

## THIRD REGIONAL EST FORUM IN ASIA



Country Initiatives  
on  
**ENVIRONMENTALLY SUSTAINABLE  
TRANSPORT IN INDONESIA**

BY: DR. ELLY ADRIANI SINAGA

**Directorate General of Land Transportation  
Ministry of Transportation  
REPUBLIC OF INDONESIA  
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## 1. INTRODUCTION

# Indonesia : The Archipelago Country



Population 230 m (2007)

Jakarta ,the Capital City  
650km<sup>2</sup>; 8,86 m people  
(2% growth/annum)

The surrounding cities:  
BODETABEK; 5789 km<sup>2</sup>;  
23,673 m people  
(2,09% growth/annum)



## 2. CONDITIONS AND PROBLEMS

### JAKARTA, the Capital City

- Number of vehicles 6,3 m  
(growth 11% /annum ) :
  - Private Car: 89.45% (Motorcycle: 54.14%)
  - Goods Vehs: 9.21%
  - Public Transport Vehs: 1.35%  
(56% share)
- 700 private cars increase/day →  
Need 3 km road length/day;  
Road growth 0.1%).



# Portrait of current motor cycle usage

Polution



It gives us the way to suicide



Low cost, low travelling time, high speed and .....high RiSK

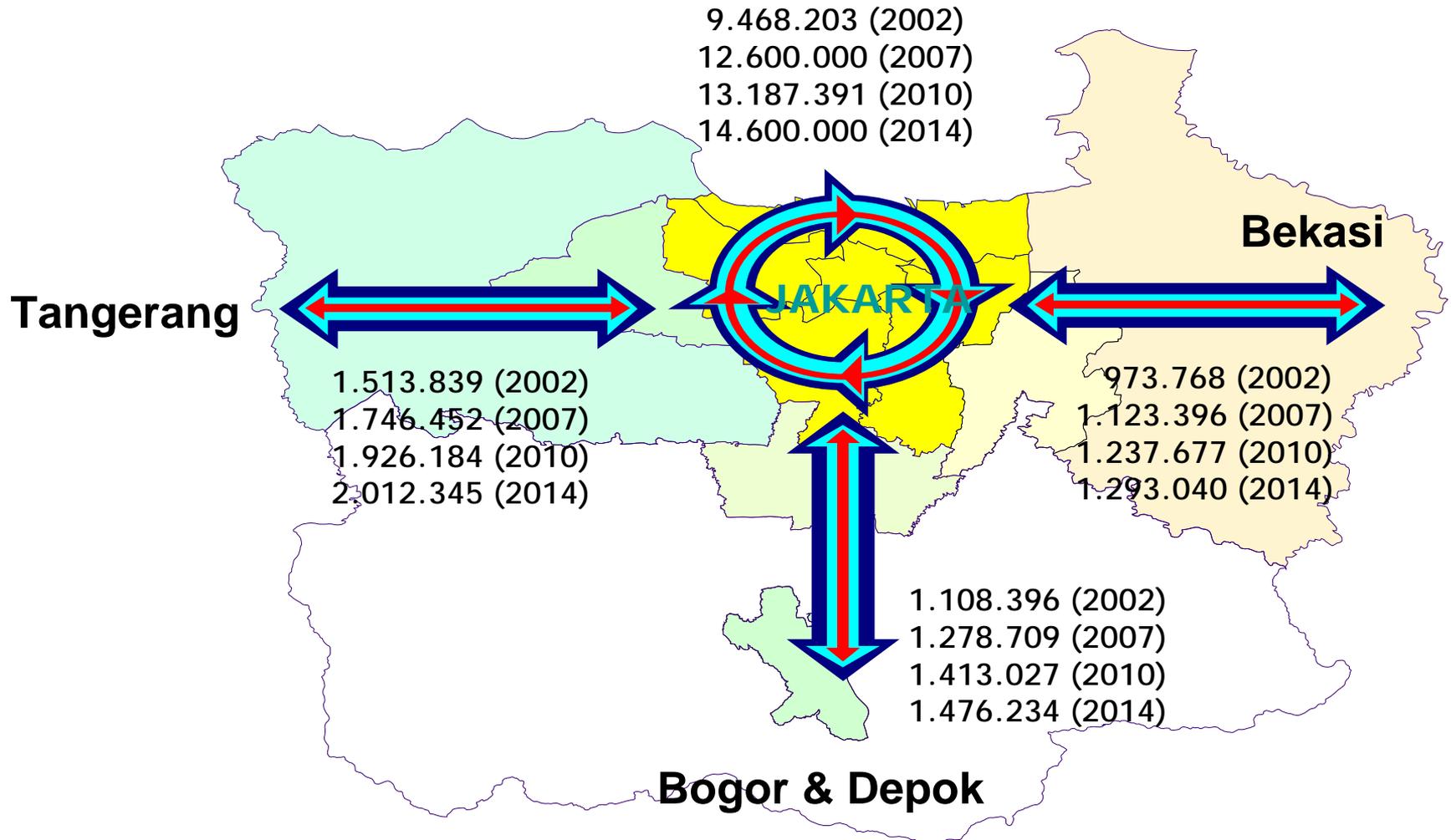


But ..... Door to door  
