

Chapter 1

General

1. General

1.1 Background

The Indonesian economy grew over the 27 year period from 1970 to 1997 at a compound growth rate of 6.6 percent. Gross Domestic Product (GDP) had reached a level of Rp 624 trillion (roughly equivalent to US\$ 260 billion at the pre-crisis average exchange rate) in 1997 before the monetary crisis. Per Capita GDP increased from US\$ 400 in the seventies to a pre-crisis level of US\$ 1,285 in 1997. The rapid expansion of the economy was accompanied by two not unusual phenomena:

- Rapid urbanization process with urban population growth averaging 4.6 percent p.a. against a total population growth rate of about 1.7 percent p.a. which resulted in Jakarta having a higher population density than Beijing (132) of 142 persons/ha (1997); and
- A strong and persistent motorization process. The vehicle fleet at national level grew over the same period from some 3.87 million vehicles in 1980 to about 16.54 million in 1997, equivalent to a growth rate of 8.92 percent per annum. About 30 percent of the total national vehicle fleet operates in the Jakarta metropolitan area and its surroundings.

The urbanization level in the Botabek area is high. The share of the urban population increased tremendously from 7.8 percent in 1971 to 68.3 percent in 1995. Today the majority of local populace in Botabek resides in urban communities. In 1990 the population of the Botabek area surpassed that of Jakarta for the first time.

Commuting traffic from Botabek to Jakarta is therefore concentrated on the limited radial corridors of both the rail and road systems where chronic traffic congestion occurs every morning and evening peak hours.

The urban management problems associated with Jakarta's rise to mega-city status were recognized in the 1970s. Consequently, the government elected to draw up a strategic plan for the combined area of Jabotabek in the early 1980's. Although a review process has been carried out since then, urban growth has accelerated much faster than expected in the last two decades.

Despite such urban growth in the Jabotabek region, the urban facility developments, especially transport infrastructure, could not keep pace with it. In a mega city like the Jabotabek region, where various conflicts occur, there is an urgent need for an strengthened transport system, which is integrated, inter-modal, and is supported by a strong planning and implementing institution.

The decentralization policy will be put into execution next year in 2001. The decentralization policy is not a minor change in administrative functions but a fundamental change in the administrative establishment, which inevitably urges local autonomies to pursue self-reform and to establish self-identity by sharing the administrative responsibility as well as authorities. The impact of this change will gradually penetrate into all the sectors, even social and cultural values.

Thus, Indonesia in general and the Jabotabek region in particular is undergoing economic hardship and faces challenging a future. The Phase 1 study was conducted under such circumstances and carried out in Indonesia from March 2000 to January 2001. The Study Team prepared a Final report which includes all the findings and recommendations obtained during the course of the Study and also reflects the valuable input from the Government of Indonesia.

1.2 Study Objective

The overall objective of the Study is to identify possible policy measures and solutions to ease transportation problems in the Jabotabek region, especially in the central part of DKI Jakarta, taking into account the urban structure and also encouraging public transport usage.

The Study is divided into two phases, namely Phase 1 and Phase 2 mainly due to the continuing effects of the Asian Economic Crisis and the subsequent unprecedented political changes. The main objectives of the Phase 1 Study are as follows:

- To review the recent evolution of the policy framework, including decentralization, liberalization and privatization, under which the urban transport sector is administered and operated;
- To identify the main issues and causes, which delayed the implementation of various projects/programs proposed by a series of planning studies in the past;
- To identify and study a set of possible urgent projects to ease the noticeable transportation problems in Jabotabek;
- To develop an appropriate study framework for the Phase 2 Study by taking into account the close linkage between the results of the transport surveys and final proposals; and
- To transfer urban transport technologies and know-how to the Indonesian counterparts through the course of Study implementation.

1.3 Structure and Contents of Final Report

The Final Report comprises of four volumes; namely:

- Volume I: Summary,
- Volume II: Main Text,
- Volume III: Review of Jakarta MRT Project, and
- Volume IV: Review of Jakarta Outer Ring Road.

Volume I covers all of the tasks discussed in the Phase 1 Study and summarizes the major findings and recommendations.

Volume II reveals the findings obtained through data collection, site reconnaissance, results of transport survey execution and analysis on the present conditions in the Study area. Based on an understanding of the present urban

transportation problems and issues, urban transportation policies and strategies were presented. After this policy measures to achieve the objectives of the urban transportation system development have been proposed in the context of developing the Jabotabek region. Among the variety of policy measures, several measures have then been selected as components of short-term projects and their implementation plan was prepared.

Volume III focuses on the review of the Jakarta MRT project. The report examines the project features and analyzes the MRT's engineering aspects and passenger demand forecast. The traffic survey conducted during the Phase 1 identifies also results of the bus passenger trip patterns obtained along the MRT corridor. The report discusses the estimated EIRR and FIRR and examines its underlying implications. Four topics, forecast of MRT ridership, implementing entity, financial plan and economic evaluation have been identified as being the core issues to be addressed in the Phase 1 Study.

Volume IV presents the findings regarding the Jakarta Outer Ring Road project. First of all, the report confirmed the official status of the project. The cost estimate with engineering review work, traffic demand on the JORR as well as the estimated EIRR and FIRR were examined. Three topics, traffic demand, implementing entity and financial plan have been identified as being the core issues and have been addressed in this Phase 1 Study.

1.4 Study Approach

The Phase 1 Study was conducted as depicted in the flowchart in Figure 1.4.1

First of all, the past trend and the existing socio-economic situation were analyzed and the existing land use and urban structure were identified in Chapter 2. The analysis gave an overall picture of the Jabotabek region.

The impact of the Asian Economic Crisis on regional economy, public finance, and the urban transport sector was explored in Chapter 3. The most significant feature was the recovery of traffic demand after the crisis.

The causes for the delay or postponement of planned projects and programs in the past were examined in order to identify factors which may impede project implementation in Chapter 4. The purpose of this analysis was to learn from past mistakes. The identified causes should be taken into consideration when the short term implementation plan is created in order to avoid making the same mistakes.

The existing transportation facilities and services were assessed in Chapter 5, and the current urban transportation problems were pointed out. In addition the current transport demand was estimated by developing transport demand forecast models based on the results of the various transport surveys executed in the Study.

In Chapter 6, the current transport administration was analyzed in terms of functions and capability. Since decentralization will commence from the beginning of the year 2001, the expected changes due to decentralization have also been investigated.

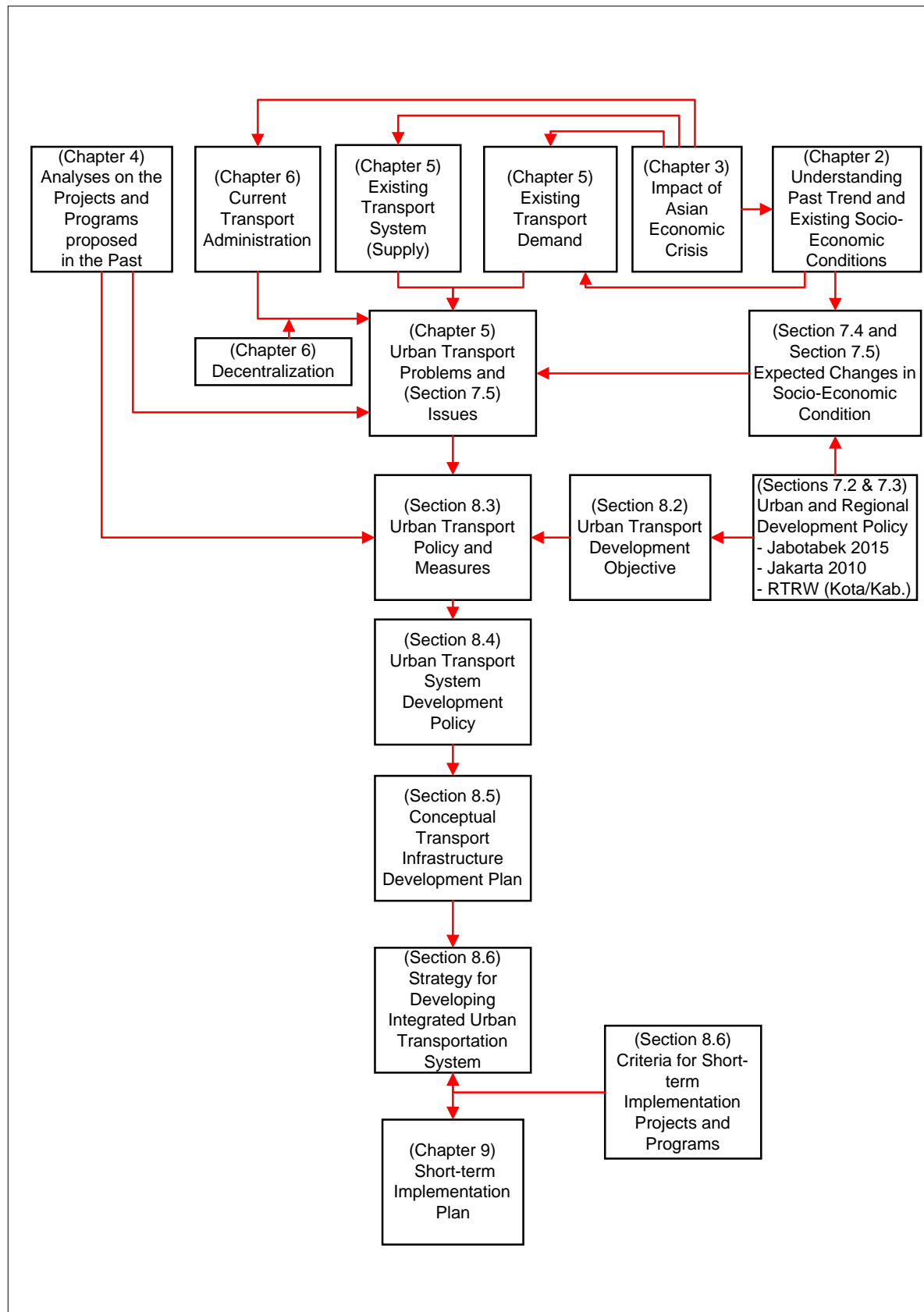


Figure 1.4.1 Study Flow of Phase(1) Study

In Chapter 7, based on the review of the regional development plans and the development policy of the Jabotabek region, the future socio-economic framework was predicted. Consideration of the expected changes in socio-economic situation and urban structure leads to identification of urban transportation issues.

