



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

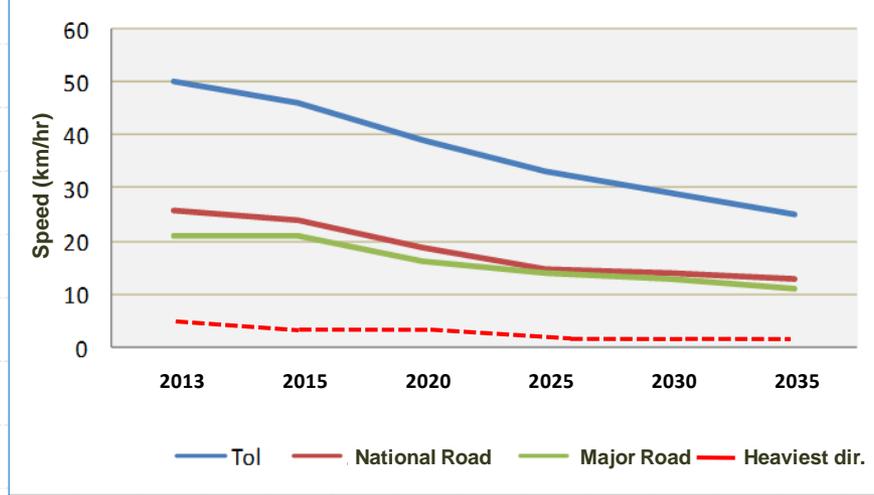
Outline

Transportation Overview: Facts and Problems

Congestion, Fuel Consumption, and GHG

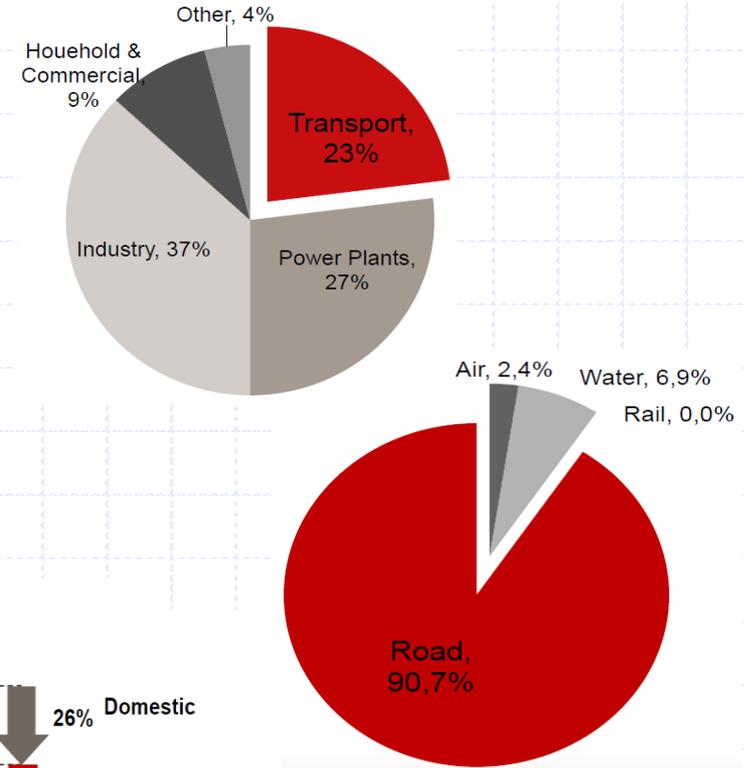
Low Operational Speed of Urban Road

(Predicted Highway Network Performance^{1,2})

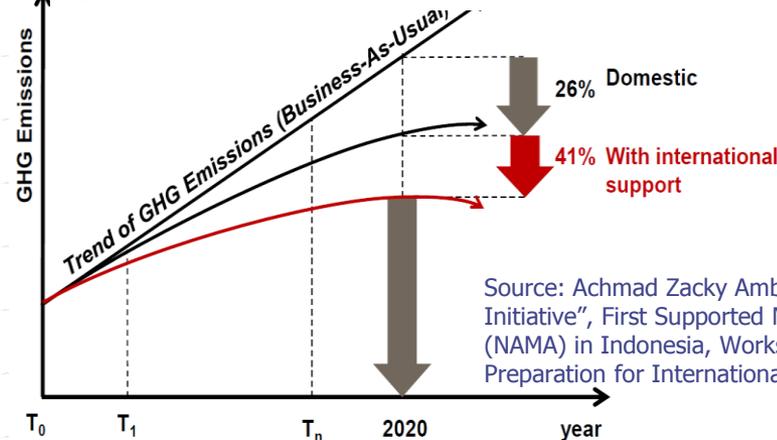


¹Base Network in 2016
²Average value (Arithmetic mean)