.very cheap  
.any road

# Typical Traffic Problems

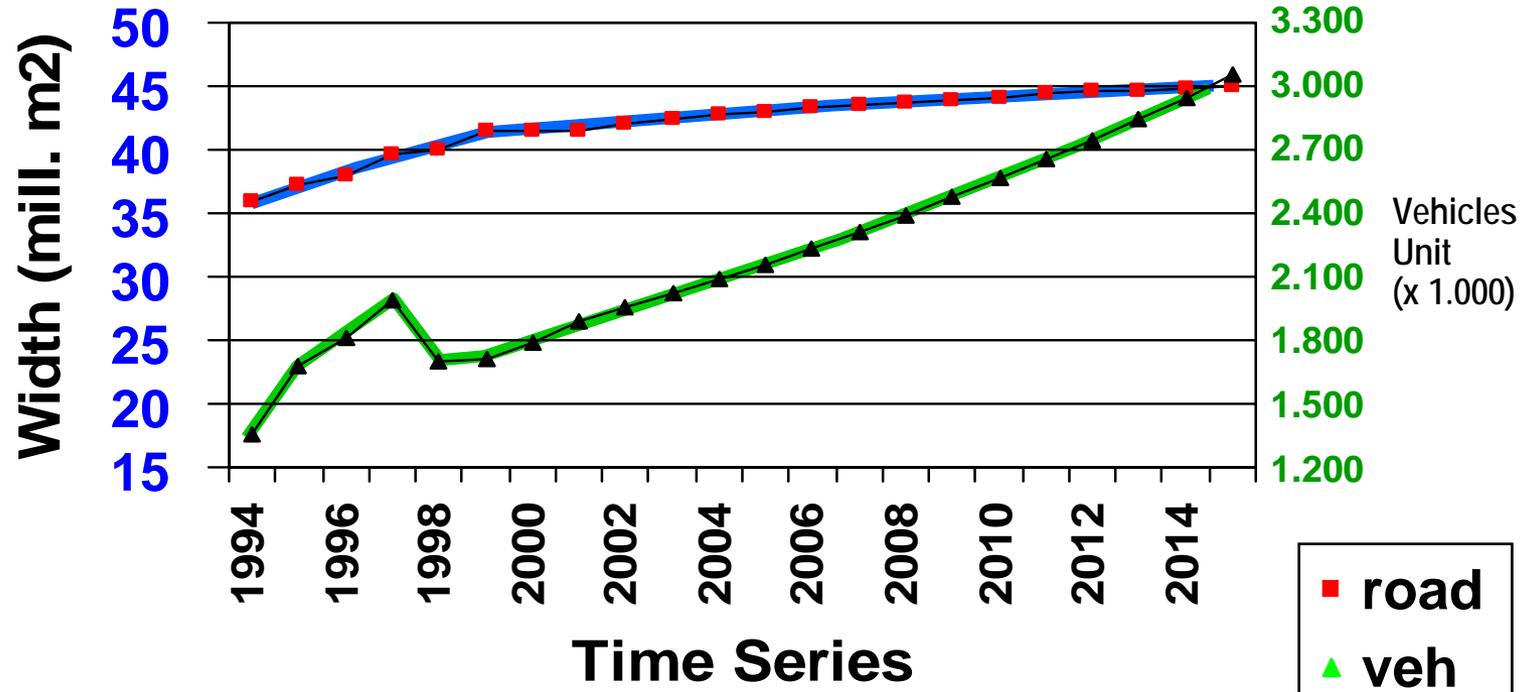


# Number of Trips (trips/day)



# CONSTRAINT & ISSUES

## ROAD WIDTH UTILIZATION BY VEHICLES GROWTH IN JAKARTA



# 3. TRANSPORTATION POLICY

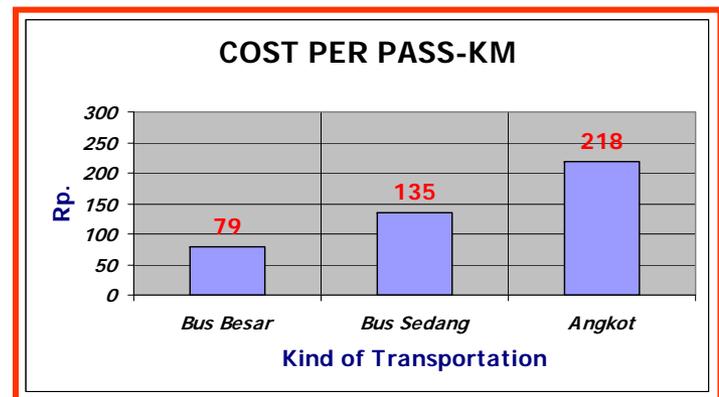
## Pro-public transport.

Develop sustainable and reliable public transport system which covers the whole urban area, and provide service to all level of income group.



### Bus-based Mass Transit System - BRT

- Cheaper Operating Cost
- Optimal use of lanes;
- The development is quick, cheap & flexible.

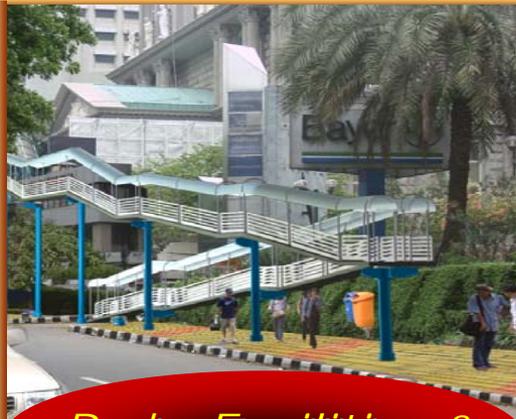


# ***STRATEGY FOR THE COMPREHENSIVE MOBILITY (JAKARTA)***



## ***Mass Transit***

- TransJakarta Busway (BRT)
- Monorail – Light Rail Transit
- Waterways
- Mass Rapid Transit



## ***Peds. Facilities & NMV***

- Integrated Network for Pedestrians & NMV
- Pedestrian Walkways, Curbs, Peds-Crossing
- Facilities for Diffable People & Senior People



## ***Traffic Restraint***

- Electronic Road Pricing (ERP)
- Parking Management/ Restraint
- Car free day event

