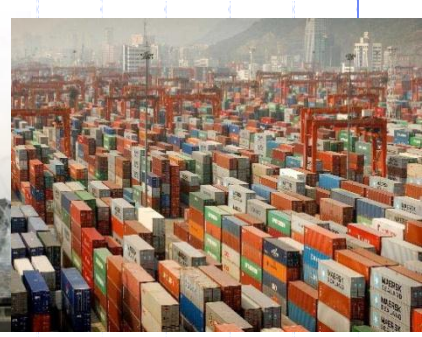




Ministry of Transportation (MOT)



# Sustainable Transport & Investment Opportunities in Indonesia

Presented at:  
High Level Symposium on Sustainable Cities  
Connecting People, Environment and Technology  
Japan, 15- 16 January 2015

**DR. Elly Sinaga, MSc**  
**Director General for Research and Development Agency**

# Outline

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

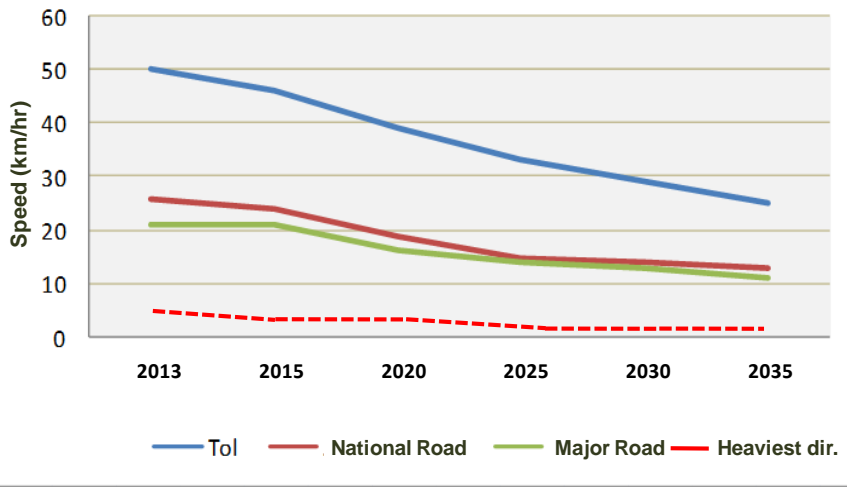
# Outline

## Transportation Overview: Facts and Problems

# Congestion, Fuel Consumption, and GHG

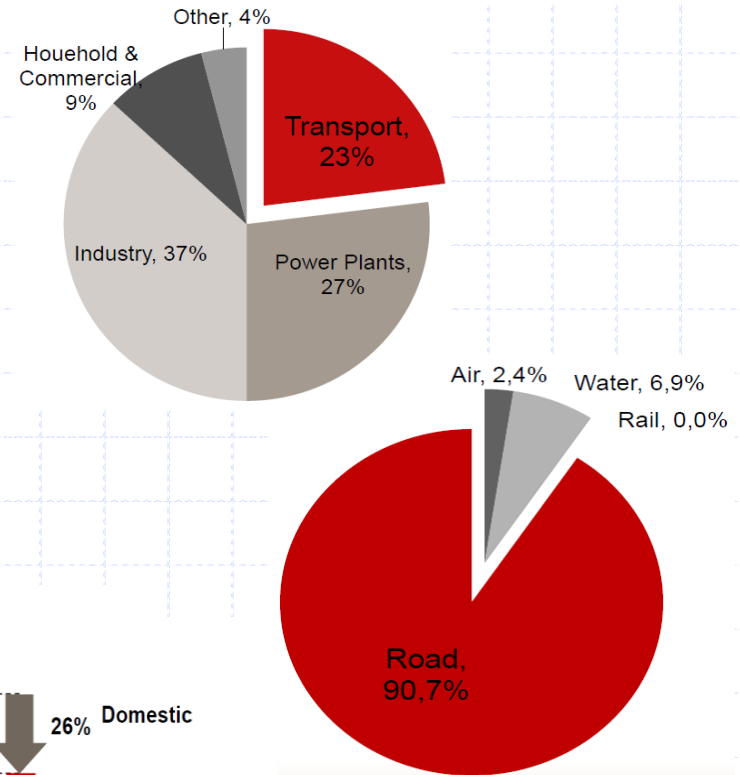
## Low Operational Speed of Urban Road

(Predicted Highway Network Performance<sup>1,2</sup>)

