



TRANSPORTATION IN JAKARTA



July, 2011

TOPOGRAPHY OF JAKARTA



- ⇒ Area ± 661,2 Km² (not including the Thousand Islands)
- ⇒ 40% of area lies below sea level
- ⇒ Traversed by 13 rivers from Bogor-Depok-Tangerang-Bekasi area (BODETABEK)

DEMOGRAPHIC CONDITIONS

- ↪ Total population \pm 9.2 million (extrapolated from census)
- ↪ By day, population of \pm 11 million, including commuters from the BODETABEK regions
- ↪ Population density is \pm 14,000 persons/km². In some areas this figure reaches 49,368 persons/km² (Tambora District)
- ↪ Total population of Jabodetabek (Jakarta + Bodetabek) \pm 25 million

STRATEGIC ROLE OF JAKARTA

As the national capital and centre of government activities.

Jakarta requires urban service facilities on a par with other national capitals.

As a regional, national and international economic centre.

Jakarta's regional contribution to National Gross Domestic Product (GDP) is more than 17%, with 60% of money circulation in the capital.

Jakarta's urban service facilities and infrastructure must also respond to needs from the regional (Jabodetabekjur = Jabodetabek + Cianjur), national and international infrastructures.

TRANSPORTATION IN JAKARTA

TRAVEL REQUIREMENTS

- 20.7 million trips daily across Jakarta

MOTOR VEHICLES

- 6.7 million motor vehicles in Jakarta
- 6.6 million private vehicles (98.5%), 91.082 public vehicles (1.5%)
- **Average annual growth over the past 5 years: 11%**

TRANSPORT MODE BREAKDOWN

- 98.5% of private vehicles servicing 44% of trips
- **Only 1.5% of vehicles servicing 56% of trips** (including 3% serviced by Jabodetabek trains)

ROAD NETWORKS

- 7,650 km of roads
- 40.1 km² of road area (6.26% of Jakarta's total area- Road Ratio)
- **Annual growth in road length only ± 0.01%**

COSTS OF CONGESTION

- **Rp 17.2 billion lost annually due to traffic congestion** (loss of time, fuel, and health costs)

GROWTH IN NUMBER OF VEHICLES

JAKARTA

6.7 million vehicles

Increase of 1,172 vehicles daily

**→ 186 CARS and 986 MOTORBIKES
EVERY DAY !!**

JADETABEK (Jakarta, Depok, Tangerang, Bekasi)