Fuel Consumption



GHG Emission

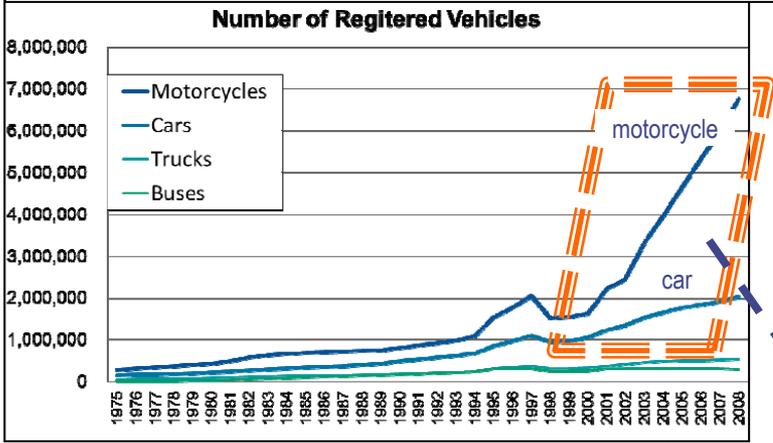


Source: Achmad Zacky Ambadar, "Sustainable Urban Transport Initiative", First Supported Nationally Appropriate Mitigation Action (NAMA) in Indonesia, Workshop on Capacity Development of NAMAs Preparation for International Support, Jakarta 7 May 2013

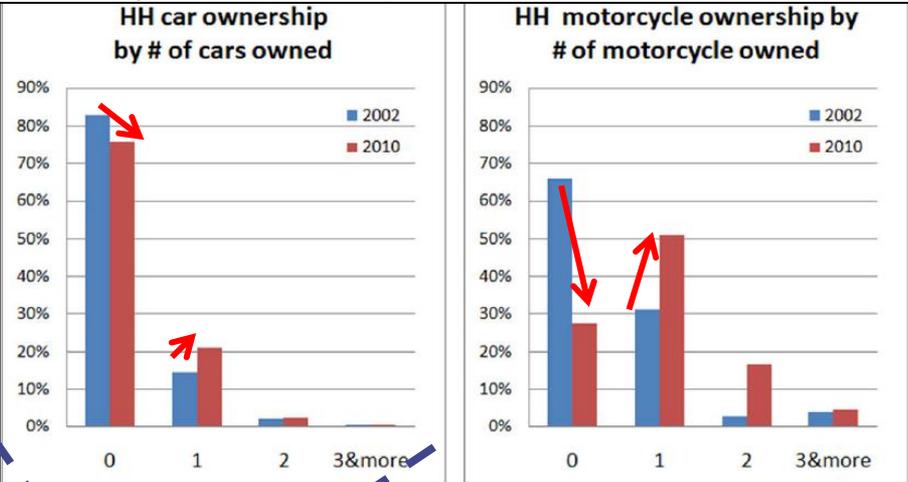
The global climate agreement requires national strategies for sustainable growth.

Greater Jakarta (Jabodetabek) Transportation Outlook

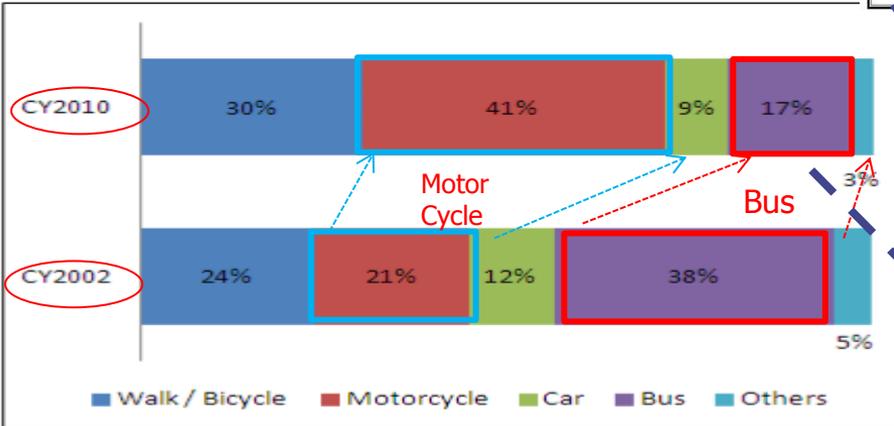
Sharp Increase in Vehicle Registered



Significant Increase in Household Car and Motorcycle Ownership



Very Dramatic Modal Shifting (including NMT)



