Directorate General of Land Transportation
Ministry of Transportation
The Republic of Indonesia

PROJECT FOR THE STUDY ON JABODETABEK PUBLIC TRANSPORTATION POLICY IMPLIMATATION STRATEGY IN THE REPUBLIC OF INDONESIA (JAPTraPIS)

FINAL REPORT

VOLUME2: Main Text

May 2012

Japan International Corporation Agency（JICA）

ALMEC CORPORATION

ORIENTAL CONSULTANTS CO., LTD.

IN0
JR
12－009

The exchange rate used in the report is:

J.Yen 78 = US$ 1 = Indonesian Rupiah 9000

(average during the study period)

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABBREVIATIONS

ATC	Area Traffic Control
BAKORLANTAS	Traffic Coordination Body
BAPPEDA	Regional Development Planning Agency
BAPPENAS	National Development Planning Agency
BKSP	Development Cooperation Agency
BLU	Public Service Board
BPPT	Agency for the Assessment and Application of Technology
BPS	Indonesian Central Statistics Bureau
BRT	Bus Rapid Transit
BSTP	Urban Transportation System Development Directorate, MOT
CBD	Central Business District
CMEA	Coordinating Ministry for Economic Affairs
CNG (or BBG)	Compressed Natural Gas
DGLT	Directorate General of Land Transportation
Dishub	Transportation Agency
DKI Jakarta	Jakarta Special Capital Region
EIA	Environmental Impact Assessment
ESDM	Ministry of Energy and Mineral Resources
GDP, GRDP	Gross Domestic Products, Gross Regional Domestic Products
GPRS	General Packet Radio Service
GPS	Global Positioning System
GOI	Government of Indonesia
GOJ	Government of Japan
IMF	International Monetary Fund
IEE	Initial Environmental Evaluation
ITDP	Institute for Transportation & Development Policy
ITS	Intelligent Transport Systems
JABODETABEK	Jakarta, Bogor, Depok, Tangerang, and Bekasi
Jabodetabekpunjur	Jakarta, Bogor, Depok, Tangerang, and Bekasi, Puncak, Cianjur
JETRO	Japan External Trade Organization
JICA	Japan International Cooperation Agency
JTA	JABODETABEK Transport Authority
JUTPI	Jabodetabek Urban Transportation Policy Integration
LLAJ	Road Transportation and Traffic
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
MHA	Ministry of Home Affairs
M/M	Minutes of Meeting
MOE	Ministry of Environment
MOF	Ministry of Finance
MOPW (or PU)	Ministry of Public Works
MOT	Ministry of Transportation
MRT	Mass Rapid Transit
NGO	Non Governmental Organization
OD	Origin and Destination
PPP	Public Private Partnership
RTRW, RTRWN	Spatial Plan, National Spatial Plan

SC	Steering Committee
SEA	Strategic Environmental Assessment
SITRAMP	The Study on Integrated Transportation Master Plan for JABODETABEK
SPM	Minimum Service Standard
TDM	Traffic Demand Management
TOD	Transit Oriented Development
TWG	Technical Working Group
UKP4	Presidential Working Unit for Development Control and Monitoring
UNEP	United Nations Environmental Programme

1 INTRODUCTION

1.1 Scope of the Study

1) Study Background

The Jakarta metropolitan area (so-called JABODETABEK) has grown rapidly in more ways than one. In 1990, its population was 17 million, increased to 28 million in 2010, i.e. an increase of 1.6 times in 20 years at an average growth rate of 2.5% per annum. The Jabodetabek economy share in the national GDP was 25% in 2008, although its population accounted for only 11.8% of the country total. JABODETABEK is the country's largest growth center, where 40% of the foreign investment is concentrated.

In JABODETABEK, urban transportation is all most entirely road based. The number of registered vehicles, including cars and motorcycles, has increased exponentially, i.e., 3 times or from 3.3 million in 2000 to 9.6 million in 2008 at an average rate of almost 15% per annum. The total traffic demand has increased at higher pace due to population growth, increase in vehicle ownership and economic prosperity. The development of transportation infrastructure, such as urban rail and road network has made little progress. Therefore, traffic congestion in the study area has become very serious.

According to SITRAMP[1], a transportation study conducted by JICA in 2002–2004, the annual economic loss caused by traffic congestion in 2002 was estimated at IDR3 trillion in vehicle operating cost and IDR2.5 trillion in people's time loss. Since then the number of cars and motorcycles has increased rapidly worsening the traffic congestion, environmental conditions and economic losses.

In this context, in September 2010 the Government of Indonesia (GOI) took action and prepared priority policies to reduce traffic congestion in JABODETABEK area. The government intends to tackle this problem in an integrated manner and through increased inter-agency cooperation Coordinating Ministry for Economic Affairs (CMEA), Ministry of Transportation (MOT), Ministry of Public Works (PU), and associated local governments such as DKI Jakarta.

With similar objectives, the Japan International Cooperation Agency (JICA) is currently implementing a technical cooperation project called JUTPI[2] which started in July 2009. The JUTPI Project Team is also supporting the CMEA in updating the SITRAMP database and in establishing the JABODETABEK Transportation Authority (JTA).

Adopting the planning framework of JUTPI, this JICA study is expected to formulate a public transportation strategy to realize a modal shift from car and motorcycle back to public transportation. The study will be conducted in coordination with the main counterpart, the Directorate General for Land Transportation (DGLT), and related other agencies.

2) Study Objectives

The overall objective of the study is to review the existing (2009) public transportation master plan and formulate an implementation strategy to improve the city's road-based public transportation system. The strategy is to actively encourage and promote modal-shift from cars and motorcycles to the public transportation, and in so doing, ease road

[1] The Study on Integrated Transportation Master Plan for JABODETABEK
[2] JABODETABEK Urban Transportation Policy Integration Project

traffic congestion, reduce economic losses and improve the environment in the study area.

The specific objectives of the study are:

(1) To formulate an implementation strategy for priority public transportation projects for JABODETABEK up to the year 2014, and

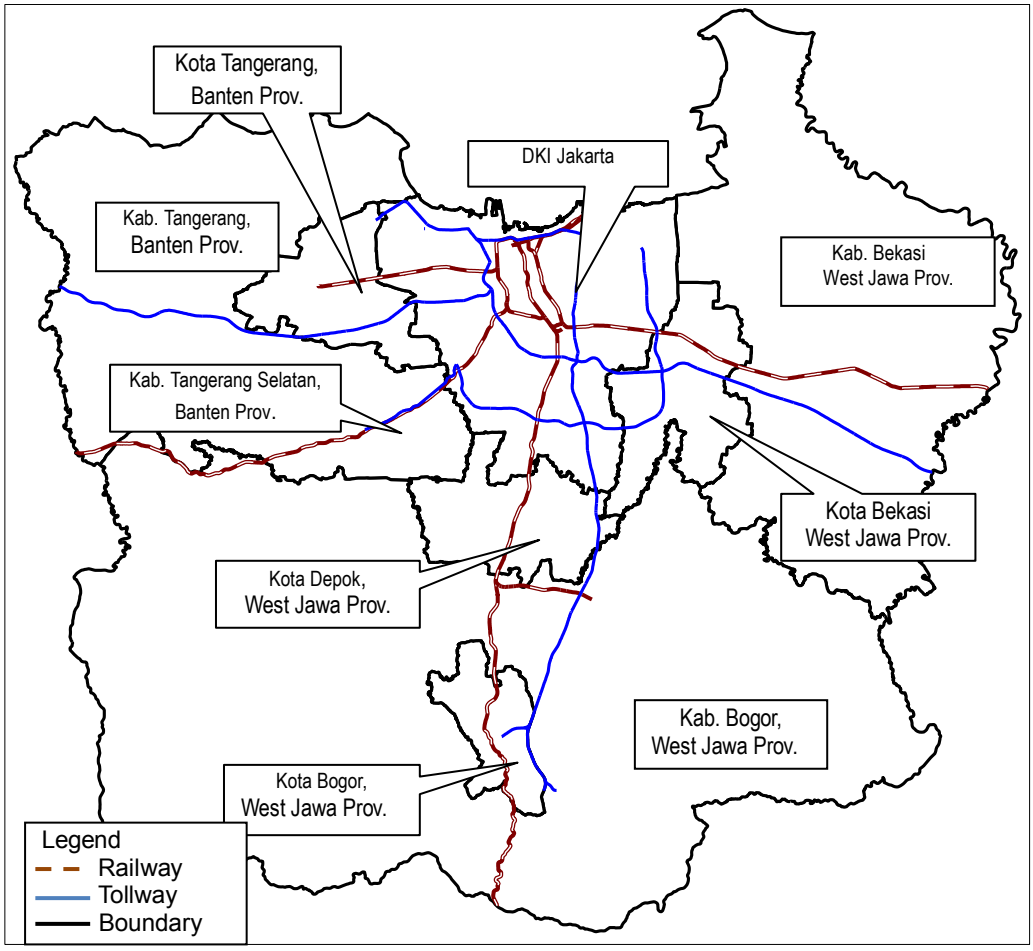
(2) To transfer knowledge and skills to the counterpart personnel during the course of the study to ensure the sustainability of the public transportation strategy.

In this study, road-based public transportation was focused as the main part of planning. Development plans for road and railway network are taken from the Master Plan being revised by JUTPI.

3) Study Area

The study area covers the Jakarta metropolitan area, or JABODETABEK, which is comprised of: (i) Jakarta Special Capital Region (DKI Jakarta) and the adjoining local government[3] areas of (ii) Kota Bogor, (iii) Kabupaten Bogor, (iv) Kota Depok, (v) Kota Tangerang, (vi) Kota Tangerang Selatan, (vii) Kabupaten Tangerang, (viii) Kota Bekasi, and (ix) Kabupaten Bekasi. The administrative boundary of the study area is shown in Figure 1.1.1.

Figure 1.1.1 Administrative Boundary of the Study Area

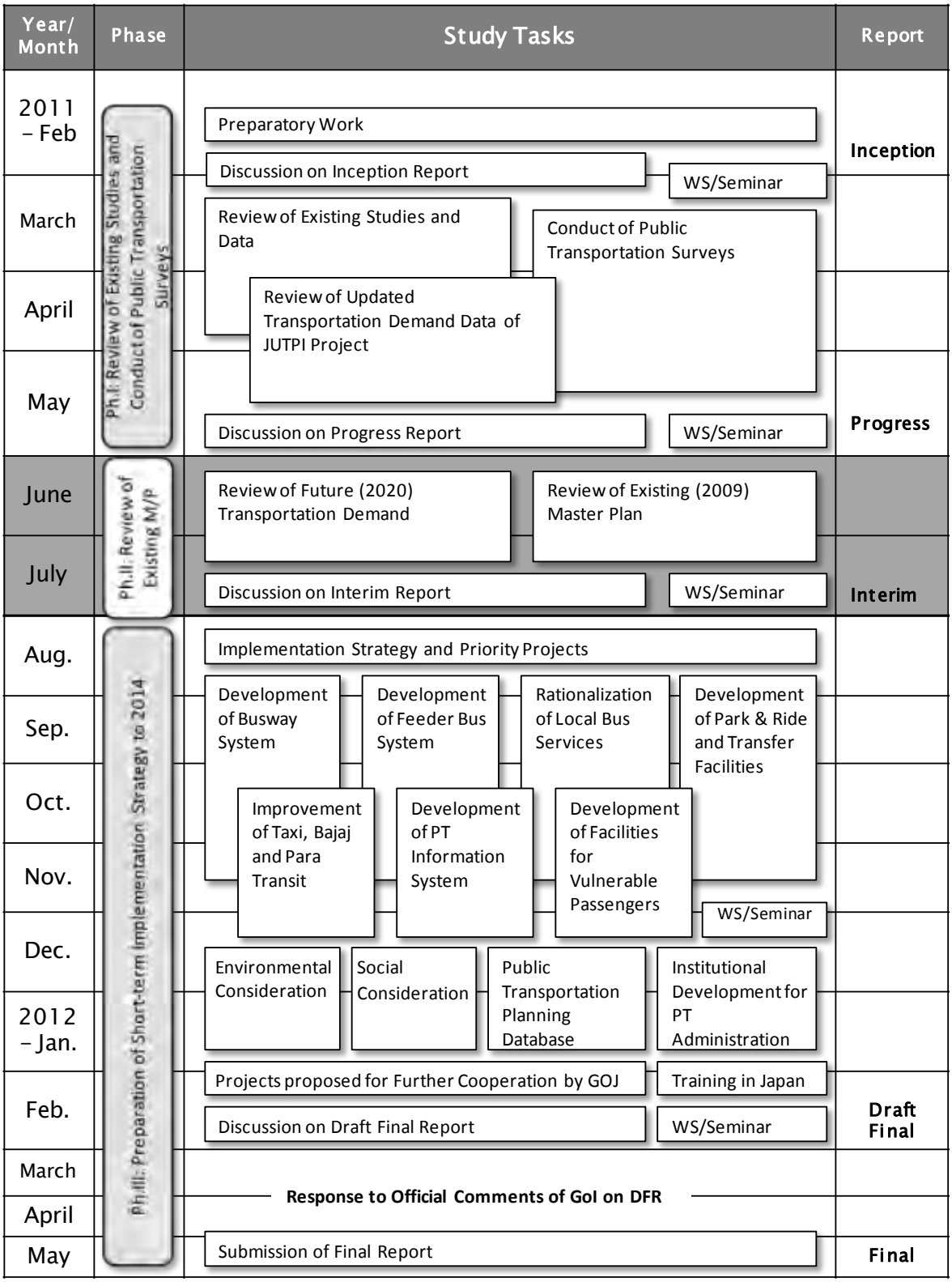


[3] "Kota" and "Kabupaten" correspond to "city" and "district", respectively.

4) Study Framework

The study commenced in February 2011 and is ended in May 2012 (refer to Figure 1.1.2)

Figure 1.1.2 Overall Study Tasks and Work Programme

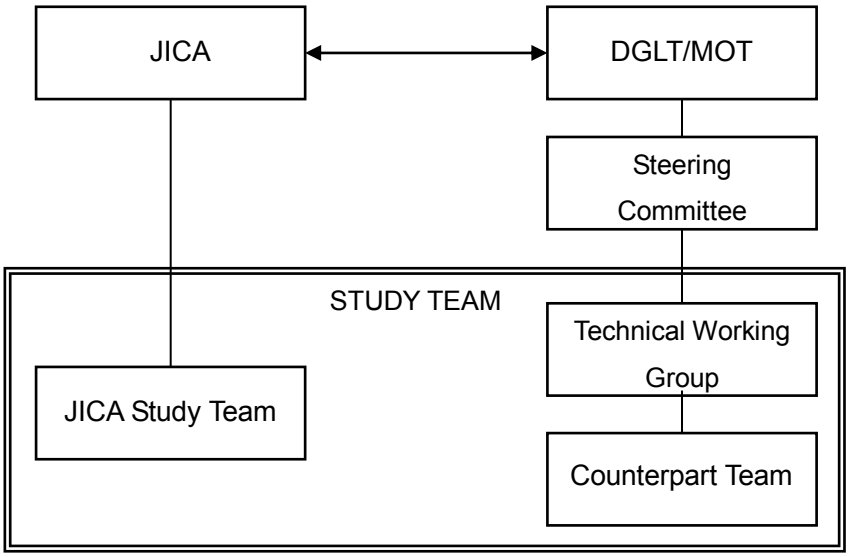


1.2 Study Organization and Implementation

1) Study Implementation Organization

The study organization has been set up composed of the JICA Study Team on Japan's side and the Steering Committee (SC), Technical Working Group (TWG), and the counterpart (CP) team on Indonesian's (refer to Figure 1.2.1).

Figure 1.2.1 Study Organization



2) Coordination with Indonesian Side

(1) **Steering Committee:** This committee is composed of high-ranking officers of major related agencies, including DGLT-MOT, CMEA, BAPPENAS, MHA, PU, Police, and province and local governments in order to discuss and make decisions on key issues of the study.

(2) **Technical Working Group:** Establishment of TWG was proposed by Indonesian side in order to discuss more about technical and practical matter during the course of study, which includes members of major agency. It is recommended to organize TWG meeting periodically, e.g. once a month, where JICA Study Team informs progress, problems and concerns at each stage, and get involved Indonesian side ideas.

(3) **Counterpart:** Counterpart Team is composed of five sub-directors of BSTP, DGLT as coordinator and their staff in each field. Close coordination between JICA Study Team and Counterpart Team are done in order to ensure partnership from Indonesian side.

Daily progress of the Study of each member is monitored in the coordination meeting. Another objective of the meeting is to share overall progress and constraints faced by Study Team. Coordination meeting is being organized almost once a week.

Table 1.2.1 Memberws of the Indonesian Side

STEERING COMMITTEE:

CHAIRPERSON : Director General of Land Transportation, Ministry of Transportation (MOT)
DEPUTY CHAIRPERSON: Director of Urban Transportation System Development (BSTP), DGLT, MOT
DEPUTY CHAIRPERSON: Secretary of DGLT, MOT
DEPUTY CHAIRPERSON: Director of Road Transportation and Traffic (LLAJ), DGLT, MOT
MEMBER:

1. Deputy Assistant of Transportation Infrastructure, Coordinating Ministry for Economic Affairs (CMEA)
2. Director of Transportation, BAPPENAS
3. Director of Urban and Rural, BAPPENAS
4. Director of Urban Planning, DG of Regional Development (BANGDA), Ministry of Home Affairs
5. Director of Building Techniques (Bina Teknik), DG of Bina Marga, Ministry of Public Works (PU)
6. Director of Metropolitan Urban, DG of Spatial Planning, Ministry of Public Works (PU)
7. Director of Traffic, Polda Metro Jaya
8. Director of Traffic, Polda West Jawa
9. Head of BAPPEDA, DKI Jakarta Province
10. Head of BAPPEDA, West Java Province
11. Head of BAPPEDA, Banten Province
12. Head of Transportation Agency, DKI Jakarta Province
13. Head of Transportation Agency, West Java Province
14. Head of Transportation Agency, Banten Province

TECHNICAL WORKING GROUP:

CHAIRPERSON : Director of BSTP, DGLT, MOT
SECRETARY : Subdirector of Urban Transportation Impact, BSTP, DGLT, MOT
MEMBER:

1. Head of Transportation Agency, DKI Jakarta Province
2. Head of Transportation Agency, Kota Bogor
3. Head of Transportation Agency, Kabupaten Bogor
4. Head of Transportation Agency, Kota Depok
5. Head of Transportation Agency, Kota Tangerang
6. Head of Transportation Agency, Kota Tangerang Selatan
7. Head of Transportation Agency, Kabupaten Tangerang
8. Head of Transportation Agency, Kota Bekasi
9. Head of Transportation Agency, Kabupaten Bekasi

SECTION:

1. Road Transportation Section:
   Leader: Subdirector of Road Transportation, BSTP, DGLT, MOT
   Member: Subdirector of Road Transportation, LLAJ, DGLT, MOT
   Head of Subagency of Bina Transport Business, Transportation Agency, DKI Jakarta Province
2. Transportation Network Section:
   Leader: Subdirector of Urban Transportation Network, BSTP, DGLT, MOT
   Member: Head of Subagency of Transportation System, Transportation Agency, West Java Province
   Subdirector of Policy and Strategy, Metropolitan Urban, DG of Spatial Planning, PU
3. Transportation Mode Integration Section:
   Leader: Subdirector of Urban Transportation Mode Integration, BSTP, DGLT, MOT
   Member: Subdirector of Land Transport, BAPPENAS
   Subdirector of Policy and Strategy, Bina Program, DG of Bina Marga, PU
4. Traffic Section:
   Leader: Subdirector of Urban Traffic, BSTP, DGLT, MOT
   Member: Head of Transportation Infrastructure Sector, CMEA
   Subdirector of Urban, Directorate of Urban, BAPPENAS
5. Transportation Impact Section:
   Leader: Subdirector of Urban Transportation Impact, BSTP, DGLT, MOT
   Member: Head of Subagency of Land Transportation, Transportation Agency, Banten Province
   Subdirector of …, Directorate of Urban Planning, DG of BANGDA, Ministry of Home Affairs

COUNTERPART TEAM: (Coordinator and Staff of BSTP/DGLT)

1. Transportation Network
2. Transportation Mode Integration
3. Road Transportation
4. Traffic
5. Transportation Impact

3) JICA and JICA Study Team

The JICA Indonesia Office supported the Study Team. The JICA Study Team was composed of 11 experts.