10.5 million vehicles

Increase of 2,249 vehicles daily

**→ 288 CARS and 1,960 MOTORBIKES
EVERY DAY !!**

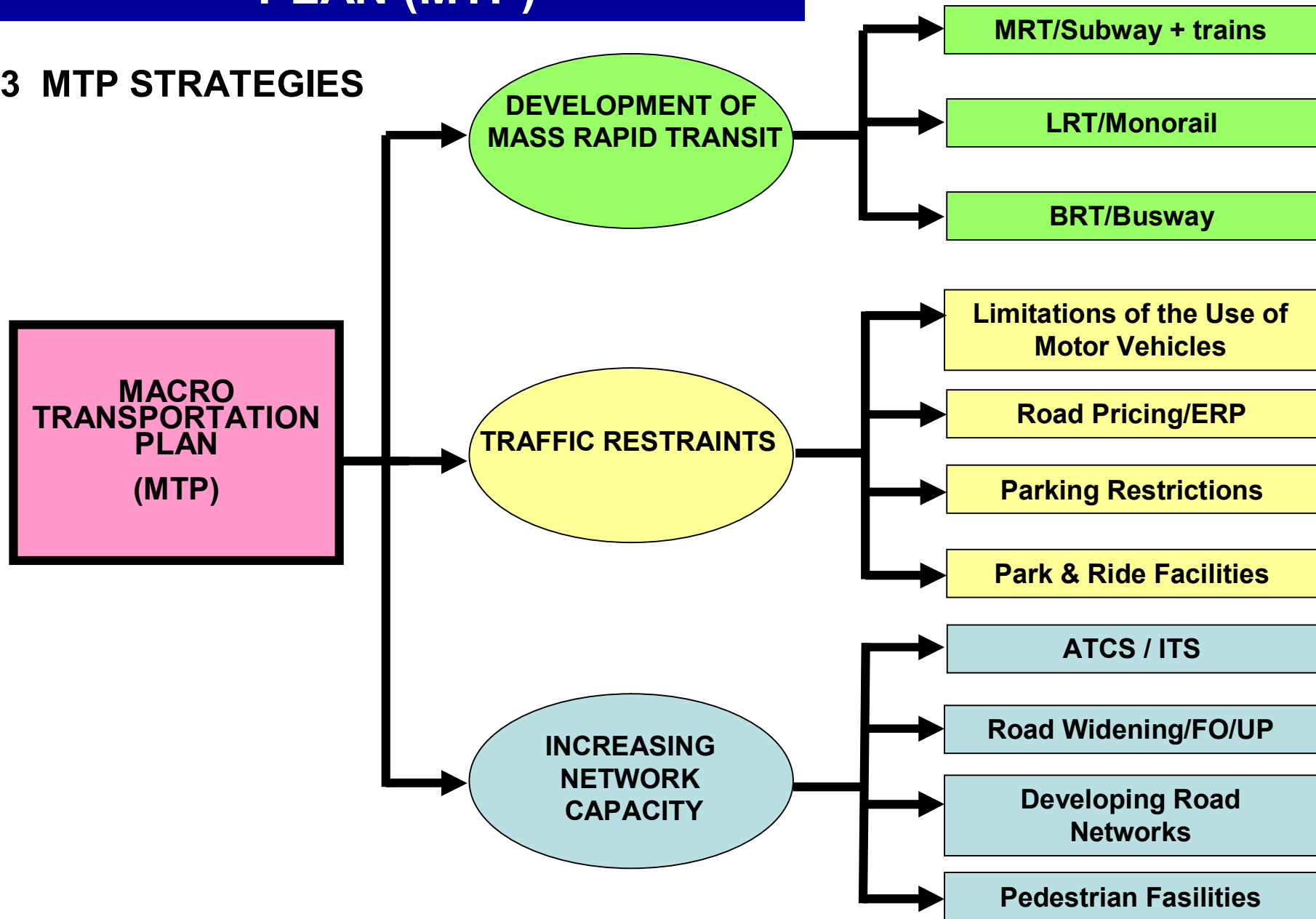
NUMBER OF PUBLIC TRANSPORT

1.BIG BUS	: 4.925 UNIT
2.MEDIUM BUS	: 4.960 UNIT
3.SMALL BUS	: 14.130 UNIT
4.3 Wheel motor vehicle	: 14.424 UNIT
5.Taxi	: 24.529 UNIT
6.TRUCKS	: 19.726 UNIT
7.TRAVEL BUS/RENTAL BUS:	5.048 UNIT
8.INTER CITY BUS	: 3.340 UNIT
TOTAL	: 91.082 UNIT



MACRO TRANSPORTATION PLAN (MTP)

3 MTP STRATEGIES



Strategy I : Developing Mass Public Transport

1. Bus Rapid Transit (Busway)
2. Mass Rapid Transit (Subway + trains)
3. Light Rail Transit (Monorail)



BUS RAPID TRANSIT (BUSWAY)

BUSWAY

EXISTING CONDITION

Long Corridor	: 171,5 Km (10 Corridor)
Total of Bus stops	: 142 Bus Stop
Total Bus	:525 bus (472 single +53 articulated)
Total Passengers	: 86,93 million (2010)
Total Passengers	: +300 thousand people/day

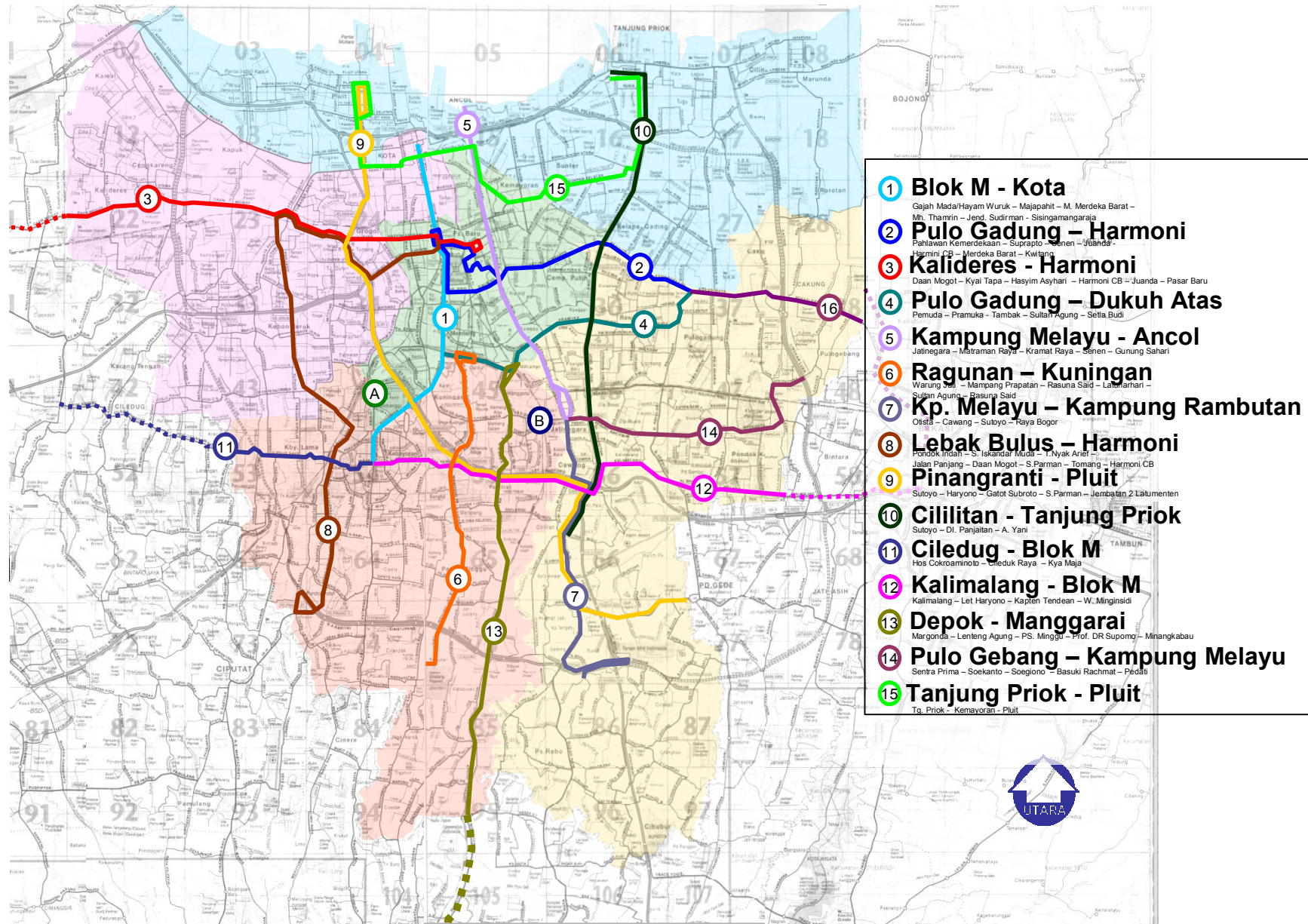
Based on a survei of Indonesian Consumer Foundation :