In Chapter 8, urban transport development objectives was acknowledged, based on the understanding of urban transport planning issues. The objectives should be consistent with the urban development policy outlined by the regional development plan. Then urban transport policies and corresponding policy measures were proposed in the context of Jabotabek region. In addition, urban transport system development was discussed in Section 8.3 and an urban transport system development master plan was proposed at conceptual level in Section 8.4. The purpose of preparing the conceptual transport master plan is to confirm the linkages between long term and short term implementation plans. In Section 8.5 strategy for developing an integrated urban transportation system was discussed in terms of a time framework as well as its logical sequence in terms of policy measures.

The criteria for selecting a short-term implementation plan was established and several short term implementation plans were recommended in Chapter 9.

In the final Chapter 10, the recommendation regarding the short-term implementation plan was presented.

Chapter 2

Existing Socio-Economic Situation of the Jabotabek Region

2. Existing Socio-Economic Situation of the Jabotabek Region

2.1 Population

2.1.1 Population and Its Growth

(1) Population Growth and Distribution in Jabotabek

The total population of Jabotabek amounted to more than 20 million people in 2000. The population of Jakarta and Botabek was 8.4 million and 12.6 million in 2000, respectively. The regional distribution of the Jabotabek population shows that dominance has shifted from Jakarta (55%) in 1971 to Botabek (60%) in 2000 as summarized in Table 2.1.1.

Table 2.1.1 Population and Regional Distribution in Jabotabek

(unit: 1000 persons)

Region	Area (sq. km)	Population							
		1971		1980		1990		2000	
DKI Jakarta	655.7	4,579	54.9%	6,503	54.6%	8,210	48.4%	8,364	39.9%
Bogor	3380.7	1,863	22.3%	2,741	23.0%	3,949	23.3%	5,300	25.3%
Tangerang	1259.8	1,067	12.8%	1,529	12.8%	2,724	16.1%	4,100	19.6%
Bekasi	1284.2	831	10.0%	1,143	9.6%	2,073	12.2%	3,200	15.3%
Botabek	5924.7	3,761	45.1%	5,413	45.4%	8,746	51.6%	12,600	60.1%
Jabotabek	6580.4	8,340	100.0%	11,916	100.0%	16,956	100.0%	20,964	100.0%

Source: Statistical Year Book of Indonesia 1998; Population of Jawa Barat 1995, Population Census 2000

Over the past decade, the share of Bogor's population has remained at almost the same level of about 23 to 25 percent of the Jabotabek population. Jakarta's share fell from 55 percent in 1971 to 40 percent in 2000, but that of Tangerang plus Bekasi rose from 23 percent in 1971 to 35 percent in 2000.

Jakarta experienced a remarkable growth in its population of 4.0 percent per annum on average in the 1970s. Since then this trend declined to 2.4 percent per annum (1980-1990) and 0.2 percent per annum (1990-2000) as shown in Table 2.1.2.

In contrast to the sharply declining growth in Jakarta, Botabek still maintains a considerably high growth rate of 3.7 percent per annum in 1990-2000. As a consequence, the growth rate of the total population in Jabotabek is slowing down slightly from 4.0 percent per annum in 1971-1980 to 3.6 percent per annum in 1980-1990 and 3.7 percent per annum in 1990-2000 as shown in Table 2.1.2. This growth rate is about double the national rate, which implies a net immigration into the Jabotabek region at the same level in terms of number of people as natural population growth in the region.

Table 2.1.2 Population and Annual Growth (%)

(unit : 000 persons)

Region	1971	71-80	1980	80-90	1990	90-00	2000
DKI Jakarta	4,579	4.0%	6,503	2.4%	8,210	0.2%	8,364
Bogor	1,863	4.4%	2,741	3.7%	3,949	3.0%	5,300
Tangerang	1,067	4.1%	1,529	5.9%	2,724	4.2%	4,100
Bekasi	831	3.6%	1,143	6.1%	2,073	4.4%	3,200
Botabek	3,761	4.1%	5,413	4.9%	8,746	3.7%	12,600
Jabotabek	8,340	4.0%	11,916	3.6%	16,956	2.1%	20,964

Source: Statistical Year Book of Indonesia 1998; Population of Jawa Barat 1995, Population Census 2000

In particular, the population growth in the east-west direction (i.e. Tangerang and Bekasi) is dynamic as indicated by the more than 4 percent annual growth rate since 1980. A southward growing pressure was higher than other areas in the 1970s, but it has been decreased in relative forms, if compared to the east-west direction. This is considered to be due mainly to development controls stipulated in the Jabotabek Development Plan.

Table 2.1.3 Population by Kota in DKI Jakarta: 1961 - 2000

(unit: persons)

	1961	1971	1980	1990	2000
Jakarta Selatan	466,422	1,050,859	1,581,942	1,913,084	1,789,783
Jakarta Timur	498,686	802,133	1,460,068	2,067,451	2,342,451
Jakarta Pusat	1,002,059	1,260,297	1,245,026	1,086,568	888,526
Jakarta Barat	469,543	820,756	1,234,924	1,822,762	1,908,371
Jakarta Utara	469,823	612,447	981,267	1,369,639	1,434,591
Total	2,906,533	4,546,492	6,503,227	8,259,504	8,363,722

Source: Population Census 1961, 1971, 1980 and 1990, BPS
 Interim Report, Population Census 2000, BPS

Population in DKI Jakarta has slowed down its growth significantly. (See Table 2.1.4) The average annual growth rate is merely 0.13 percent per annum. The population of Jakarta Pusat has been decreasing since 1970s, while Jakarta Selatan experienced its first decline in population during the last decade. This population decrease in Jakarta Selatan can be attributed to the large-scale urban redevelopment project in the Kuningan area and the relocation of residents due to the new arterial street development.

Table 2.1.4 Population Growth by Kota in DKI Jakarta: 1961 - 2000

	1961- 71	1971 - 80	1980 - 90	1990 - 00
Jakarta Selatan	8.46%	4.65%	1.92%	-0.66%
Jakarta Timur	4.87%	6.88%	3.54%	1.26%
Jakarta Pusat	2.32%	-0.14%	-1.35%	-1.99%
Jakarta Barat	5.74%	4.64%	3.97%	0.46%
Jakarta Utara	2.69%	5.38%	3.39%	0.46%
Total	4.58%	4.06%	2.42%	0.13%

Source: Population Census 1961, 1971, 1980 and 1990, BPS
 Interim Report, Population Census 2000, BPS

In contrast, the populations of Jakarta Timur and Jakarta Barat continue to grow although its growth rate is small.

2.1.2 Urbanization

(1) Urbanization in Jabotabek

DKI Jakarta was already fully urbanized in 1971. The population density in 1980 was recorded as being close to 100 persons per hectare and even thereafter Jakarta has continuously grown to be the biggest city in the ASEAN region, i.e., 2.4 percent annually during 1980-90 and 2.0 percent during 1990-95.

The urbanization level in the Botabek area has become high. The share of the urban population increased tremendously from 7.8 percent in 1971 to 68.3 percent in 1995. Today the majority of the local population resides in urban communities. The urban population increased by 14.1 percent annually between 1980 and 1990, and 9.2 percent between 1990 and 1995. Although the entire Botabek area is experiencing hyper urbanization, Tangerang and Bekasi recorded urban growth rates of around 20 percent in the 1980s, with Bekasi alone recording a rate of 13 percent between 1990 and 1995, which was considerably higher than those of Bogor and Tangerang. During this same period, in Bekasi saw a sharp shrinkage in its rural population of -8.2 percent per annum.

Table 2.1.5 Change in Urban Population

Area	1971		1980		1990		1995	
	Urban Pop. (000)	Share (%)	Urban Pop. (000)	Share (%)	Urban Pop. (000)	Share (%)	Urban Pop. (000)	Share (%)
Jakarta	4,579	100.0	6,503	100.0	8,254	100.0	9,113	100.0
Bogor	n.a	-	885	32.3	2,195	54.8	3,174	67.5
Tangerang	n.a	-	228	14.9	1,521	55.0	2,233	66.1
Bekasi	n.a	-	189	16.5	1,153	54.8	2,137	77.5
BOTABEK	292	7.8	1,302	23.9	4,869	54.9	7,544	68.3
JABOTABEK	4,871	58.4	7,805	65.5	13,123	76.6	16,657	82.6

Source: Population Census 1971, 1980, 1990 and 1995, BPS

2.2 Labor Force and School Attendance

2.2.1 Labor Force and School Attendance in DKI Jakarta

Compared to the 1995 national average of 78.3 percent, the age structure of DKI Jakarta has a higher proportion (82.7 percent) of work age population (10 years and over) group or adversely, less younger age population group, than Indonesia as shown in Table 2.2.1.

Although the share of the work age population group in Jakarta is higher relative to the Indonesian average, the labor force participation ratio in 1995 (48.6 percent) was lower than Indonesia's urban average (51.9 percent). The lower labor force participation ratio was compensated for by higher participation in school attendance (25.0 percent) and house keeping (22.9 percent) activities, as compared to Indonesia's respective urban averages (23.9 percent and 19.5 percent). The unemployment ratio in Jakarta increased from 7.1 percent in 1990 to 12.0 percent in 1995, which was similar in its trend to that of Indonesia's urban averages during the same period.

