**

- Private car registered doubled and motorcycle by 4.6 times
- Significant increase in car ownership and motorcycle ownership
- A significant reduction of public transportation share. Public transport share decreased from 38% to 17%, and motorcycle share increases from 21% to 41%

(Source: JUTPI study, 2011)

**Within 2000-2010.**

- Private car registered doubled and motorcycle by 4.6 times
- Significant increase in car ownership and motorcycle ownership
- A significant reduction of public transportation share. Public transport share decreased from 38% to 17%, and motorcycle share increases from 21% to 41%

(Source: JUTPI study, 2011)
Urban Transportation Plans and Development
Policy on Urban Mass Transit

National Urban Transport Policy

- Increase urban mass transit services (target: public transport share increases from 23% percent to 32 percent).
- Increase urban mobility (target: travel speed increases from 8.3 km/hour to 20 km/hour).
- Reducing greenhouse gas emissions (target: GHG decreases 26%).

Source: Bappenas

Jabodetabek Public Transportation Modal Share (%), excluding NMT

<table>
<thead>
<tr>
<th>Year</th>
<th>Modal Share %</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>57%</td>
<td>ARDS 1985</td>
</tr>
<tr>
<td>2002</td>
<td>56%</td>
<td>SITRAMP 2002</td>
</tr>
<tr>
<td>2010</td>
<td>27% (=17% incl. NMT)</td>
<td>JUTPI, 2010</td>
</tr>
</tbody>
</table>

Trends:
- Do Nothing
- Stabilised
- Reform
Rail-based transportation network 2030 will cover all Jabodetabek metropolitan areas by integrating commuter railway, inner-circle railway line, outer circle railway line, airport railway, monorail, MRT and Busway system.
MRT construction & planning

Corridor South – North: 23.3 Km (Lebak Bulus – Kampung Bandan)
- 1st Phase: (15.2 Km) : Lebak Bulus - Bundaran HI (Target of Operation: 2016)
- 2nd Phase: (8.1 Km) : Bundaran HI - Kampung Bandan (Target of Operation: 2018)

Corridor East-West: 87 Km (Balaraja – Cikarang; Target of Operation: 2024)

<table>
<thead>
<tr>
<th>Division</th>
<th>South-North Corridor (Total Length: 23.3 km)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st Phase Lebak Bulus - Bundaran HI</td>
</tr>
<tr>
<td>Length of Track</td>
<td>15.2 km (Elevated: 9.2 km, Underground: 6 km)</td>
</tr>
<tr>
<td>Station</td>
<td>13 (Elevated: 7, Underground: 6)</td>
</tr>
<tr>
<td>Travel Time</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Distance between Stations</td>
<td>0.5~2 km</td>
</tr>
<tr>
<td>Headway</td>
<td>5 minutes</td>
</tr>
<tr>
<td>Target Passenger / day</td>
<td>412,700 (2020, after 3 years operation)</td>
</tr>
<tr>
<td>Operation Target</td>
<td>2016</td>
</tr>
</tbody>
</table>

Target:
- Cater: 173,000 pax per day in first operation
- Reduce travel time to 28 min (from Lebak Bulus to Bundaran HI)
- Reduce CO2 emission and fuel consumption to 30,000 ton in 2020
- Create 48,000 employment during 5 years construction period
- Reduce accident and improve socio-economy

Source: MRT Jakarta and the Department of Transportation of Jakarta, Capital City Government
**Monorail Planning (Jakarta)**

<table>
<thead>
<tr>
<th>Prologue</th>
<th>Originally a pure private sector venture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Demand</td>
<td>600,000 passenger/day for both Blue Line (Kampung Melayu-Taman Anggrek) and for Green Line (circle line from Palmerah-Casablanca-Senayan)</td>
</tr>
<tr>
<td>Present</td>
<td>The Jakarta Monorail planned 29 km, two-line monorail system in Jakarta Indonesia that is under construction</td>
</tr>
</tbody>
</table>

- **Green Line**
  - Semanggi – Casablanca, Length: 14.3 km, 10 Trains, 15 stations

- **Blue Line**
  - Kampung Melayu-Casablanca-Tanah Abang-Roxy, Length: 9.7 km, 11 stations (to Tanah Abang), Length: 13.5 km, 15 stations (to Taman Anggrek), 18 trains, 13 stations

Corridors 11, 12 and 13 of TransJakarta are proposed to be elevated and cross the city border (Tangerang, Bekasi, Depok) > problems of implementation

Need coordination agency or authority
The Challenges and Opportunities
Indonesia Transportation Development Challenges