Table 1.2.2 Memberws of the Japanese Side

JICA Indonesia Office	
Mr. MATSUNAGA Akira	Senior Representative, JICA Indonesia Office
Mr. HIGUCHI Hajime	Representative, JICA Indonesia Office
JICA Study Team	
Dr. MASUJIMA Tetsuji	Team Leader/Public Transportation Planning
Mr. KUMAZAWA Ken	Transportation Planning/Financial Analysis
Mr. Mazhar IQBAL	Bus Operation Planning/Financial Planning
Mr. ABE Osamu	Institution/Management
Mr. IRIE Tetsushi	Public Transportation Facility Planning
Dr. Kov MONYRATH	Bus Demand Analysis
Ms. SAKAI Yuko	Environmental and Social Consideration
Mr. KOMORI Masaru	Transportation Survey and Analysis
Mr. Frits OLYSLAGERS	Busway Planning
Mr. IZUMI Sadatoshi	Bus Operation Information System
Dr. OKAMURA Makoto	Project Coordination/Training Program

4) Study Implementation

(1) Discussion with Study Team Members

Coordination and involvement of the Indonesian side were significant during the course of the study. There were regular discussions with the SC, TWG and CP, while various related agencies were directly involved in the study.

(2) Workshop/Seminar:

Moreover, workshops and seminars were organized on the specific planning issues in order to discuss them in detail with all related persons. Resulting discussions and suggestions were incorporated in the study.

(3) Technology Transfer

Technology transfer in public transport planning was conducted for counterpart team members through on-the-job activities. In addition, the intensive program was conducted in Japan for counterpart members on 5-12 February 2012.

(4) Website and News Letter

In addition to the above activities, the study team developed a website (http://www.japtrapis.com) to inform the study outline and progress and published two issues of newsletters. The first issue of newsletter explained the overall framework of the study. The second issue presented the major results of public transport surveys.

2 URBAN TRANSPORTATION SITUATION IN JABODETABEK

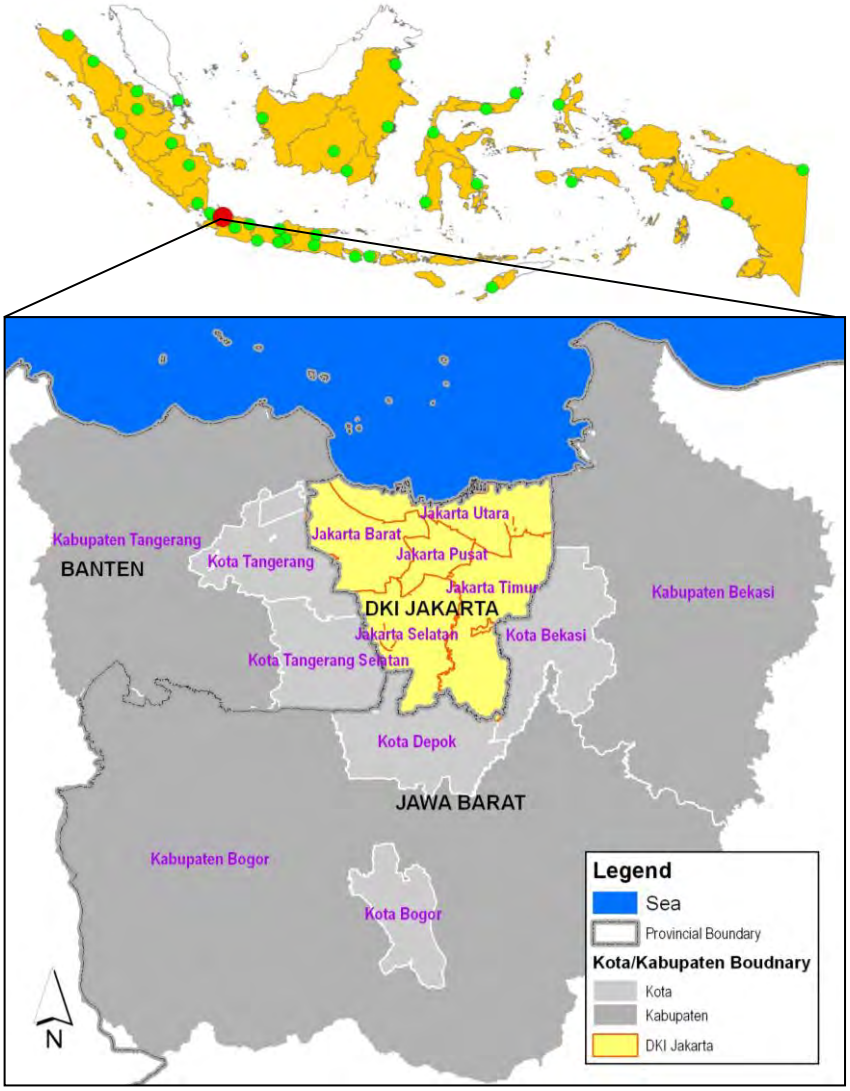
2.1 Socio-economic and Urban Development Characteristics

2.1.1 Study Area Context

JABODETABEK area is located in Jawa Island and has the characteristics to be the center of Indonesia in politics, demography and economy. It consists of DKI Jakarta, part of West Jawa Province (Kota Depok, Kota Bogor, Kabupaten Bogor, Kota Bekasi, and Kabupaten Bekasi) and part of Banten Province (Kota Tangerang, Kota Tangerang Selatan, Kabupaten Tangerang). In addition, DKI Jakarta consists of 5 Kota (Jakarta Utara, Jakarta Barat, Jakarta Pusat, Jakarta Timur, and Jakarta Selatan).

To summarize the JABODETABEK area, it can be grouped into 4 key regions: 1) **DKI Jakarta**, at its Center, 2) **Bekasi** region which includes Kota Bekasi and Kabupaten Bekasi to the west, 3) **Bogor** region which includes Kota Depok, Kota Bogor and Kabupaten Bogor to the south, and 4) **Tangerang** region which includes Kota Tangerang, Kota Tangerang Selatan and Kabupaten Tangerang to the east.

Figure 2.1.1 Location of JABODETABEK Study Area



Source: Study Team

2.1.2 Demography

JABODETABEK population has grown rapidly, in 1990 it was 17 million, increasing to 21 million by 2000, 24 million by 2005, 28 million by 2010. Implying an increase of 1.2 times in the last decade of the millennium (1990 – 2000) at an average growth rate of 2.1 % per annum, another 12% in next 5 years (2000 – 2005) at an average growth rate of 2.4% per annum, and additional 19% over the last 5 years (2005 – 2010) at an exceptional growth rate of 3.5% per annum.

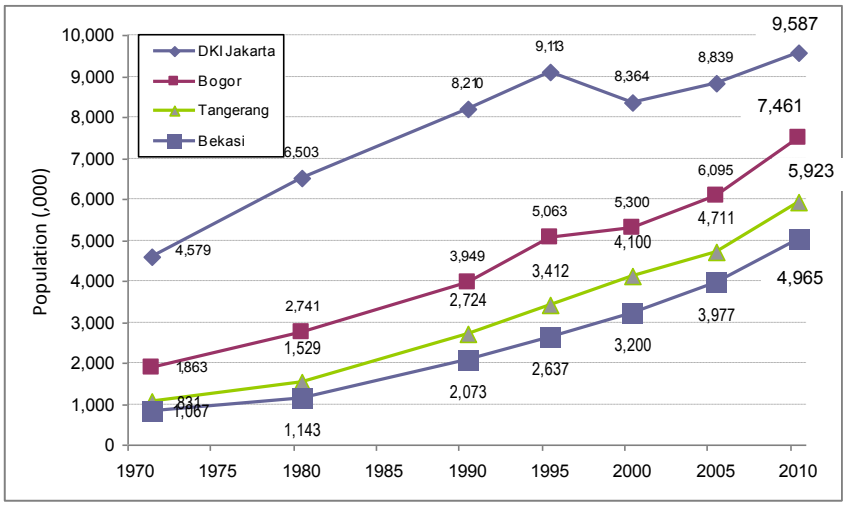
The most rapid increases occurred in Tangerang and Bekasi regions. The population growth rates in these regions was 4.7 % per annum and 4.8% per annum respectively, almost three time the national average rate of around 1.6% per annum. In addition, Bogor region is also increasing with a very high average growth rate of 4.2% per annum. This shows much rapid increase in population outside DKI Jakarta, which also grew more rapidly before the 1997 economic crisis. Actually, the population in DKI Jakarta from 1990 to 2000 increased initially to 9.1 million by 1995, but then declined as the migrant labour force affected by the recession that followed the 1997 economic crisis. However, the DKI population did start to increase after 2005, at almost the same rate as the national average of 1.6% per annum.

Table 2.1.1 Demography of the Study Area

Region		Land Area (km2)	Population (,000)				Population Growth Rate (% p.a)			Population Density (per./km²)		
			1990	2000	2005	2010	'90-'00	'00-'05	'05-'10	2000	2005	2010
Study Area	DKI Jakarta	656	8,210	8,364	8,839	9,587	0.2	1.1	1.6	12,750	13,474	14,614
	Bogor	3,381	3,949	5,300	6,095	7,461	3.0	2.8	4.2	1,568	1,803	2,207
	Tangerang	1,260	2,724	4,100	4,711	5,923	4.2	2.8	4.7	3,254	3,739	4,700
	Bekasi	1,284	2,073	3,200	3,977	4,965	4.4	4.4	4.8	2,492	3,097	3,867
	Total	**6,581**	**16,956**	**20,964**	**23,622**	**27,936**	**2.1**	**2.4**	**3.5**	**3,186**	**3,589**	**4,245**
Indonesia		1,919,440	177,385	206,264	219,210	237,641	1.5	1.2	1.6	107	114	124
% of nation		0.3	9.6	10.2	10.8	11.8	-	-	-	-	-	-

Source: Statistics Yearbook of Indonesia 1998, Population Census Intermediate Survey 2005, Census 2010, BPS

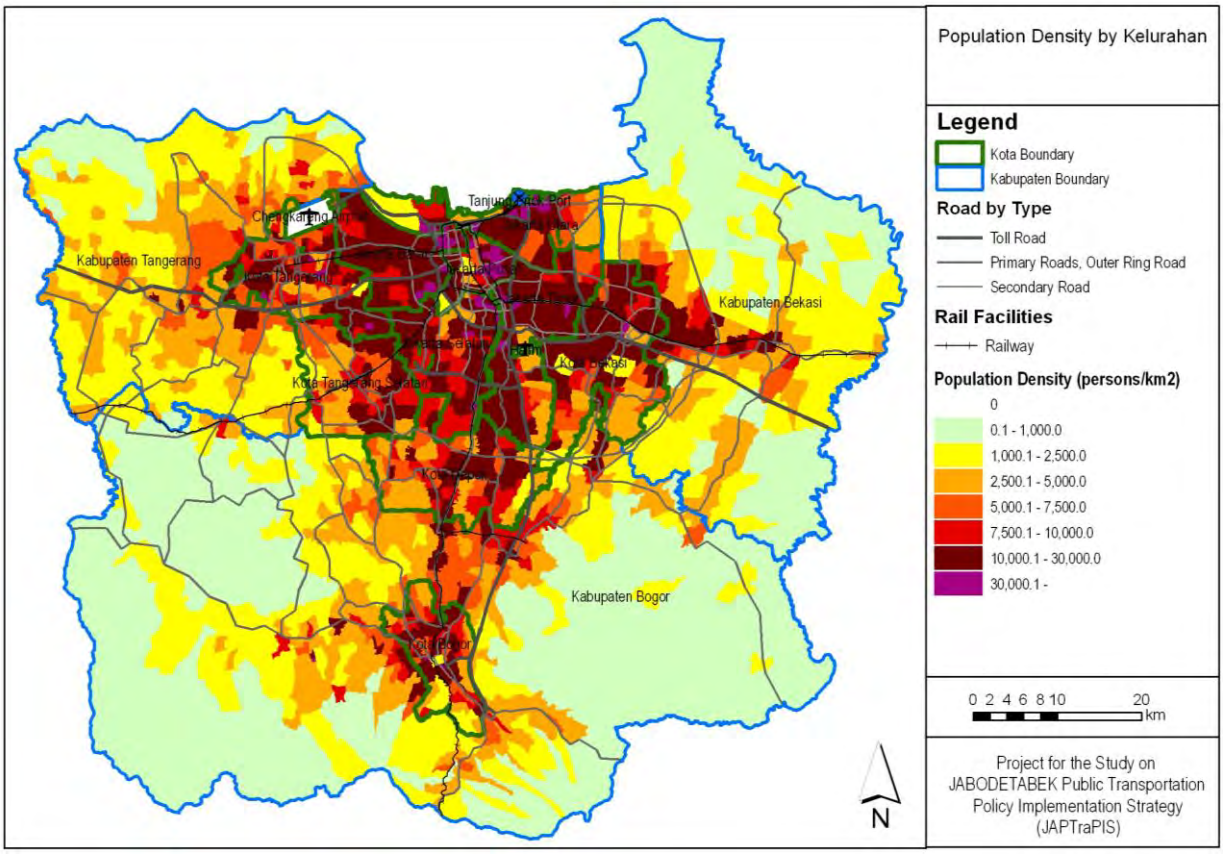
Figure 2.1.2 Population Growth in the Study Area 1970-2010



Source: Statistics Yearbook of Indonesia 1998, Population Census Intermediate Survey 2005, Census 2010, BPS

Figure 2.1.3 shows the distribution of population density by Kelurahan. The areas with high population density are spread mainly in the whole of DKI Jakarta and the adjoining Kotas and Kota Bogor. Also population densities have been increasing in Kabupatens in the east and south, outside DKI Jakarta along the major arterial roads. However, the population density in Kabupaten Tangerang is relatively higher than that of Kabupaten Bekasi and Kabupaten Bogor, may be due to its proximity to the Soekarno-Hatta Airport.

Figure 2.1.3 Population Densities by Kelurahan



Source: Census 2010, BPS

2.1.3 Economy

JABODETABEK is the country's largest economic growth center where 40% of all the foreign investment is concentrated. The Jabodetabek economy accounted for 25% of the national Gross Domestic Products (GDP) in 2008; albeit its population was about 12% of the national total.

The growth rate of Gross Regional Domestic Products (GRDP) of JABODETABEK is almost the same, of around 6% per annum since 2003. In addition, the growth rate of GRDP by region is also similar within the regions (see Figure 2.1.4).

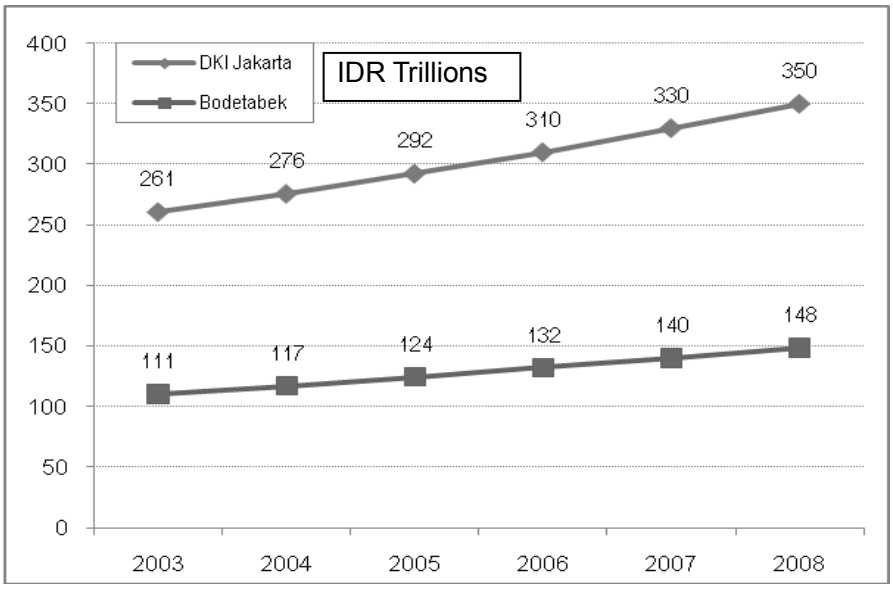
Figure 2.1.5 shows the historical trend in real GDP over the recent twenty years, from 1991 to 2010. After the economic crisis of 1997, its growth declined sharply, but recovered from recession within 5 years to the same level as before 1997, and then started to grow at almost the same rate as before 1997.