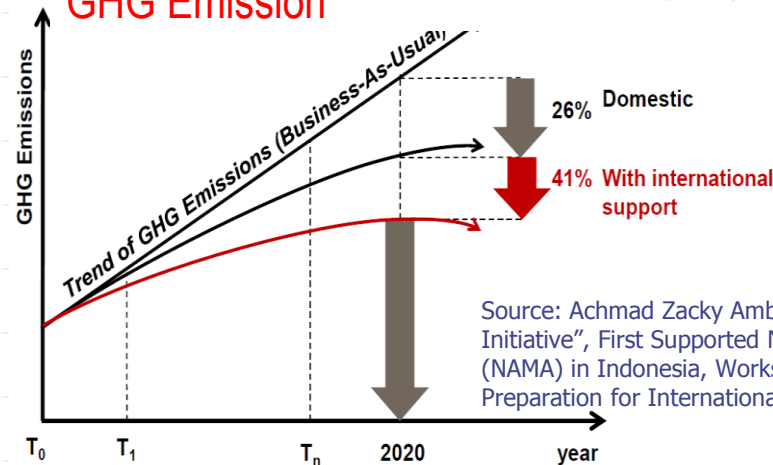


<sup>1</sup>Base Network in 2013  
<sup>2</sup>Average value (Arithmetic mean)

## Fuel Consumption



## GHG Emission

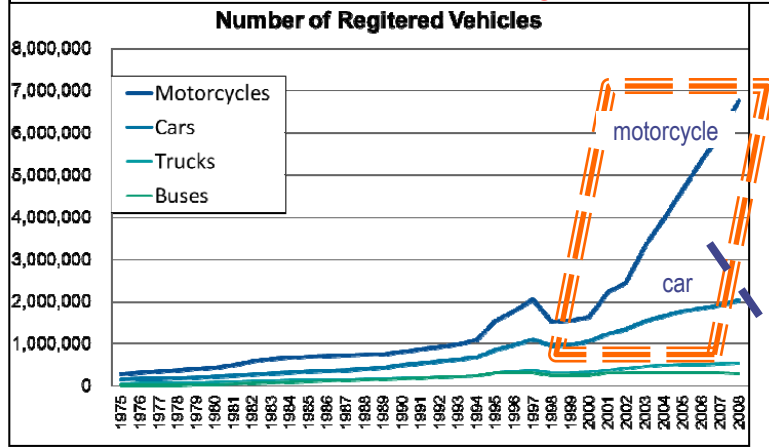


Source: Achmad Zacky Ambadar, "Sustainable Urban Transport Initiative", First Supported Nationally Appropriate Mitigation Action (NAMA) in Indonesia, Workshop on Capacity Development of NAMAs Preparation for International Support, Jakarta 7 May 2013

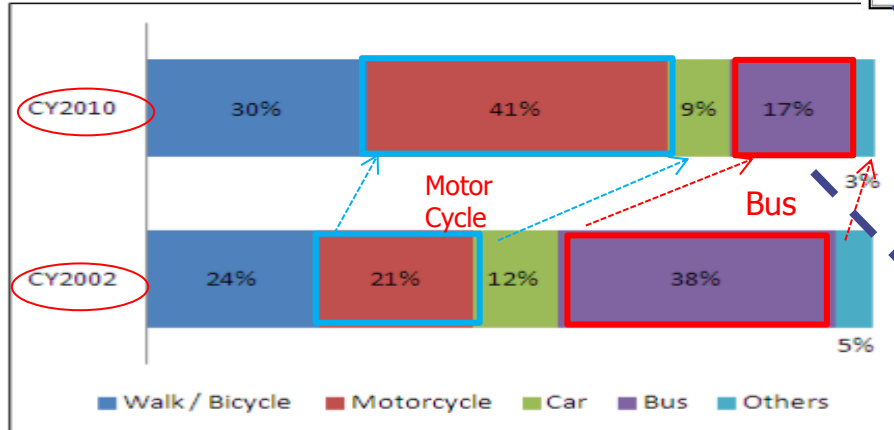
The global climate agreement requires national strategies for sustainable growth.