Source: STRAMP Person Trip Survey, JUTPI Commuter Survey

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

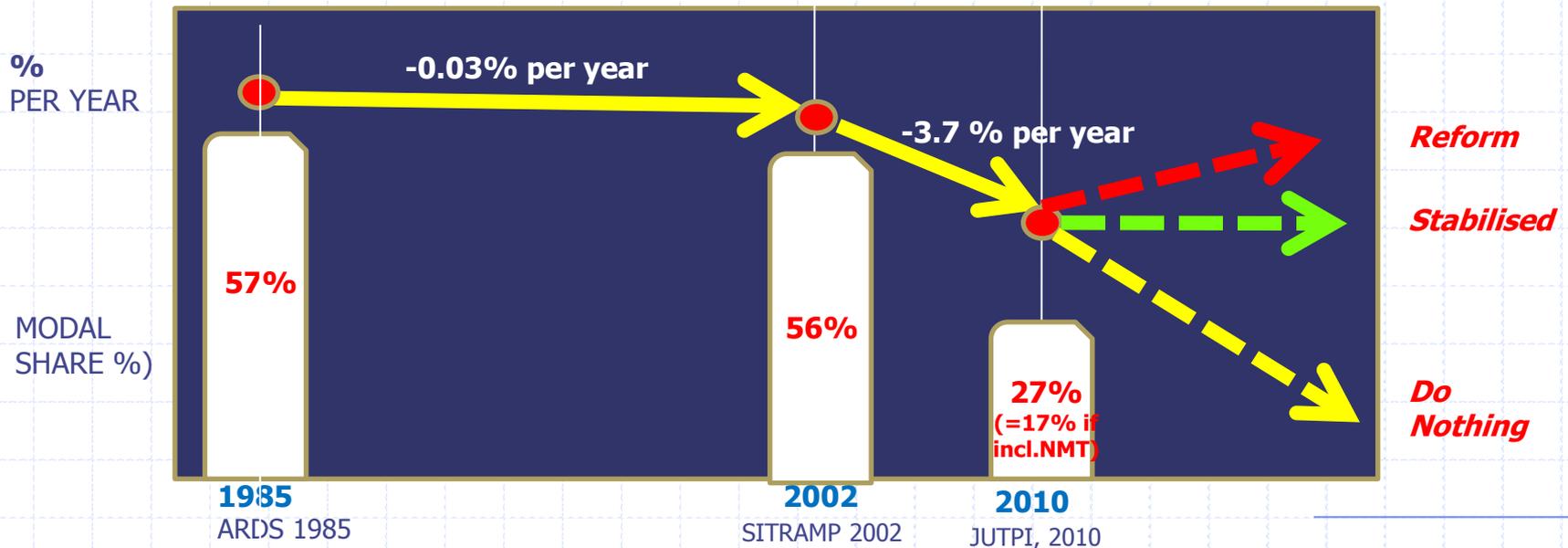
Policy on Urban Mass Transit

National Urban Transport Policy

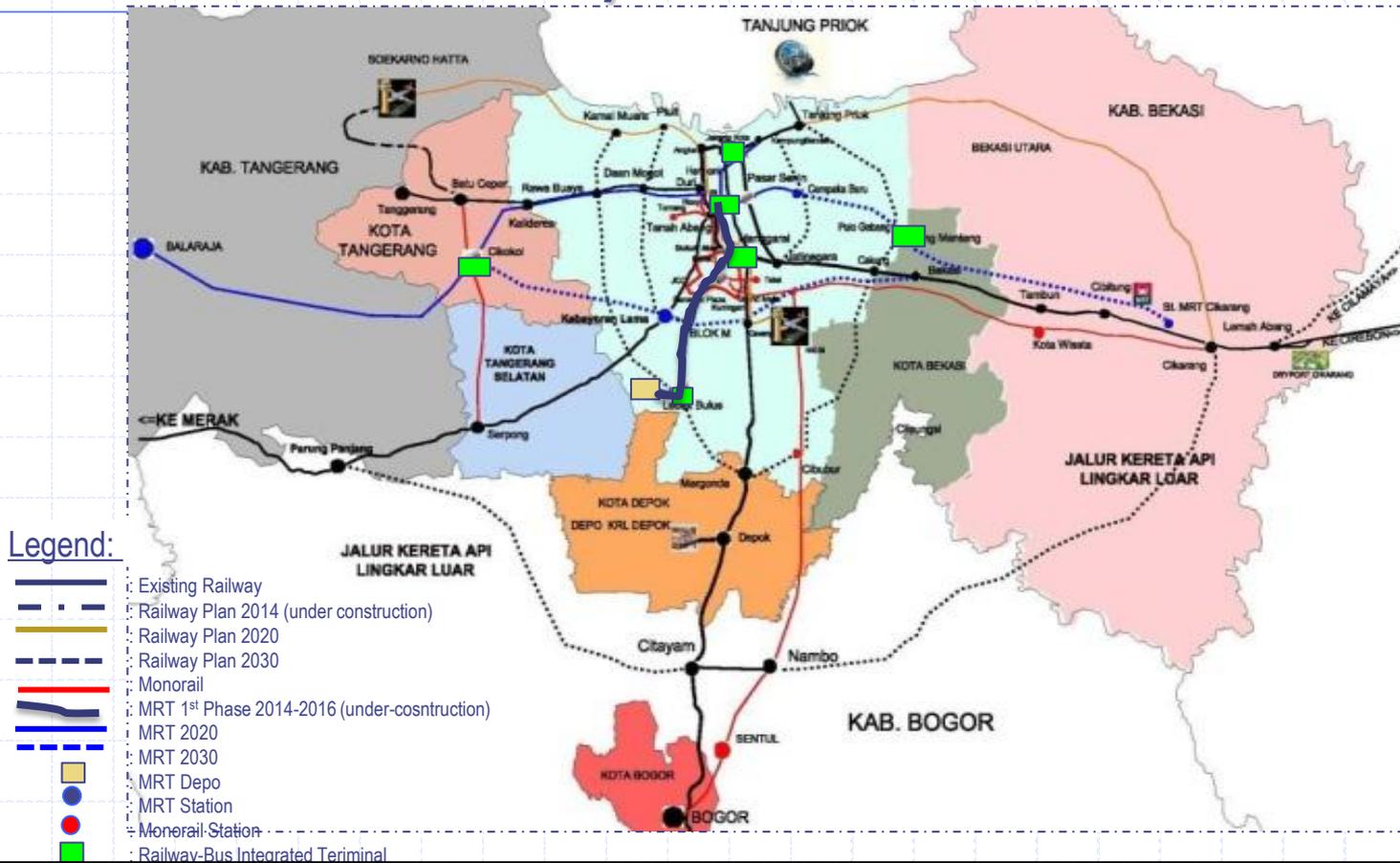
- ◆ Increase urban mass transit services (target : public transport share increases from 23% percent to 32 percent).