Table 2.1.2 Economy of the Study Area

Region		GRDP at 2000 Constant Prices (Trillion Rupiah)						GRDP Per Capita (million Rupiah per person)					
		2003	2004	2005	2006	2007	2008	2003*	2004*	2005	2006*	2007*	2008*
Study Area	DKI Jakarta	**261**	**276**	**292**	**310**	**330**	**350**	**30.2**	**31.5**	**33.1**	**34.5**	**36.1**	**37.7**
	Bogor	30	31	33	35	38	40	5.2	5.3	5.5	5.6	5.7	5.8
	Tangerang	33	35	38	41	43	45	7.5	7.7	8.1	8.2	8.3	8.4
	Bekasi	47	50	53	56	60	63	13.0	13.2	13.3	13.5	13.7	13.9
	Total	**371**	**393**	**417**	**442**	**470**	**498**	**16.5**	**17.0**	**17.6**	**18.1**	**18.6**	**19.0**
Indonesia		-	**1,604**	**1,690**	**1,778**	**1,879**	**1,984**	**-**	**7.4**	**7.7**	**8.0**	**8.3**	**8.6**
% of nation		-	24.5	24.6	24.9	25.0	25.1	-	-	-	-	-	-

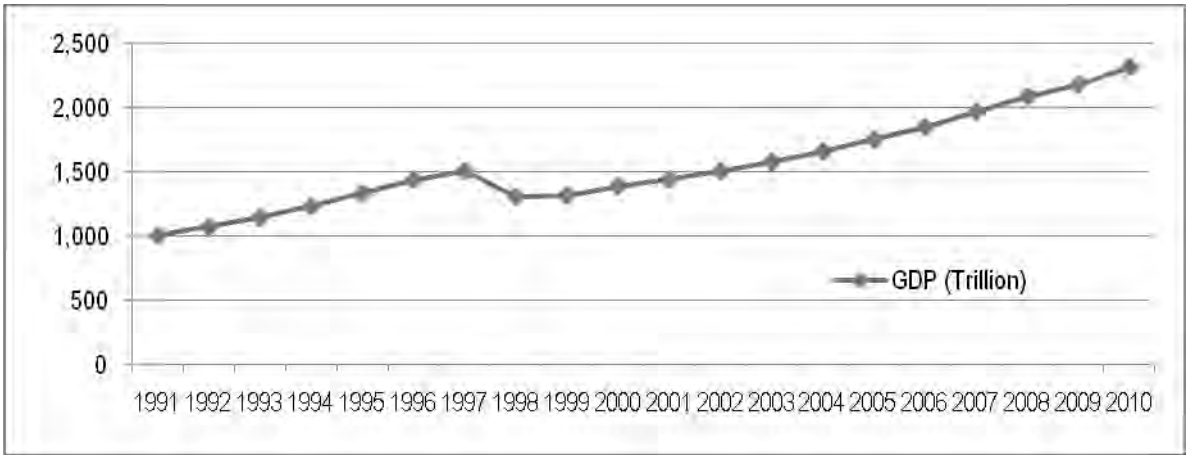
Note: *Population is estimated based on the growth rates as given in Table 2.1.1
Source: BPS DKI Jakarta, BPS Banten Province, and BPS West Jawa Province

Figure 2.1.4 Growth of Gross Regional Domestic Product (IDR Trillion, 2000 Prices)



Source: BPS DKI Jakarta, BPS Banten Province, BPS West Java Province

Figure 2.1.5 Growth of Real Gross Domestic Product of Indonesia 1991 – 2010 (2000 Prices)



Source: World Economic Outlook, IMF, 2011 April

2.1.4 Motorization

In JABODETABEK, urban transportation is heavily dependent on road based systems. The number of registered vehicles excluding Kota and Kabupaten Bogor have increased rapidly, i.e., almost three times, or from 3.3 million in 2000 to 9.6 million in 2008.

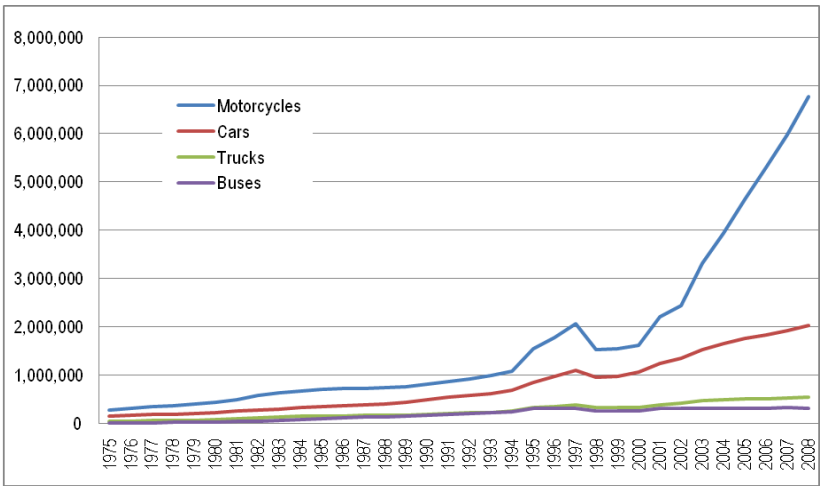
The growth of the registered vehicles in DKI Jakarta, Depok, Tangerang and Bekasi (except Bogor) is shown in Figure 2.1.6. In case of motorcycle, the growth rate has declined since the economic crisis of 1997. However, subsequently as the economy started to grow, the growth rate of registered motorcycles between 2000 and 2005 is recorded to be 23.5 % per annum. Since 2005 the growth rate has slowed to an average rate of 13.3 % per annum from 2005-2010. In contrast, between 2005 and 2008, the number of buses decreased slightly by about eight thousand. The numbers of all registered vehicles are given in Table 2.1.3 below.

Table 2.1.3 Motorization in DKI Jakarta, Depok, Tangerang and Bekasi (Excluding Army and CD (Diplomat) vehicles)

Area		No. of Registered Vehicles (,000)				Registered Vehicles per 1,000 Persons				Growth Rate of Registered Vehicle (% p.a)		
		1990	2000	2005	2008	1990	2000	2005	2008*	'90-'00	'00-'05	'05-'08
Study Area (Except Bogor)	Motorcycle	804	1,620	4,647	6,766	47	77	197	258	7.3	23.5	13.3
	Passenger Car	486	1,053	1,767	2,035	29	50	75	78	8.0	10.9	4.8
	Truck	190	334	500	539	11	16	21	21	5.8	8.4	2.5
	Bus	169	254	317	309	10	12	13	12	4.1	4.5	-0.8
	Total	**1,649**	**3,260**	**7,230**	**9,648**	**97**	**156**	**306**	**369**	**7.1**	**17.3**	**10.1**
Indonesia	Motorcycle	6,083	13,563	28,556	47,684	34	66	130	207	8.3	16.1	18.6
	Passenger Car	1,313	3,039	5,494	9,860	7	15	25	43	8.8	12.6	21.5
	Truck	1,024	1,707	2,921	5,147	6	8	13	22	5.2	11.3	20.8
	Bus	469	688	1,185	2,583	3	3	5	11	3.9	11.5	29.7
	Total	**8,889**	**18,975**	**38,156**	**65,273**	**50**	**92**	**174**	**284**	**7.9**	**15.0**	**19.6**
% of nation		18.6	17.2	18.9	14.8	-	-	-	-	-	-	-

Note: *Population is estimated based on the growth rates in Table 2.1.1; Source: Polda Metro Jaya

Figure 2.1.6 Growth of Registered Vehicles in DKI Jakarta, Depok, Tangerang and Bekasi (Excluding Army and Diplomatic)



2.1.5 Poverty

Poverty indicators show that the study area population is mostly better of than the rest of Indonesia, except for the poverty line. The poverty line of Indonesia is Rp.211,726/month. However, only DKI Jakarta exceeds that in the poverty level, and the other Kota and Kabupaten areas are below the national level.

Within JABODETABEK the areas which have relatively high percentage of poor population are resident in Kota Bogor, and Kabupatens of Bogor, Bekasi and Tangerang, generally the rural population.

Table 2.1.4 Poverty Level in 2010

Region	Number of Poor People		Poverty GAP Index (%)	Poverty Severity Index (%)	Poverty Line
	(,000)	(% of total population)			(Rp./Month)
DKI Jakarta	312	3.5	0.45	0.11	331,169
Kota Bogor	79	8.3	1.49	0.35	169,570
Kab. Bogor	446	10.8	1.95	0.50	197,319
Kota Depok	40	2.9	0.55	0.13	204,552
Kota Tangerang	68	4.4	0.92	0.25	185,053
Kab. Tangerang*	251	7.5	1.46	0.40	175,458
Kota Bekasi	72	3.4	0.63	0.16	197,057
Kab. Bekasi	138	7.0	1.55	0.49	160,136
Indonesia	**31,023**	**13.3**	**2.21**	**0.58**	**211,726**

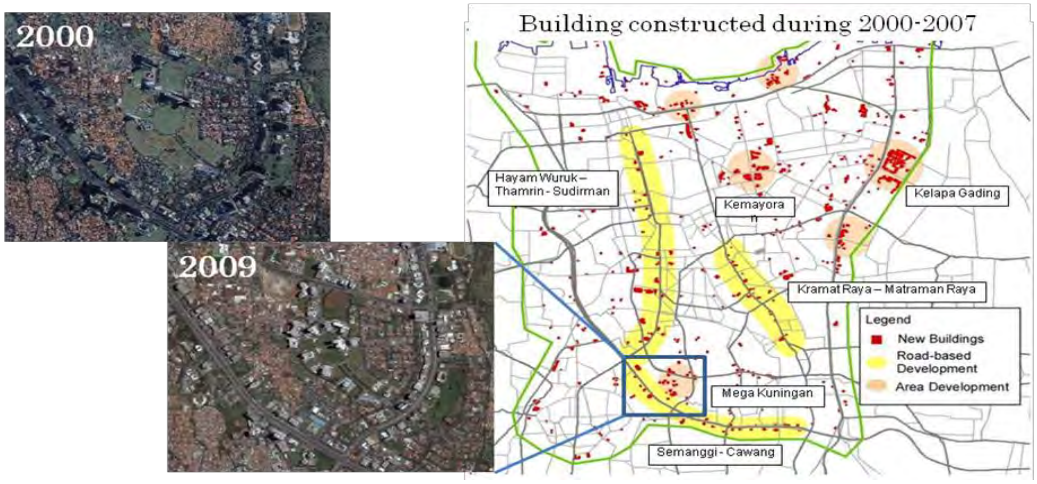
Note: *including Kota Tangerang Selatan; ** Data of GRDP of DKI Jakarta in 2010 is not available

Source: National Social Economic Survey in 2005, except DKI Jakarta and Indonesia which taken from BPS Census 2010.

2.1.6 Urban Development and Planning

The recent (2000 to 2009) urban development in DKI Jakarta is shown in Figure 2.1.7. The recently developed areas mostly consist of integrated mega complexes of shopping center, apartments and office buildings. These developments are mostly located along the toll roads and arterial roads, and within central Jakarta along Jl Sudirman/ Thamrin and in the 'Golden Triangle' of Mega Kuningan. However, sometimes the generated traffic demand exceeds the road capacity of access roads and also access to public transport is limited.

Figure 2.1.7 Urban Redevelopment in DKI Jakarta



Source: Study on Jakarta Road Pricing in the Republic of Indonesia, 2008, Japan External Trade Organization (JETRO)

Principally, JABODETABEK area is defined as the national central city (PKN) and has a key role in the national spatial plan (RTRWN) as the primary hub for export-import activities acting as the international gateway to the nation. It is the center of industrial and service activities on national scale, and is the primary hub for national provincial transportation.

Following the principals as defined in the RTRWN, a spatial plan for JABODETABEKPUNJUR (it covers JABODETABEK, Puncak and Cianjur areas) is defined with the following national strategies.

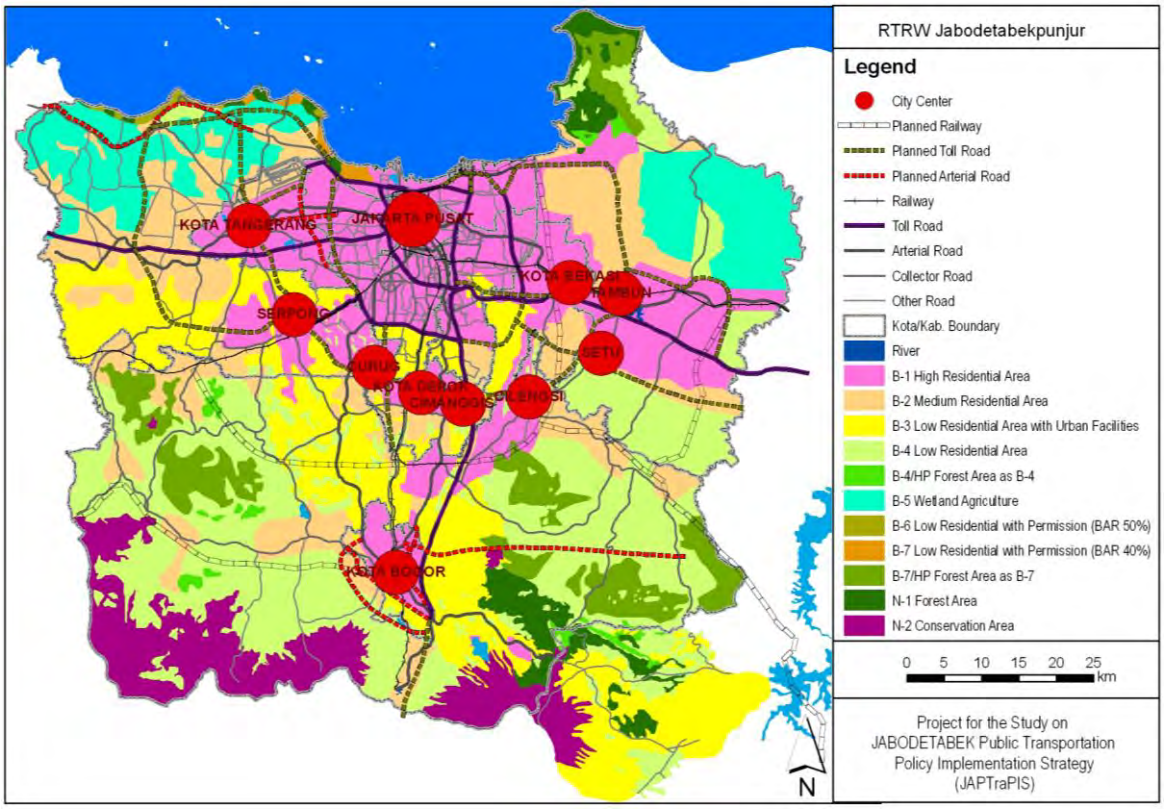
i) To facilitate the implementation of development based on integrated inter-region area plans,

ii) To facilitate the implementation of development that can ensure water and land sustainability, conserve supply of subterranean water, and also overcome flooding with consideration for the sustainable environment; and

iii) To facilitate economic development that is productive, effective, and efficient based on the functions of each area to realize community prosperity and sustainable development.

The framework of urban development is depicted in Figure 2.1.8. It has several city centers with DKI Jakarta as the main center and the other areas as the satellites. It reflects the future land use of JABODETABEK with indicative density of the residential areas at several levels. However, high density area spread is almost the same as the distribution of population density shown in Figure 2.1.3. In addition, the development of land transportation corridors are defined and shown in Figure 2.1.8. The details of plans and projects of the transportation are discussed in the following sections.

Figure 2.1.8 Future Urban Structure of JABODETABEKPUNJUR



Source: National Spatial Plan (RTRWN) for Jabodetabekpunjur area, 2008

2.2 Urban Transportation Administration

2.2.1 Traffic and Road Transportation Law (Law No.22 Year 2009)

The previous law for traffic and land transportation was ratified in 1992, consisting of 16 chapters and 74 articles; meanwhile the current one was endorsed in 2009, consisting of 22 chapters and 326 articles. As Table 2.2.1 shows, the law becomes more comprehensive and encompasses new chapters, i.e. among others, the major additional contents are traffic network and transportation, security and traffic safety, information and communication systems.

Table 2.2.1 Table of Contents of Law No14 Year 1992 and Law No. 22 Year 2009

Law No. 14 Year 1992 regarding Road Transport and Traffic	Law No. 22 Year 2009 regarding Road Transport and Traffic
1. General Provisions	1. General Provisions
2. Principles and Objectives	2. Principles and Objectives
3. Directions	3. Validity of the Law
4. Infrastructure	4. Directions
5. Vehicle	5. Implementation
6. Driver	6. Traffic Network and Transportation
7. Traffic	7. Vehicle
8. Transport	8. Driver
9. Traffic and Transport for Disables	9. Traffic
10. Environmental Impacts	10. Transportation
11. Devolution to Local Governments	11. Security, Traffic Safety and Road Transportation

Law No. 14 Year 1992 regarding Road Transport and Traffic	Law No. 22 Year 2009 regarding Road Transport and Traffic
12. Investigations 13. Criminal Codes 14. Other Provisions 15. Transitional Provisions 16. Final Provisions	12. Environmental Impacts 13. Industrial Development, Technology, Traffic Facilities and Road Transport 14. Traffic Accidents 15. Traffic and Transport for Vulnerable Road Users/Mobility Impaired People (disables, the elderly, children, the pregnant and sick people) 16. Transportation and Traffic Information and Communication Systems 17. Human Resources 18. Community Participation 19. Investigation and Prosecution for Traffic Violation 20. Criminal Codes 21. Transitional Provisions 22. Final Provisions

Source: Compiled by the Study Team

The revised law was formulated, among others, from the following viewpoints[1];

- Decentralization: the government system has shifted from centralized to decentralized system, so that the governance of transportation services shall also be transferred to the local governments, accordingly, meanwhile the articles in the previous law still prioritize the aspects of the implementation to the central government in terms of road infrastructure development and transport management.
- Adjusted to restructure National Police: the previous law was formulated before the restructuring and re-functioning of the National Police, which at that time was part of military forces. The police are now under civil control and no longer under the military. The amendment of the Constitution 1945 was to distinguish between functions of defense and security. Under the provisions of Article 30 paragraph (4), the police confirmed the position as a means of maintaining state security and public order in charge of protecting, nurturing, serving the community and enforce the law. Further regulation of these constitutional provisions set forth in the form of laws, namely Law No.2 Year 2002 regarding the Indonesian National Police.
- Consistency with prevailing laws and regulations: Since 1992, transport related laws and regulations have changed, so it is necessary to incorporate these changes into the revised law. Related laws include, among others,

  - Law No 38 Year 2004 regarding Road;
  - Law No. 2 Year 2002 regarding the National Police; and
  - Law no.26 Year 2007 regarding Spatial planning.

- Clear demarcation on tasks among related agencies: the new law aimed at regulating clear demarcations of security of road traffic and law enforcement, so there would be no conflict handling them among related agencies, and it would also eliminate gray areas of legal certainty, administrative procedures and technical aspects on road infrastructure and traffic.
- Effective control on public transportation operation: As for security and safety of the

[1] No.260/KKl/yyVII/2008 Academic Paper for Law LLAJ. December 2, 2008. National Police. (http://www.komisikepolisianindonesia.com)

passengers, the new law explicitly illustrates it is the government's responsibility: to ensure that public transport is feasible, secure, safe and comfortable, and the public transport service operator comply with minimum service standards to encourage community to switch/ choose to using public transport and reduce the use of private vehicles.