- The shift from private cars to Transjakarta users as much as 10.34%
- The shift from motorcycles to Transjakarta users as much as 24,94%

DEVELOPMENT

- 2 Corridors (11&12)
- 3 FeederS and
- Bus Procurement 114 bus
 - 2011 : 44 Unit Articulated bus
 - 2012 : 70 Unit Articulated bus
 - 2012 : 1 Unit to change the new one in Corridor 1

15 BUSWAY ROUTES BY 2010



BUSWAY

FACTS

- The number of Busway passengers continues to rise. In 2010 the figure was 100 million (source: BLU-TJ)
- In 2006 the Jakarta Provincial Government received an Air Quality Management Champion Award from the Clean Air Initiative for Asian Cities for its success in improving the environment through its gas fuel program. According to ITDP (Institute for Transportation and Development Policy) research, annual NO_x emissions were reduced by 155 tonnes, annual particle emissions by 23 tonnes, and annual CO₂ emissions by 20,000 tonnes.
- Has been referred to in several international seminars as an environmentally-friendly form of sustainable public transport
- The UN has provided assistance through UNEP (United Nations Environment Program) and technical assistance via ITDP to develop the Transjakarta Busway system from 2006-2011.

PROBLEMS

- Insufficient network of gas stations
- Development of a Feeder Bus System will take time due to the need to restructure existing routes

BUSWAY

FOLLOW-UP STEPS :

- Evaluation and consolidation of planning future busway routes
- Development with better coordination and public education.
- **Multi-year** development.
- Development of a **feeder system** in order to optimise Busway services.

BUSWAY

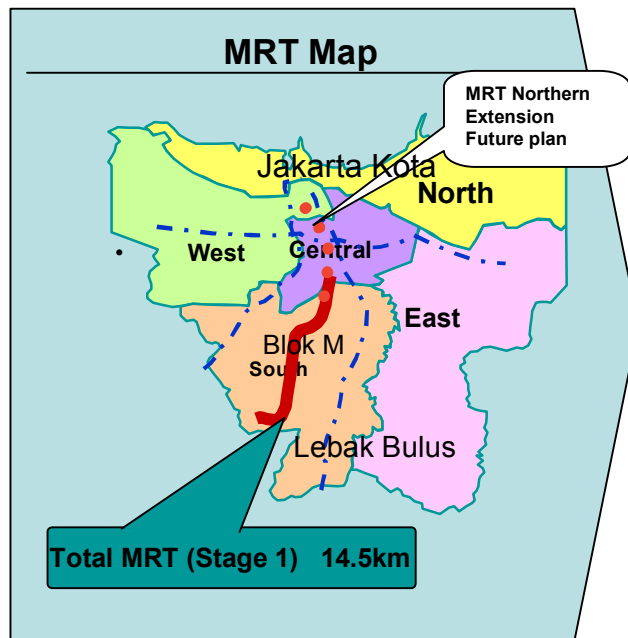
SUPPORTING FACILITIES REQUIRED FOR DEVELOPMENT OF THE BUSWAY SYSTEM:

- Development of gas fuel provision (including pipelines, filling stations, price policies) for the Busway system
- Development of ticketing systems
- Development of feeder buses

MASS RAPID TRANSIT (SUBWAY + TRAINS)