- ◆ Increase urban mobility (target: travel speed increases from 8.3 km / hour to 20 km/hour)
- ◆ Reducing greenhouse gas emissions (target: GHG decreases 26%)

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

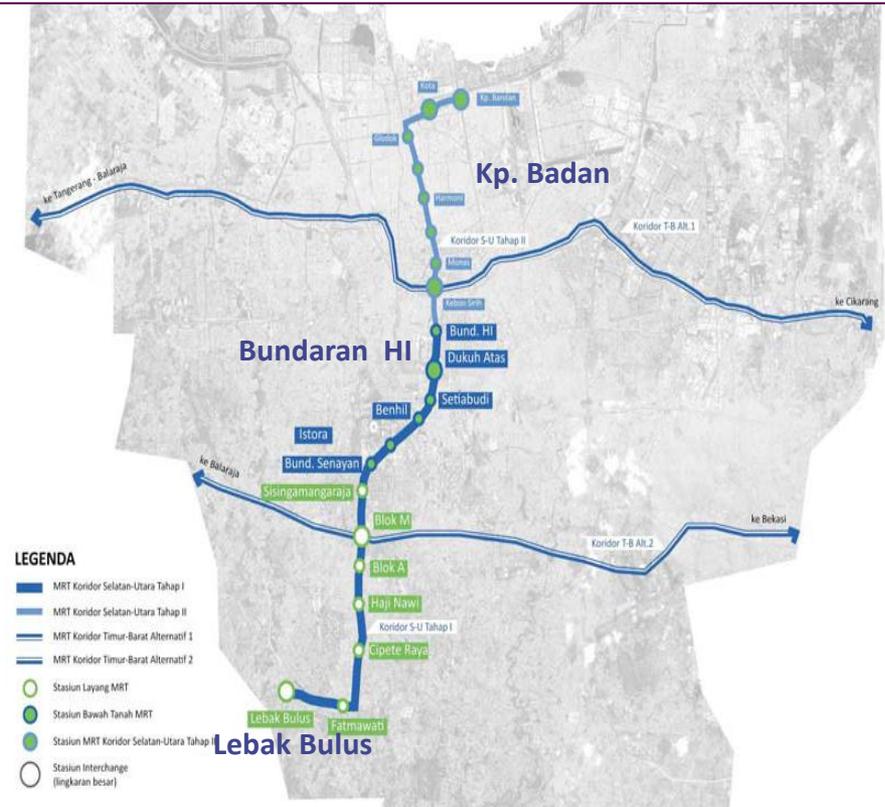
Corridor South – North : 23.3 Km (Lebak Bulus – Kampung Bandan)