# Greater Jakarta (Jabodetabek) Transportation Outlook

## Sharp Increase in Vehicle Registered

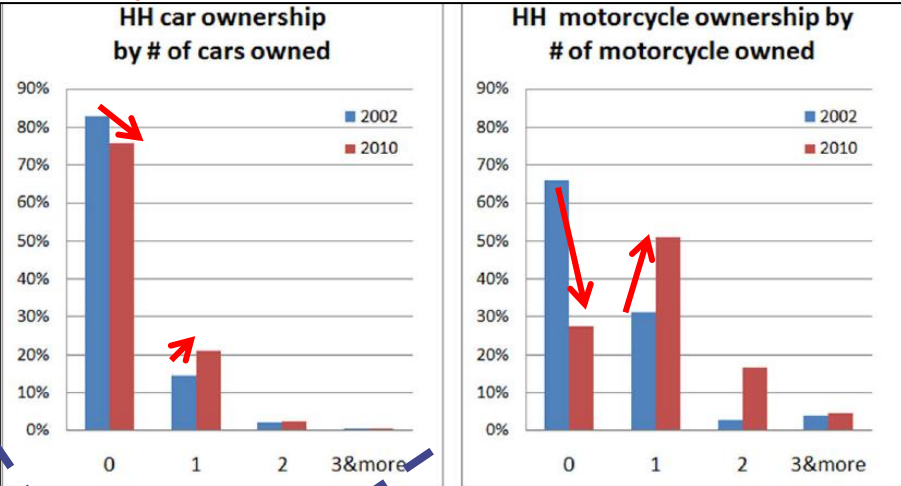


## Very Dramatic Modal Shifting (including NMT)



Source: STRAMP Person Trip Survey, JUTPI Commuter Survey

## Significant Increase in Household Car and Motorcycle Ownership



Source: JUTPI Commuter Survey 2010

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

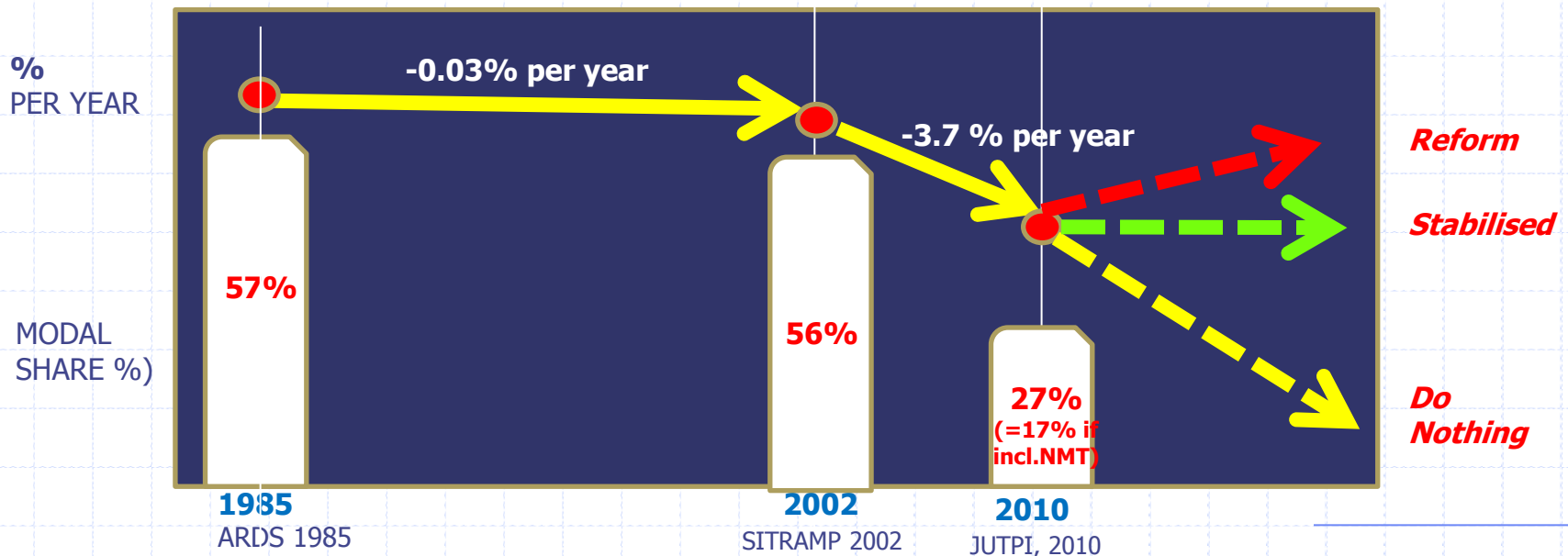