Table 2.2.1 General Trends of Activity Participation in DKI Jakarta

Type of Activity	(Unit: 1,000 persons)								
	1980			1990			1995		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
a)Working	1,818	105	1,924	2,932	-	2,932	3,222	-	3,222
b)Looking for Work	74	3	77	226	-	226	441	-	441
(1) Eco. Active Pop.	1,892	109	2,001	3,158	-	3,158	3,664	-	3,664
c)Attending School	1,055	60	1,115	1,520	-	1,520	1,883	-	1,883
	(23.9%)	(22.3%)	(23.8%)	(23.4%)	-	(23.4%)	(25.0%)	-	(25.0%)
d)House Keeping	1,026	79	1,105	1,377	-	1,377	1,726	-	1,726
	(23.2%)	(29.4%)	(23.6%)	(21.2%)	-	(21.2%)	(22.9%)	-	(22.9%)
e)Others	442	21	463	432	-	432	265	-	265
	(10.0%)	(7.8%)	(9.9%)	(6.7%)	-	(6.7%)	(3.5%)	-	(3.5%)
(2) Not Eco. Act. Pop	2,522	161	2,683	3,329	-	3,329	3,873	-	3,873
(3) Not Stated	0	0	0	0	-	0	0	-	0
(4) Work Age Pop.¹⁾	4,415	269	4,684	6,487	-	6,487	7,537	-	7,537
	(100%)	(100%)	(100%)	(100%)	-	(100%)	(100%)	-	(100%)
(5)Emp. Ratio [a]/(1)] ²⁾	96.1%	97.0%	96.2%	92.9%	-	92.9%	88.0%	-	88.0%
(6)LFPR [(1)/(4)] ³⁾	42.9%	40.33%	42.7%	48.7%	-	48.7%	48.6%	-	48.6%
(7) Total Population	6,072	409	6,481	8,227	-	8,227	9,113	-	9,113
(8) Work Age P. Ratio ⁴⁾	72.7%	65.8%	72.3%	78.9%	-	78.9%	82.7%	-	82.7%

Notes: 1) Population aged 10 years and over [(1)+(2)+(3)]

2) Employment ratio (%): [1 – Employment ratio] = Unemployment ratio

3) Labor force participation ratio (%)

4) Work Age Population ÷ Total Population x 100 (%)

Source: Population Census in 1980, 1990 and Intercensal Population Survey in 1995

2.2.2 Labor Force in Botabek

The proportion of the work age population in 1995 in Botabek was lower in both urban (74.2 percent) and rural (67.2 percent) areas, compared to Jakarta (urban: 82.7 percent, rural: n.a.) and Indonesia (urban: 80.5 percent, rural: 77.1 percent) as shown in Table 2.2.2. On the contrary, the labor force participation ratio (53.1 percent) of urban Botabek is higher than that of either Jakarta (48.6 percent) or urban Indonesia (51.9 percent). This indicates that the Botabek urban areas have a relatively younger population age structure with a higher proportion of economically active population (workers).

The labor force participation ratios in both urban and rural areas of Botabek have been increasing from 1980 (urban: 41.2 percent, rural: 41.6 percent) to 1995 (urban: 53.1 percent, rural: 53.0 percent).

Table 2.2.2 Labor Force Participation in Botabek

(Unit: 1,000 persons)

Type of Activity	1980			1990			1995		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
a)Working	367	1,108	1,475	1,607	1,216	2,823	2,608	1,114	3,722
b)Looking for Work	9	21	30	83	43	125	365	135	501
(1) Eco. Active Pop.	375	1,129	1,505	1,690	1,259	2,948	2,973	1,249	4,222
(2) Not Eco. Act. Pop	535	1,582	2,118	1,935	1,542	3,477	2,626	1,106	3,732
(3) Not Stated	0	1	1	0	0	0	0	0	0
(4) Work Age Pop.¹⁾	911	2,713	3,624	3,625	2,800	6,425	5,599	2,355	7,954
(5)Emp. Ratio [a]/(1)] ²⁾	97.7%	98.1%	98.0%	95.1%	96.6%	95.8%	87.7%	89.2%	88.1%
(6)LFPR [(1)/(4)] ³⁾	41.2%	41.6%	41.5%	46.6%	45.0%	45.9%	53.1%	53.0%	53.1%
(7) Total Population	1,302	4,111	5,413	4,869	4,008	8,877	7,545	3,502	11047
(8) Work Age P. Ratio ⁴⁾	70.0%	66.0%	66.9%	74.5%	70.0%	72.4%	74.2%	67.2%	72.0%

Notes: 1) Population aged 10 years and over [(1)+(2)+(3)]

2) Employment ratio (%): [1 – Employment ratio] = Unemployment ratio

3) Labor force participation ratio (%)

4) Work Age Population ÷ Total Population x 100 (%)

Source: Population Census in 1980, 1990 and Intercensal Population Survey in 1995

2.2.3 Employment Structure by Industrial Sector in Jabotabek

(1) DKI Jakarta and Botabek

Total employment in DKI Jakarta in 1995 amounted to 3.2 million people, which was a little less than Botabek's total of 3.7 million, but higher than the Botabek urban employment of 2.6 million as shown in Table 2.2.3.

The employment structure of Jakarta is characterized by its major industrial sector of "Services"(31.9%) followed by "Whole Sale/Retail Trade"(28.25), and also a relatively high component of "Finance/Insurance"(7.4%) as shown in Table 2.2.4 and Figure 2.2.1. Thus, Jakarta, the capital city of Indonesia, functions as the national center for commercial, administrative and business activities. Although the manufacturing sector still accounted for 17.7% of total

employment in 1995, the sector's share has been on the decline from 20.5% in 1990.

The total number of employed in Botabek in 1995 was about 3.7 million people, comprising of 1.6 million (43%) in Bogor, 1.2 million (32%) in Tangerang and 0.9 million (24%) in Bekasi. Urban employment in Botabek dominates compared to rural employment, being responsible for more than 70 percent of the total employment in Botabek.

The Botabek urban employment structure is characterized by the major economic sector of "Manufacturing" (28.3%), followed by "Services" (26.9%) and "Whole Sale/Retail Trade" (23.8%) as shown in Tables 2.2.3, 2.2.4, and Figure 2.2.2.

Another distinguishing feature of Botabek employment is that the "Agriculture" sector in rural Botabek accounted for only 26.1 percent of total rural employment in 1995, which is significantly lower than the 1995 national rural average of 60.8 percent. Rural Botabek holds comparatively higher share of such economic sectors as "Whole Sale/Retail Trade" (23.2%), "Manufacturing" (19.4%) and "Services" (14.6%), relative to the national rural average of 12.2%, 9.8% and 9.0%, respectively.

The rural Botabek region is conceived as semi-urbanized, as the conurbation keeps growing from Jakarta in the east-west and a southern direction.

b) Bogor, Tangerang and Bekasi

The employment structure of Bogor (Kabupaten Bogor and Kota Bogor), Tangerang (Kabupaten Tangerang and Kota Tangerang) and Bekasi (Kabupaten Bekasi and Kota Bekasi) in Botabek is summarized separately for urban and rural areas in Tables 2.2.5 and 2.2.6, and also in Figures 2.2.3, 2.2.4 and 2.2.5 respectively.

Comparing the three areas with each other, Tangerang and Bekasi have similar employment structures, which consist mainly of "Manufacturing", "Whole Sale/Retail Trade" and "Services" sectors ranging between 21 percent and 29 percent. Bogor exhibits a relatively higher component of "Agriculture". Actually, Bogor still maintains agricultural and forest land within the region.

The "manufacturing" sector in Botabek provides the major employment opportunities in Botabek, particularly in Tangerang and Bekasi. Manufacturing sector employment is very high in urban as well as rural areas, ranging between 22 percent and 30 percent.

Rural employment in Bogor is characterized by its relatively higher component of "Agriculture" sector (29.2 percent), and this is also true of rural Bekasi (30.3 percent). Rural Bekasi is agriculture oriented in the north but the current manufacturing development in Bekasi (22.0 percent) is extensive even in the rural area as similarly observed in the rural Tangerang (25.8 percent).

Table 2.2.3 Employment Structure in Jakarta and Botabek 1995

* Main Industry	DKI Jakarta, 1995			Botabek, 1995		
	Urban	Rural	Total	Urban	Rural	Total
(1) Agriculture, etc.	26,672	0	26,672	73,552	290,167	363,719
(2) Mining/Quarrying	11,567	0	11,567	13,157	14,660	27,817
(3) Manufacturing	571,693	0	571,693	738,741	216,016	954,757
(4) Electricity, gas & water	28,416	0	28,416	18,481	3,701	22,182
(5) Construction	173,169	0	173,169	177,159	67,732	244,891
(6) Whole sale, retail trade	908,606	0	908,606	619,578	258,715	878,293
(7) Transportation	235,788	0	235,788	204,774	93,433	298,207
(8) Finance, insurance	238,952	0	238,952	62,020	6,017	68,037
(9) Social services, etc.	1,027,425	0	1,027,425	700,585	163,050	863,635
Total	3,222,288	0	3,222,288	2,608,047	1,113,491	3,721,538

Note: *(1) Agriculture, hunting, forestry and fishery (2) Mining and quarrying (3) Manufacturing (4) Electricity, gas and water (5) Construction (6) Whole sale/retail trade, restaurant/hotels (7) Transportation, storage and communication (8) Finance, insurance, property and business services (9) Community, social, personal and other services (10) Others
Source: Population of Indonesia, Results of the 1995 Intercensal Population Survey; Central Bureau of Statistics