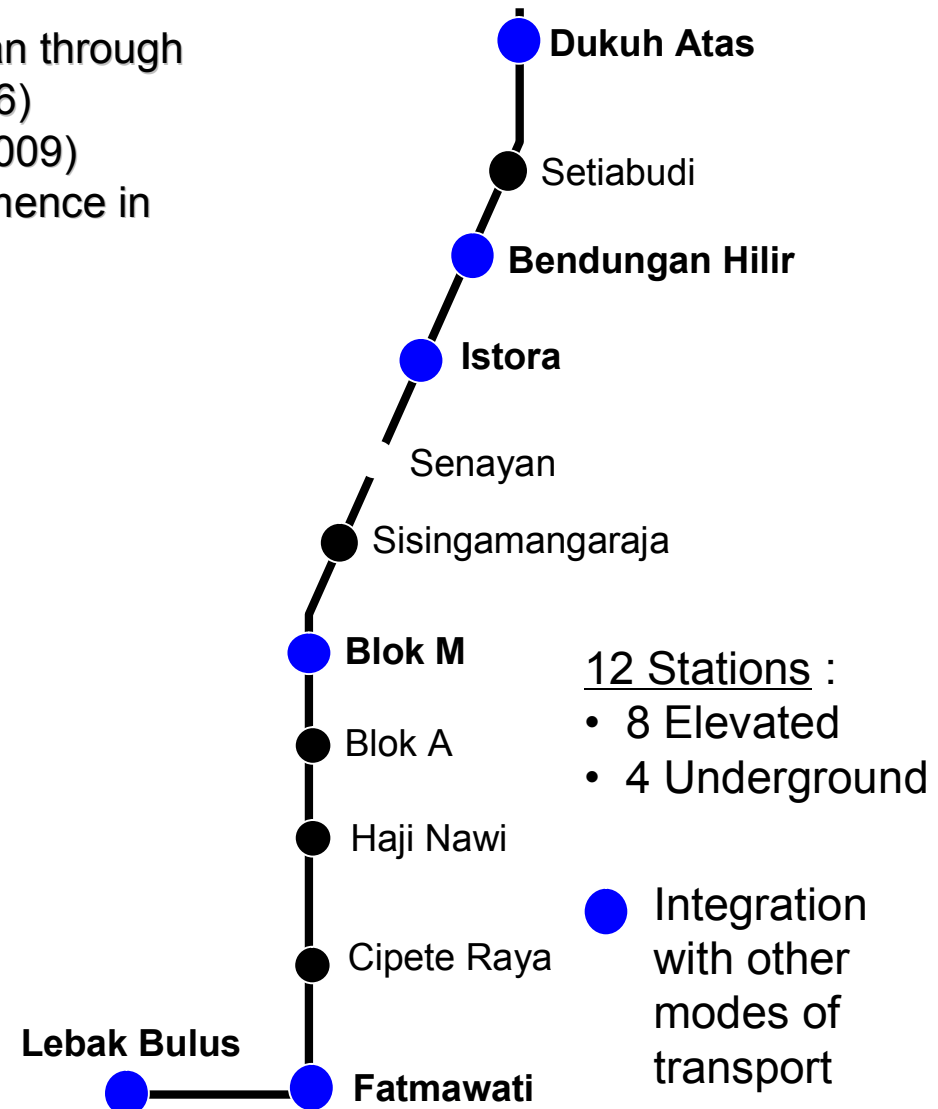
MRT / SUBWAY

- Stage 1 Plan, Lebak Bulus – Dukuh Atas route (14.5 km).
- Financing by Japanese government loan through JBIC (Loan No. IP-536, November 2006)
- Detailed Engineering Design (2007 – 2009)
- Physical development planned to commence in 2010 and conclude in 2014.



- Elevated (10.5 km)
- Underground (4.0 km)

Planned Stations



MRT / SUBWAY

STATUS :

- Documentation for tenders for Detailed Engineering Design (DED) planning consultants and MRTC consultants has been made.
- DED planning consultant tenders currently being processed by the Department of Communications.
- Loan Agreement Amendment currently being processed as a legal basis issued by Ministry of Finance on use of funds loaned by the Central Government as grants to the Jakarta Provincial Government.
- Provincial Decree currently being processed by the Jakarta Provincial Government on the formation of PT. MRT Jakarta and the inclusion of government funding in said company.

MRT/ SUBWAY

FOLLOW-UP STEPS :

- Appointment of consultants as DED planners (Dept. Communications)
- Signing Amendment to Stage I Loan Agreement (Dept. Finance and National Planning Board / *Bappenas*).
- Issuing instruction from Dept. Finance and documents regarding on-granting to Jakarta Provincial Government (Dept. Finance & National Planning Body)
- Tender for MRTC consultants (after completion of on-granting to Jakarta Regional Government) (Regional Planning Board & MRTC).
- Structuring of Stage II Loan (National Planning Board).
- Planning and preparation for construction of MRT (land acquisition etc) including parallel development of MRTC (as in line with attached Roadmap).

MRT / SUBWAY

OTHER MATTERS :

- Studies with JICA assistance to develop the Dukuh Atas area into an integrated intermodal transport hub (MRT, monorail, Jabotabek trains, Busway etc).