# Policy on Urban Mass Transit

## 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%)

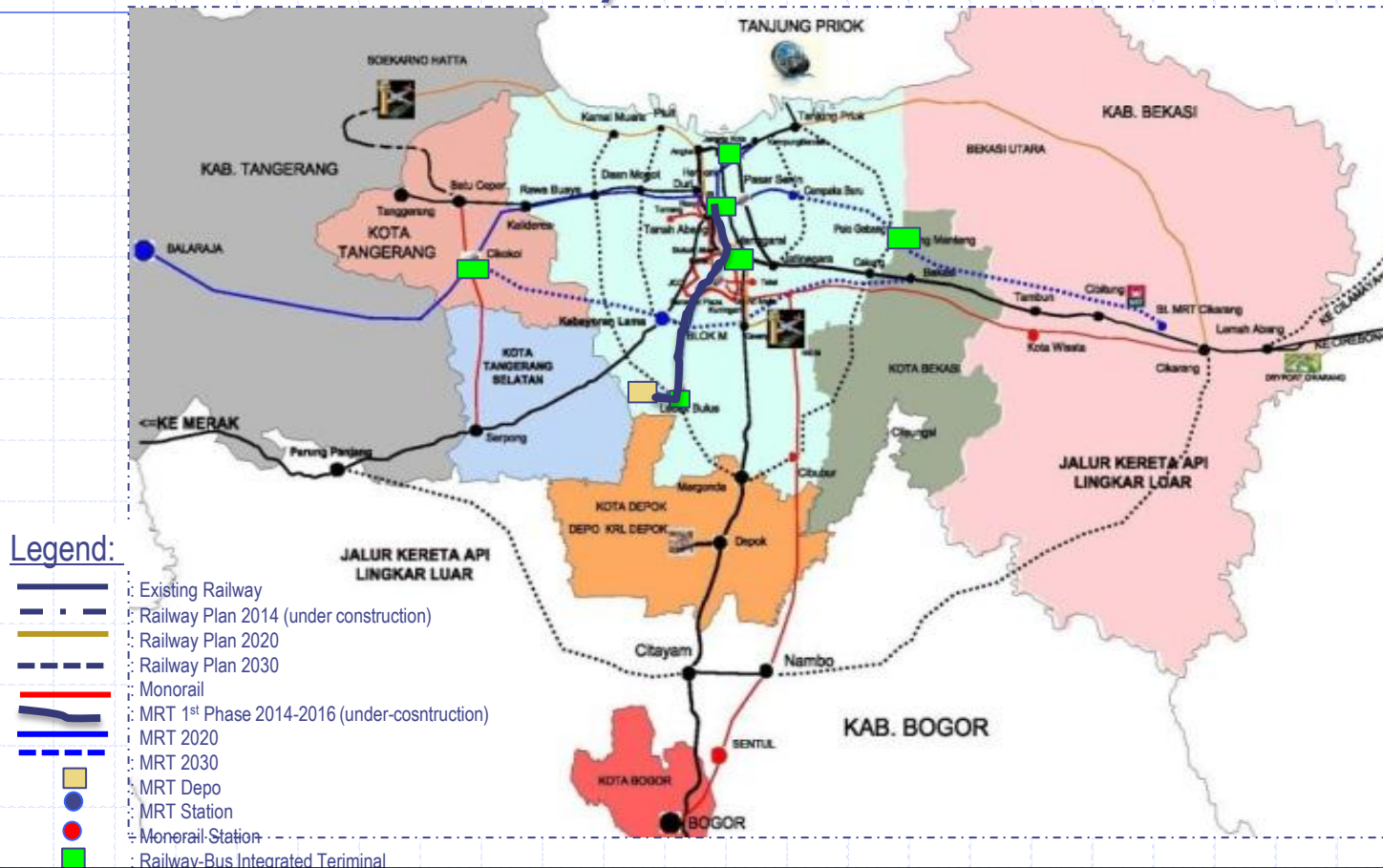
Source: Bappenas

## Jabodetabek Public Transportation Modal Share (%), excluding NMT





# Jabodetabek Railway Network Plan 2014 – 2030



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

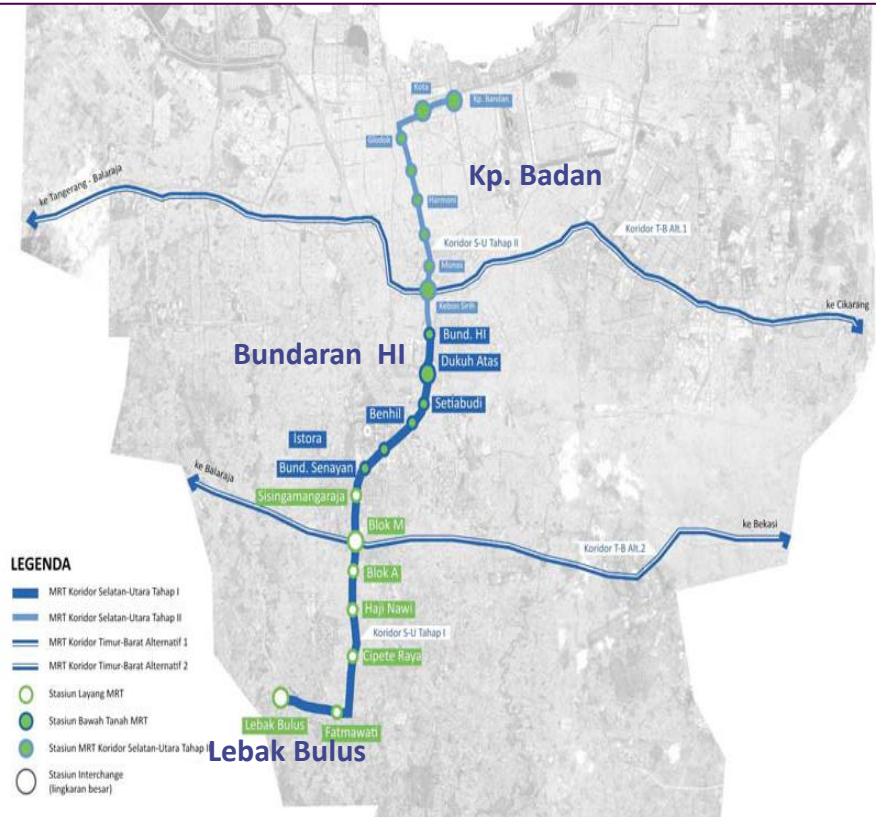
Corridor South – North : 23.3 Km (Lebak Bulus – Kampung Bandan)