- Enhance drivers' technical skills and driving attitudes: Driver's license should be systemized according to the size of vehicle, and driving skills and attitudes should be controlled at the time of obtaining a driver's license. The new law puts more emphasize on the perspectives of drivers' skills and driver's licensing system.

Table 2.2.2 shows the major differences between Law No.14 Year 1992 and Law No.22 Year 2009.

Table 2.2.2 Major Differences of Law No.14 Year 1992 and Law No.22 Year 2009

Item	Law No.14 Year 1992	Law No.22 Year 2009
1. Relevant Agency	Not explicitly described	Ministry of Public Works Ministry of Transportation Ministry of Industry The Agency for the Assessment and Application of the Technology The National Police "the law does not explicitly give the name of above institutions, but indicate them by tasks given to these institutions.
2. Traffic and Road Transportation Forum	No statement	Article 13 The establishment of forum is a mandate for the coordination among related agencies, academics and communities.
3. Transportation Network	Not explicitly described	Chapter 4 details about the transportation network, including formulation of transportation network master plan for all road structure, relationship with spatial plan and classification of roads.
4. Road Preservation Fund	No statement	Article 29 The necessity of road preservation fund and its management agency to be the Ministry of Public Works
5. Terminal	Bus terminal is not classified.	Article 34 classifies passenger terminal into type A, B and C and sub-divided by several classes based on bus numbers and frequency of use. (However, it does not give clear explanation about each classification and sub-class).
6. Parking	Article 10 simply states a parking facility is to support the safety, security, traffic and road transportation, which is further regulated by government regulations.	Article 43 The location of parking facility should be determined in line with a spatial planning and traffic impact analysis, which is considered to be more land-use oriented mind-set.
7. Motor Vehicle Registration	Article 14 simply states any motor vehicle must be registered.	Article 64 It clarifies that the registration is conducted by the National Police and further provisions shall be regulated by the National Police.
8. Driver's License	Article 19 A driver must obtain a driver's license	Chapter VIII: Driver ● Article 77: Driver's license is classified into two, 1) for individual and 2) for general, which includes license for driving a commercial vehicle. ● Article 82: Driver's license for commercial vehicle is

Item	Law No.14 Year 1992	Law No.22 Year 2009
		categorized into three by the size of vehicle. ● Article 82: Specific requirements for driving commercial vehicle, i.e. bus, taxi and so on.
9. Traffic Impact Analysis	No statement	Article 99 ● It is mandatory to conduct a traffic impact analysis for any plan to build a shopping facility, housing and infrastructure that might impede secure, safe and smooth traffic. ● Traffic impact analysis is one of the requirements for a developer to get a building permit.
10. Traffic Demand Management	No statement	Article 133 – 136 ● Traffic demand management can be imposed to improve the efficiency and effective use of space and controlling the traffic. ● Retribution from traffic demand management can be earmarked to improve the performance of traffic and public transportation services.
11. Public Transportation	Articles do not indicate the obligation of the government to provide public transportation services.	Article 139 The government must ensure the availability of public transportation for passengers and goods.
12. Public Transportation Network	Article 37 states the public transportation is operated with fixed and regular route network.	Article 145 Master route network plan, including cross-national, cross-provincial, intra-province, urban and rural route network, must be formulated. The master plan shall be reviewed every five years.
13. Mass Transport System	No statement	Article 158 The government shall guarantee the availability of mass transit system to meet the transport needs in urban areas. The mass transport system includes ● autobus for mass transit ● exclusive lane ● feeder transport service ● other public transport routes not overlapped with mass transit route
14. Public Passenger Transport Subsidy	No statement	Article 185 ● Economy class of public passenger transport can be subsidized by the central and local governments.
15. Traffic Safety	Not explicitly described	Article 200 The National Police is responsible for the implementation of traffic safety on road transportation.
16. Environment Impacts	No statement for the public transportation company	Article 214 – 215 Public transportation company has rights and obligations to obtain necessary information for sustainable environment and to comply with environment quality standards.
17. Devolution to Local Governments	Article 51 The central government can devolve parts of government affairs in the field of traffic and road transportation to local governments.	The demarcation of roles among the central, provincial and local governments, district and municipality governments are explicitly described in articles respectively.

Source: Compiled by the Study Team

Law 22 Year 2009 is going to embrace twelve government regulations (Peraturan Pemerintah) and four out of twelve regulations are planned to be endorsed in 2011, and remaining will be formulated and endorsed in 2012. According to the DGLT, draft

government regulations about road transport and traffic forum, traffic engineering management, vehicles and motor vehicle inspection procedures and control of traffic violation were already submitted to the State Secretary and the Ministry of Law and Human Rights for the appraisal.

The articles refer to in the law are summarized in the Table 2.2.3.

Table 2.2.3 Draft Government Regulation referred in the Law No.22 Year 2009

Draft Government Regulation	Referred Articles in Law No. 22 Year 2009
Government Regulation planned to be endorsed in 2011	
1. Traffic and Road Transportation Forum	Article 13: Traffic and Transportation Forum
2. Management and Traffic Engineering	Implementation Management and Traffic Engineering (Article 93, 94, 95, 96, 97 and 98,) Traffic Impact Analysis (Article 101 and 102) Traffic Demand Management (Article 133 and 136)
3. Vehicles	Vehicle Types and Functions (Article 47) Technical Requirements for Roadworthy for Motor Vehicle (Article 48) Motor Vehicle Inspection (Article 50, 51, 52, 53, 54, 55 and 56) Vehicle Equipments (Article 57, 58 and 59) General Motor Vehicle Workshop (Article 60) Non-motorized vehicles (Article 61, 62 and 63)
4. Motor Vehicle Inspection Procedures and Law Enforcement on Traffic Regulation	Inspection of Motor Vehicles on Road (Article 264, 265 and 266) Law Enforcement Procedures on Traffic Regulations (Article 267, 268 and 269) Seized Goods Handling Procedures (Article 270, 271 and 272)
Government Regulation planned to be formulated in 2012	
1. Traffic Network	Master Plan for Traffic and Road Transportation Network (Article 18) Traffic (Article 19, 20 and 21) Road Facilities (Article 25) Terminal (Article 42) Supporting Facilities (Article 46)
2. Transport	Transport for Passengers and Goods (Article 137) Public Transport (Article 150) Multimodal Transport (Article 165) Freight Vehicle Control (Article 172) Tariff (Article 185) Public Transport Company's Obligation (Article 192) Public Transport Service Industry (Article 198)
3. Education and Training for Drivers	unknown
4. Safety and Security	Traffic Safety and Road Transportation (Article 205) Supervision of Security and Safety on Traffic and Road Transportation (Article 207)
5. Environmental Impacts	Environmental Protection (Article 209) Prevention and Controlling Environmental Impacts (Article 210) Rights and Obligations of Community (Article 218)
6. Information and Communication Systems	Information and Communication System: More Settings (Article 252) Human Resources (Article 255)
7. Industry	unknown
8. Technology Development	unknown

Source: The Study Team

Table 2.2.4 shows the laws and regulations related to the transportation sector, mainly land transportation.

Table 2.2.4 Laws and Regulations related to Transportation

No.	Title	General	Public Transport (Bus)	Infra-structure	Insti-tutional	Others
1.	Law No. 22 Year 2009 regarding Traffic and Road Transportation	X	X	X	X	
2.	Law No. 38 Year 2004 regarding Road	X		X	X	
3.	Law No. 32 Year 2004 regarding Regional Government	X			X	
4.	Government Regulation No.38 Year 2007 regarding Demarcation of Government Administration among the Central, Provincial and Local Governments (Kabupaten/Kota)	X			X	
5.	Government Regulation No15 Year 2005 regarding Toll Road					X
6.	Government Regulation No.65 Year 2005 regarding the Formulation and Implementation of the Guideline for Minimum Service Standards					X
7.	(Ministerial Decree) KM68 Year 1993 regarding Organizing Public Transport for Road Transportation		X		X	
8.	KM 3 Year 2010 regarding Minimum Service Standards in Education and Training Institute for Road Transport				X	
9.	KM1 Year 2009 regarding Lowest and Highest Limit of Basic Tariff for Economy Class Public Bus for Inter-City Crossing Provincial Borders		X			
10.	KM40 Year 2009 regarding Tariff on Motor Vehicle Testing and Implementation Guidelines	、				X
11.	KM 60 Year 2007 regarding Subsidy for Public Passenger Transport on Road Transportation		X			
12.	KM 58 Year 2007 regarding Amendment to Ministerial Decree KM 73 Year 2004 regarding River and Lake Transportation					X
13.	KM 13 Year 2006 regarding the Guidelines for Implementing Competition on Public Transportation		X			
14.	KM 14 Year 2006 regarding the Management and Traffic Engineering on Road	X				
15.	KM 52 Year 2006 regarding Amendment to Ministerial Decree KM 89 Year 2002 regarding Calculation Formula of the Cost on Economy Class of Inter-city Public Passenger Bus		X			
16.	KM 73 Year 2004 regarding River and Lake Transport					X
17.	KM 35 Year 2003 regarding the Implementation Pubic Passenger Transportation on Road		X			
18.	KM 22 Year 2003 regarding Operation of Railway (KA)					X
19.	KM 34 Year 2002 regarding Basic Tariff for Economy Class on Inter-city Public Bus		X			
20.	KM 52 Year 2000 regarding Railway Track					X
21.	KM 53 Year 2000 regarding Intersection and/or Crossway with Railway Track			X		X
22.	KM 71 Year 1999 regarding the Accessibility to Transportation Infrastructure for Vulnerable Transport Users (disabled and sick people)					X
23.	KM 84 Year 1999 regarding the Implementation Pubic Passenger Transportation on Road		X			
24.	KM 31 1995 regarding Road Transport Terminal			X		
25.	KM 4 Year 1999 regarding Motor Vehicle Parking Procedures on Road			X		

No.	Title	General	Public Transport (Bus)	Infra-structure	Insti-tutional	Others
26.	KM 36 Year 1999 regarding Motor Vehicle Driving Education					X
27.	KM 66 Year 1993 regarding Parking Facilities			X		

Source: http://hubdat.webid/uu. Land Transportation, Ministry of Transportation website.
Note: KM; Keputusan Menteri (Minister's Decision)

2.2.2 Traffic and Transportation Forum

The new traffic and transportation law explicitly illustrates more assertive community's involvement to the traffic and transportation sector following the aspiration of the decentralization. Besides the roles and responsibilities of the community to get involved into the traffic and transportation matters, the law also emphasize on the unity and coordination among related agencies by establishing a traffic and transportation forum at all government administration levels to serve it as a vehicle for synergizing the main tasks and functions of respective agencies related to traffic and transportation.

Article 13 in the law indicates the establishment of "forum" for traffic and transportation, and its main tasks are to coordinate among related agencies in planning, analyzing problems and seeking solutions for better traffic and transportation services.

1) Traffic Coordination Body (Badan Koordinasi Lalu Lintas: BAKORLANTAS)

After hearings at some local government transportation agencies, it was found that a traffic coordination board already serves similar functions as to an expected traffic and transportation forum. The members of BAKORLANTAS consists of DisHub, Dina PU, Bappeda, the Police, local organizations and community leaders and they are all officially appointed by the head of local government with an instruction letter, i.e. SK (Surat Keputusan). The frequency of holding a coordination meeting and its main functions differ from one to another, but basically the BAKORLANTAS is utilized not only for coordination among related agencies, but also to have a dialog with them for formulating transportation planning and solving traffic issues, which cannot be solved by a single agency, such as rerouting and revoking route for public transportation, seeking a solution to violations committed by Angkot operators. Although the government regulation for the forum has not been released yet, it is rationally presumed that the local governments, including DKI Jakarta, already have a mechanism to embrace the aspirations of the community, and they will transfer existing coordination board to a forum, in line with the government regulation.

2) Legal Aspects of Traffic and Road Transport Forum

Although local governments currently have coordination board in itself is not a mandate in the Law 14 Year 1999, while it is explicitly indicated in the existing Law 22 Year 2009.

The Law defines the government operates traffic and road transport activities in a coordinated manner, and indicates a forum as one means to have such coordination. Article 13 indicates that "coordination of traffic and road transport referred to in paragraph (1) conducted by the Forum of Traffic and Road Transport."

According to the draft regulation, the goals are 1) to synergize tasks and functions of each

agency related to traffic and transportation, namely Ministry of Transportation, Ministry of Public Works, Ministry of Industry, the Agency for the Assessment and Application of Technology (BPPT) and the National Police at the central government level, and the designated agencies at the local government level, accordingly, except the BPPT, and 2) to strengthen and streamline the implementation of traffic and road transportation services.

Forum will be established in the framework of government structure, i.e. at each level national, provincial and district/ municipality, and each forum is divided not only by the government administrative structure, but also by road classification, which seems to be significantly insufficient and not functional, so to speak. The forum is structured in such system is mainly because the institution is deemed from the viewpoint of road administration, instead of considering roads and transport as one of the factors of same area, in urban or rural planning. Besides this fact, the forum is more oriented to be a coordination body for government agencies.

2.2.3 JABODETABEK Transportation Authority (JTA)

Once the JTA is established, it is suggested to review the status and functions of the forum and make a better connection between the JTA and forums at district and municipality level.

Since September 2010, the President's Working Unit for Development Control and Monitoring (UKP4) has kept updating its "Steps on Jabodetabek Transportation Management" action and monitoring matrix. The last matrix, revised in March 2011, is the 8th edition and the latest update was made in April 2011, through Internet reporting system which the UKP4 introduced in February 2011. The website was designed to be a closed website with limited access for persons in charge at respective ministries and DKI Jakarta. The reporting system was designed to collect updated progress of activities from the agencies promptly and let the UKP4 evaluate and give feed back to them in decent time manner. The system, not only requires a brief progress report, but also the agencies are supposed to submit any documents or photos that prove the definite progress.

The establishment of Jabodetabek Transportation Authority (JTA) is one of the management steps being undertaken by the UKP4. The key benchmarks set by the UKP4 for the establishment of the JTA and the integrated transportation master plan for Jabodetabek, which will be the base plan of the JTA for the implementation of transport policies and activities, are summarized in Table 2.2.5.

The current status is that the draft of presidential regulation for the establishment of the JTA was submitted to the Secretary of Cabinet and to the President.

Table 2.2.5 Benchmarks of the JTA and Transportation Master Plan

Activity	Primary Responsible Institution	Related Institution	Targeted Date and Outputs
Establishment of the JTA			
Study on institutional set-up for the establishment of the JTA	CMEA	MOT, Bappenas, UKP4	Dec. 2010 Institutional set-up study is completed
Drafting the Presidential Regulation (Peraturan President) to establish the JTA	CMEA	MOT, Bappenas and UKP4 (SetNeg, Menpan, MTI)	April 2011 The final draft of the presidential regulation is submitted to the State Secretary
			June 2011

Activity	Primary Responsible Institution	Related Institution	Targeted Date and Outputs
			The regulation is endorsed by the president
Establishment of the JTA	CMEA	MOT, Bappenas, UPK4, 3 provinces, MOPW, Police	April 2011 The first draft of terms of reference (TOR) and standard operation procedures (SOP) are formulated.
			June 2011 The final draft of TOR, SOP and the candidates for chairperson and deputies are proposed to the president
Establishment of the JTA	CMEA	MOT, Bappenas, UPK4, 3 provinces, MOPW, Police	August 2011 Presidential Decree (Keppress) is endorsed and the president appoints the chairperson and the deputies.
			October 2011 Social dissemination to the related sectors and the public in the area. Recruitment and mobilization of personnel
			December 2011 Inauguration of the JTA
Revision of the Integrated Jabodetabek Transportation Master Plan			
Evaluation of the existing transportation master plan	CMEA	Bappenas, MOT, JTA	December 2010 Formulation of draft final report on the evaluation of the existing transportation master plan (SITRAMP)
			February 2011 Final evaluation report on the transportation master plan
Revision of the transportation master plan	CMEA	Bappenas, MOT, JTA	December 2010 Discussion of the draft final report of the master plan with related stakeholders
			June 2011 Draft final report of the revised transportation master plan is completed for the review by respective related ministries
Enactment of government regulation (PP) for the Jabodetabek Transportation Master Plan	CMEA	MOT, JTA	June 2011 Drafting the PP for the master plan
			August 2011 The draft is submitted to the State Secretary
			October 2011 Government regulation is enacted and published
			December 2011 Technical guidelines from related ministries and local governments are compiled and published

Source: Steps on Jabodetabek Transportation Management 8th Edit. UKP4. March 2011

Initially, the JTA was intended to be a relatively powerful authority to carry out its missions, to realize the integrated transportation master plan and to provide public transportation services in the Jabodetabek area; yet, it has been somehow set back to being an agency somewhere between coordination and administrator managing above missions.

According to the draft presidential regulation submitted to the Administration, the authority

is to be established considering that;

(1) the public transportation system in Jakarta, Bogor, Depok, Tangerang and Bekasi need to be developed, in order to improve the services to the community, to support economic development and to create a better living environment for the society; and

(2) the development of effective and efficient transportation network will lessen the burden of excessive centralization to DKI Jakarta and in parallel to foster the development of sub-urban (satellite) centers.

3) Function, Task and Authority

The authority will be established directly under the President, i.e. the chairperson of the authority is responsible and accountable to the president, similar to ministers and the head of the national police. Although it was once on the table, the status of the authority is not a ministry or an agency (Lembaga) anymore since the prevailing laws do not allow to establish a new ministry or agency; thus, the sentence “non-ministerial government institution” was deleted from the draft, which makes the position of the JTA uncertain, and the authority given to the institution unclear, i.e. In line with the relationship with coordination ministers, ministers and state agencies. However, one thing it is clear in the presidential regulation is that the authority is guided by a coordination team, headed by the coordinating minister for economy, which implies the JTA is somehow under the control of the coordinating ministry.

The primary tasks of the JTA are 1) to formulate short-term action plans based on the transportation master plan, 2) to enhance the services of public transportation and develop necessary infrastructure, 3) to implement traffic demand management, 4) to transit oriented development, 5) to budget and execute the planning and monitor their performance.

Article 4 of the draft regulation states the functions of the authority as following;

a. to formulate a general transportation and action plans to develop and provide integrated transport services;

b. strengthen urban public transport services;

c. develop and improve infrastructure and facilities that support the urban public transport services;

d. implement traffic demand management (TDM);

e. support transit oriented development (TOD);

f. monitor and evaluate the implementation of the transportation master plan and programs to develop integrated transport services in the region;

g. budget for the implementation of the master plan and programs;

h. carry out the state’s asset management under the responsibility of the JTA; and

i. supervise the overall implementation of the tasks under the authorization of the JTA.

