Addressing Traffic Congestion in Jakarta: what went wrong and the road ahead

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**Key Takeaways**

- Major challenges in addressing Jakarta’s traffic problem lies in economic, social, and political aspects.
- Lesson from Jakarta’s Bus Rapid Transit System
  - Intermodal integration; financial feasibility; change of behavior.
- The road ahead: Fixing the economic, social, and political aspect; Implementing MRT, ERP, and bike-to-work campaign.
1 Introduction
Introduction

- World second largest metropolitan city, i.e. 26 million people, in 2012 ([www.worldatlas.com](http://www.worldatlas.com))

- Also known as DKI Jakarta; Jakarta Metropolitan area; Greater Jakarta; and JABODETABEK.
Traffic Congestion in Jakarta
Around 1.1 million trips were made everyday from suburban to central Jakarta in 2010; an increase of 50% from 2002

Source: STRAMP Person trip Survey, JUTPI Commuter Survey
The share of motorcycle users has been doubled; while the share of bus user decreased by 50% from 2002 to 2010.

Source: The Coordinating Ministry of Economic Affairs Republic of Indonesia and JICA, 2012
Outline

1

2 What went wrong

3

4
What went wrong

- Unavailability of comfortable public transportation system → Lack of intermodal integration;

- **Economic**
  - Subsidized gasoline price;
  - Concentrated economic growth;

- **Social**
  - Difficulty in land acquisition;

- **Political**
  - Difficulty of coordination among local governments;
  - Non-transparent transportation policy making process;
What went wrong (cont’d)

- Lower income and lower standard of living
- Lower efficiency and productivity; loss of competitiveness
- Lack of budget for investment
- Congestion
- Use of private cars and motor cycles
- Subsidy for gasoline
- Lack of public transportation investment

Vicious cycle of Jakarta’s traffic congestion

Source: Author’s analysis
Outline

3 Case study of BRT system
Introduction

- Begun operation in 2004; the first BRT in South and Southeast Asia
- How it works:
  - Relatively cheap fare.
The BRT passenger has grown at 30% annually; while the subsidy has grown at 20%

Source: www.transjakarta.co.id
Challenges faced

- Intermodal integration;
- Financial feasibility;
- Fare system;
- Services quality;
- Worse congestion in non-trans Jakarta road;
- No-feeder service;
- Over-crowded;
## Evaluation on existing solutions

<table>
<thead>
<tr>
<th>Existing solutions</th>
<th>Type of policy</th>
<th>Reason for failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monorail (2003)</td>
<td>Increasing supply of public transportation.</td>
<td>Lack of financial feasibility; lack of financing; thus lead to project cancellation (Appendix 3).</td>
</tr>
<tr>
<td>Buss Rapid Transit (BRT) system (2004)</td>
<td>Increasing supply of public transportation.</td>
<td>Lack of intermodal integration; lack of number of bus; thus lead to longer waiting and less usage (Appendix 4).</td>
</tr>
<tr>
<td>Commuter line (since 1925)</td>
<td>Increasing supply of public transportation.</td>
<td>Tardiness; only used for suburban-central Jakarta commuting; (Appendix 5).</td>
</tr>
</tbody>
</table>

Source: Author’s analysis
Outline

The road ahead
The road ahead

Challenges

- **Economic**
  - Subsidized gasoline price;
  - Concentrated economic growth;

- **Social**
  - Difficulty in land acquisition;

- **Political**
  - Difficulty of coordination among local governments;
  - Non-transparent transportation policy making process;

Solution

- **Economic**
  - Gradually remove fuel subsidy;
  - Divert economic growth to outside the region.

- **Social**
  - Implement the recently passed (2012) law on Land acquisition for public use;

- **Political**
  - Establishing JABODETABEK Transportation Authority;
The road ahead (cont’d)

<table>
<thead>
<tr>
<th>Potential solution</th>
<th>Type of policy</th>
<th>Reasons for haven’t been implemented</th>
<th>Possible way-out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass Rapid Transit (MRT) system</td>
<td>Increasing supply of public transportation.</td>
<td>Land acquisition; Negative financial feasibility;</td>
<td>Law on land acquisition; MRT + property business model (to improve financial feasibility);</td>
</tr>
<tr>
<td>ERP (Electronic Road Pricing) system or</td>
<td>Reducing supply of private vehicles.</td>
<td>Absence of supporting regulation; Incomplete vehicle database; Payment system; contingent upon availability of alternative</td>
<td>Accelerate alternative modes (BRT bus addition, MRT, Monorail) development; required regulation.</td>
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<tr>
<td>congestion charges</td>
<td></td>
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<tr>
<td>Bike-to-work (Appendix 6)</td>
<td>Reducing supply of private vehicles.</td>
<td>Runway; Safety;</td>
<td>Improving pedestrian path to accommodate bicycle;</td>
</tr>
</tbody>
</table>

Source: Author’s analysis
Closing remarks

- The need for transportation master plan
  - Addressing economic, social, and political aspects.

- Improving financial feasibility
  - Through improvement in business model.

- Informed-decision making process
  - To avoid government inaction.
Thank You!
References

# Appendix 1

## Types of Public Transportation in Jakarta

<table>
<thead>
<tr>
<th>No</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Trans-Jakarta bus</td>
</tr>
<tr>
<td>2</td>
<td>Non-Trans Jakarta Bus</td>
</tr>
<tr>
<td>3</td>
<td>Mini bus</td>
</tr>
<tr>
<td>4</td>
<td>Mini van (<em>angkot</em>)</td>
</tr>
<tr>
<td>5</td>
<td>Taxi</td>
</tr>
<tr>
<td>6</td>
<td>Tuk-tuk (<em>Bajai</em>)</td>
</tr>
<tr>
<td>7</td>
<td>Motorcycle Taxi (<em>Ojek</em>)</td>
</tr>
</tbody>
</table>
Appendix 2

Circumventing the three-in-one system

In picture: a woman offered her-self as a ‘jockey’ prior entering the three-in-one area
Appendix 3
The unused monorail pillar in Jakarta

In picture: unused monorail pillar in Jakarta; the construction was halted in 2006.
Appendix 4
BRT System in Jakarta

In picture: Trans-Jakarta bus and Trans-Jakarta station map
Appendix 5

Commuter Line in JABODETABEK

In picture: The map of JABODETABEK commuter line route and a train in station
Appendix 6
Bike-to-work campaign in Jakarta

In picture: people bike to work in Jakarta and logo of bike-to-work movement in Indonesia