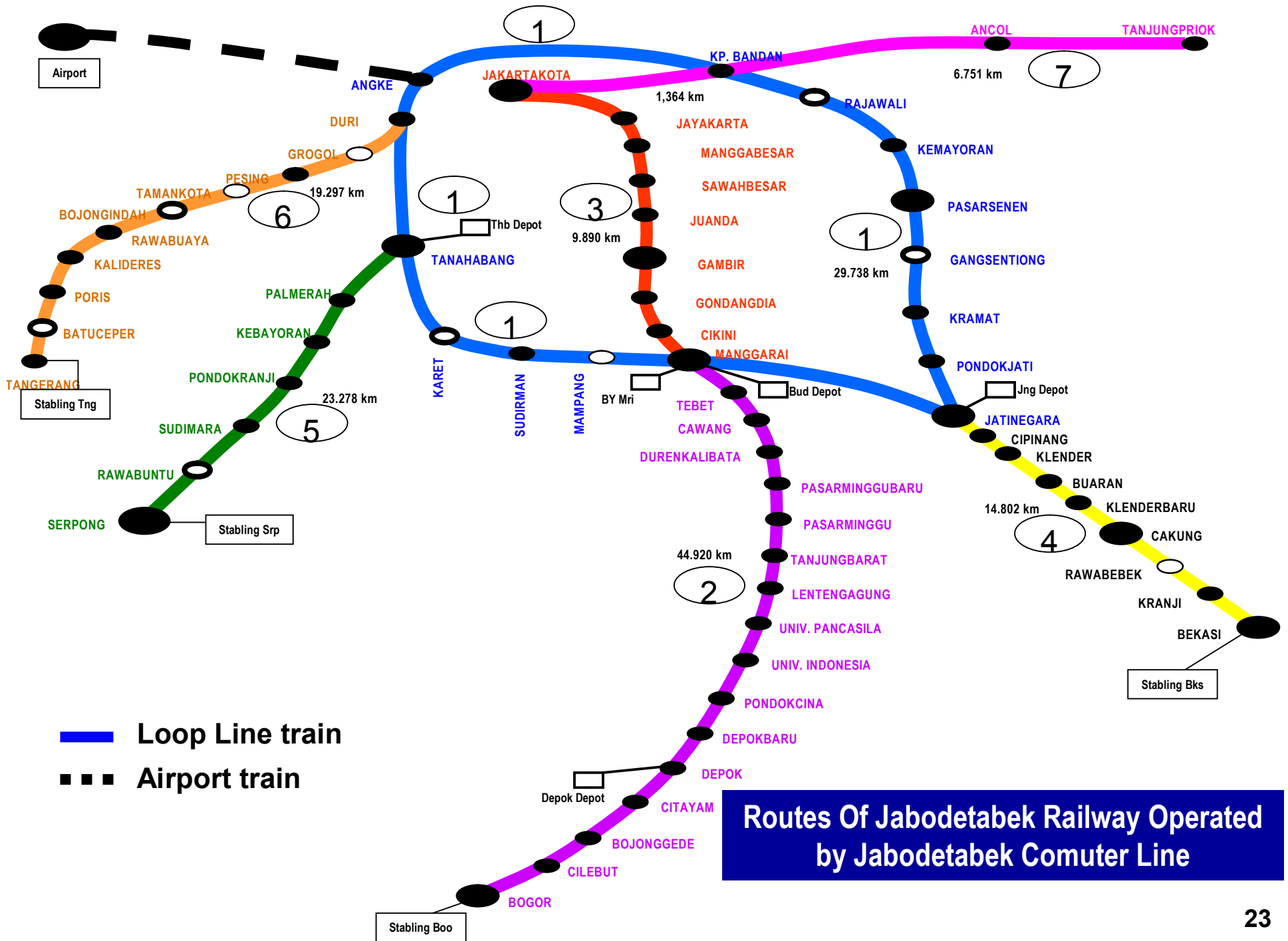
JABODETABEK RAILWAY

Jabodetabek train program:

- Staged development and improvement of Jabotabek Railway
- Development of Airport Railway by PT. Railink
- Operation of Loop Line & Ciliwung Blue Line by PT. KAI (Indonesian Railways), November 2007

Support from Jakarta Provincial Government for development of Jabodetabek Railway :

- Transit Oriented Development concept (developing areas around railway stations).
- Solving railway crossing problems
- Developing feeder transport and an integrated ticketing system.



Routes Of Jabodetabek Railway Operated by Jabodetabek Comuter Line

JABODETABEK RAILWAY

OBJECTIVES BEHIND CONSTRUCTION OF MANGGARAI – CIKARANG DOUBLE TRACK LINE :

- To separate long-distance and commuter train services
- To increase the capacity of the Jatinegara – Cikarang rail segment
- To extend commuter trains to Cikarang Station
- To move the long-distance terminal station to Manggarai

JABODETABEK RAILWAY



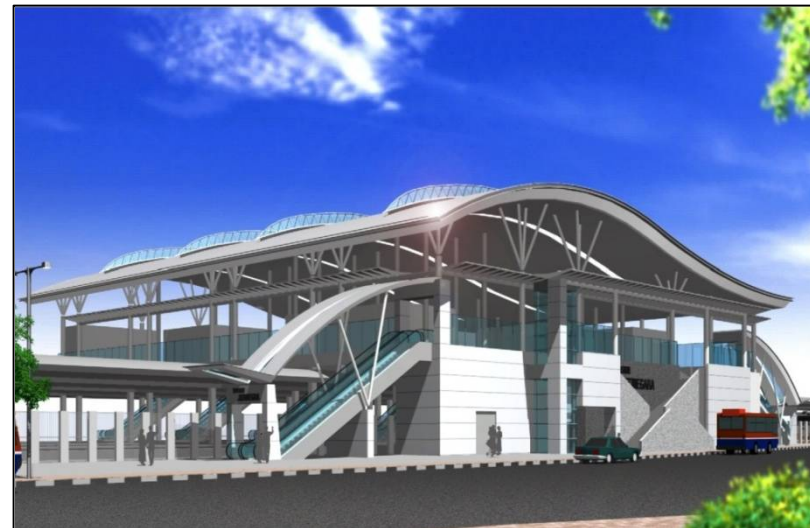
Existing conditions at Manggarai Station