- 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)

Division	South-North Corridor (Total Length : 23.3 km)	
	1 st Phase Lebak Bulus - Bundaran HI	2 nd 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

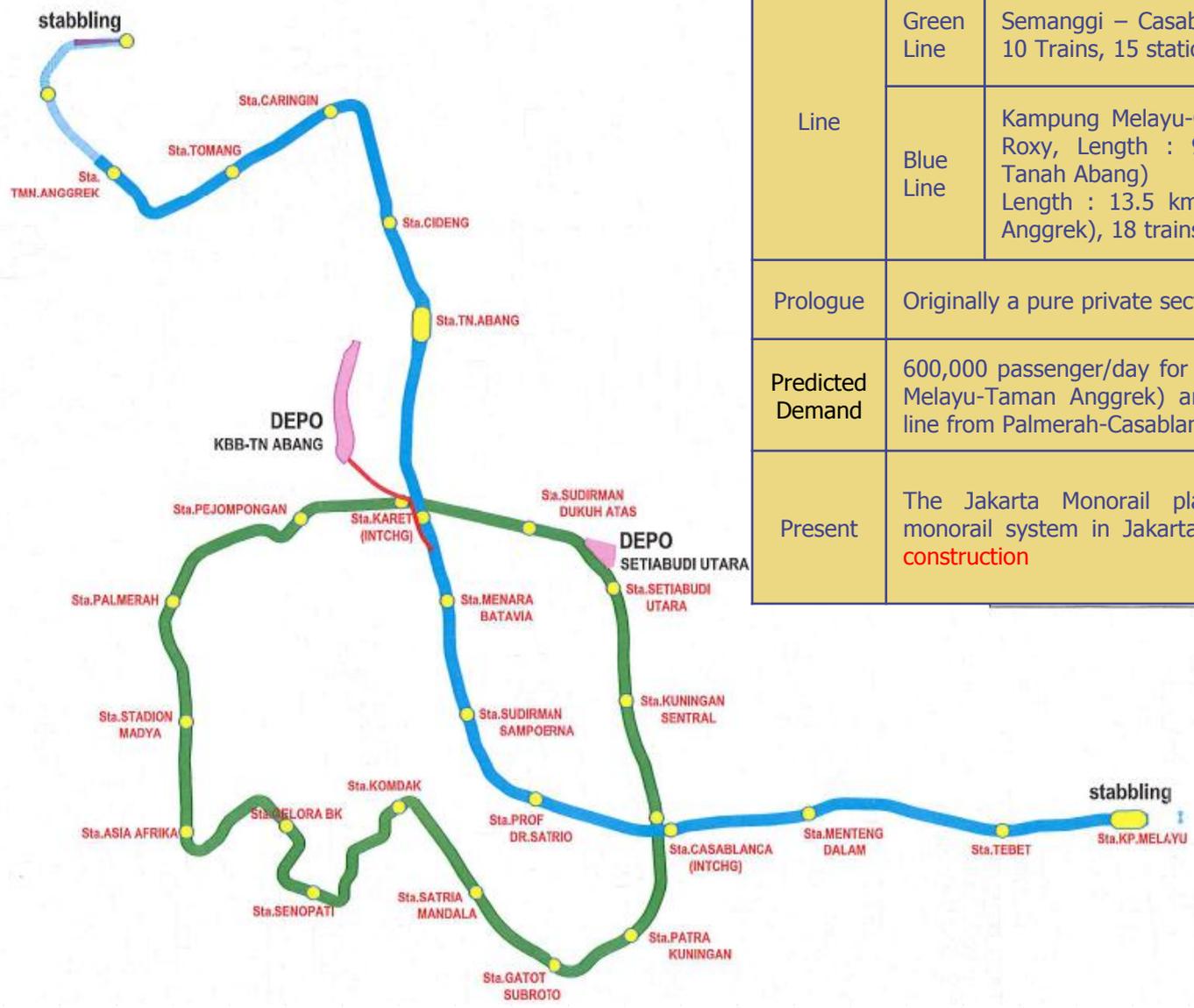
Source : MRT Jakarta and the Department of Transportation of Jakarta, Capital City Government