One of the crucial issues for the JTA is how to conduct tasks which are already assigned to the line ministries and local governments. Since the tasks and functions which the JTA is going to carry out are already explicitly stated in relevant laws and regulation, i.e. Law 22 Year 2009 regarding Traffic and Road Transportation, Law No. 38 Year 2004 regarding

Road and Law No. 32 Year 2004 regarding Regional Government, among others, as a legal point of view, those laws and subsidiary government regulations, including local government regulations and instructions must be revised or at least the respective agencies should issue amendment to accommodate the presidential regulation for the JTA. Meanwhile, the presidential regulation, in order to avoid prospected conflicts or inconsistencies with the prevailing laws and regulations, set forth one article, the article 38, to devolve licensing and other necessary authorities of transport service delivery from the central and local governments to the JTA.

a. To facilitate the implementation of the tasks and functions of the JTA, the government, i.e. the administration of the central government, decided to devolve the necessary authority in the transportation sector to the JTA.

b. In addition to the paragraph (a), the JTA is given necessary authorities in transportation sector from DKI Jakarta, West Java, and Banten provinces, Kota Bekasi, Kabupaten Bekasi, Kota Bogor, Kabupaten Bogor, Kota Depok, Kota Tangerang, Kabupaten Tangerang and Kota Tangerang Selatan, to carry out its missions.

c. Further provisions on the transfer or the devolvement of authorities shall be regulated by government regulations.

Besides abovementioned regulatory issues, there are some controversial and unsolved issues remained for the establishment, like the financial resource. The root of most issues are caused mainly by insufficient discussion and coordination among related agencies, in particular, the Ministry of Finance has not been fully involved in this establishment preparation, the financial issue, as the one of the most crucial points, is missing from the beginning of the discussion. Even at this point of the final draft of the presidential regulation, the only thing decided for the finance is that the financial source of the JTA comes from the national budget.

Initially, the concept was to finance from state and local government budgets, as well as to open a possibility for a loan from domestic and overseas, and to invest in the transportation business and infrastructure from the revenues from public transportation operations, i.e. busway, MRT and possible revenue from redevelopment of station square, and so on. The idea was more “hybrid” type of organization under the government structure, yet, after a series of discussion, it was pointed out from the Ministry of Finance that if the JTA is established as an agency at the central government level, the financial source must be from the central government, i.e. the budget from the local governments are not available to be utilized in the framework of the financial system. However, the idea to include the local governments for the budgeting is to have them the sense of ownership and to get more involvement not only for the administration and planning, but also for the implementation, so it is still significant for the JTA that somehow the local governments are involved and contribute financially to the JTA.

Although it is not explicitly stated in the presidential regulation, it is perceived and expected by the related agencies, at least at the central level, that a window is open for the local governments to contribute financially in the form, so to speak, a matching fund to programs and projects carried out by the JTA.

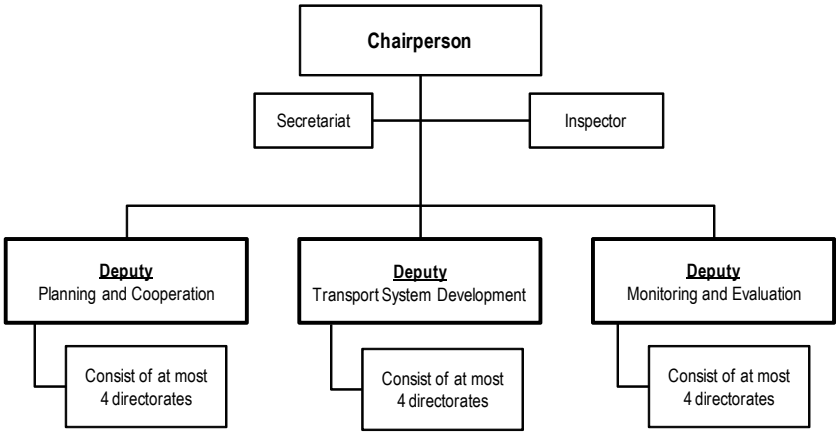
The organization structure is rather conventional, strictly following the rules of government administrative structure, similar to other ministries, which is considered to be less

functional or innovative to conduct the tasks needed to be done swiftly and effectively, considering the public transportation should be more focused on the users' benefits and convenience instead of the interests and government administration; so that, somehow a private business approach could be more ideal and appropriate for the planning and operation to provide public transportation services.

The authority is headed by the chairperson and three deputies are under it, who are all directly appointed by the president. The executives can be from PNS (Pegawai Negeri Sipil: civil servant) or non-PNS, for the chairperson but not for the deputies. According to the regulation, the financial rights and other facilities equivalent to the State Ministry for the chairperson and the structural position of *'Echelon 1a'* for the deputies Another issue about the organizational structure is the "work mechanism" stated in the Article 28. It states that the JTA shall conduct coordination meetings with related ministries, agencies and local governments, instead of playing more significant role to lead the development of transport infrastructure development and the realization of the master plan. If the authority is deemed to be just an another coordination institution like BKSP Jabodetabek (Badan Kerja Sama Pembangunan Jabodetabek: Jabodetabek Development Cooperation Agency), which is more likely not sufficiently functional to achieve the missions and tasks

Figure 2.2.1 shows the latest version of the organization chart of the JTA authority proposed by the CMEA in December 2011.

Figure 2.2.1 Organizational Structure of the JTA



Source: The Study Team

4) Next Steps

The first draft of task descriptions and standard operation procedures was delivered to the UKP4 by the end of April to meet the deadline. The draft was formulated only by the CMEA, i.e. without any consultations or discussions with related ministries, so that the next step will be a series of discussion to explore and finalize the task descriptions and standard operation procedures. It is deemed, however, that the discussions will be intensive, since task demarcations and devolution of authorities have not been on the table yet.

Once the presidential regulation is enacted, the next critical benchmark is to nominate the candidate for the chairperson and deputies of the JTA. Considering a strong and charismatic leadership with profound knowledge of urban transportation and planning would be the inevitable qualification for these positions,

2.2.4 Fuel Subsidy

A long standing issue, a roadmap to reduce subsidized fuels set in 2004, has seen a striking movement in April 2011. The Administration announced, in January, to carry out the subsidized fuel management policy, which will be implemented step by step starting from April to reduce the subsidized fuels. The unsubsidized fuels have increased slightly in most parts of Indonesia according to Pertamina. In the Jabodetabek area, the range of fuel price hike is Rp.200/L to Rp.650/L depending on the fuel type.

Table 2.2.6 Subsidized and Unsubsidized Fuel Prices in Jabodetabek

Type of Fuel	Unsubsidized Fuel Price	Remarks
Pertamax Plus	Rp.9,550	Highest: Rp.10,100 in Melawai Lowest: Rp.9,150 in Batam
Pertamax/ Bio Pertamax	Rp.9,250	Highest: Rp.10,750 in Kab. Berau Lowest: Rp.9,450 in UPMs IV region
Pertamina Dex	Rp.10,000	-

Source: "Perkembangan Harga BBM Non-Subsidi periode 15 Mei 2011" Press Release of PT. Pertamina. (As of May 15, 2011)

According to the Ministry of Energy and Mineral Resources (ESDM), the subsidized fuel has significantly increased year by year, reaching 80% increase in year 2010 compared to the previous year (see Table 2.2.7). A total subsidy from the state budget for the subsidized fuels (all types) would become Rp. 413.2 trillion Rupiah in 2011. The IAEA survey of fossil fuel subsidies in 2008 reveals the subsidies in Indonesia amounted to nearly 4% of GDP. The retail price for petrol (Bensin) in Indonesia is 58% below the international market prices and 67% for diesel, while 14% and 35% in China and 35% and 20% in India, respectively.[2] As for FY2011, the government allocated Rp.95.9 trillion for the subsidies for fuel oil (BBM) and a 3kg liquefied petroleum gas (LPG).[3]

Based on the Roadmap, the subsidized fuel management was started in the Jabodetabek area as a pilot project since the region is considered as the most ready area from its infrastructure and the total amount of subsidized fuel consumption points of view, which consumes about 18% of the national premium fuel.

Table 2.2.7 Subsidized Fuel Consumption and Subsidy Amount (2006-2010)

Item	2006	2007	2008	2009	2010
Subsidized Fuel Consumption (million KL)	37.4	38.6	39.2	37.7	38.4
Subsidized Fuel Amount (trillion Rupiah)	64.2	83.8	139.1	45.0	81.1

Source: "Pengaturan BBM Bersubsidi Telah Sesuai Roadmap." ESDN. January 6, 2011.
http://www.esdm.go.id/berita/migas/40-migas/4039-pengaturan-bbm-bersubsidi-telah-sesuai-roadmap.html

Looking at the consumers of subsidized fuels in 2010, land transportation sector takes the biggest share, 89%, followed by domestic 6%, fishery 3%, small business 1% and water transportation 1%. In land transportation, premium fuel is consumed by personal vehicle,

[2] Viewpoints. Michael Risharson. May 9, 2011. The Straits Times.
[3] Article 7. UU10-2010 regarding National Revenue and Budget.

dominating 53%, while motorcycle 40%, freight vehicle 4% and public transportation 3%.[4]

Although the price hike of non-subsidized fuels in the Jabodetabek area, there is no tariff increase for public transportation, since the public transport operator can still enjoy using the subsidized fuel, according to the regulation, Ministerial Decree of the ESDM No.1 Year 2009 regarding Retail Selling Fuel Price...for Transportation and General Services, and the Presidential Regulation No.9 Year 2006 regarding the Amendment of Presidential Regulation No. 55 Year 2005 regarding Retail selling Fuel Price in the State. The regulation sets the fuel price to Rp.4,500/kl for premium gasoline and diesel oil for household, small business, fishery, transportation and general services.

According to estimates from SUSENAS data in 2008 and the World Bank, the highest tier of income group (25%) receives the highest allocation of subsidies, 75%, while the lowest tier receives only 15% of the subsidies, which indicates the imbalance in the allocation to the targeted beneficiaries.[5] Another figure from the National Social and Economic Survey in 2008, 84% of subsidized fuels were used by the wealthiest 50% of the people in the country[6], which also support the rational of reducing the subsidy from the Jabodetabek area.

From the total subsidized fuel consumption in Indonesia, the Jabodetabek area consumes about 30%, equivalent to 18% of the national premium fuel consumption, while Java-Bali islands consume the highest of 59% of the national consumption.[7] Therefore, it is logically understandable to start the subsidized fuel management policy from the Jabodetabek, which is not only ready in terms of various aspects, but also to bring the most significant impact of the policy.

2.2.5 Institutional Issues of Public Transportation Services

The orientation of the public transportation services are much focused on increasing local revenues instead of improving service quality.

Stakeholders to the public transportation are considerably in wide range, and the collective efforts to provide and improve public transportation services are not yet in rigorous and coordinative structure, but more independently institutional. In some areas of participation and influence of local community leaders are dominant, while their understanding of the operation of public transportation is inadequate. Institutional and regulatory issues to be pointed out are that law enforcement government agencies are not capable and effective enough to supervise the operation of private bus operating companies, and mechanisms determining the route and type of modes are not carried out in accordance with prevailing regulations.[8]

Other major issues related to institutional, financial and regulatory aspects, among others, are summarized below;[9]

- lack of synchronization and coordination with related stakeholders in both planning and transport system, and in relation to spatial development;

[4] "Pengaturan BBM Bersubsidi Telah Sesuai Roadmap." ESDN. January 6, 2011.
[5] "Hasil Penerimaan Sektor Miga Lebih Bnyak Untuk Subsidi" Press Release, April 1, 2011. ESDM.
[6] "Late fuel subsidy removal hurts RI" Mary 12, 2011. The Jakarta Post.
[7] ditto
[8] Penyusunan Master Plan Pola Transportasi Makro (PTM) di Jabodetabek (PTM Jabodetabek). Kementerian Perhubungan. 2009.
[9] ditto

- less anticipation of adequate infrastructure development due to lack of finance and ineffective and incoherent development planning by the related agencies;
- lack of detailed basic service standards guidelines for both transport and service quality;
- deficient management and coordination due to malfunctioned cooperative system of bus ownership; and
- intangible and non-strategic subsidy system, which does not reach to the public or to improve public transport services.

2.3 Road Network and Traffic Conditions

2.3.1 Road Network

Roads are classified by function or by road administration according to the law, Regulation Number 34. There are four functional classifications: Toll roads, Primary roads, Secondary roads and Other roads; or by authority/ administration: National roads (Toll), National roads (Non-Toll), Provincial roads, and Others (District roads and other roads) .

The total length of the roads as of 2009 is over 6,700km in DKI Jakarta, and about 13,700km in the Jabodetabek region (see Table 2.3.1). About 50% of the roads are under DKI Jakarta which has only one tenth of area and one third of the population.

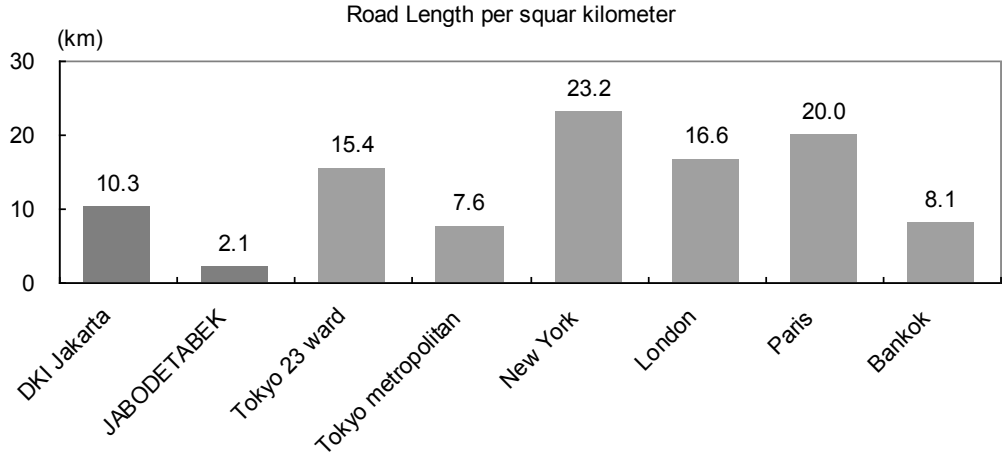
The density of roads in Jabodetabek region is quite low when compared to other mega cities of the world (see Figure 2.3.1). Central Jakarta (Jakarta Pusat) has the highest road density by area and by population, as it is the major business district in the study area. It should also be noted that West Jakarta (Jakarta Barat) has fairly high road density by area but it has the highest population in the area. In Bodetabek region, such as Kota Tangerang Selatan and Kota Bekasi have least amount of roads when compared to their population.

Table 2.3.1 Road Length by Region

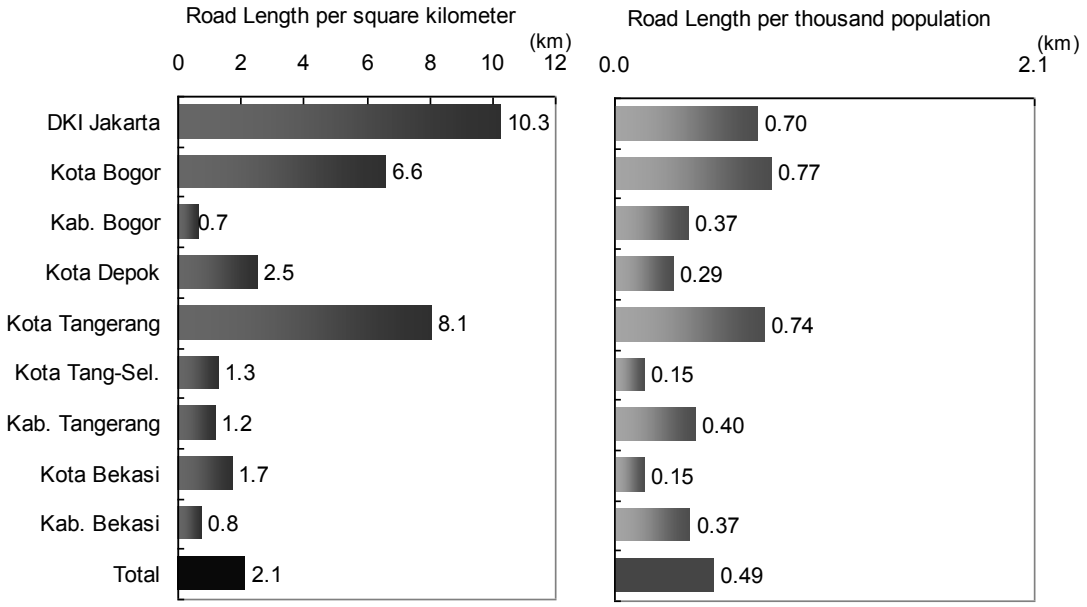
Region		Road Length (km)					Area (km^2)	Population (thousand)
		Toll	National	Province	Others	Total		
DKI Jakarta	Jakarta Selatan	21.9	50.2	312.1	1,273.7	1,657.9	141.3	2,062
	Jakarta Timur	37.2	31.5	335.4	1,058.0	1,462.1	188.3	2,694
	Jakarta Pusat	6.4	13.6	233.7	628.9	882.5	48.1	903
	Jakarta Barat	12.9	39.1	254.6	1,206.7	1,513.2	129.5	2,282
	Jakarta Utara	34.6	29.4	194.5	949.8	1,208.3	146.7	1,646
	total	113.0	163.8	1,330.3	5,116.9	6,724.0	653.9	9,587
Bodetabek	Kota Bogor	*2	34.2	26.8	677.1	738.1	111.7	950
	Kabupaten Bogor*1	*2	121.5	130.0	1,506.6	1,758.1	2,663.8	4,772
	Kota Depok	*2	14.3	19.2	469.8	503.2	199.4	1,739
	Kota Tangerang	*2	16.2	22.0	1,287.5	1,325.7	164.6	1,799
	Kota Tangerang Selatan	*2	9.2	45.8	137.8	192.7	150.8	1,290
	Kabupaten Tangerang	*2	27.9	114.4	990.6	1,133.0	959.6	2,834
	Kota Bekasi	23.7	13.6	13.3	312.3	362.9	210.5	2,335
	Kabupaten Bekasi	*2	29.7	26.1	927.0	982.7	1269.5	2,630
	total	23.7	266.5	397.5	6,308.5	6,996.3	5,729.9	18,349
JABODETABEK		136.7	430.3	1,727.8	11,425.5	13,720.2	6,383.9	27,936