Manggarai Station, planned



Existing conditions at Jatinegara Station



Jatinegara Station, planned

SOEKARNO – HATTA INTERNATIONAL AIRPORT LINE



SOEKARNO – HATTA INTERNATIONAL AIRPORT LINE

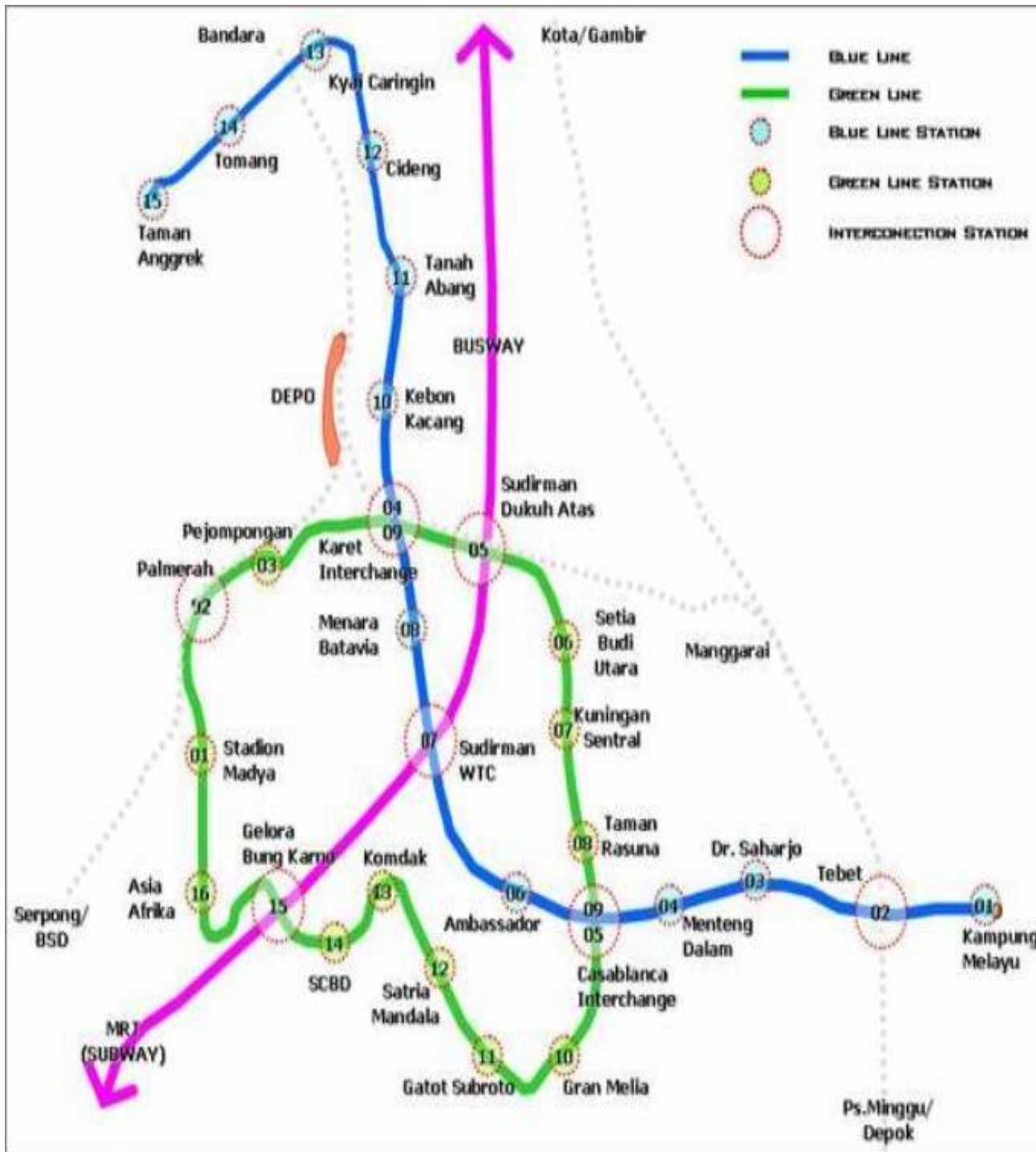
CURRENTLY BEING COORDINATED :

- Land requirements for construction of Airport train (Manggarai – Soekarno Hatta International Airport)
- Synchronisation of plans for Dukuh Atas Station as a City Air Terminal (CAT) for trains to the airport, taking into account various factors (land use, moving between transport modes, traffic management, etc)

MONORAIL

MONORAIL

- The Monorail was originally a purely private sector venture.
- Presently :
 - As required by PT Jakarta Monorail, the Government has provided support in the form of Presidential Order 103/2006 and Ministry of Finance Order 30/PMK.02/2007.
 - Until now, PT. Jakarta Monorail **has not yet** realised financial closing.
 - Banks have queried three matters: equity, government guarantees and monorail capacity and feasibility regarding total passengers.
- The Monorail project needs to be redefined, including its form of funding (reverification, including cashflow projection, estimated construction costs, income flow and passengers.)



STATION INFORMATION

Green Line

Length : 14.3 km

1. Stadion Madya
2. Palmerah
3. Pejompongan
4. Karet Interchange
5. Sudirman-Dukuh Atas
6. Setiabudi Utara
7. Kuningan Central
8. Taman Rasuna
9. Casablanca Interchange
10. Grand Melia
11. Gatot Subroto
12. Satria Mandala
13. Komdak
14. SCBD
15. Gelora Senayan
16. Plaza Senayan

Blue Line

Length : 9.7 km ; 11 stations to Tanah Abang

Length : 13.5 km ; 15 stations to Taman Anggrek

1. Kampung Melayu
2. Tebet
3. Dr. Saharjo
4. Menteng Dalam
5. Casablanca Interchange
6. Ambassador
7. Sudirman-WTC
8. Menara Batavia
9. Karet Interchange
10. Kebon Kacang
11. Tanah Abang
12. Cideng
13. Tarakan
14. Tomang
15. Taman Anggrek Mall