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)

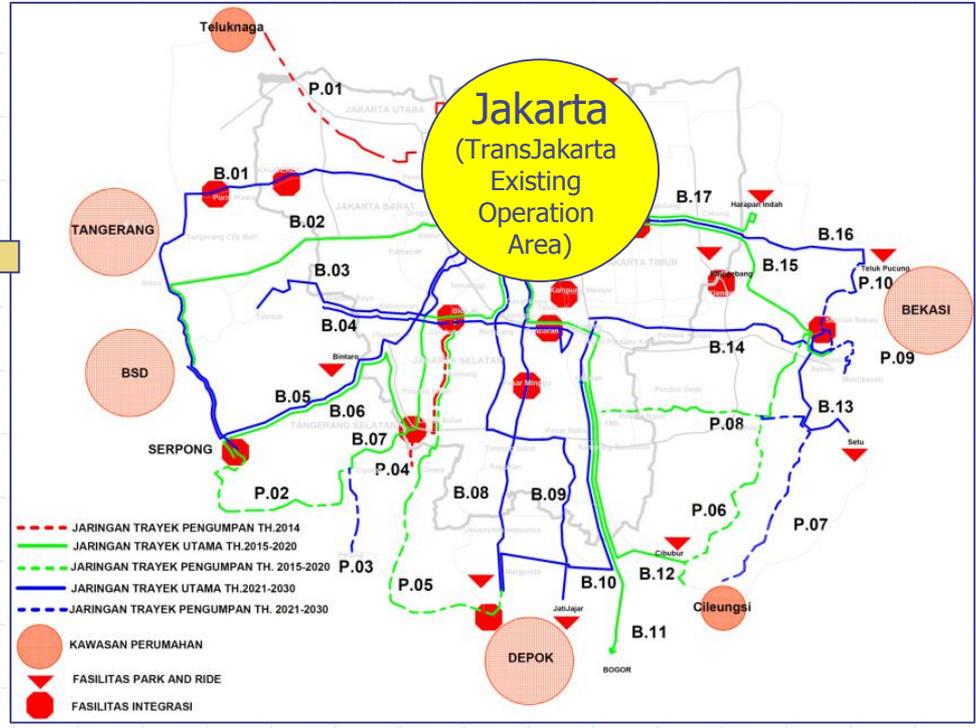


	Green Line	Semanggi – Casablanca, Length : 14.3 km, 10 Trains, 15 stations
Line	Blue Line	Kampung Melayu-Casablanca-Tanah Abang-Roxy, Length : 9.7 km, 11 stations (to Tanah Abang) Length : 13.5 km, 15 stations (to Taman Angrek), 18 trains, 13 stations
Prologue	Originally a pure private sector venture	
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 under construction	

Source : transport_jakarta_en, http://www.asianhumannet.org/db/datas/9_transport/transport_jakarta_en.pdf

Jakarta Metropolitan BRT Network Plan 2014 – 2019

JAKARTA BRT / TransJakarta

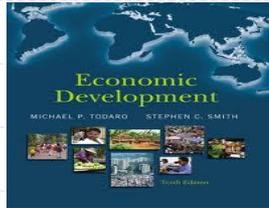


- Corridors 11, 12 and 13 of TransJakarta are proposed to be elevated and cross the city border (Tangerang, Bekasi, Depok) > problems of implementation