Source: Road Length data from Dalam Angka 2009 (*1 2007, *2 N/A), Area and Population data from Census 2010 (Kepulauan Seribu excluded)

Figure 2.3.1 Comparison of Road Density in Mega Cities



Source: Tokyo Metropolitan White Paper 2000, Economic Outlook in Thailand 1996/97

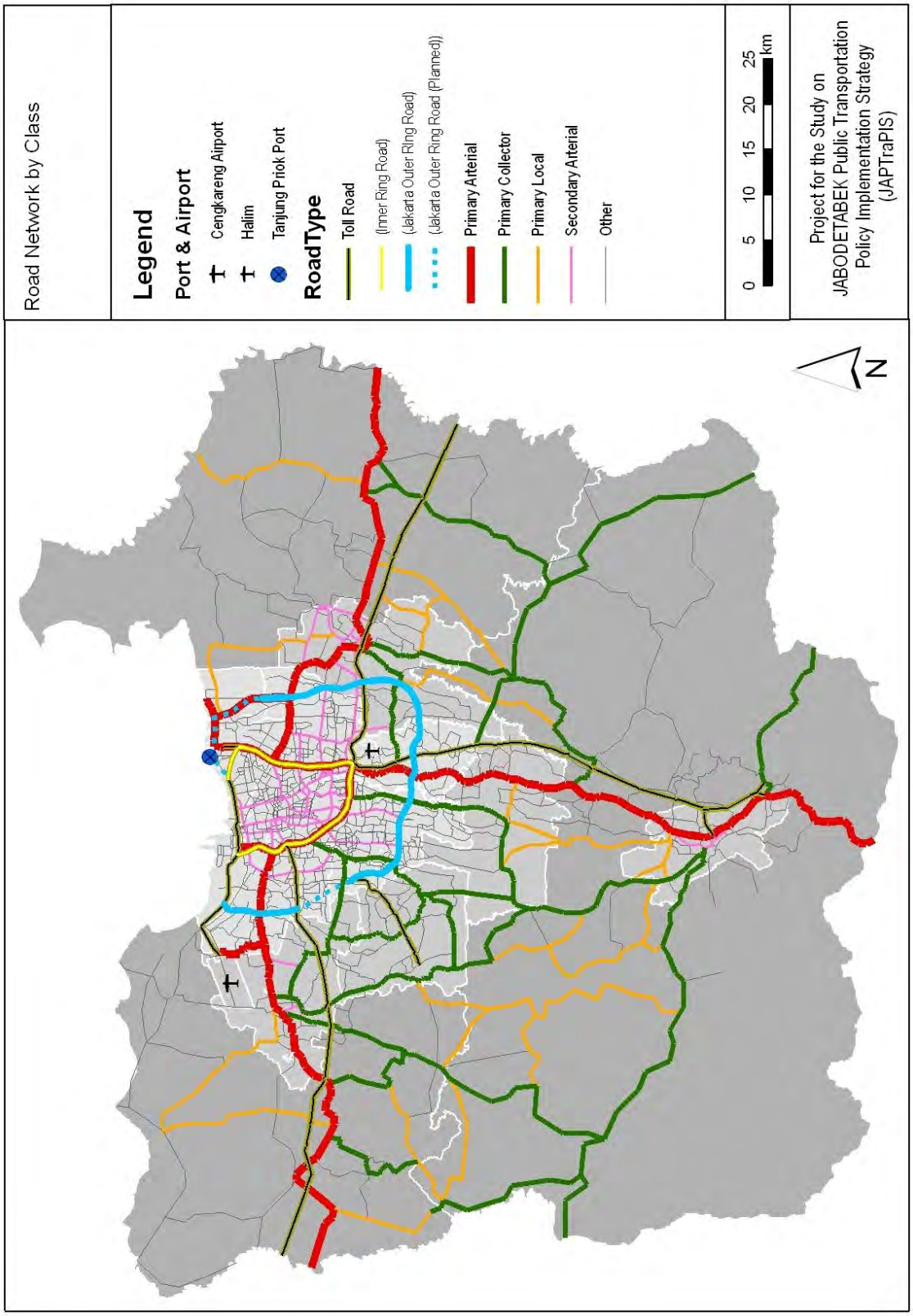


Source: Road Length data from Dalam Angka 2009 (Kab.Bogor:2007), Area and Population data from Census 2010

The toll road network developments are in progress, the radial toll roads to Merak, Serpong, Bogor and Cikampek as well as two ring roads; Jakarta Intra-Urban Toll Road (JIUT) and a part of Jakarta Outer-Ring Road (JORR), almost 137km are in service. JIUT is the inner ring toll road that runs at a 4 to 7km radius from the center of Jakarta city. JORR is also a ring toll road that runs at a 10 to 13 km radius from central Jakarta around the metropolitan area.

The major radial toll roads Jakarta-Merak, Jagorawi and Jakarta-Cikampek are mostly Dual-3 and some sections in the inner city area are Dual-4. JIUT and JORR are generally Dual-3 and in some areas Dual-4 with additional lanes for Trucks/ Buses only.

Figure 2.3.3 Road Netowork by Road Class



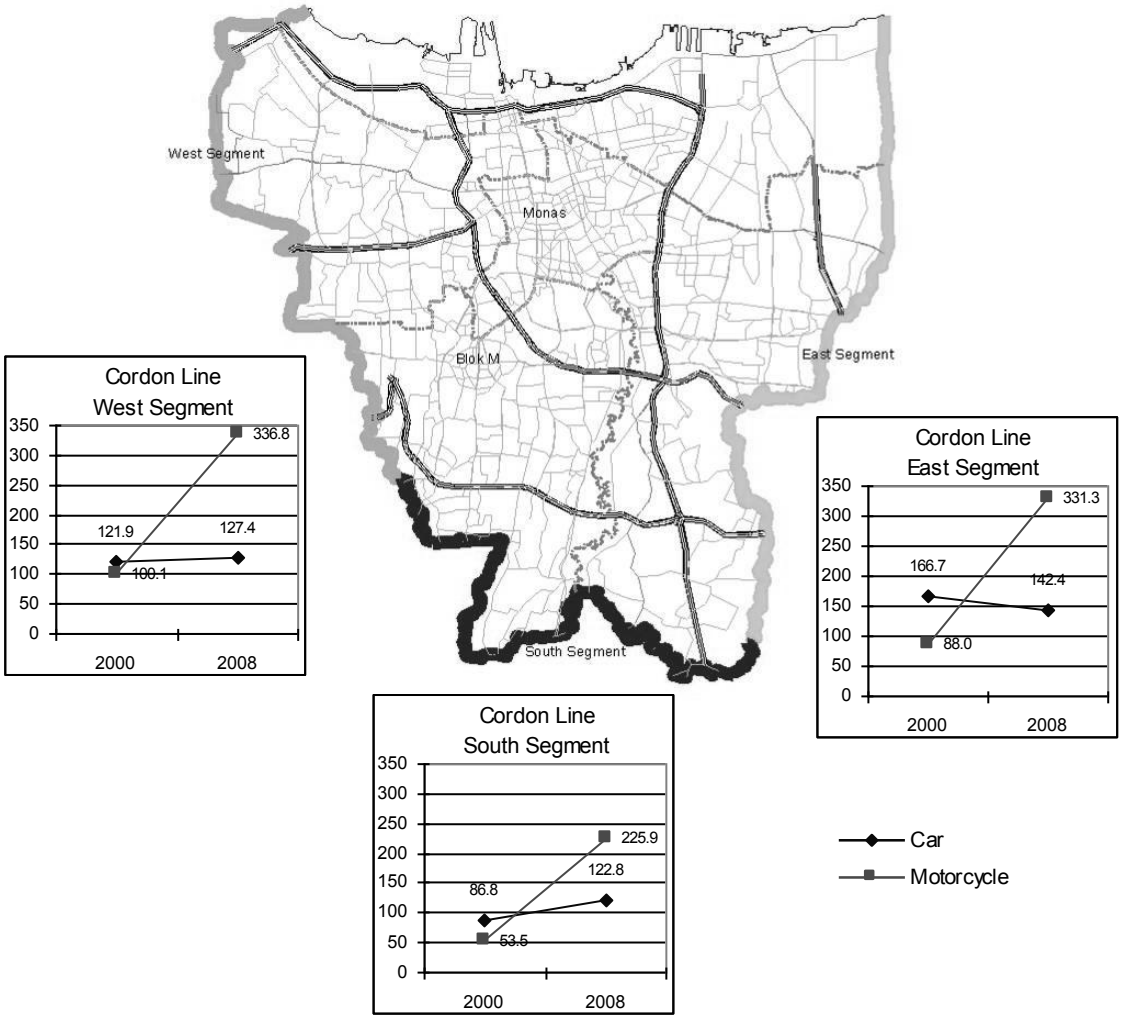
Source: Capacity of roads data from JUTPI Road Network for the traffic simulation

2.3.2 Road Traffic Conditions

1) Traffic Volumes

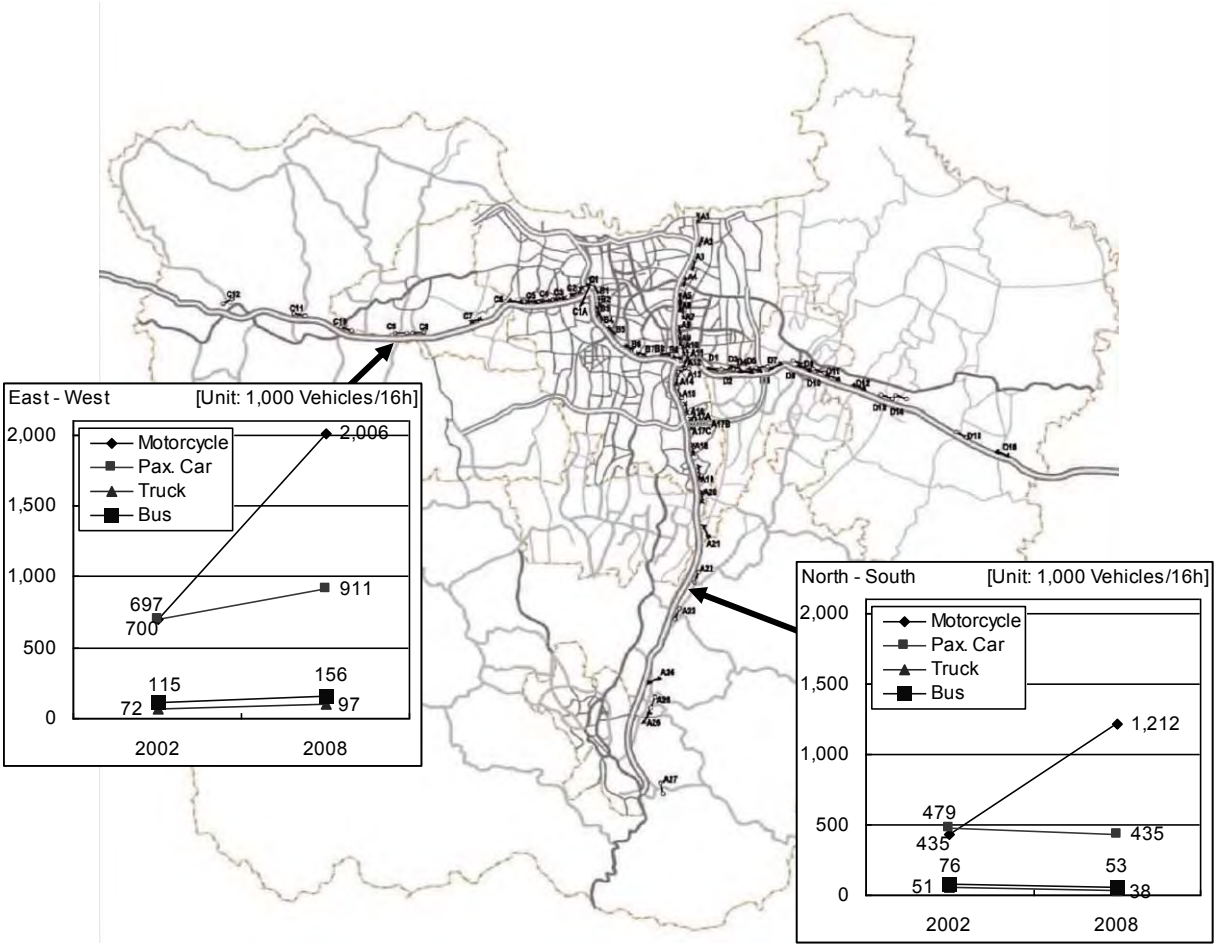
A traffic volume count survey was carried out in 2008 by JICA to update SITRAMP database. Through comparison with previous surveys in 2000, 2002, 2006 and 2007, the rapid increase of motorcycle traffic is evident at all cordons and screenlines. The volume of cars, however, varies by cordon and screenline. It has increased by 30% - 40% at the southern cordon of DKI Jakarta and east-west screenline, while the increase of traffic on the eastern cordon, the western cordon and north-south screenline have been limited, or even decreased. Since the reason for the decrease of passenger car volumes on the eastern boundaries is not clear, this shall be investigated.

Figure 2.3.4 Comparison of Traffic Volume on DKI Jakarta Cordon Line



Source:
2008 traffic volume: JICA (2009). Consultant Service for Updating the Database for SITRAMP
2000 traffic volume: SITRAMP (Phase 1)
Note: Car is sum of passenger car excluding taxi

Figure 2.3.5 Comparison of Traffic Volume on Jabodetabek Screen Line

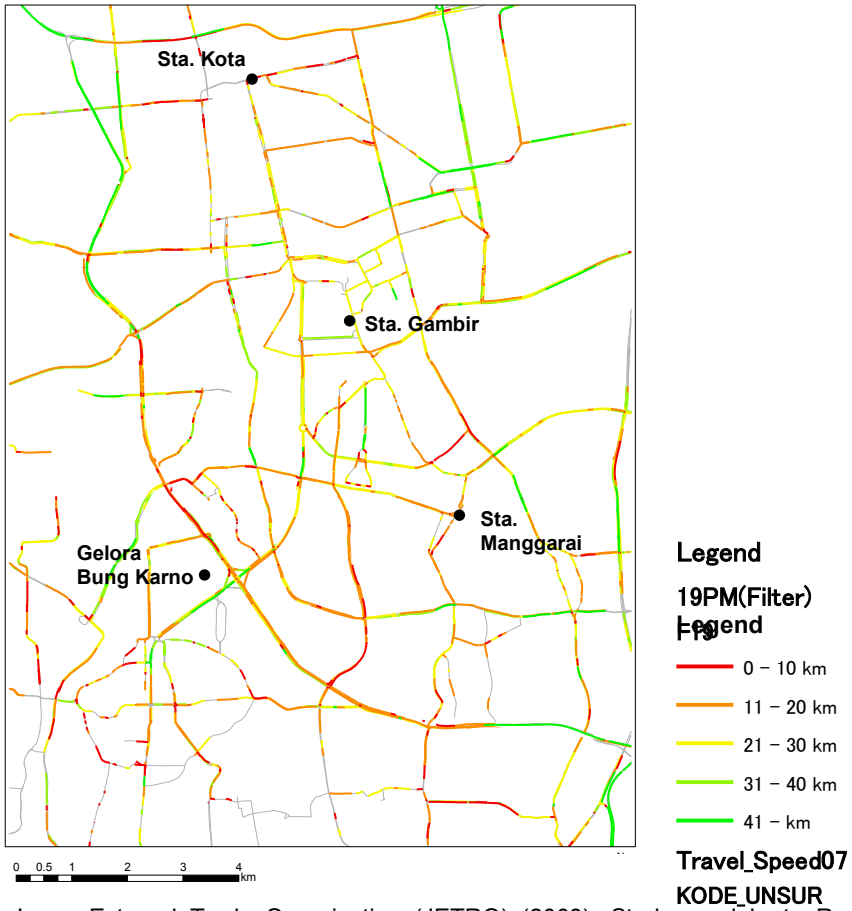


Source:
2008 traffic volume: JICA (2009). Consultant Service for Updating the Database for SITRAMP
2002 traffic volume: SITRAMP (Phase 2)

2) Travel Speed

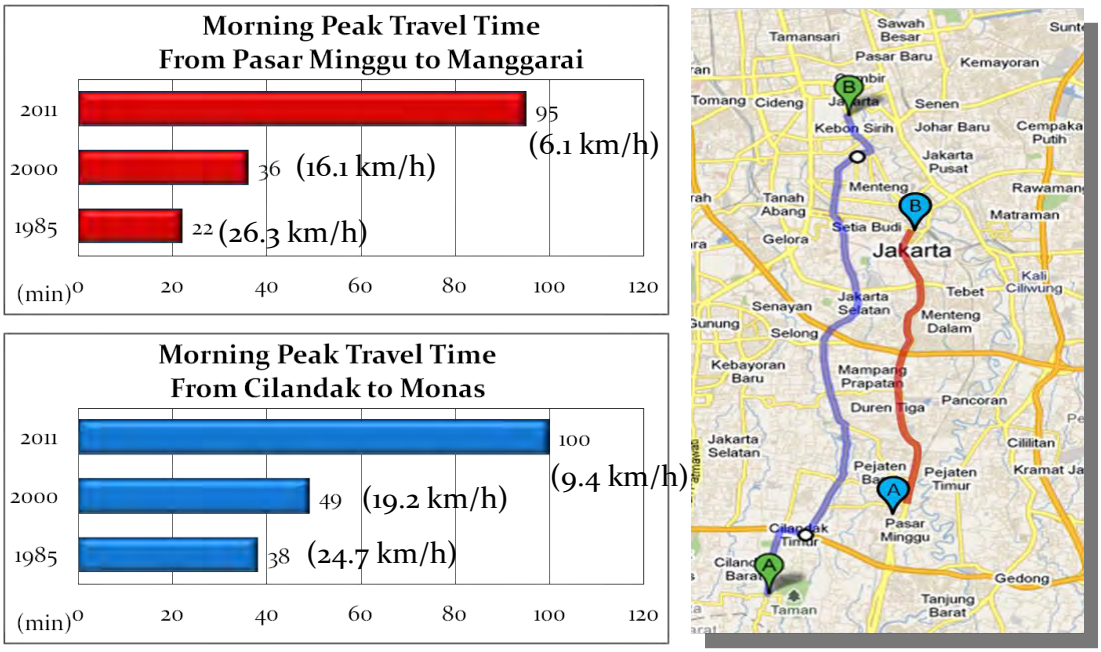
The travel speed during weekday evening peak hour (6-7PM) in 2007 on major arterial roads in the central business district (CBD) is shown at Figure 2.3.6. This data was collected by utilizing taxis equipped with global positioning system (GPS) device which could transmit positional data at every 30 seconds via GPRS (General Packet Radio Service). The figure shows that the travel speeds on arterial roads were relatively lower than the CBD and on roads entering the CBD such as Hayam Wuruk, Gajah Mada, Gunung Sahari, Mangga Dua, Jend. Sudirman, Gatot Subroto, Rasuna Said and Satrio. Also, very low travel speeds were observed around Kota Station, Pasar Senen, Manggarai Station and Hotel Indonesia. The average speed in the CBD area is mostly less than 20 km/h in the morning peak hour while the speed drops below 10 km/h in the morning peak hour.