- 1<sup>st</sup> Phase: (15,2 Km) : Lebak Bulus - Bundaran HI (Target of Operation : 2016)
- 2<sup>nd</sup> Phase: ( 8,1 Km) : Bundaran HI - Kampung Bandan (Target of Operation: 2018)

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

Division	South-North Corridor (Total Length : 23.3 km)	
	1 <sup>st</sup> Phase Lebak Bulus - Bundaran HI	2 <sup>nd</sup> Phase Bundaran HI - Kampung Bandan
Length of Track	15.2 km (Elevated : 9.2 km, Underground : 6 km)	8.1 km
Station	13 (Elevated : 7, Underground : 6)	+8 (Elevated : +1, Underground : +7)
Travel Time	30 minutes	+22.5 minutes
Distance between Stations	0.5~2 km	0.8~2.4 km
Headway	5 minutes	5 minutes
Target Passenger / day	412,700 (2020, after 3 years operation)	629,900 (2037)
	Traffic Demand Management (TDM) and Transit Oriented Development (TOD)	
Operation Target	2016	2018

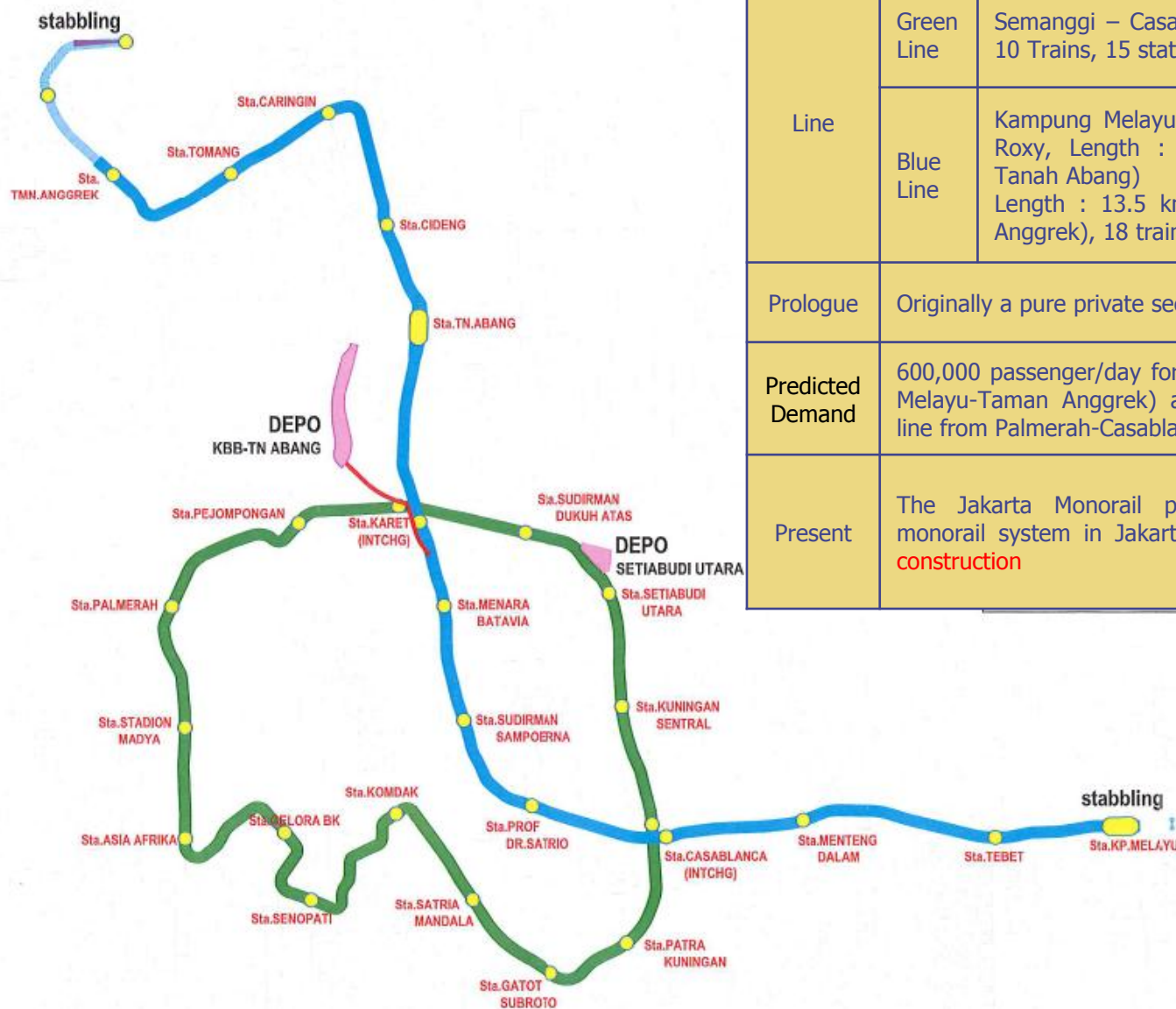
Source : MRT Jakarta and the Department of Transportation of Jakarta, Capital City Government