Need coordination agency or authority

The Challenges and Opportunities

Indonesia Transportation Development Challenges



High Economic Growth



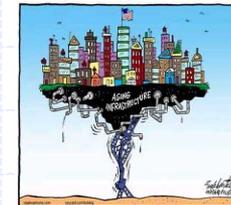
Bonus Demography



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

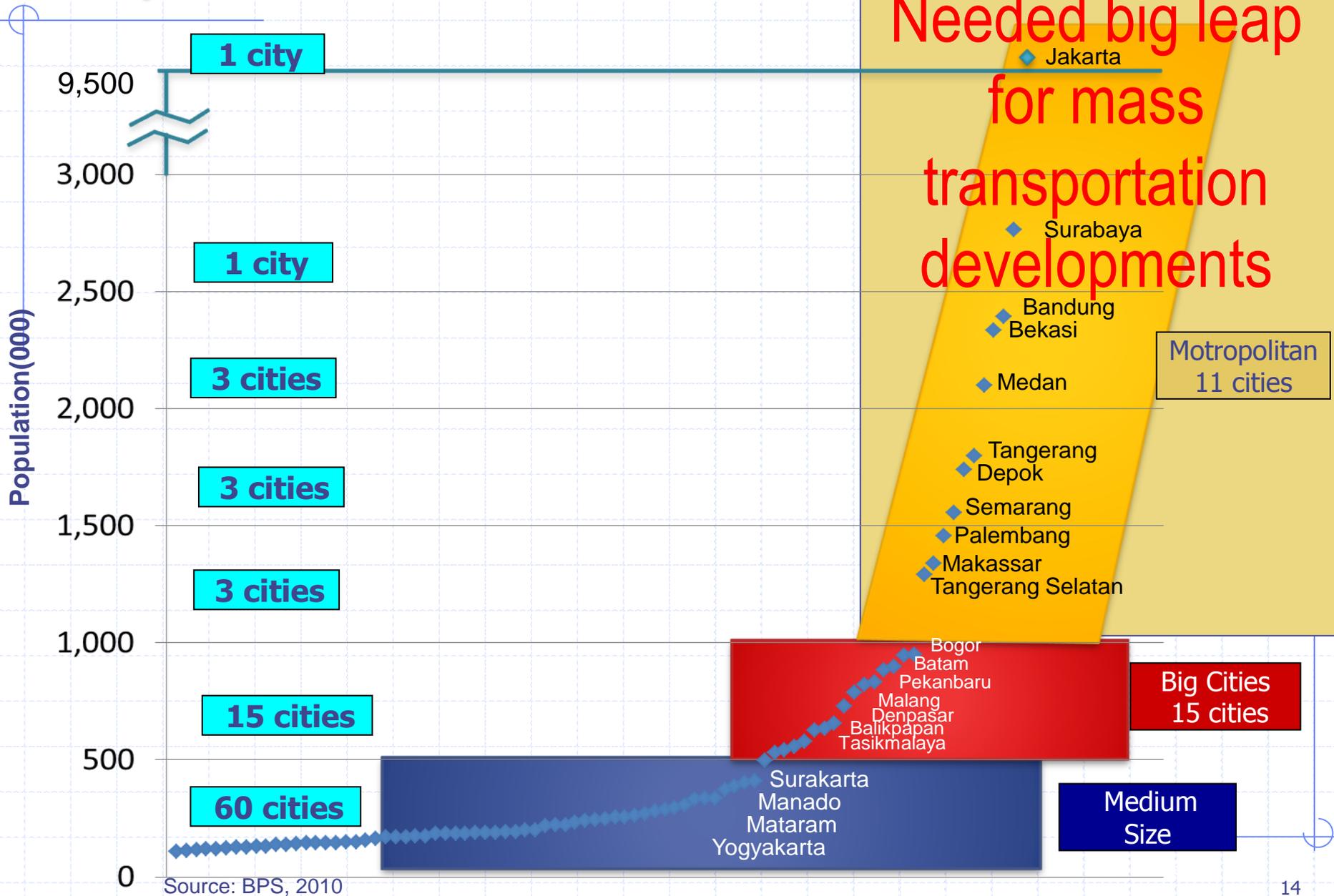


Special Economic Zones

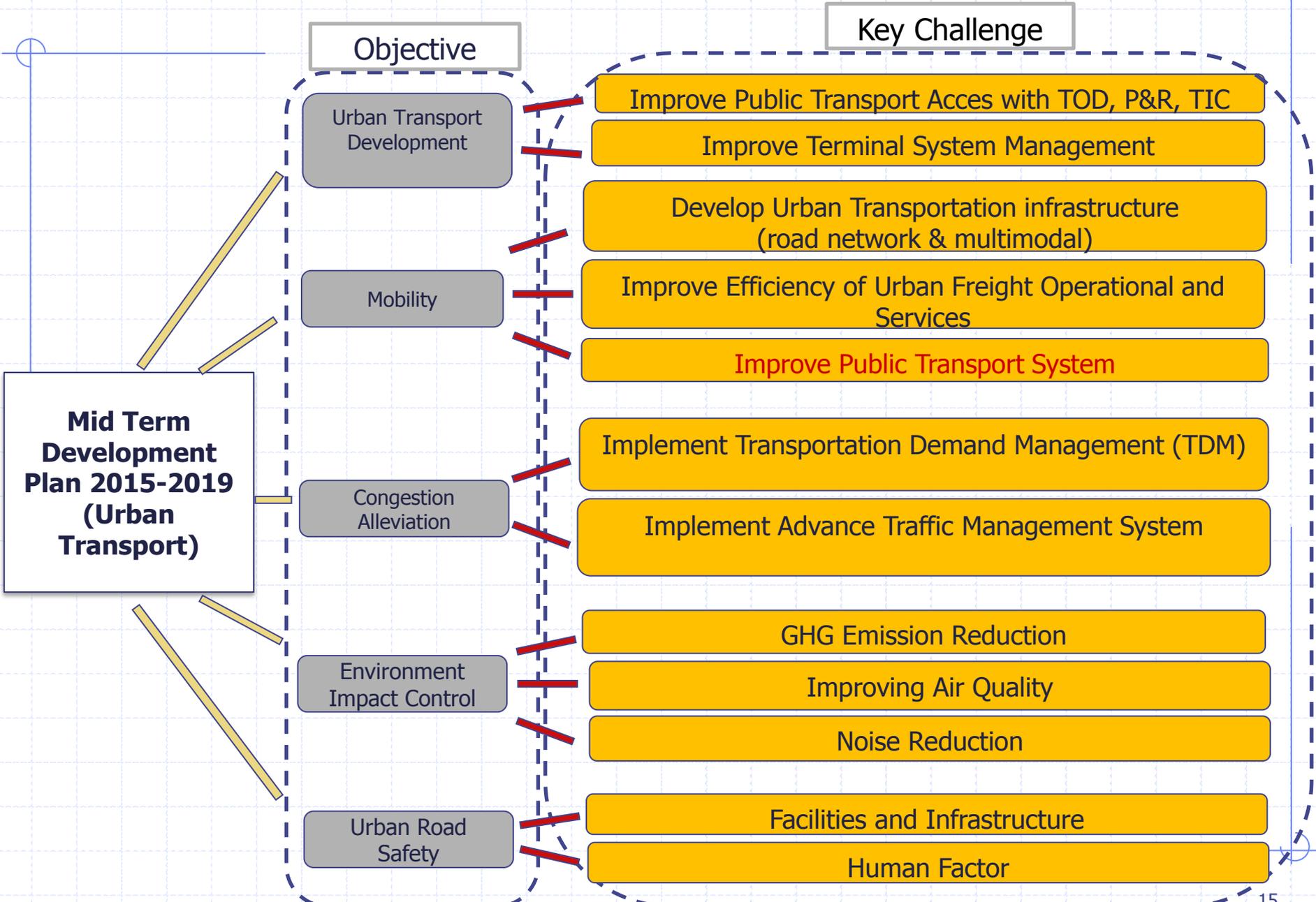


Unemployment & underdevelopment