Table 2.2.4 Percentage Structure of Employment in Jakarta and Botabek 1995

* Main Industry	DKI Jakarta, 1995			Botabek, 1995		
	Urban	Rural	Total	Urban	Rural	Total
(1) Agriculture, etc.	0.8%	0.0%	0.8%	2.8%	26.1%	9.8%
(2) Mining/Quarrying	0.4%	0.0%	0.4%	0.5%	1.3%	0.7%
(3) Manufacturing	17.7%	0.0%	17.7%	28.3%	19.4%	25.7%
(4) Electricity, gas & water	0.9%	0.0%	0.9%	0.7%	0.3%	0.6%
(5) Construction	5.4%	0.0%	5.4%	6.8%	6.1%	6.6%
(6) Whole sale, retail trade	28.2%	0.0%	28.2%	23.8%	23.2%	23.6%
(7) Transportation	7.3%	0.0%	7.3%	7.9%	8.4%	8.0%
(8) Finance, insurance	7.4%	0.0%	7.4%	2.4%	0.5%	1.8%
(9) Social services, etc.	31.9%	0.0%	31.9%	26.9%	14.6%	23.2%
Total	100.0%	0.0%	100.0%	100.0%	100.0%	100.0%

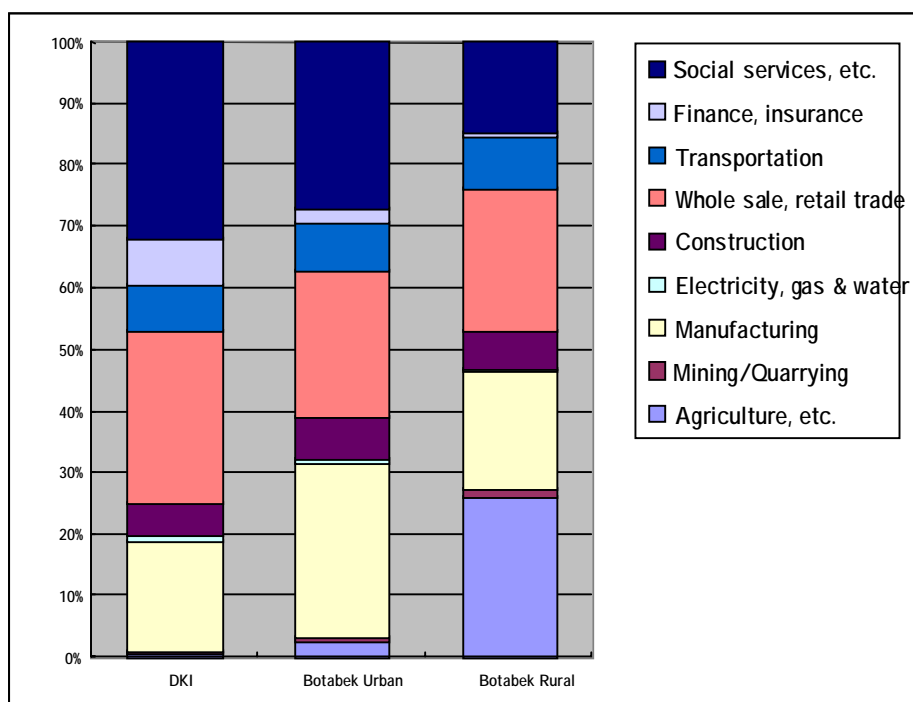


Figure 2.2.1 Employment Structure in DKI Jakarta and Botabek 1995

Table 2.2.5 Employment Structure by Industrial Sector in Bogor, Tangerang and Bekasi, 1995

(Unit: persons)

Main Industry		Bogor,1995			Tangerang,1995			Bekasi,1995		
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
(1)	Agriculture, etc.	56,418	144,724	201,142	11,284	78,711	89,995	5,850	66,732	72,582
(2)	Mining/Quarrying	2,239	10,444	12,683	5,068	3,552	8,620	5,850	664	6,514
(3)	Manufacturing	297,407	64,902	362,309	240,484	102,642	343,126	200,850	48,472	249,322
(4)	Electricity, gas & water	9,859	746	10,605	6,672	2,955	9,627	1,950	0	1,950
(5)	Construction	83,952	40,284	124,236	61,032	19,812	80,844	32,175	7,636	39,811
(6)	Whole sale, retail trade	233,834	115,630	349,464	186,844	97,269	284,113	198,900	45,816	244,716
(7)	Transportation	72,164	37,300	109,464	60,460	33,225	93,685	72,150	22,908	95,058
(8)	Finance, insurance	20,288	3,730	24,018	22,232	1,623	23,855	19,500	664	20,164
(9)	Social services, etc.	329,925	77,584	407,509	199,060	58,242	257,302	171,600	27,224	198,824
Total		1,106,086	495,344	1,601,430	793,136	398,031	1,191,167	708,825	220,116	928,941

Note: * (1) Agriculture, hunting, forestry and fishery (2) Mining and quarrying (3) Manufacturing (4) Electricity, gas and water (5) Construction (6) Whole sale/retail trade, restaurant/hotels (7) Transportation, storage and communication (8) Finance, insurance, property and business services (9) Community, social, personal and other services (10) Others

Source: Population of Indonesia, Results of the 1995 Intercensal Population Survey; Central Bureau of Statistics

Table 2.2.6 Per Centage Employment Structure by Industrial Sector in Bogor, Tangerang and Bekasi, 1995

Main Industry		Bogor,1995			Tangerang,1995			Bekasi,1995		
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
(1)	Agriculture, etc.	5.1%	29.2%	12.6%	1.4%	19.8%	7.6%	0.8%	30.3%	7.8%
(2)	Mining/Quarrying	0.2%	2.1%	0.8%	0.6%	0.9%	0.7%	0.8%	0.3%	0.7%
(3)	Manufacturing	26.9%	13.1%	22.6%	30.3%	25.8%	28.8%	28.3%	22.0%	26.8%
(4)	Electricity, gas & water	0.9%	0.2%	0.7%	0.8%	0.7%	0.8%	0.3%	0.0%	0.2%
(5)	Construction	7.6%	8.1%	7.8%	7.7%	5.0%	6.8%	4.5%	3.5%	4.3%
(6)	Whole sale, retail trade	21.1%	23.3%	21.8%	23.6%	24.4%	23.9%	28.1%	20.8%	26.3%
(7)	Transportation	6.5%	7.5%	6.8%	7.6%	8.3%	7.9%	10.2%	10.4%	10.2%
(8)	Finance, insurance	1.8%	0.8%	1.5%	2.8%	0.4%	2.0%	2.8%	0.3%	2.2%
(9)	Social services, etc.	29.8%	15.7%	25.4%	25.1%	14.6%	21.6%	24.2%	12.4%	21.4%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

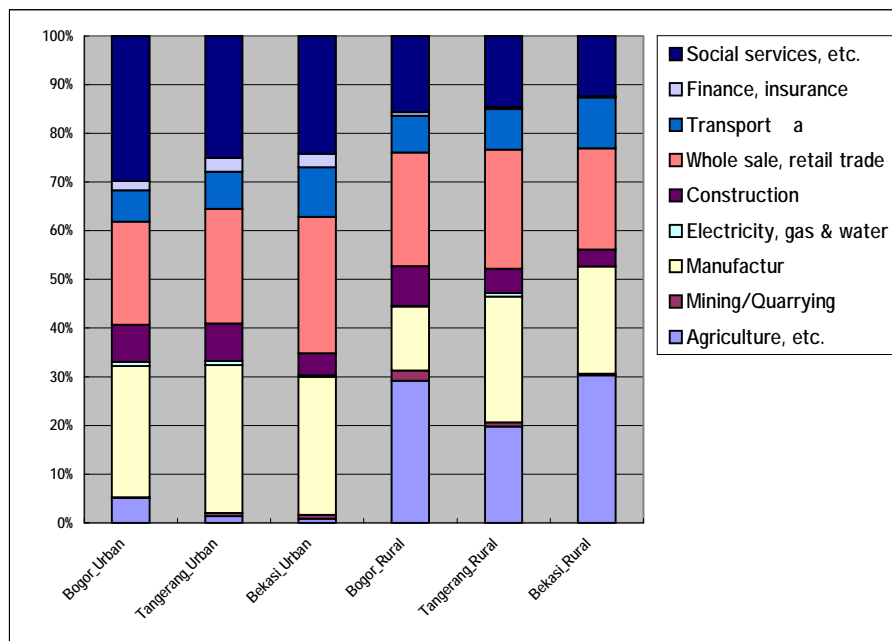


Figure 2.2.2 Employment Structure in Botabek 1995

2.3 Land Use and Urban Structure

2.3.1 Urbanization Trend

(1) Physical Development Trend

The urban management problems associated with Jakarta's rise to mega-city status were recognized in the 1970s. The Government of Indonesia realized that Jakarta would rapidly outgrow its administrative boundaries and that the adjoining areas of Bogor, Tangerang and Bekasi would become a continuous urban area. Consequently, the government elected to draw up a strategic plan for the combined area in the early 1980's. This strategic plan is the Jabotabek Metropolitan Development Plan (JMDP).

After the publication of the JMDP, urban growth accelerated in the 1980s much faster than expected in the JMDP. Then the urbanization further influenced adjacent areas to the east and the west. This extended region is known as PANTURA (*Pantai Utara*: the north coastal area). This dramatic and unpredicted explosion of urban growth necessitated a review of the original JMDP. The JMDPR (Jabotabek Metropolitan Development Plan Review) was completed in 1993 with the assistance of the World Bank.