## Target:

- ☐ Cater: 173,000 pax per day in first operation
- ☐ Reduce travel time to 28 min ( from Lebak Bulus o 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

# Monorail Planning (Jakarta )



Line	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 Angrek), 18 trains, 13 stations
Prologue	Originally a pure private sector venture	
Predicted Demand	600,000 passenger/day for both Blue Line (Kampung Melayu-Taman Angrek) and for Green Line (circle line from Palmerah-Casablanca-Senayan)	
Present	The Jakarta Monorail planned 29 km, two-line monorail system in Jakarta Indonesia that is <b>under construction</b>	

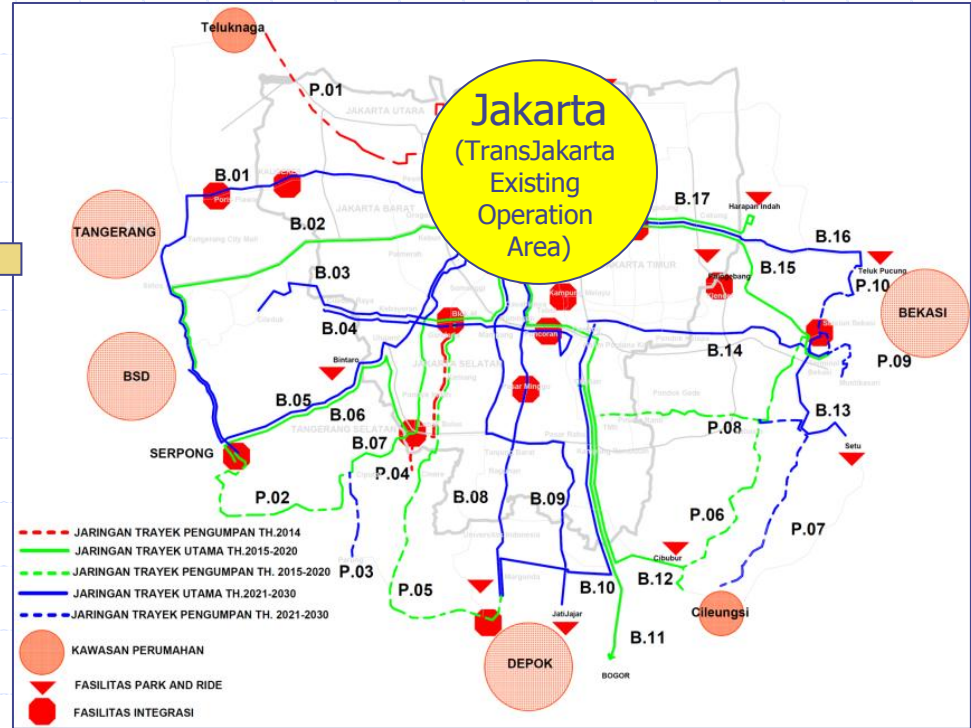
# Jakarta Metropolitan BRT Network Plan 2014 – 2019

JAKARTA BRT (TransJakarta)

Jakarta  
(TransJakarta  
Existing  
Operation  
Area)

Current: 12 corridors

Blok M - Kota  
 P.Gadung - Harmoni  
 Kalideres - Harmoni  
 P.Gadung - Dukuh Atas  
 Kp.Melayu - Ancol  
 Ragunan - Kuningan  
 Kp.Melayu - Kp.Rambutan  
 Lebak Bulus - Harmoni  
 Pinangranti - Pluit  
 Cililitan - Tanjung Priok  
 Ciledug - Blok M  
 Kalimalang - Blok M  
 Depok - Manggarai  
 Pulo Gebang - Kp.Melayu  
 Tanjung Priok - Pluit



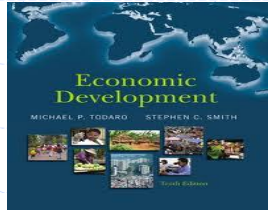
- Corridors 11, 12 and 13 of TransJakarta are proposed to be elevated and cross the city border (Tangerang, Bekasi, Depok) > problems of implementation