- Need an exponential development
- Unconventional approach, *out-of-the-box*, and professional
- To enhance investment and to facilitate private investment

- High Economic Growth
- Bonus Demography
- Rapid Urbanisation
- Privatization Policy
- Infrastructure Deficit

- Area disparity
- Energy & Environment
- Economic Corridors
- Special Economic Zones
- Unemployment & underdevelopment
Rapid Urbanisation

1 city

9,500

3,000

2,500

3 cities

2,000

1,500

3 cities

1,000

3 cities

500

15 cities

0

60 cities

Population (000)

Source: BPS, 2010

Needed big leap for mass transportation developments

Motropolitan 11 cities

Big Cities 15 cities

Medium Size

Surabaya

Bandung

Bekasi

Medan

Tangerang

Depok

Semarang

Palembang

Makassar

Tangerang Selatan

Jakarta

Bogor

Batam

Pekanbaru

Malang

Denpasar

Bali

Komodo

Surakarta

Manado

Mataram

Yogyakarta

Balikpapan

Tasikmalaya

Needed big leap for mass transportation developments

11 cities

60 cities

15 cities

1 city

3 cities

3 cities

15 cities

Source: BPS, 2010
Urban Transport Challenges

Mid Term Development Plan 2015-2019 (Urban Transport)

Objective

- Urban Transport Development
- Mobility
- Congestion Alleviation
- Environment Impact Control
- Urban Road Safety

Key Challenge

- Improve Public Transport Access with TOD, P&R, TIC
- Improve Terminal System Management
- Develop Urban Transportation infrastructure (road network & multimodal)
- Improve Efficiency of Urban Freight Operational and Services
- Improve Public Transport System
- Implement Transportation Demand Management (TDM)
- Implement Advance Traffic Management System
- GHG Emission Reduction
- Improving Air Quality
- Noise Reduction
- Facilities and Infrastructure
- Human Factor

Objective

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Fuel Subsidy

- Big proportion of national budget: a fifth of total government spending, more than spending on infrastructure and social-welfare programmes combined
- Not effective: big proportion of benefits goes to car owners

November 2014, cuts the fuel subsidy (small subsidies, 1,000 rupiah, or eight cents/per litre will remain in place for diesel for public transport and the fishermen)

MORE FISCAL ROOM FOR DEVELOPMENT
Fuel Subsidy

Fuel Quota: 46 Million Kilolitre
IDR 6.500 up to IDR 7.600
Saving: IDR 69 Billion
Re-allocation of fuel subsidy saving

- To boost spending on health, education and infrastructure
- To make new rice fields and build irrigation infrastructure
- To build new road, bridge, port and rail

Better infrastructure should lower transport costs and attract more business investment
INFRASTRUCTURE DEVELOPMENT 2015-2019

- New Road 2.650 Km
- New Toll Road 1.000 Km
- Road Maintenance 46.770 Km

- New Airports 15
- 20 Pioneer aircraft
- Airport Development for Air Cargo Services at 9 location

- Development of 24 Strategic Port
- Development of 163 Non Commercial Port
- Development of 50 Pioneer Ship
- Provide 193 line for Pioneer of sea transpor

- Development of Railways Line for 3.258 km in Java, Sumatera, Sulawesi, Kalimantan and Papua

- Development of Inland Port at 65 locations
- Provide ship for Inland Transport (pioneer) for 50 units including water bus

- Development of BRT at 34 cities
- Development of mass rapid transit in metropolitan city

Providing transportation facilities using local production industry
Development Rail-based Mass Transport System:
- MRT Jakarta (North-South and West-East)
- Monorail and Tram Surabaya
- Monorail Bandung

Development Urban Railway for 9 Metropolitan Areas:
Medan, Palembang, Jakarta, Bandung, Semarang, Yogyakarta, Surabaya, Denpasar, and Makasar.

Development of BRT for 29 Big Cities: Medan, Pekanbaru, Batam, Padang, Palembang, Bandung, Jakarta, Bogor, Semarang, Yogyakarta, Solo, Pontianak, Samarinda, Balikpapan, Makassar, Gorontalo, Ambon and others.
Conclusion

Demand for transportation is increasing sharply in line with economic growth, while the infrastructure is growing slowly (infrastructure capacity is limited). Therefore, it is imperative to implement a sustainable transport strategy;

Two strategies to achieve sustainable urban transportation system are by implementing public transport priority measures and infrastructure development.

In order to catch up with the significant demand growth of transport, private participation is needed.

By reducing fuel subsidy, it allows for more fiscal room for transportation development;
THANK YOU