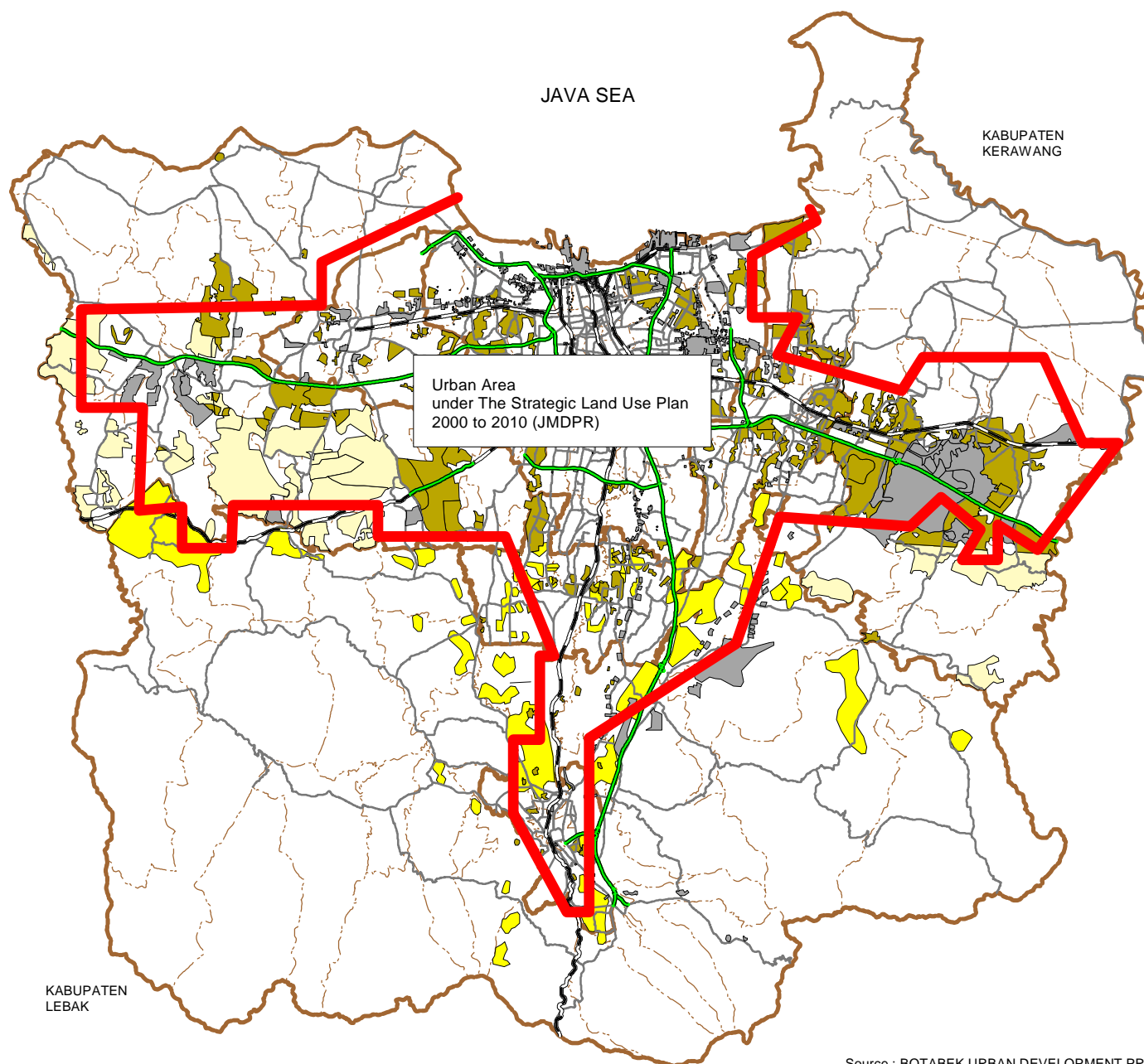
The JMDPR did not predict the overheated investment in the Jabotabek urban development sector. Many location permits were issued beyond the urbanization boundaries designated by the JMDPR as shown in Figure 2.3.1. For example, 1,047 location permits were issued within Botabek in the early 1990s, totaling 70,353 ha. If they are fully developed, no other projects would be necessary until the year 2010 in order to meet the JMDPR demographic framework.

Development tends to spread into areas designated for water recharge, and in fact it is beginning to jeopardize critical conservation zones. The development permission system has not paid due attention to sustainable environmental issues.

Table 2.3.1 Issued Location Permits in the Early 1990

	No. of Permits	Permitted Area (ha)	Of which Developed Area (ha)
Kab. Bogor	341	22,356	3,756
Kota Bogor	8	204	204
Kab. Tangerang	215	23,714	3,926
Kota Tangerang	159	8,131	1,262
Kab. Bekasi	324	15,948	4,127
BOTABEK	1,047	70,353	13,275

Source: BPN 1995

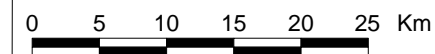
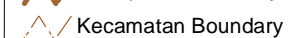
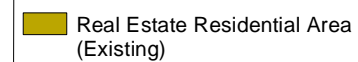
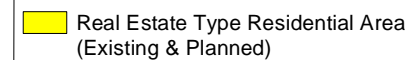
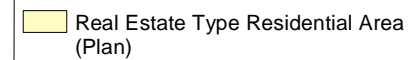
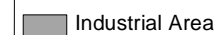


Source : BOTABEK URBAN DEVELOPMENT PROJECT II

Figure 2.3.1

Land Use Plan and Development Permit

LEGEND



SITRAMP JABOTABEK
 The Study on
 Integrated Transportation Master Plan
 for JABOTABEK
 (Phase I)

2.3.2 Urban Structure and Urban Development

(1) Urban Structure

The existing urban structure of the Jabotabek region is simple. The region is clearly dominated by Jakarta with the old core of Bogor which is a much smaller but nevertheless important urban center to the south. Tangerang, Bekasi and Depok to the west, east and the intermediate between Jakarta and Bogor are less distinctive and concentrated, but are nonetheless towns with separate identities. According to the urban hierarchy by the Kimbangwil, Jakarta is designated as Class I and the other four are Class II. There are presently 14 urban centers regarded as Class III, having 100,000 – 300,000 urban residents. (Refer to Figure 2.3.2 and Table 2.3.2)

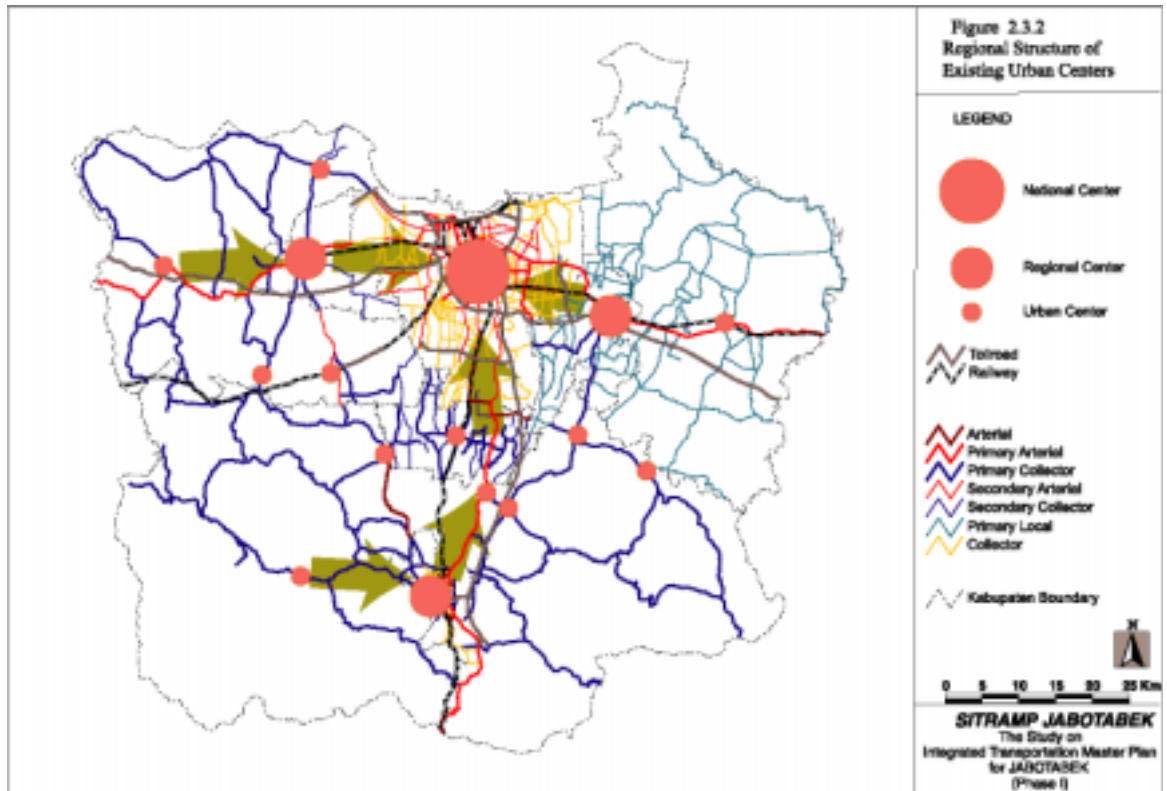
(2) Privately Initiated Urban Development

It now appears that large-scale private sector developments are playing a more dominant role than earlier envisaged, with a substantial number of middle-class citizens moving into estate type residential developments. Their spending power represents a latent demand for a range of businesses which can create a network of commercial, sports and recreation centers as well as services. Many new town development projects have been initiated by the private sector to fulfill the above opportunities. (Refer to Table 2.3.3)

These real estate housing complex developments have caused transport problems by hanging on the exiting arterial roads in suburban areas. Most residents move to this type of housing complexes on the premises of commuting by a car. In the absence of an arterial road network, the developers merely provide access roads to the existing arterial roads and add more traffic to the already saturated roads. One example in Kota Bekasi is illustrated in Figure 2.3.3. Thus these housing developments have accelerated traffic congestion in the suburban areas.