Figure 2.3.6 Travel Speed of Weekday Evening Peak Hour (2007)



Source: Japan External Trade Organization (JETRO) (2008). Study on Jakarta Road Pricing in the Republic of Indonesia

Figure 2.3.7 Morning Peak Time and Travel Speed



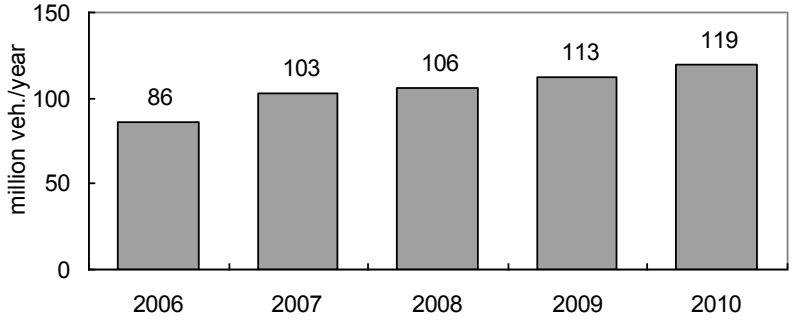
Source: ARSDS (1985), SITRAMP Phase 1 Travel Speed Survey (2000), JUTPI Travel Speed Survey (2011)

2.3.3 Road Network Development

1) Jakarta Outer-Ring Road (JORR) Plan

Jakarta Outer-Ring Road (JORR) is a 75.5km toll road network surrounding Jakarta city, and approximately 74% of it is operational. Two sections, of about 19.7km, are under construction one is on the west of Jakarta between (Serpong & Merak Toll Roads) and the other section is in the north-eastern. Completion of these two sections (see Figure 2.3.9) would reduce traffic on Jl Gatot Subroto and improve access to Tanjung Priok Port significantly. The traffic volume is growing and it is expected to grow further as this ringroad completes.

Figure 2.3.8 Traffic Volume on JORR



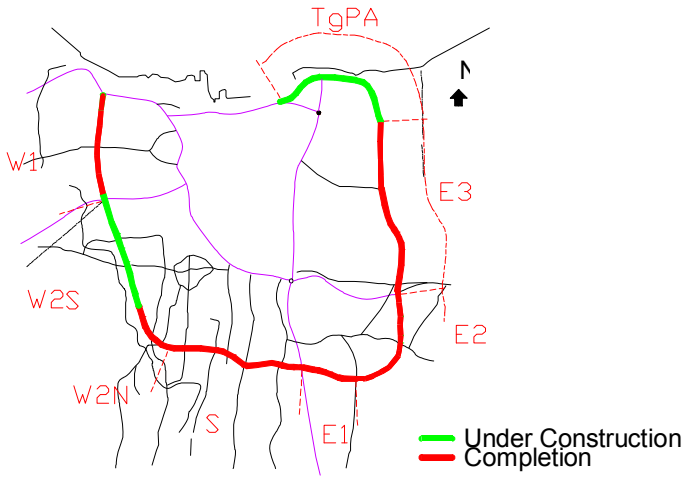
Source: Jasamarga.com

Table 2.3.2 Status of JORR

No.	Section	Length (Km)	Status
1	Sleratan	14.3	Complete
2	E1	4.0	Complete
3	E2	9.1	Complete
4	E3	16.3	Complete
5	W1	9.8	Complete
6	W2N[*1]	*7.7*	Under Construction
7	W2S	2.4	Complete
8	Tg Priok Access	*12.0*	Under Construction
Sub-Total		55.9	Complete
Sub-Total		19.7	Under Construction
Total		**75.6**	When Complete

Source: Regulator Agency of Toll Road (BPJT), [*1]: PT. Jasa Marga Profile FY2010-11

Figure 2.3.9 Alignment Map of JORR



2) Six Inner Area Toll Road Development Plan

As stated in Presidential Decree Number 54 Year 2008, six toll roads are planned in the inner city area corridors, with total length of approximately 73 km, all within DKI Jakarta. The purpose is to improve the deteriorating environment and the alleviate traffic congestion. The following are the six proposed inner area toll road corridors:

1. Kemayoran-Kampung Melayu (9.6 km)
2. Duri Pulo – Tomang – Kp.Melayu (11.4 km)
3. Rawa Buaya – Sunter (22.8 km)
4. Sunter – Pulo Gebang (10.8 km)
5. Pasar Minggu – Casablanca (9.6 km)
6. Ulujami – Tanah Abang (8.3 km)

All these toll roads are planned to be elevated structure to minimize land acquisition, total cost is very high and is estimated to be approximately 23 trillion IDR. There is, however, a reasonable possibility that these toll roads would attract additional passenger car trips to the CBD. Therefore careful consideration in terms of traffic demand management is required, such that the access roads in the CBD area do not become even more clogged with traffic. As all toll roads have to be national road by law, DKI Jakarta is focusing to develop non-toll elevated roads as described in the next section.

It is anticipated that some of the alignments of these six roads would either overlap or may be parallel to MRT East – West alternatives and could also intersect with the MRT North – South line. However, if the corridors of the MRT and intra-city toll roads overlap, then developing the corridor simultaneously as a double deck or triple deck structure could be an alternative. Progress of these projects has to be taken into account in terms of the impacts of the structures on the environment and as well as on traffic demand management scenarios under consideration.

3) Four Non-Toll Elevated Road Development Plan in DKI Jakarta

The non-toll arterial road development during the last 5 years in DKI Jakarta has been limited to: widening of JL.Sudirman and JL.Thamrin for TransJakarta operation, as well as JL.Prof. Dr. Satrio, JL.Casablanca and Bodetabek area have improved its road networks

such as JL.Benteng Banten along Tangerang Railway line or JL.Marunda Makmur..

DKI Jakarta is not authorized to develop toll roads by law, four non-toll elevated roads are being planned and studied by DKI Jakarta. The alignment of each of the four routes is still not precisely defined; the proposed corridor description as per Bureau of Public Works is outlined below:

1. Kampung Melayu – Tanah Abang, along Jl. Casablanca
2. Pangeran Antasari – Kemayoran Baru
3. Pasar Minggu – Mangga Rai
4. Ciledug – Tendean

Particularly, it is planned to start the detail design of the section from Jl. Rasuna Said to Jl. Jend Sudirman of Kampung Melayu - Tanah Abang along Jl. Casablanca from next year. With regard to Ciledug – Tendean section, the land acquisition is considered to be an issue.

This road development plan is not described in either SITRAMP or Presidential Decree Number 54 Year 2008. Although the route alignment of Pasar Minggu – Mangga Rai section is not clear, it may partially overlap with other toll road development plan. Therefore, coordination with the toll road plans and other transportation infrastructure development plans is recommended.

Considering the limited financial capacity of DKI Jakarta, the capital operation and the maintenance costs of the MRT system would place a enormous burden if all expenses are to be covered by DKI Jakarta. An integrated corridor (road & MRT) development with could be an option to reduce capital cost financial burden.

4) Arterial Road Development Parallel to Jakarta – Merak Toll Road

There is an arterial road development plan parallel to Jakarta – Merak toll road within Kabupaten and Kota Tangerang. An outline alignment map is in Presidential Decree Number 54 Year 2008.

There is a wide space along Jakarta – Merak toll road and this land can be utilized for this road development. The exact route alignment as well as progress of this plan shall be inquired for Kabupaten and Kota Tangerang.

5) Becakayu Toll Road Development Plan

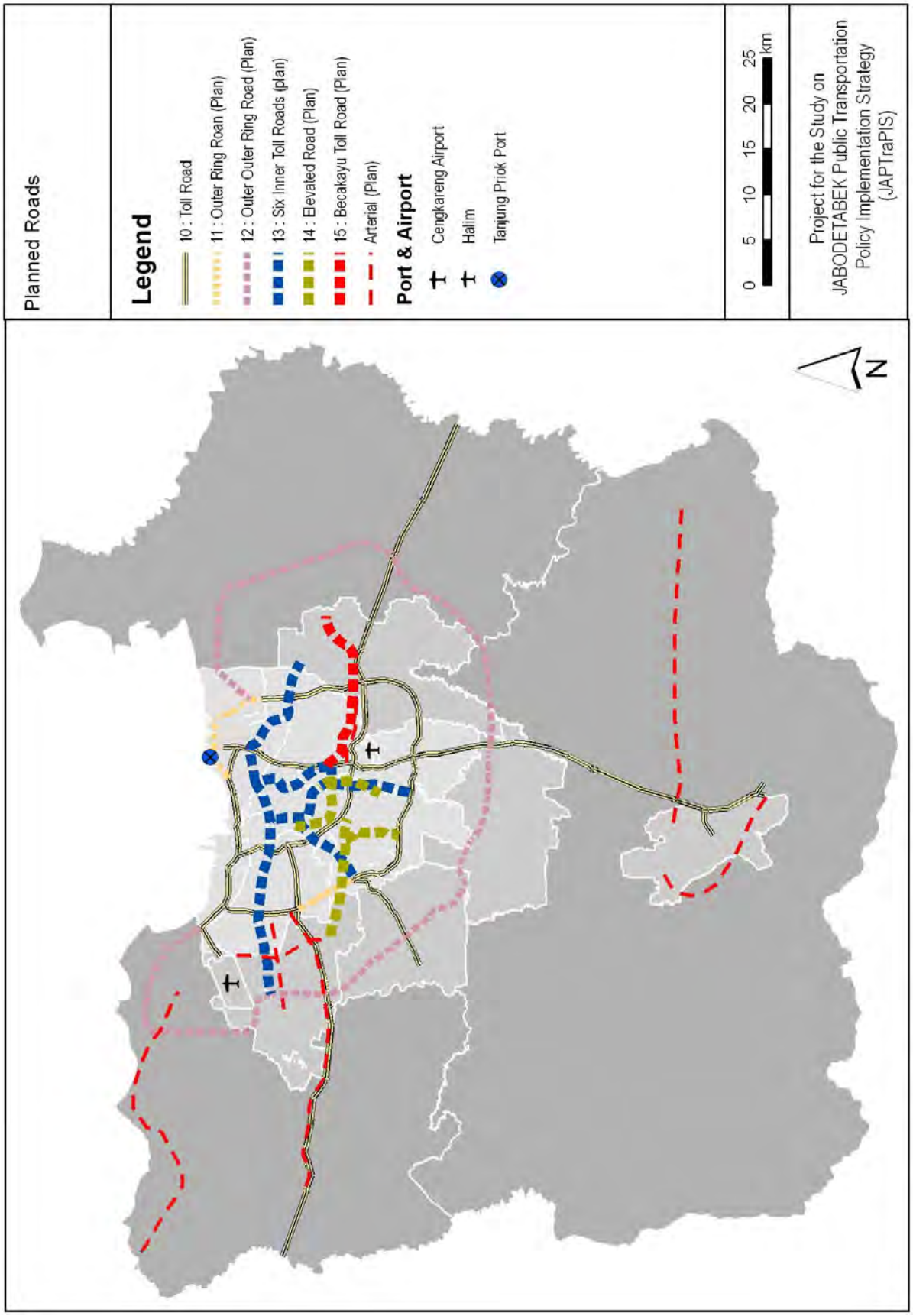
It was planned to develop a toll road from Bekasi via Cawang to Kampung Melayu, and construction was started along Jl.Kalimalang with the objective to alleviate traffic congestion along Jakarta – Bekasi corridors. The project was, however, suspended due to the Asian financial crisis in 1997. Although the legal and the technical aspects have to be reviewed again, acquired land and structure design could be utilized for other projects in the corridors.

6) Arterial Road Development Plan

In addition, there are a number of other arterial road development plans. Specifically, Jl. Kalimalang to be widened from 4 to 6 lanes, with parallel one-way street system, whereas the arterial road will operate two directions.

The outline alignment of all the road development plans discussed above are summarized below in Figure 2.3.10.

Figure 2.3.10 On-Going and Planned Road Development Projects



2.3.4 Bus Terminal Facilities

1) Busway Station

There are about 200 stations in Jakarta along the 11 corridors of TransJakarta Busway. The bus stations have elevated platform and are basically on the streets; either in the center of the street or along the sidewalk. The typical size of the bus station is approximately 20m long by 4.5m wide. The transfer stations and major terminal stations are relatively more space than other stations. In case of island platform type stations passengers have to go up and down the pedestrian walkways to access the buses, so that buses can use the fast lane along the road like in Jl Sudirman.

Figure 2.3.11 Bus Station (left: Balai Kota, right: Atrium)

Figure 2.3.12 Bus Station (Dukhu Atas and Transfer pathway)

2) Bus Terminal

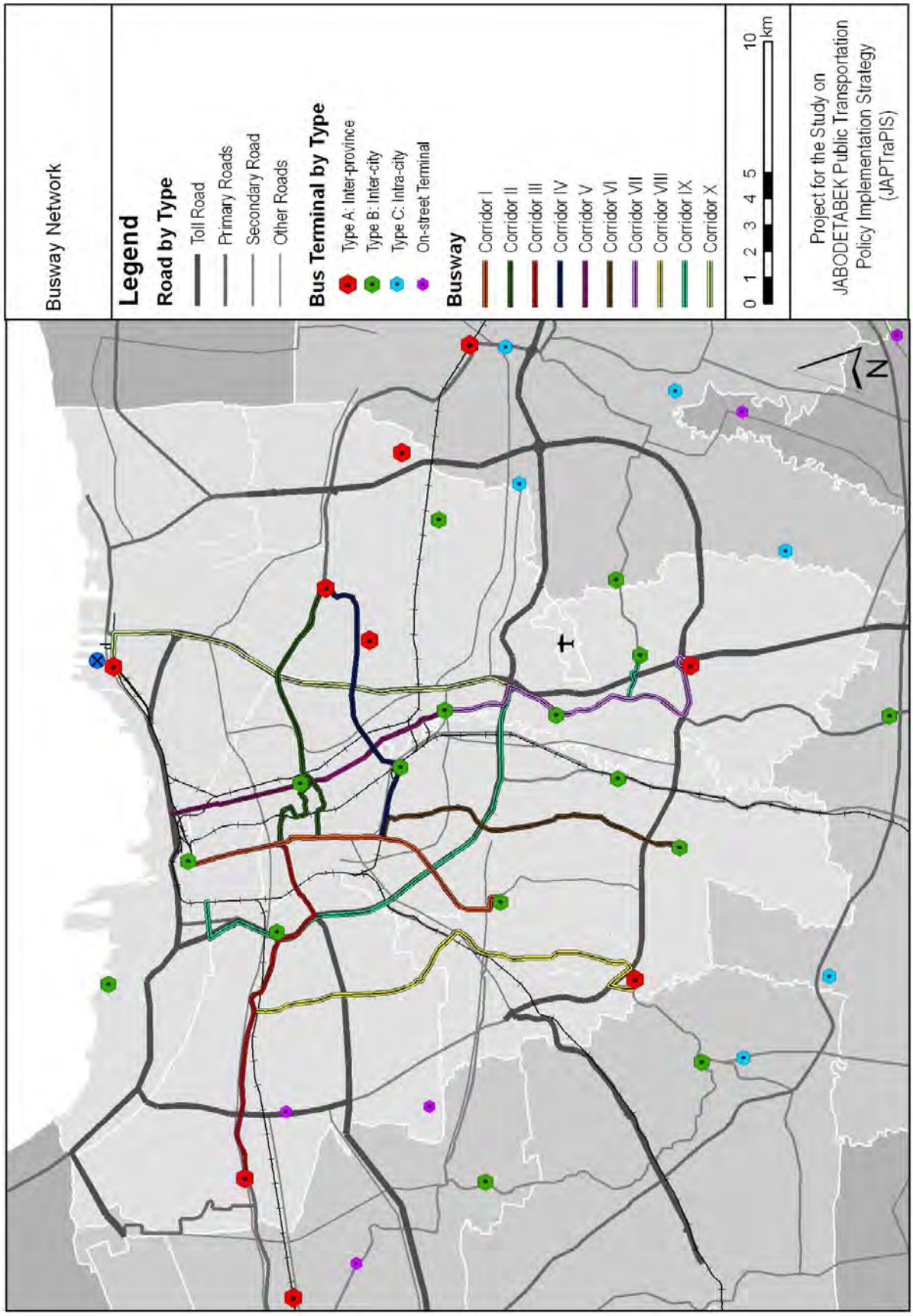
For the 11 corridors of TransJakarta Busway and other bus services there are more than thirty bus terminals scattered around DKI Jakarta area. The bus terminals can be classified into four types; Inter-province, Inter-city, intra-city and On-street terminal. The Inter-city bus terminals in the central area, such as Block M, Senen, Kota, occupy more than a 3,000m^2 area besides the access / egress streets. Block M is one of the largest inter-city bus terminals, which has approximately 10,000m^2 area. But there is only one lane available for TransJakarta Busway buses out of the total six lanes. It is often the case that the buses have to wait for the Busway Platform until the passengers had disembarked and boarded the bus in front.