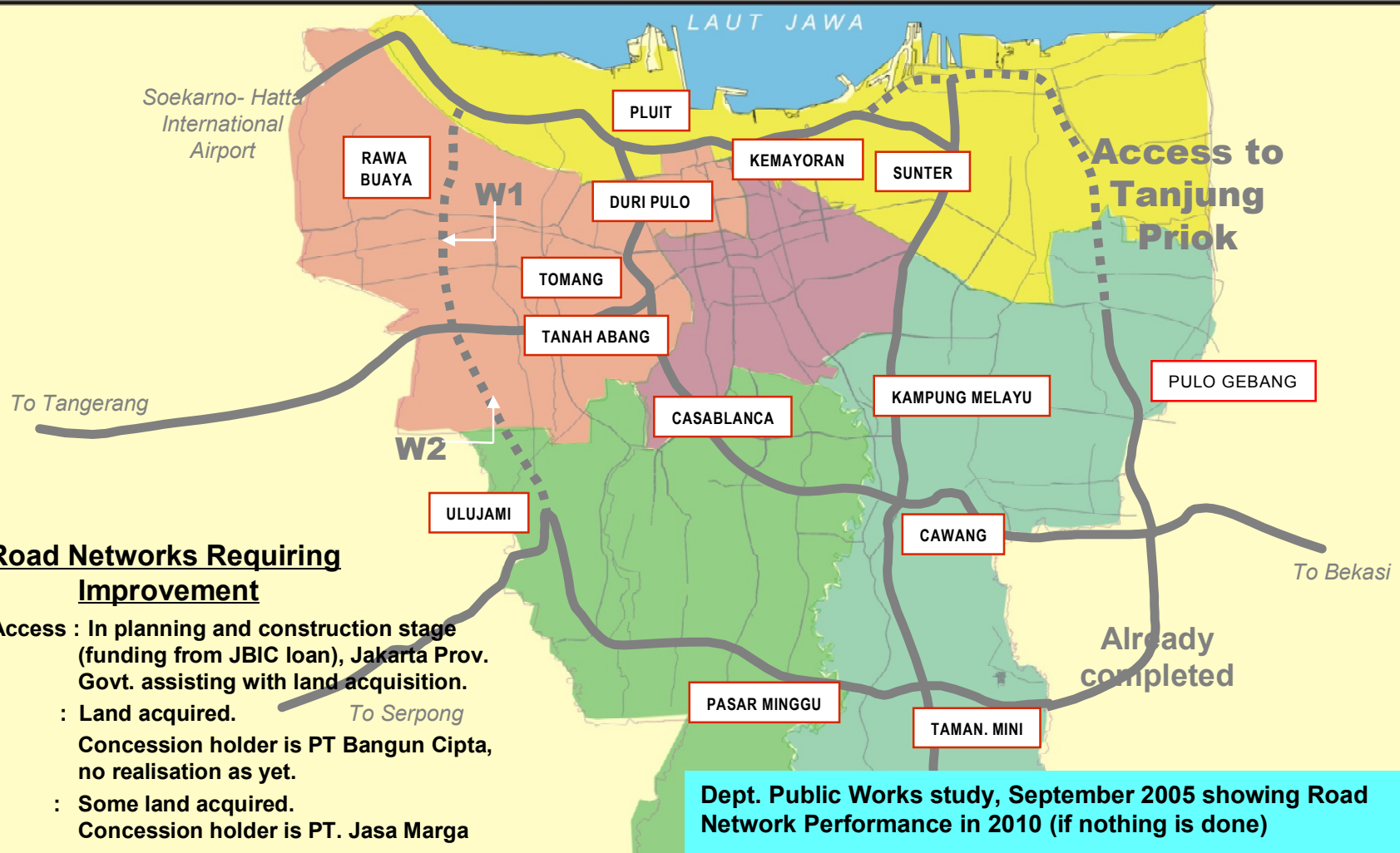
Strategy II : Traffic Restraints

1. Reducing Use of Motor Vehicles ('3 in 1' system on main thoroughfares, other restraints needed)
2. Alternative Road Pricing/ERP (currently under study)
3. Parking Restrictions (tariff mechanism)
4. Park & Ride facilities, to support the use of public transport (Ragunan dan Kalideres Terminals)

Strategy III : Increasing Network Capacity

1. Integration of Area Traffic Control System (ATCS) and Traffic Light Control to increase Road Network Capacity (improvements to current system)
2. Maintenance/Improvement of Roads and Construction of Flyovers/Tunnels
3. Development of Road Networks including Toll Road Network
4. Improving Pedestrian Facilities (Pedestrianisation)

COMPLETION OF MAIN NETWORK (TOLL ROADS IN THE JAKARTA METROPOLITAN AREA)



Toll Road Networks Requiring Improvement

Priok Access : In planning and construction stage (funding from JBIC loan), Jakarta Prov. Govt. assisting with land acquisition.

W1 : Land acquired. Concession holder is PT Bangun Cipta, no realisation as yet.

W2 : Some land acquired. Concession holder is PT. Jasa Marga

Note :

- Acceleration of the construction of W1 & W2 will assist traffic distribution between Jakarta and the west, as well as airport access.
- Acceleration of access to Tanjung Priok will assist goods traffic to and from the port, as well as Inner Ring Road toll road traffic (goods vehicles access Tanjung Priok directly).

Dept. Public Works study, September 2005 showing Road Network Performance in 2010 (if nothing is done)

- Very heavy load radiating along road segments (airport and Tomang Toll Roads)
- City Toll Road (Cawang-Tomang segment) is already saturated.
- *Outer Ring Road is greatly needed.*

To Bogor

KEY :
 — = TOLL ROAD ALREADY IN OPERATION
 - - - - - = PLANNED/IN PROGRESS

COMPLETION OF JORR (JAKARTA OUTER RING ROAD)

❑ **JORR W1 (9.7 km)**

↳ Investor: PT. Jakarta Lingkar Baratsatu

↳ Needs speeding up of construction for operation by end of 2008.