Another problem is lack of the coordination between the road networks inside and outside the housing complexes. Although a well-organized street network has been developed within the complex, the alignment of the streets is not have coordinated with the streets around the complex. Since the developers embarked on their property developments, without paying any attention to the infrastructure development around it, these housing developments are rather isolated from the neighboring communities.

In this regard, it is of great importance to establish a road network development master plan and to determine the responsibilities of the public and private sectors.



Source: Jabotabek 2015 (Draft)

Figure 2.3.2 Regional Structure of Existing Urban Centers

Table 2.3.2 Existing Urban Centers in Hierarchical Order

Hierarchy	Name	Population (1996)	Urban Functions
I	DKI Jakarta	7,678,273	Administration, Trade, Service, Industry, Residence
II	Kota Tangerang	1,417,550	Administration, Service, Industry, Residence
II	Kota Bekasi	1,362,900	Administration, Service, Industry, Residence
II	Kota Bogor	671,405	Service, Industry, Residence
II	Kota Depok	453,502	Service, Education, Residence
III	Ciputat	270,785	Service, Residence
III	Tambun	221,673	Industry, Residence
III	Cibitung	183,674	Industry, Residence
III	Serpong	182,047	Residence
III	Cikupa	164,092	Industry, Residence
III	Mauk	162,055	Residence
III	Lemahabang	161,424	Residence
III	Cikarang	143,528	Industry, Residence
III	Balaraja	138,568	Industry, Residence
III	Leuwiliang	137,773	Residence
III	Parung	131,532	Service, Residence
III	Cilleungsi	130,491	Service, Residence
III	Pasar Kemis	126,562	Residence
III	Cibinong	121,267	Service, Residence

Source: Jabotabek 2015 (Draft)

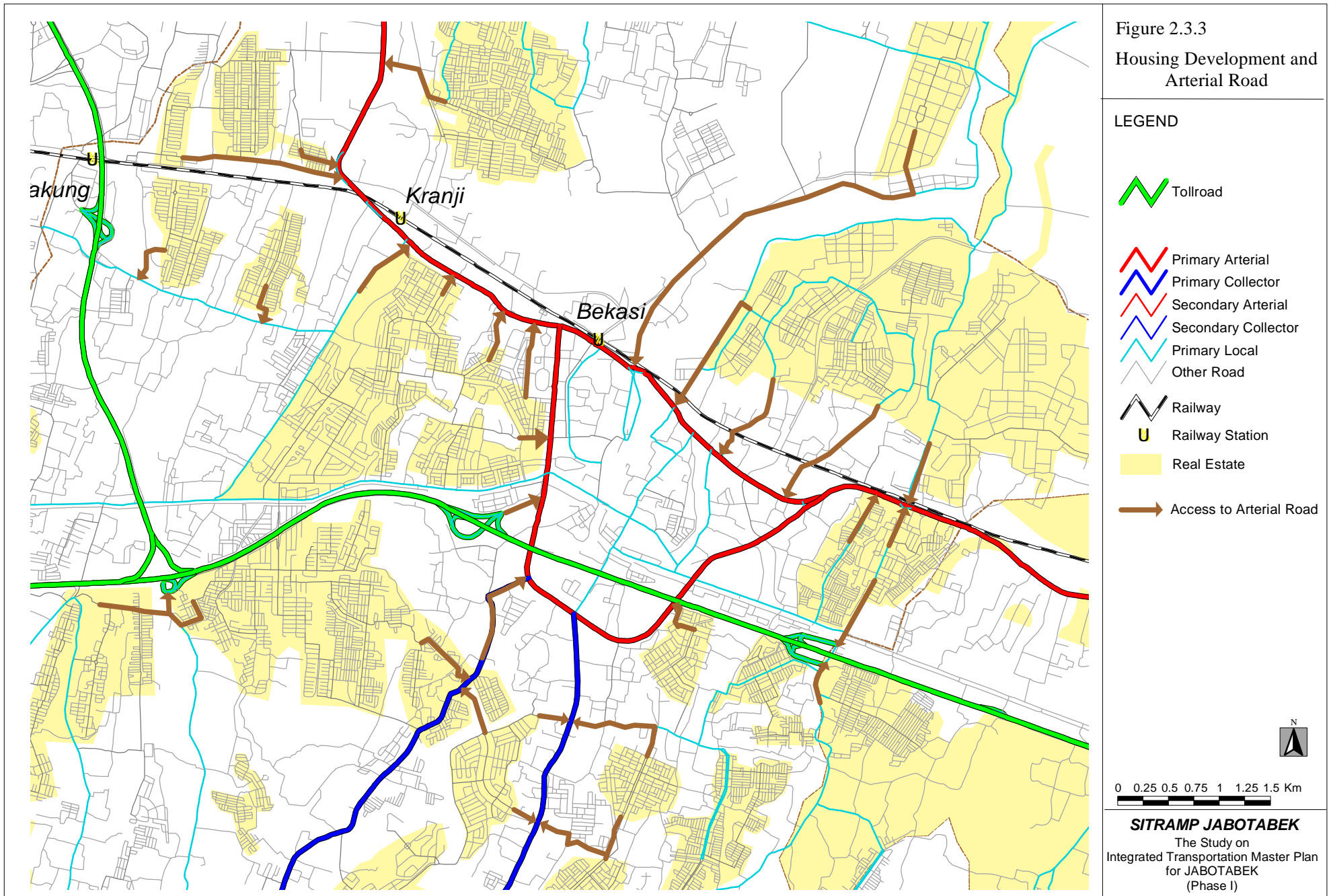
Table 2.3.3 Development Progress of New Towns

	New Town	Ultimate Development Area ¹ (ha)	Land Procured (ha)	Year of Project Mobilized	Planned Housing Units	Constructed Housing Units
Tangerang	Kedaton	500	100	Na	10,000	Na
	Villa Melati Mas	600	Na	Na	16,000	8,600
	Alam Sutera	700	650	1993	15,000	1,200
	Lippo Village Karawachi	2,600	900	1992	47,000	2,000
	Modern Land	770	445	1991	20,000	1,300
	Citra Raya	2,000	600	1994	20,000	1,500
	Pantai Indah Kapuk	800	Na	1990	8,000	800
	Gading Serpong	1,700	900	1993	35,000	4,000
	Jaya Garden Polis	1,590	600	0	30,000	Na
	Puri Jaya Pasar Kemis	2,000	Na	1996	61,000	1,500
	Bintaro Jaya	3,111	940	1992	25,000	14,300
	Kota Baru Tigaraksa	3,000	552	1990	11,000	5,500
	Bumi Serpong Damai	6,000	3,600	1989	140,000	11,000
	Griya Tangerang Estetika	1,700	200	na	na	Na
Bekasi	Kota Legenda	2,000	1,200	1994	45,000	2,300
	Lippo City Cikarang	5,000	1,450	1992	16,000	2,000
	Cikarang Baru	5,400	900	1991	37,000	3,950
	Delta Mas	3,000	Na	2000	30,000	0
Bogor	Royal Sentul Highlands	2,000	Na	1993	20,000	1,000
	Rancamaya	550	Na	1992	10,000	400
	Lido Lakas Resort	1,700	Na	1994	8,000	200
	Kota Citra Indah	1,200	Na	1996	25,000	300

Note: New town is defined as an integrated urban development with more than 500 ha.

¹ The area filled out in the corresponding Principle Permits.

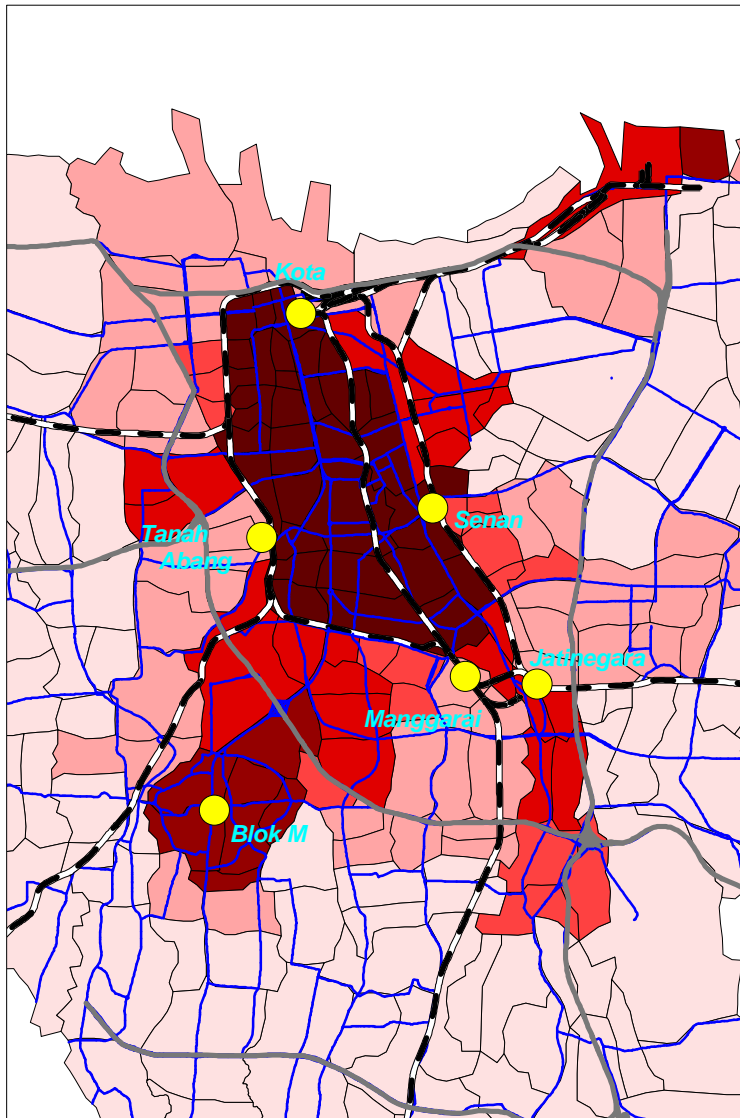
Source: BSKP Jabotabek 1996 and others compiled by the JICA Study Team.