Need coordination agency or authority

# The Challenges and Opportunities



# Indonesia Transportation Development Challenges



High Economic Growth



Bonus Demography



Rapid Urbanisation



Privatization Policy



Infrastructure Deficit

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



Area disparity



Energy & Environment



Economic Corridors

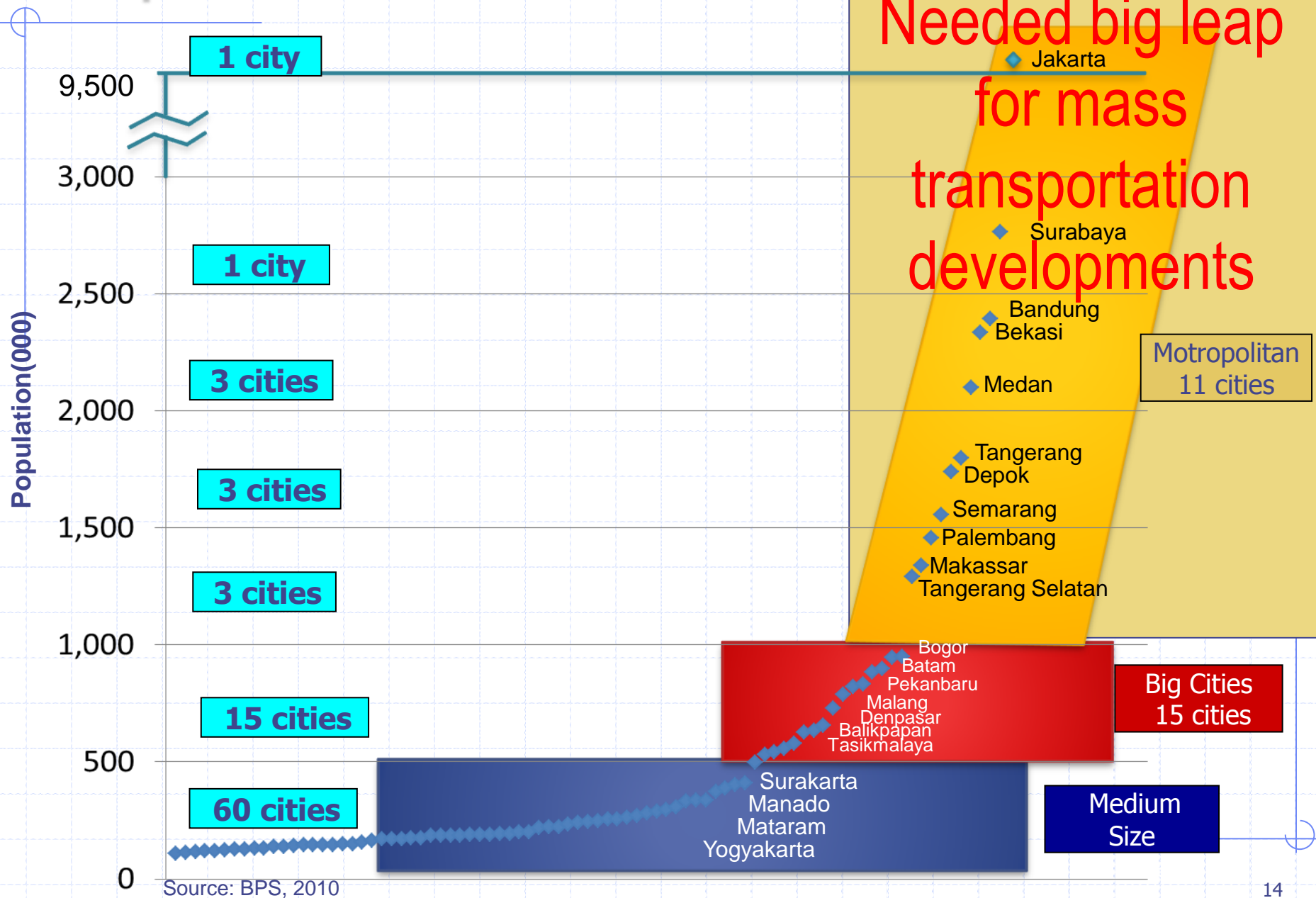


Special Economic Zones



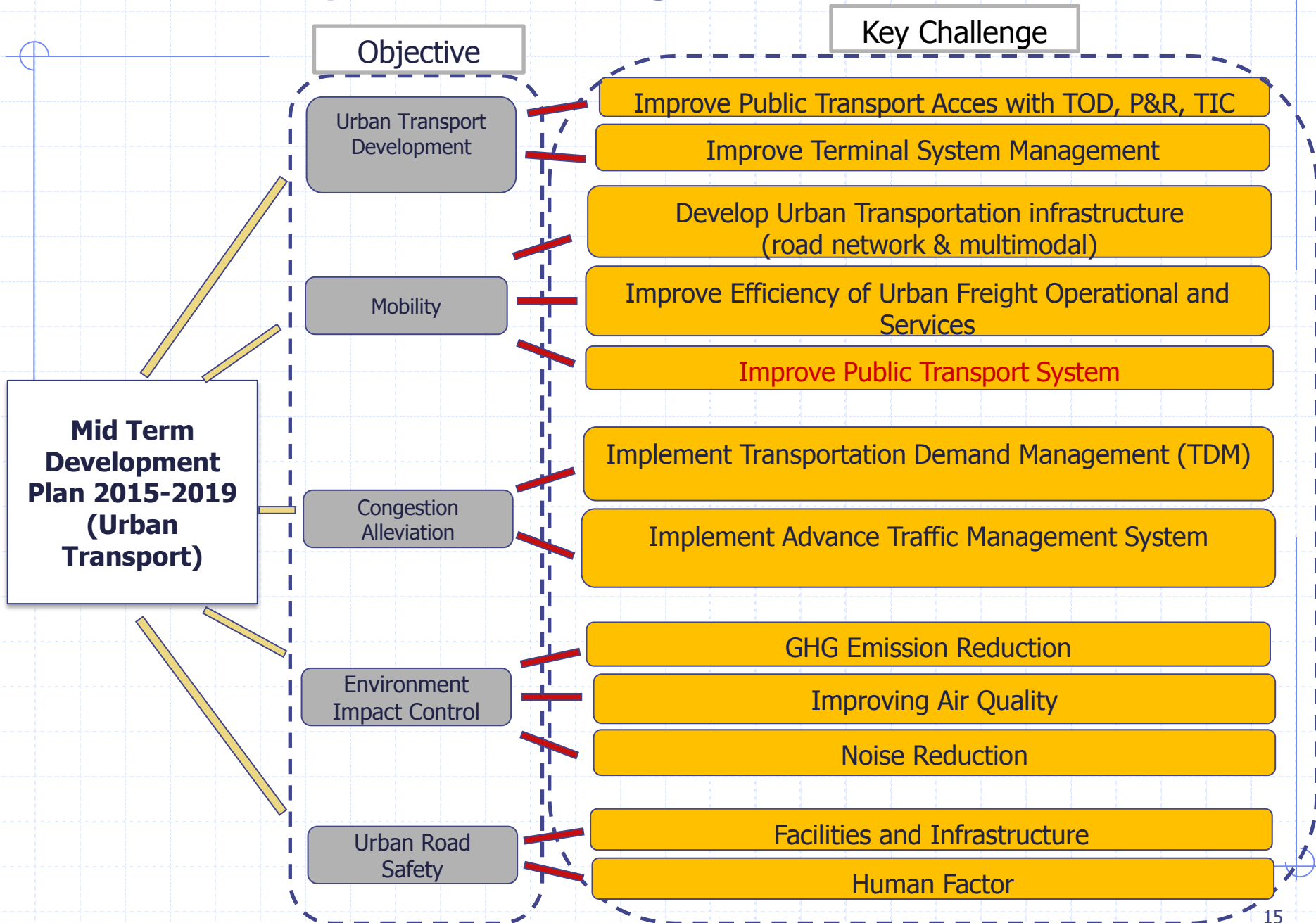
Unemployment & underdevelopment

# Rapid Urbanisation





# Urban Transport Challenges



# Fuel Subsidy

- ◆ **Big proporsion 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**