❑ **JORR W2 North (7 km)**

↳ A PT Jasa Marga enterprise

↳ Held up by land acquisition problems

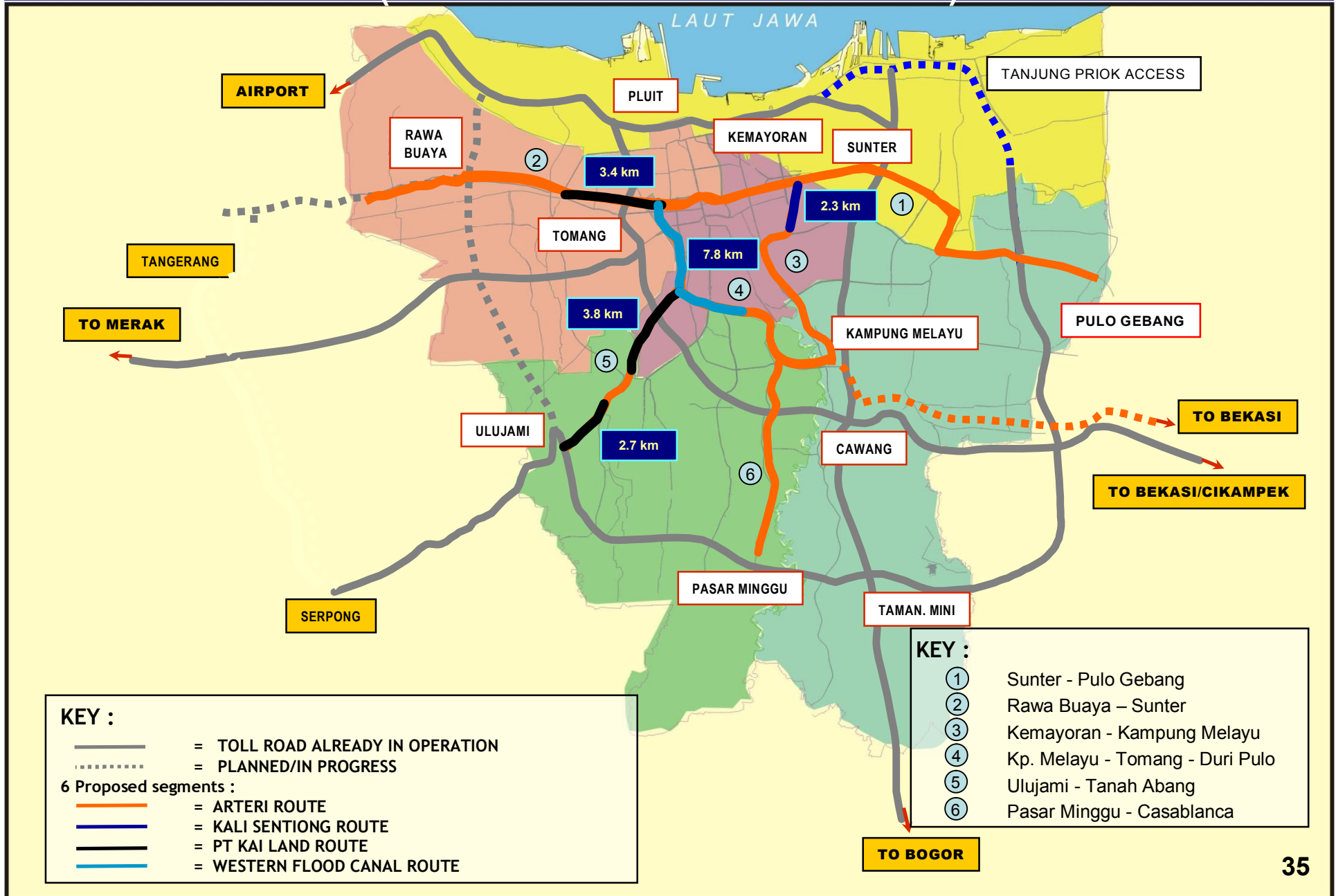
↳ Needs speeding up of land acquisition and construction

❑ **Tanjung Priok Access Toll Road (12.1 km)**

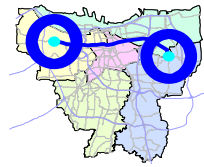
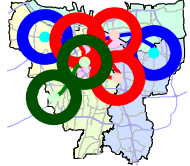
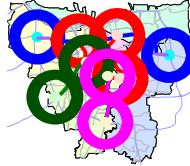
↳ Undertaken by the government

↳ Land acquisition by Jakarta Provincial Government

DEVELOPMENT OF ELEVATED ROADS (6 CITY TOLL ROAD SEGMENTS)



DETAILS OF 6 JAKARTA CITY TOLL ROAD SEGMENTS

No.	Segment	Length (km)	Estimated Direct Cost (Rp, billions)	EIRR (%)	
1.	Rawa Buaya - Sunter	18.95	9,761	32.47	
2.	Sunter – Pulo Gebang	14.73	7,378	24.75	
3.	Duri Pulo – Kampung Melayu	11.38	5,960	30.63	
4.	Ulujami – Tanah Abang	8.27	4,255	34.50	
5.	Kemayoran – Kampung Melayu	9.64	6,953	23.90	
6.	Pasar Minggu - Casablanca	9.56	5,720	21.68	
	T o t a l	72.53	40,027		

*) Construction of a 3-lane dual carriageway

**) Consisting of Construction Costs, Land Acquisition, DED Work, and Engineering Services

PLANNED DEVELOPMENT OF 6 JAKARTA CITY TOLL ROAD SEGMENTS

Below are Jakarta Provincial Government suggestions to the central government (Minister of Public Works) re 6 City Toll Road segments in Jakarta with the following considerations:

- As part of efforts at increasing new road networks to improve the road ratio
- Improving Road Network Structure Hierarchy in Jakarta (Arterial Road Networks which currently do not meet standards)

MAJOR ISSUES (1)

- **To Develop Mass Transportation :**
 - Speed up the MRT project
 - Intensify the operation of Jabotabek trains, including the Elevated Eastern Line, Loop Line (as well as development of Integrated Stations and a Transit Oriented Development concept)
 - Joint studies with central government regarding the Monorail if a purely private sector project cannot be continued.
 - Development of gas fuel provision (such as pipelines, gas stations, fuel price policies) for the Busway system.
- **To Implement Traffic Restraints, such as :**
 - Legal basis for fixing prices, with respect to limits on motor vehicle use.

MAJOR ISSUES (2)

- **To Improve Network Capacity :**

- Toll Road Networks**

- Completion of planned toll roads (Outer Ring Road W1 & W2, Tanjung Priok Access, improvements to the Jembatan Tiga Toll Road)
 - Further development of 6 City Toll Road segments

- Other Road Networks**

- Development of road segments and multi-dimensional intersections in several areas (as part of the national road network)
 - Control/Maintenance of the national road network



SEKIAN & TERIMA KASIH



THANK YOU