# 4. Best practices (PUBLIC TRANSPORT REFORM)

Small-inefficient paratransit → bigger, cheaper, safer BRT system

Un-scheduled bunching and leaf frogging → regular and reliable operation

Private-small ownership → more professional management company

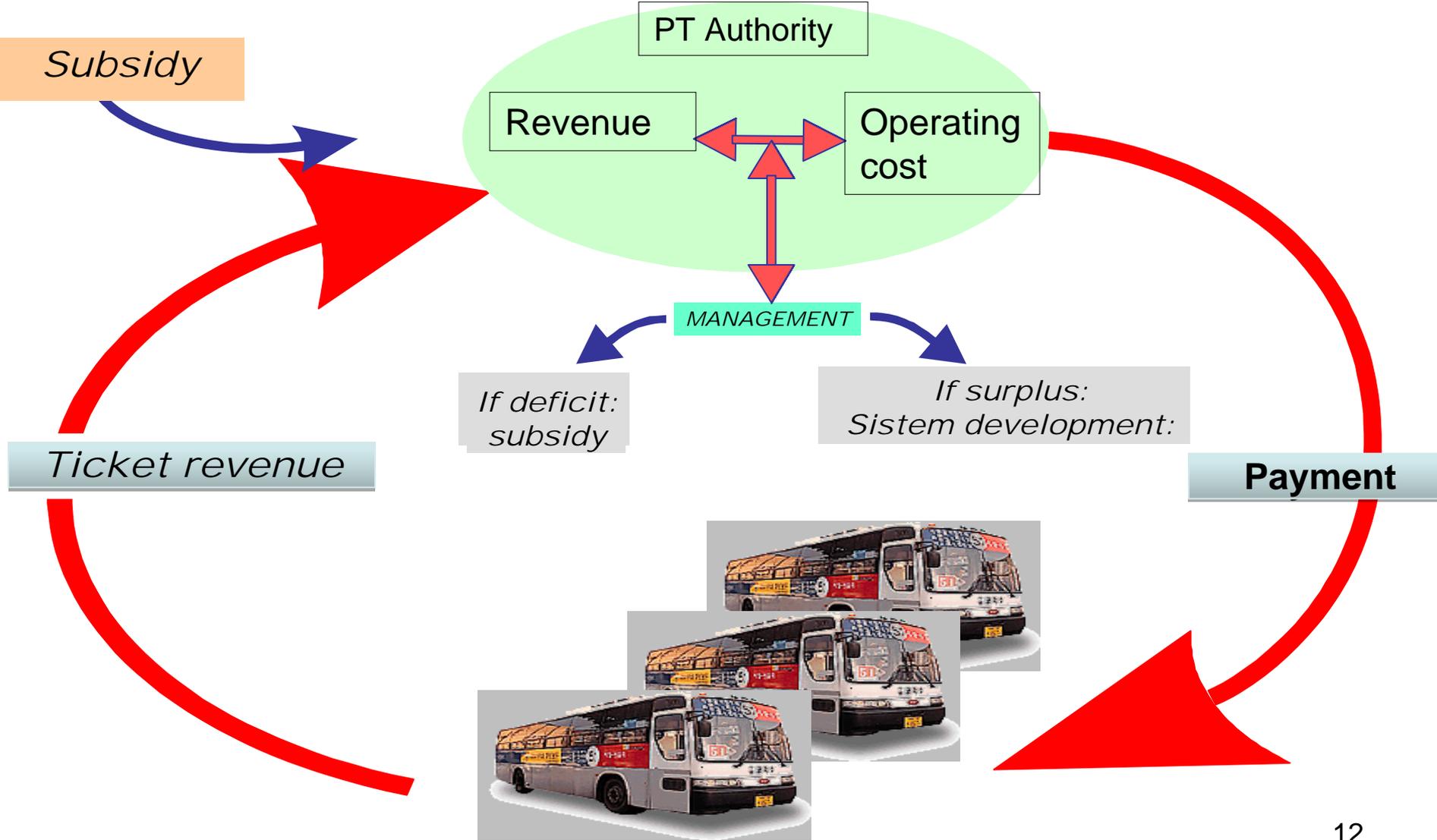


# TRANSJAKARTA BUSWAY AT A GLANCE



**Transfer Activities In "Harmoni Central Busway Transfer Station"**

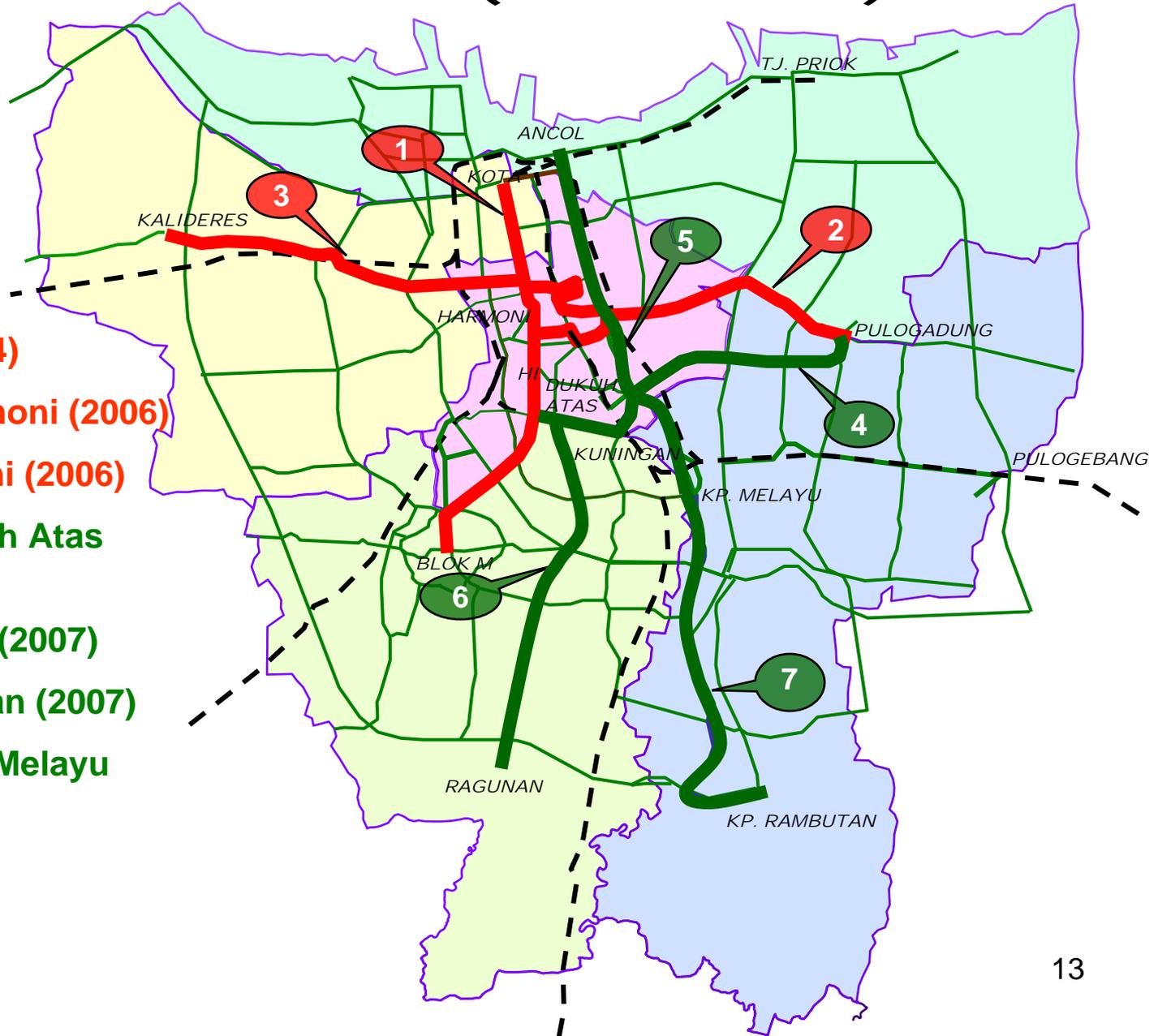
# BUY THE SERVICE



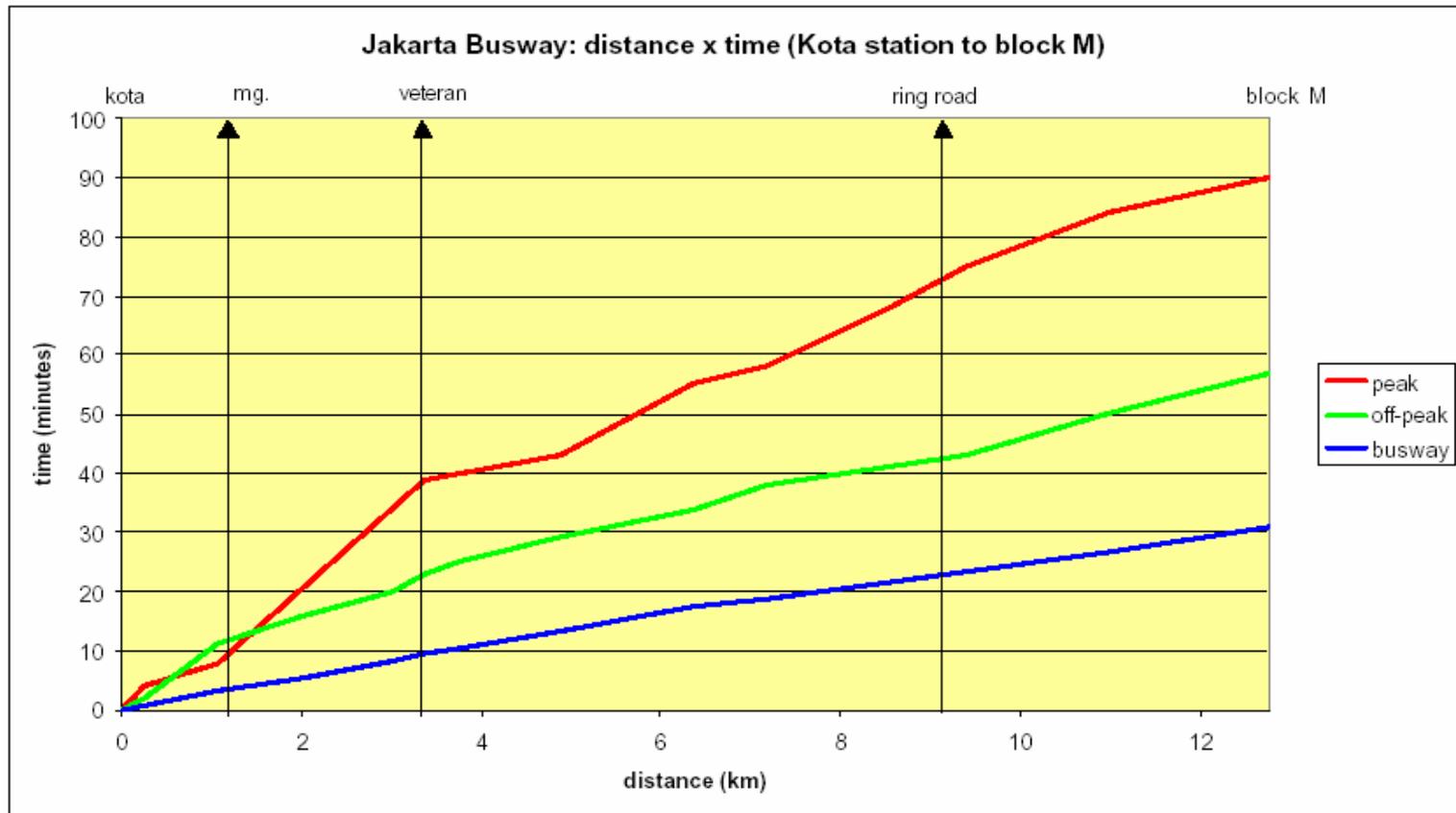
# BUSWAY CORRIDORS (UP TO 2007)