Rapid Urbanisation

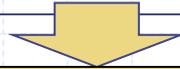


Urban Transport Challenges



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

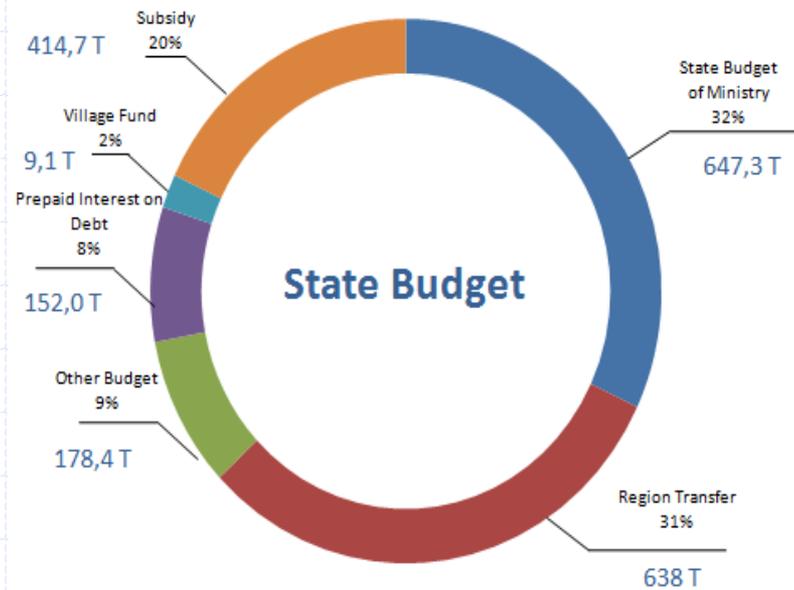
Fuel Subsidy

Fuel Quota

46 Million Kilotitre

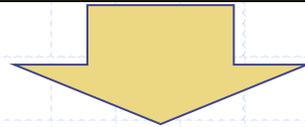
IDR 6.500 up to
IDR 7.600

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 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