Figure 2.3.13 Bus Terminal - Block M

Figure 2.3.14 Bus Terminal - Senen

Figure 2.3.15 Bus Terminal - Kota

Figure 2.3.16 Bus Terminals in DKI Jakarta



2.4 Railway Network and Services

2.4.1 Existing Railway Network and Services

1) Existing Railway Network

In JABODETABEK most of the railway network is electrified and provides services in the DKI Jakarta and surrounding areas. It consists of 8 lines (Central, Bogor, Bekasi, East, West, Serpong, Tangerang, Tanjung Priok) as detailed in Table 2.4.1 and shown in Figure 2.4.1. Most of the railway lines in JABODETABEK area are double-track. The remaining single-track sections are also planned to be double-track. In addition, some sections remain to be electrified. Among these, electrification of the Parungpanjan – Maja section on the Serpong Line is expected to be completed early year. Following other railway projects are the ongoing:

1. Depok Workshop Construction
2. Double-Double Tracking of Jatinegara – Bekasi
3. Double Tracking of Serpong – Rankasbitung
4. Double Tracking of Duri – Tangerang
5. Electrification of Bekasi – Cikarang
6. Electrification of Maja – Parungpanjan

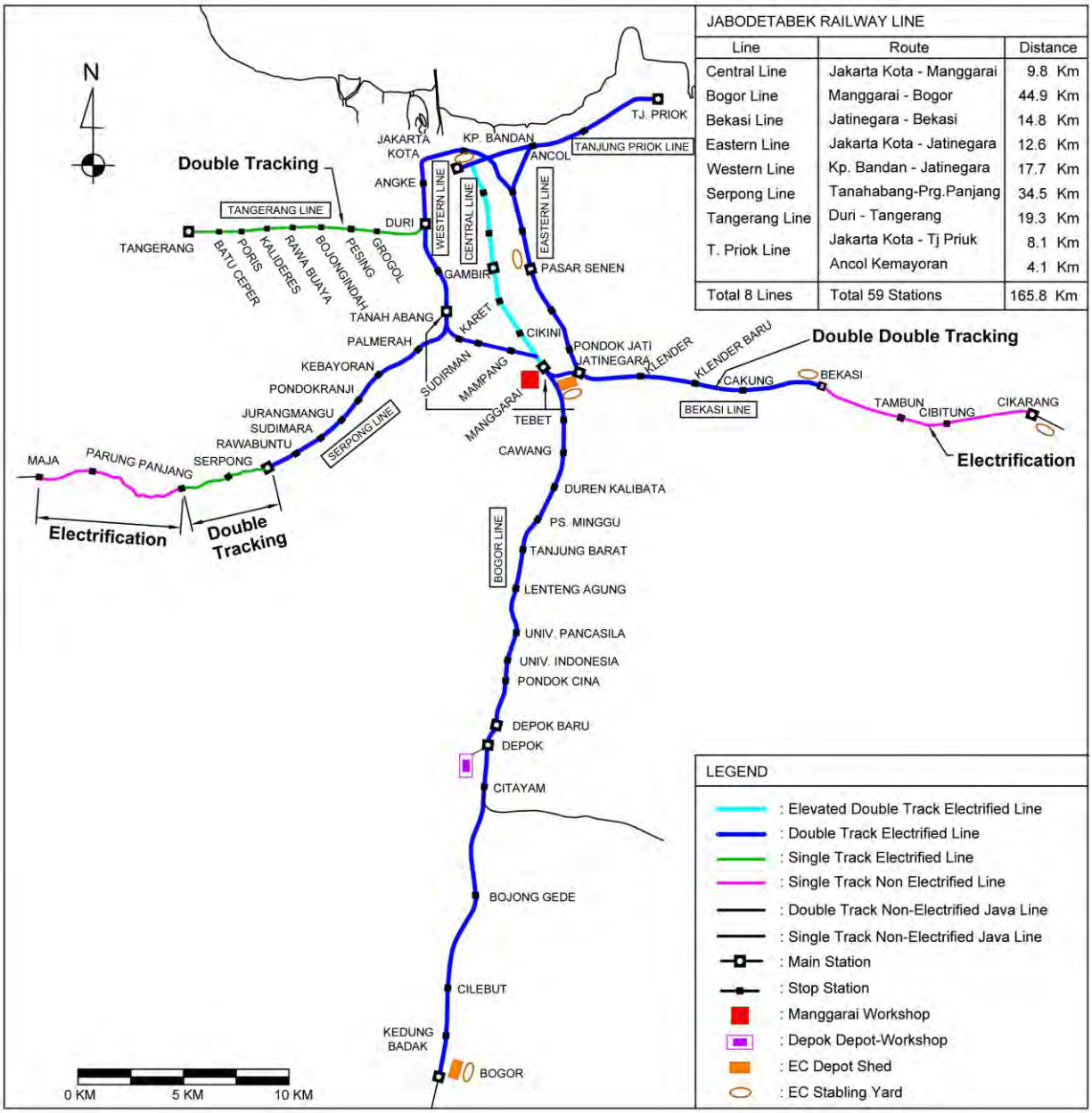
Commuter trains operating electric cars are classified into two types; Economy which is non-air conditioning train and Commuter Line which is air conditioning train. Each train stops at every station.

Table 2.4.1 Outline of Existing Railway Network in Jabodetabek

Line	Route	Length (km)	Track
1. Central	Jakarta - Mangga rai	9.8	Double
2. Bogor	Mangga Rai - Bogor	44.9	Double
3. Bekasi	Jatinegara - Bekasi	14.8	Double
4. Eastern	Jakarta Kota - Jatinegara	12.6	Double
5. Western	Kp. Bandan - Jatinegara	17.7	Double
6. Serpong	Tanahabang - Prg. Panjang	34.5	Double (Tanahabang - Serpong) Single (Serpong - Parungpanjang)
7. Tangerang	Duli - Tangerang	19.3	Single
8. Tanjung Priok	Jakarta Kota - Tanjung Priok	8.1	Double (Jakarta Kota-Ancol) Double-Double (Ancol - Tanjung Priok)
	Ancol - Kemayoran	4.1	Double
Total 8 Lines Serving Jabodetabek		**165.8**	

Source: Preparatory Survey for JABODETABEK Railways Capacity Enhancement Project Interim Report December 2010

Figure 2.4.1 Existing Railway Network and Plan



Source: Preparatory Survey for JABODETABEK Railways Capacity Enhancement Project Interim Report December 2010

2) Existing Operators and Rolling Stock

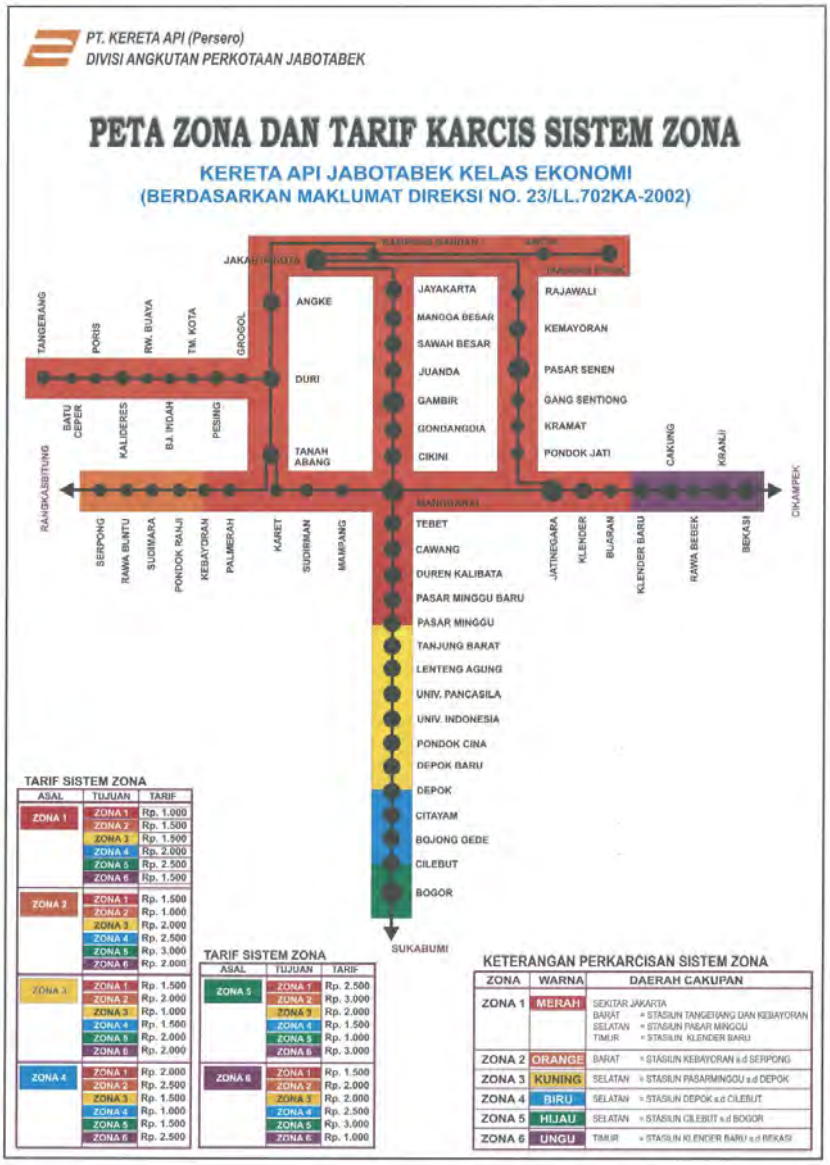
PT-KA Commuter JABODETABEK (PT-KCJ) became independent from PT-KA in 2007. As of now, however, the major business of PT-KCJ remains to be the sale of tickets for the commuter trains. PT-KA still performs the core functions of railway operation, including train operation, traffic control, signaling and dispatching in stations services, and maintenance of facilities and rolling stock.

3) Fare System

The economy fare is set extremely low at Rp. 1,000-2,500 per trip. The fare system of the economy train is zonal, where Jabodetabek is divided into six zones, as shown in Figure

2.4.2. The commuter line fare is fixed each line (Rp. 6,000-7,000 per trip).

Figure 2.4.2 Fare System



Source: PT Kereta Api

2.4.2 Railway Projects and Plans

1) Improvement of Existing Railway

Preparatory Survey for JABODETABEK Railways Capacity Enhancement Project to formulate a transportation master plan for the next twenty years based on estimated travel demand. The master development plan is divided into three phases. The components of each phase are outlined next: short term (Table 2.4.2), medium term (Table 2.4.3), and long term (Table 2.4.4) and provide a synopsis of works to be completed.

Table 2.4.2 PT Kereta Api Short Term Development Plan

Short Term Plan – Project Description	
Central & Bogor Lines	・Long/Middle Distance Trains Terminated at Manggrai St. ・Depok Workshop Construction ・Improvement of Track Layout at Kota St. ・Manggarai St. Grade Separation ・Procurement of New Cars/ rolling stock to overcome shortage of trains ・Installation of Siding at University Pancasila St. ・ATS Installation
Bekasi Line	・Through Operation to East/ West Line ・Double-Double Tracking of Jatinegara – Bekasi section ・Depot and Stabling Yard Construction at Cikarang ・ATS Installation ・Electrification of Bekasi - Cikarang
East/ West Lines	・Through Operation to Bekasi Line ・Kampungbandan - Kota Out of Operation
Serpong Line	・Turn Back Operation at Tanahabang St. ・Double Tracking of Serpong – Rankasbitung section ・Depot and Stabling Yard Construction at Maja ・Electrification of Maja – Rankasbitung section ・Replacement of Conventional Trains with Electric Cars
Tangerang Line	・Turn Back Operation at Duri St. ・Double Tracking of Duri – Tangerang
Tanjung Priok Line	・Connecting Kota St. to East/ West Lines ・Passenger Train Operation : 4-10 trains/day (at the same level as existing) ・Line Restoration

Table 2.4.3 PT Kereta Api Medium Term Development Plan

Medium Term Plan – Project Description	
Central & Bogor Lines	・Facilities Improvement for 10 Car Train Operation (Depot, Track, Platform, Power Supply, Signaling, etc.) ・Modernization of Depot and Stabling Yard
Bekasi Line	・Bekasi – Serpong Through Operation via West Line ・Double-Double Tracking of Bekasi – Cikarang
East/ West Lines (Jatinegara – kanpungbandan – Tanahabang – Manggarai)	・Turn Back Operation at Manggarai St. ・Depot and Stabling Yard Construction on Tangerang Line or elsewhere
West/ Serpong Lines	・Bekasi – Serpong Through Operation via West Line ・Improvement of Block Train System of Serpong Line ・Depot and Stabling Yard Construction on Tangerang Line or elsewhere ・Short Cut Construction from Sudirman to Palmerah ・ATS Installation
Tangerang Line	・Turn Back Operation at Duri St. ・Depot and Stabling Yard Construction on Tangerang Line or elsewhere
Tanjung Priok Line	・Connecting Kota St. to East/ West Lines ・Depot and Stabling Yard Construction at Jakarta Kota

Table 2.4.4 PT Kereta Api Long Term Development Plan

Long Term Plan – Project Description	
Central/ Bogor Lines	・Facilities Improvement for 4 Minute Headway Operation (Depot, Power Supply, Signaling, etc.)
Bekasi Line	・Through Operation to Serpong line via West Line ・Enhancement of Depot and Stabling Yard
Ease/ West Lines (Jatinegara – Kanpungbandan – Jatinegara)	・Semi Circular Operation ・Double-Double Tracking Sudirman – Manggarai ・ATS Installation ・Track Separation from Bekasi/Serpong Line ・Short Cut Line Construction between Pondokjati and Manggarai
West Serpong Line	・Through Operation Serpong to Bekasi via West Line (Medium to Long term) ・Track Separation from East/ West Line Semi Circular Operation
Tangerang Line	・Turn Back Operation at Duri St. (Medium to Long term) ・ATS Installation
Tanjung Priok Line	・Connecting Kota St. to East/ West Lines (Medium to Long term) ・ATS Installation

2) MRT (North – South & West – East Lines)

Several Mass Rapid Transit (MRT) corridors were planned in the SITRAMP urban transportation master plan. The first priority corridor proposed in the master plan is Lebak Bulus – Dukuh Atas – Kota corridor; namely, the Jakarta MRT North – South Line. At present preliminary design has been prepared for the section between Lebak Bulus and Dukuh Atas.

For the MRT east - west line of JABODETABEK, 5 alternative alignments were proposed by JICA Project team “Preparatory Survey for Jakarta MRT System North-South Line Extension Project”. The alignments are 1A, 1B and 2 connect, these run between Balaraja and Cikarang stations along different corridors. The option 3 connects Roxy station with Pondok Kopi station, Whereas option 4 connects Balaraja station with Setu station. As a result of comprehensive evaluation based on demand forecast, capital costs, and land acquisition, the middle section of route 1B is considered as the high priority section for implementation. The proposed MRT alignment options are shown in Figure 2.4.3.

3) Monorail

There were two monorail projects in Jakarta, namely the Green Line and Blue Line. Green Line is a loop line connecting Semmangi – Casablanca – Kuningan – Sudirman - Karet - Semmangi. Its total length is 14.8km and is designed to have 17 stations. Blue Line would serve Kampung Melayu – Casablanca – Karet – Tanahabang – Roxy – Mall Taman Anggrek, will be 12.2km long and have 13 stations. The system will have two interchange stations between the Green & Blue lines at Casablanca and Karat.

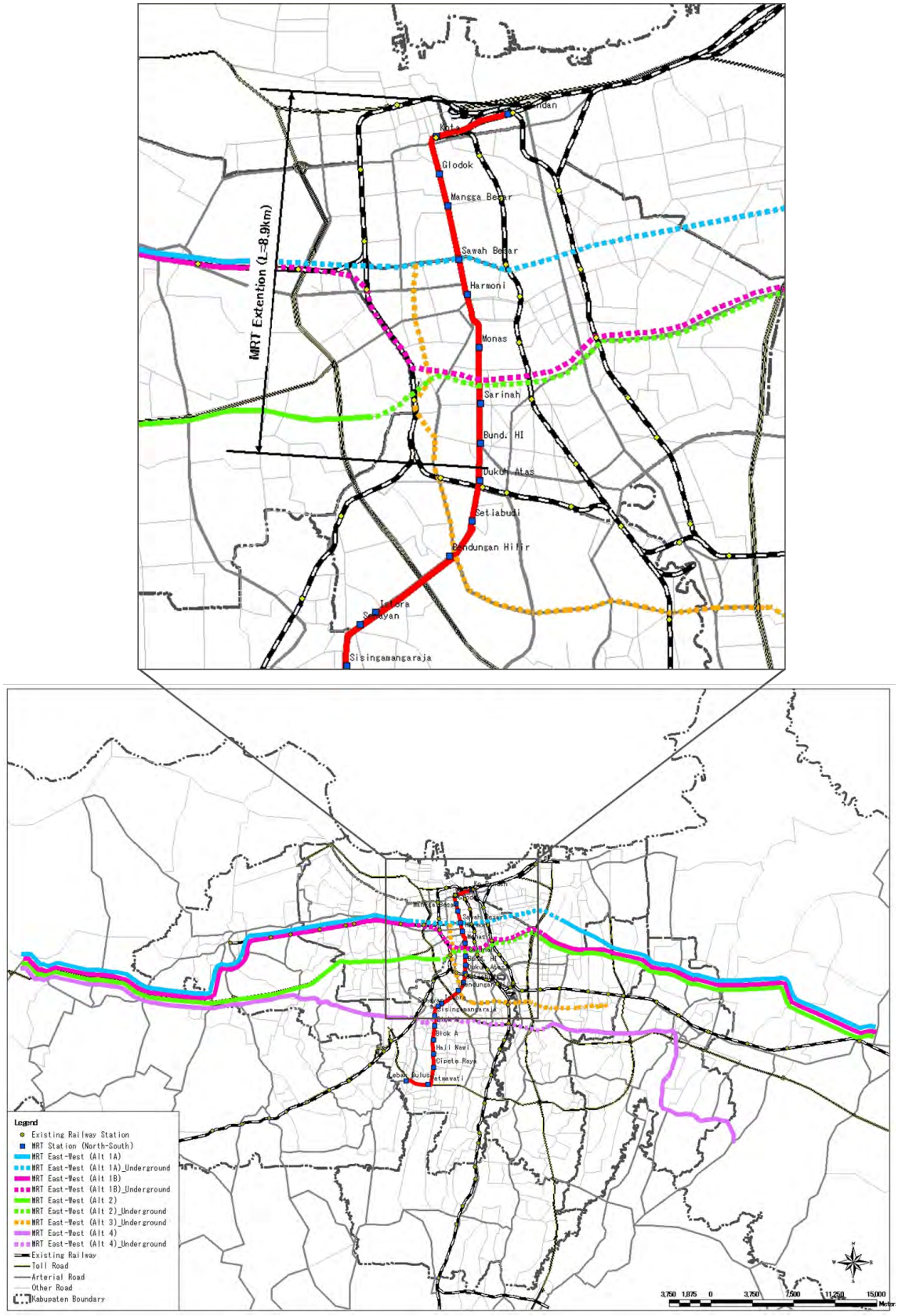
The Blue Line project was canceled due to unknown reasons and the Green Line construction has been suspended due to lack of financial resources.

4) Other Rail Based Mass Transit Projects

The (PTM) Master Plan 2009, JABODETABEK proposed rail based projects for connecting CBD to Soekarno-Hatta International Airport. A Circular Light Rail line running between Pulogebang - Kp. Melayu – Casablanca – Tomang - Sentra Primer Barat; and upgrading some of the Busway corridor to railway based corridor. However, these projects

are conceptual and require further planning.

Figure 2.4.3 MRT Alignments



Source: The Preparatory Survey for Jakarta MRT System North-South Line Extension Project Final Report, December 2009