## 7 CORRIDORS :

1. Blok M – Kota (2004)
2. Pulogadung – Harmoni (2006)
3. Kalideres – Harmoni (2006)
4. Pulogadung - Dukuh Atas (2007)
5. Kp.Melayu – Ancol (2007)
6. Ragunan – Kuningan (2007)
7. Kp.Rambutan - Kp.Melayu (2007)



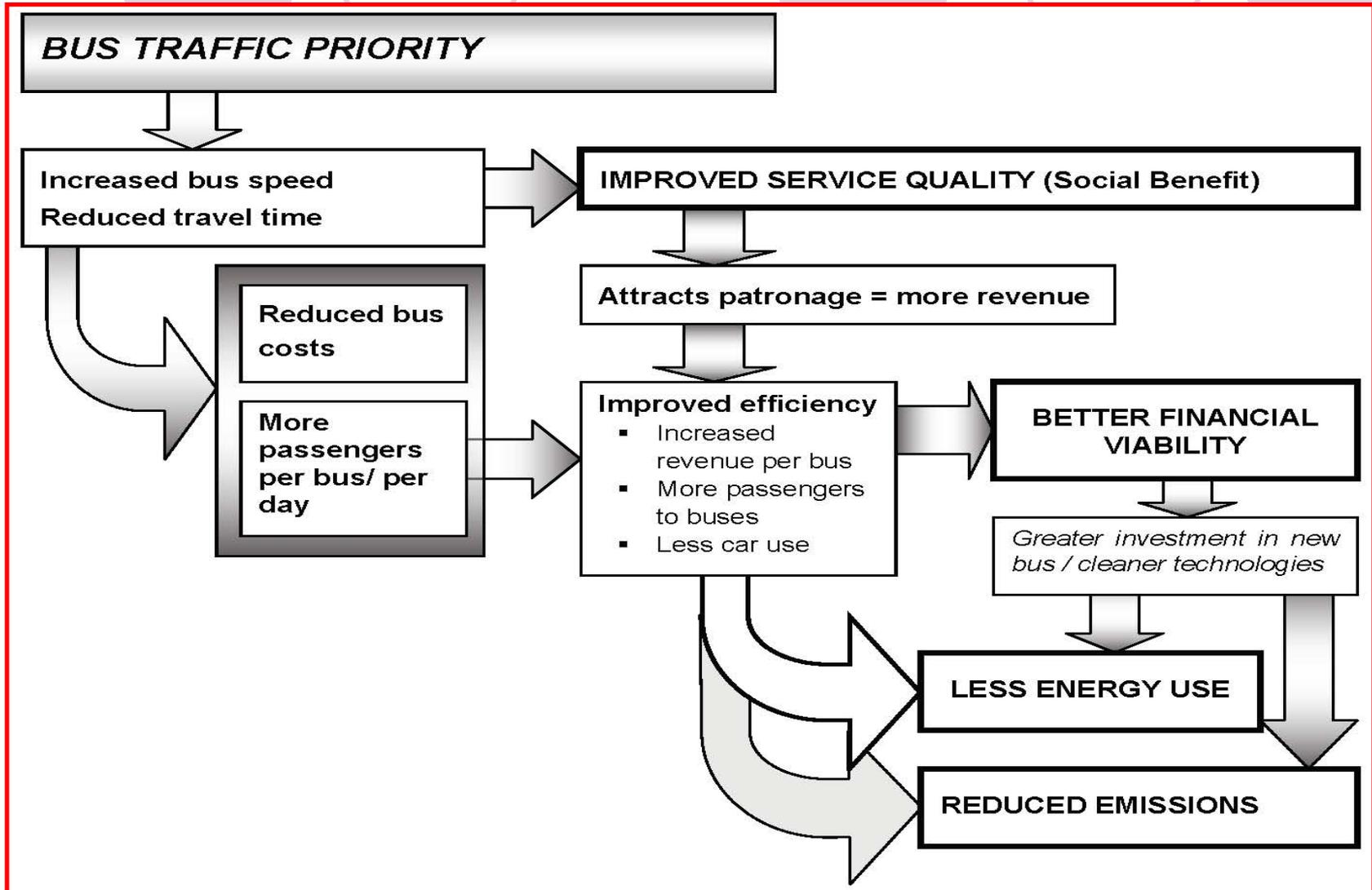
# Mass Transportation on Road Time Savings in Jakarta