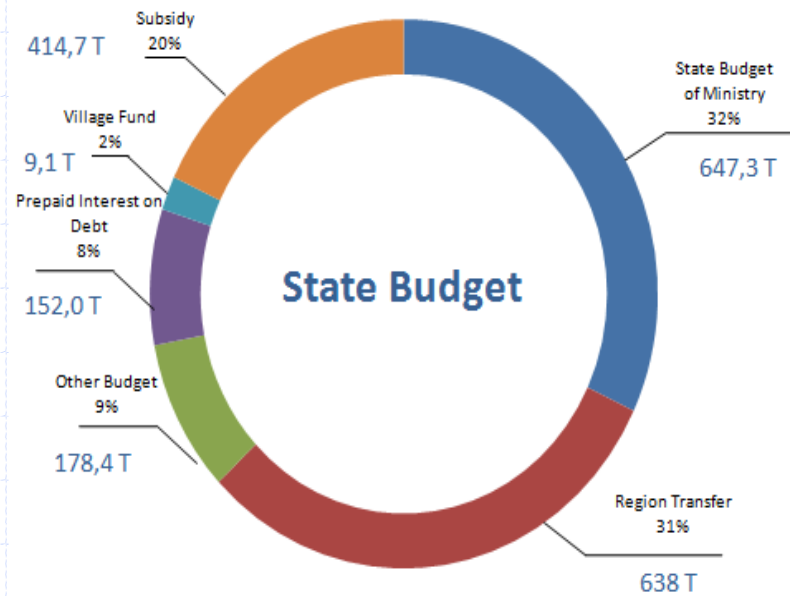
## Fuel Subsidy

Fuel Quota

46 Million Kilolitre

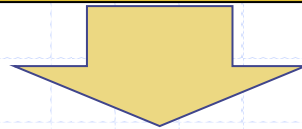
IDR 6.500 up to  
IDR 7.600

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**



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



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



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



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



**Providing transportation facilities using local production industry**

# PUBLIC TRANSPORT IMPROVEMENT



## **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 Makassar.



**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***