2.3.3 Urban Development in DKI Jakarta

Rapid urban development has been taken place within central Jakarta during the 1990s. Some areas, which were previously utilized as residential areas (urban Kampung) have been converted to high-rise office and commercial buildings. The most remarkable area is the so called “Golden Triangle” in Jakarta, which is enclosed by Jl. Sudirman, Jl. Gatot Subroto, and Jl. Rasuna Said. More than 50 percent of work places in Jakarta are located in the central area, enclosed by the semi-loop railway lines and the newly emerging urban centers. Comparison of work place density between 1985 and 2000, illustrated in Figure 2.3.4, indicates that the central area with its high job density has been expanding outward and the southward, expansion in particular is outstanding. The magnitude of the old centers such as Kota, Senen, Manggarai, Jatinegara, and Tanah Abang have declined.

Year 1985



Year 2000

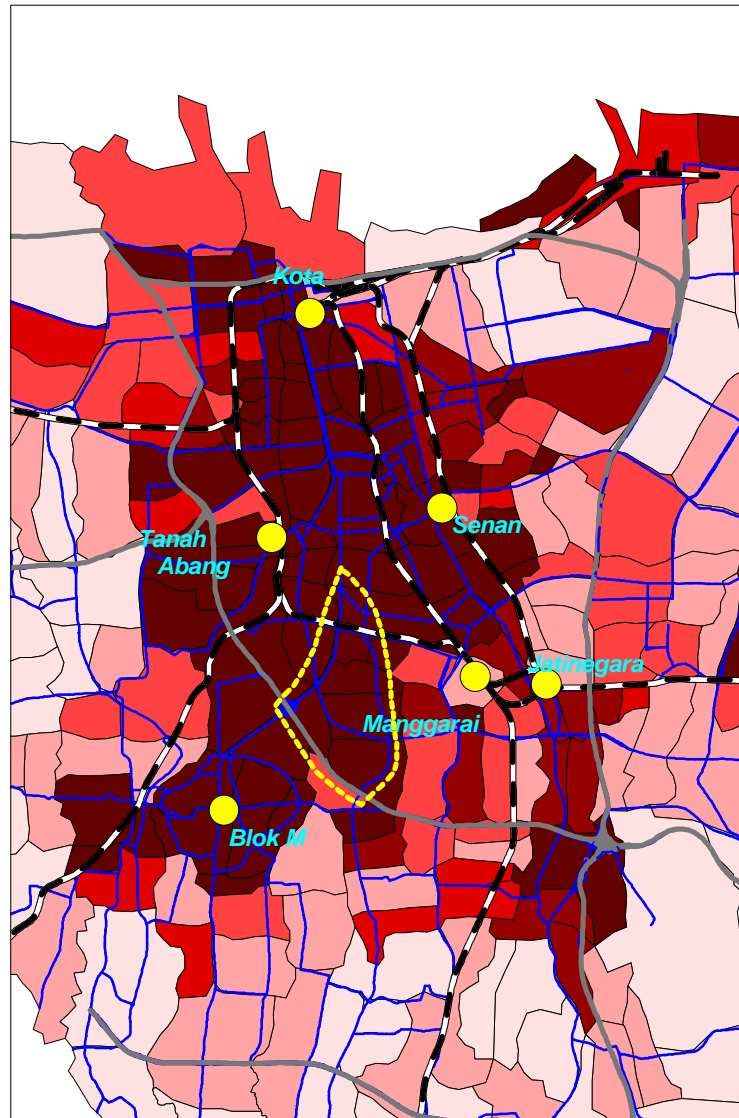
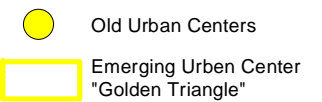
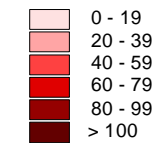


Figure 2.3.4

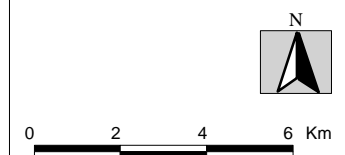
Old Urban Centers
and New Emerging Center

LEGEND

Density of "To Work" Trip
Attraction (person trips/ha)



Source : 1985 - ARSDS
2000 - SITRAMP



SITRAMP JABOTABEK

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(Phase I)

Chapter 3

Impact of Economic Crisis on the Urban Transport Sector

3. Impact of Economic Crisis on the Urban Transport Sector

3.1 General

This chapter discusses the impact of Indonesia's mid-1997 financial crisis and the subsequent economic and political crisis. Section 3.2 overviews the major impacts of the financial crisis on the performance of the regional economy and how the economic recovery has progressed since then. Section 3.3 examines the difficulties faced by the central and local governments after the crisis, especially in maintaining development expenditures. Section 3.4 investigates the impact of the economic crisis on the land transport sector such as vehicular traffic demand, railway passenger and freight demand as well as other relevant issues in land transport sector.

3.2 Effects of the Economic Crisis on National and Regional Economy

3.2.1 Real GDP Growth and Per Capita Income at National Level

Indonesia's real GDP growth (in constant 1993 prices) over the period from 1993 to 1996 averaged around 7 percent with real per capita income growing at around 5 percent. Real GDP and per capita income growth in 1997 slowed down to 4.7 percent and 3.1 percent, respectively. The 1997 crisis resulted in a full blown recession in 1998 with GDP (with oil & gas) contracting by around -13.2 percent (without oil & gas by about -14.3 percent) and real per capita income contracting by -14.5 percent.

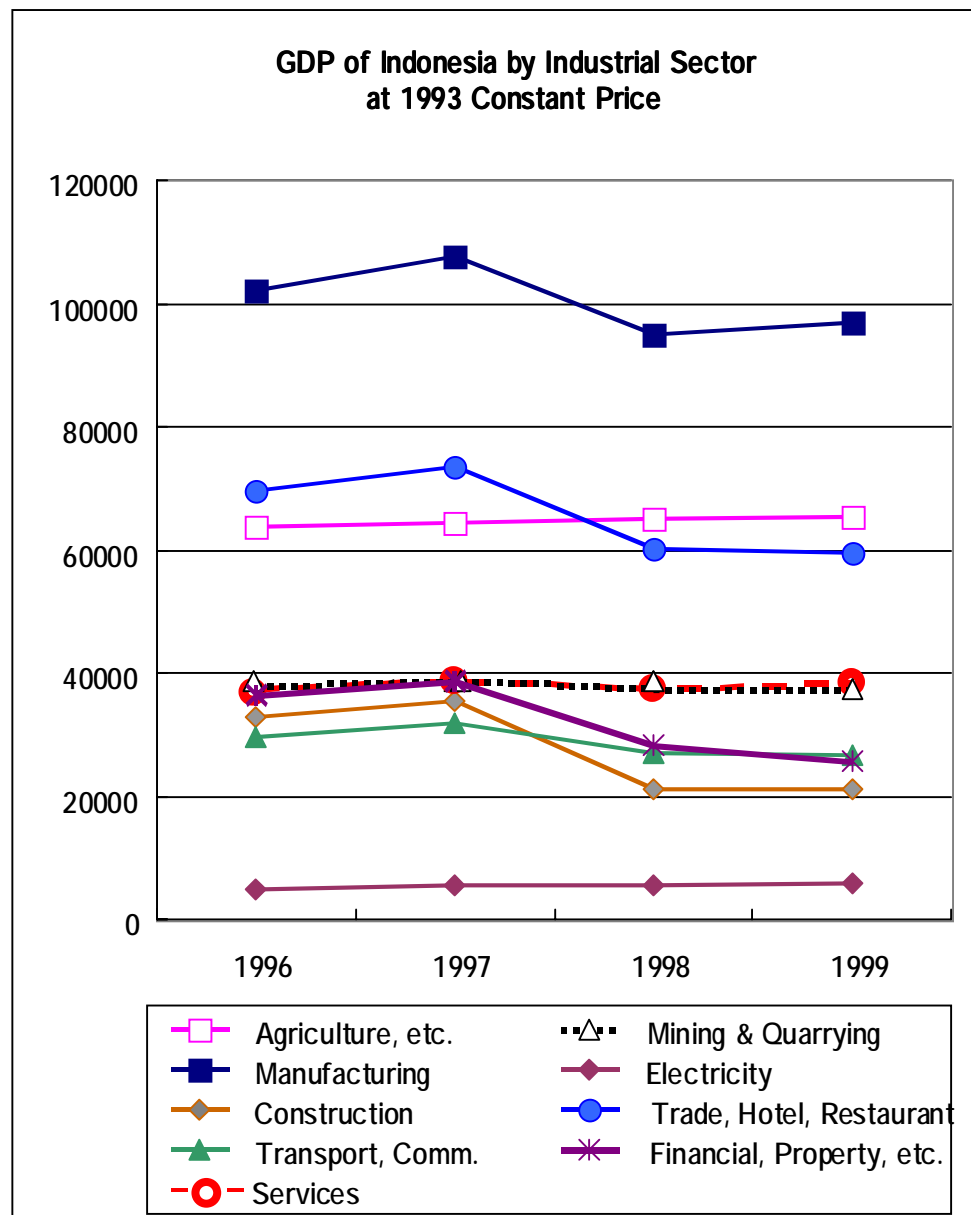
The most seriously affected economic sectors in 1998 were the construction sector which contracted at a rate of -40.5 percent, followed by the financial sector at -26.6 percent, the trading sector at -18.0 percent, the transport sector at -15.1 percent, and the manufacturing sector at -11.9 percent. (See Table 3.2.1) The financial sector contracted further in 1999 by -8.7 percent.