# BUSWAY IMPACTS

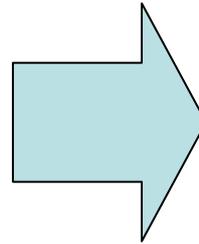
1. 14% of busway user shifted from private car (JICA)
2. Number of busway passenger increase significantly each year
3. Based on Institute for Transportation and Development Policy (ITDP) research, each year busway operation:
  - a. reduce emission 155 ton of Nox
  - b. reduce 23 ton of Particulate
  - c. reduce CO<sub>2</sub> emission up to 20,000 ton

# BRT Benefit



# BOGOR

-“Kota Sejuta Angkot”→  
 (“City of Paratransit”)  
Private/Personal Fleet ownership  
-Conventional Management



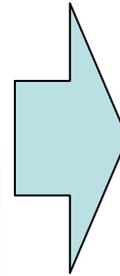
- Operating Urban Mass Transport,  
\* as a new transport mode,  
\* More comfortable (air conditioned buses)  
- New professional management  
\* Smart Card Ticketing System  
\* Scheduled Services  
- Using Biofuel (Waste Cooking oil)



# Yogyakarta

## Before: Services Of Paratransit

- \* Private/Personal Fleet Ownership
- \* Conventional Management
- \* Non Motorized Vehicles



- Operating Urban Mass Transport,
  - \* as a new transport mode,
  - \* More comfortable (air conditioned buses)
- Operated By a Consortium Company
- New professional management
  - \* Smart Card On-line Ticketing System
  - \* Scheduled Services
  - \* Public Private Partnership
  - \* Local governments coordination

# “TRANS JOGJA ”



## 5. FUTURE DEVELOPMENT

### A. BRT System Be Implemented in Other Big and Medium Cities, 2008 :

- **Metropolitan city : Jabodetabek**

- **Big Cities:**

Medan – North Sumatera;

Bandung – West Java;

Semarang – Central Java;

Surabaya – East Java;

Makassar – South Sulawesi;

**Medium Cities:** Pekanbaru, Surakarta, Manado

Elevated Busway on The Toll Road Network In Greater Jakarta → JABODETABEK

# FUTURE JABODETABEK BUSWAY DEVELOPMENT



- - - - - **Koridor A (Non Tol):** Cikupa-Bitung-Tangerang-Kalideres
- **Koridor A (Tol):** Cikupa-Bitung-Tol Merak→Jakarta-Grogol
- - - - - **Koridor B (Non Tol)** Serpong (BSD) - Puspittek-Pondok Cabe-Pondok Indah
- **Koridor B (Tol)** Serpong (BSD) -Tol Serpong→Jakarta-Ciledug
- - - - - **Koridor C (Non Tol)** Depok (Margonda)-Lenteng Agung-Ragunan
- - - - - **Koridor D (Non Tol)** Cibubur (Cileungsi) via Jl Raya Bogor-Kampung Rambutan
- **Koridor D (Tol)** Cibubur (Cileungsi) via Jl Tol Jagorawi-Kampung Rambutan
- - - - - **Koridor E (Non Tol)** Cikarang-Cibitung-Bekasi-Kalimalang/Pulo Gadung
- **Koridor E (Tol)** Cikarang-Tol Cikampek→ Jakarta-Kalimalang

Bogor, Depok, Bekasi and Tangerang physically and economically agglomerate to Jakarta form a megapolitan city of Jabodetabek.

The Transportation Masterplan should cater all megapolitan areas, and public transport operation serving to and from Jakarta to the urban fringes.

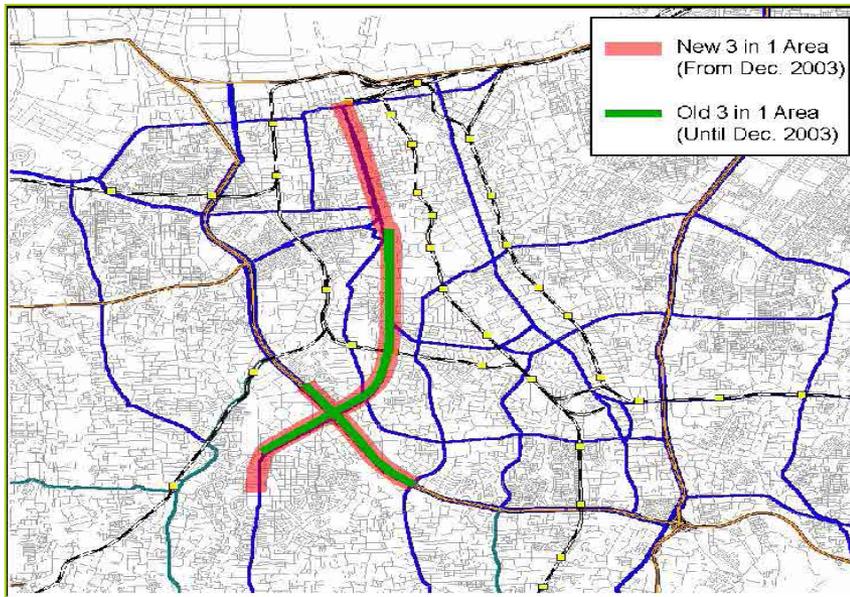


## B. Electronic Road Pricing (ERP)

- Area: Phase 1 replacing 3-in-1 scheme  
Phase 2: East – West (between railway lines)
- Charging Methods: Area Pricing
  - Target : Cars and Motorcycles
  - Operation Hours : 07:00-10:00;  
16:00-19:00 Mon-Fri.
- Benefit: Financial : IRR =23.4%, B/C=1.69, NPV=1274 billions Rps
- Expected Impacts: pull-out 20% traffic from area

# Jakarta 3-in-1 Scheme

Only vehicles with three or more passengers were allowed to enter the restricted road section



- 3 in 1 scheme will be replaced by Electronic Road Pricing in 2009
- Jabodetabek Toll-road will be equipped by Electronic Toll Collection System

# 3. Intelligent Transport System Development



- Jakarta
- Bandung
- Surabaya
- Batam
- Tegal
- Pekanbaru

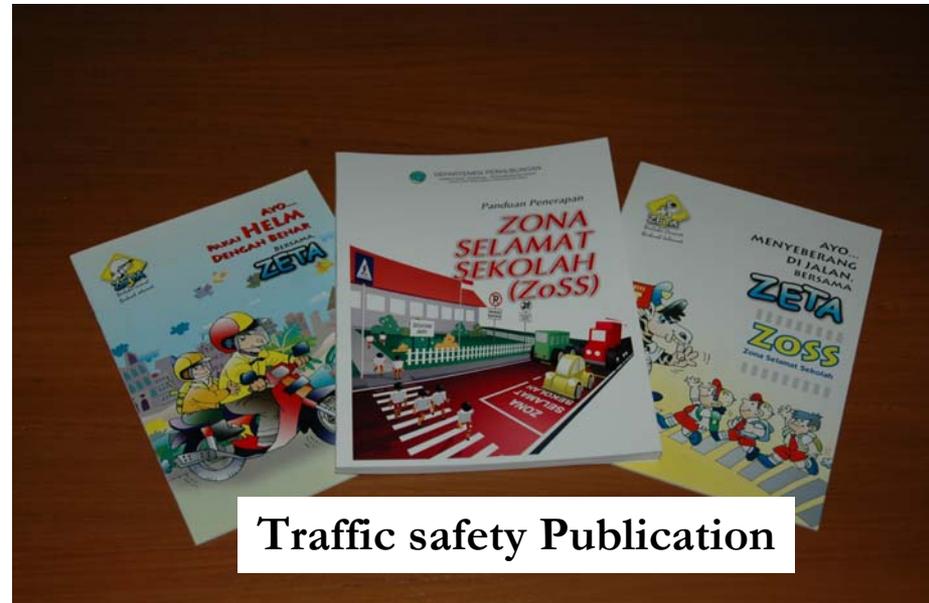
## 4. Traffic Safety for Children



Helmet for Kids



School Safety Zone



Traffic safety Publication

## 5. Improvement Of Motor Vehicle Technology, Inspection and Maintenance

- ❑ **Implementation EURO Standard for new production**
  - ❑ **EURO 2 at 2007;**
  - ❑ **EURO 4 at 2012 (plan);**
  - ❑ **EURO 5 at 2015 (plan).**
- ❑ **Implementation Compulsory Periodical Vehicle Inspection for Private Cars and Motorcycle under New Road Transport and Traffic Law**

## 6. Energy Diversification



Gas for Transport (CNG):  
1755 unit Converter Kit  
installed on taxis in Jakarta



Bio fuel (Bio-solar  
and Bio-ethanol) for  
government vehicles;



Waste Cooking Oil  
(BDF in Bogor)

**THANK YOU**

*TERIMA KASIH*