Table 3.2.1 Percentage Growth of GDP of Indonesia by Industrial Origin

Industrial Sector	At 1993 constant prices			
	1996(bil. Rp)	1996-1997	1997-1998	1998-1999
Agriculture, etc.	63,827.8	1.0%	0.8%	0.7%
Mining & Quarrying	37,739.4	2.1%	-3.1%	-0.1%
Manufacturing	102,259.7	5.3%	-11.9%	2.2%
Electricity, Gas, etc.	4,876.8	12.4%	1.9%	7.2%
Construction	32,923.7	7.4%	-40.5%	1.1%
Trade, Hotel, Restaurant	69,475.0	5.8%	-18.0%	-1.1%
Transport, Comm.	29,701.1	7.0%	-15.1%	-0.7%
Financial, Property, etc.	36,384.2	5.9%	-26.6%	-8.7%
Services	36,610.2	3.6%	-3.2%	2.8%
Total (with oil & gas)*	413,797.9	4.7%	-13.2%	0.2%
Total (without oil & gas)	378,871.2	5.2%	-14.3%	0.4%

Source: National Income of Indonesia, 1996 - 1999, BPS

However, the aggregated output contraction seems to have halted and real GDP growth in 1999 was estimated by BPS at around 0.23 percent, with real per capita income decline slowing down to -1.22 percent in the same year.



Source: National Income of Indonesia, 1996 - 1999, BPS

Figure 3.2.1 Change of GDP of Indonesia: 1996 - 1999

Preliminary projections by BPS, which are based on the first quarter 2000 data suggests an annualized GDP growth of 2.93 percent for the year 2000 (including oil & gas). The ADB projects that the Indonesian economy will grow by 3.5 percent in the year 2000. If the BPS data proves to be correct, it would imply a positive real per capita growth performance in 2000 of around 1.4 percent.

The above short-term trend must, however, be interpreted with extreme caution. It appears from BPS statistics that economic recovery may be temporarily driven by better export performance, higher oil prices and consumer spending, which

declined in 1998 by only -3.32 percent and grew at an estimated 1.5 percent in 1999.

Investment, in particular gross fixed capital formation (GFCF), however, has declined drastically by roughly 50 percent between 1997 and 1999 (1998: -35.5 percent; 1999: -20.8 percent). Positive GDP growth, which is driven by consumer spending alone, cannot be maintained over the short to medium-term, if the downturn in GFCF is not reversed. An important signal to watch will, therefore, be any upward trend in GFCF.

3.2.2 Real GRDP Growth and Per Capita Income in Jakarta

The recession in the Jakarta in 1998 was worse than the national average as evidenced by the contraction in real GRDP of -17.6 percent, 4.4 percent lower than the national average, as indicated in Table 3.2.2. As was the case with the national economy, the most affected economic sectors were the construction sector (-38.3%), followed by manufacturing (-18.3%), trading (-15.4%), agricultural (-15.3%), transport (-12.8%), services (-11.6%) and financial (-9.6%) sector.

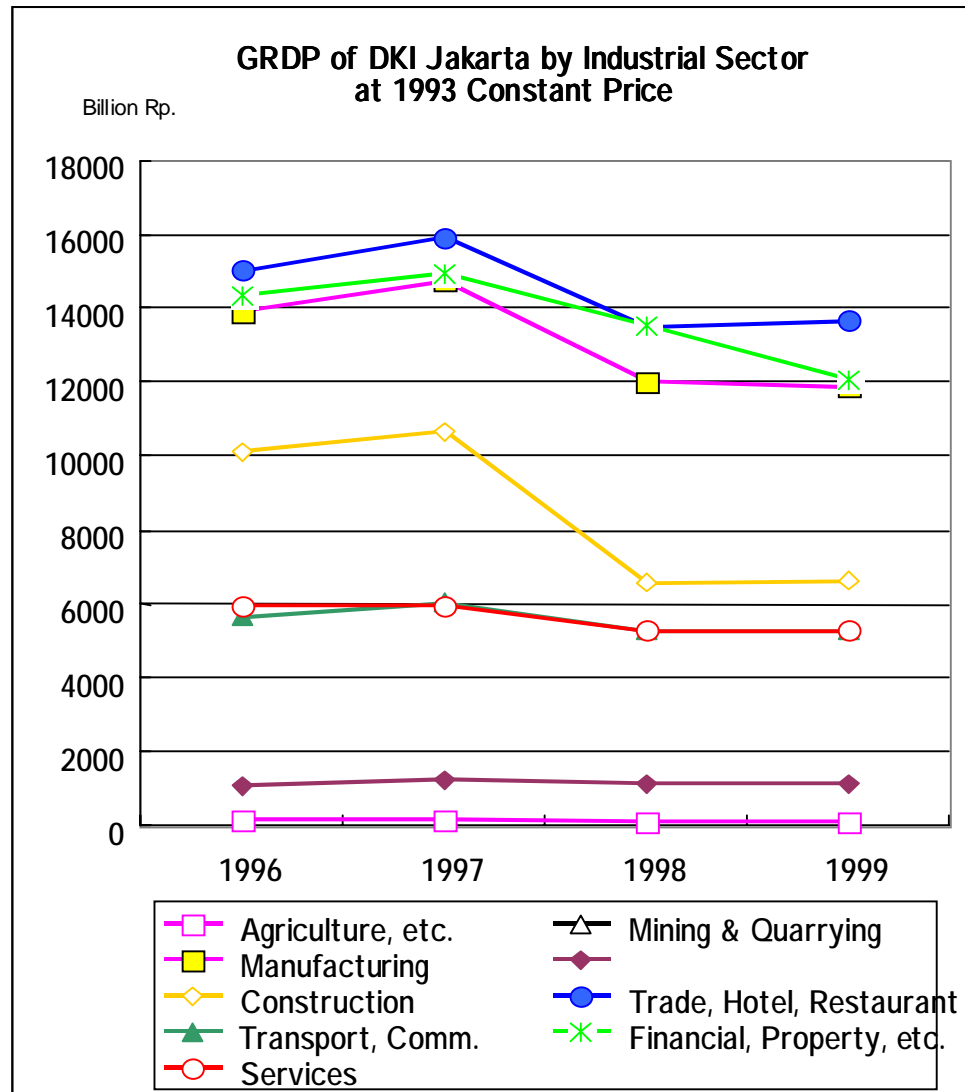
Table 3.2.2 GRDP Growth of DKI Jakarta by Industrial Origin

Industrial Sector	At 1993 constant prices				
	1995 (bil. Rp)	1995-1996	1996-1997	1997-1998	1998-1999
Agriculture, etc.	123.0	-0.7%	1.1%	-15.3%	0.7%
Mining & Quarrying	0.0	0.0%	0.0%	0.0%	0.0%
Manufacturing	12,865.3	8.2%	5.7%	-18.3%	-1.2%
Electricity, Gas, etc.	1,009.4	6.1%	12.9%	-8.8%	0.6%
Construction	8,783.5	15.4%	5.4%	-38.3%	0.2%
Trade, Hotel, Restaurant	13,664.0	10.1%	5.8%	-15.4%	1.4%
Transport, Comm.	5,100.6	10.2%	6.9%	-12.8%	0.7%
Financial, Property, etc.	13,326.5	7.6%	4.3%	-9.6%	-10.8%
Services	5,776.4	2.4%	0.3%	-11.6%	-0.1%
Total (with oil & gas)*	60,648.7	9.1%	5.1%	-17.6%	-2.7%
Total (without oil & gas)	60,648.7	9.1%	5.1%	-17.6%	-2.7%

Source: Gross Regional Domestic Product of Provinces in Indonesia by Industrial Origin, 1995 - 1999, BPS

It appears from the BPS data that within Jabotabek itself, the Botabek region's real GRDP contracted well above the national and slightly above the Jabotabek average (-18.5% in 1998). It also appears from the BPS data that the contraction of DKI's real GRDP continued in 1999 (-2.7 percent), though the pace has slowed considerably.

As a consequence, real per capita income has declined dramatically in 1998, exceeding the national average by about 5 percent in DKI Jakarta, about 6 percent in Botabek and also roughly 6 percent for Jabotabek as a whole.



Source: Gross Regional Domestic Product of Provinces in Indonesia by Industrial Origin, 1995 - 1998, BPS

Figure 3.2.2 Change of GRDP in DKI Jakarta : 1996 – 1999

3.2.3 Inflation and Exchange Rates

Indonesia was in 1998 on the verge of hyperinflation, which spiraled to some 78 percent when producers started to (a) counter declining demand by raising prices and (b) adjust Rupiah-based price levels to compensate for the drastic devaluation of the Rupiah against the US dollar as shown in Table 3.2.3. The exchange rate against the US dollar decreased sharply from the then stable rate of Rp.2,385 in December, 1996 to Rp.5,700 in December, 1997 and Rp.8,100 in December, 1998. (See Figure 3.2.3) The Rupiah recovered in December, 1999 to a level of Rp.7,161 but the Rupiah fell again as of 12th of July, 2000, to about Rp.9,300 (middle rate). Prudent macro-management canceled the hyperinflation threat and brought inflation under control in 1998.

Table 3.2.3 Inflation Rate of 27 Cities in Indonesia by Calendar Year

unit: percent

	1996	1997	1998 ¹⁾	1999 ²⁾
General	6.47	11.05	77.63	2.01
Food	6.12 ³⁾	18.45 ³⁾	118.37	-5.25
Prepared Food	-	-	94.32	3.60
Housing	4.72	6.08	47.47	5.23
Clothing	5.77	7.67	98.69	6.54
Health	9.69 ⁴⁾	2.11 ⁴⁾	86.14	3.87
Education, Recreation, and Sports	-	-	38.01	5.29
Transportation and Communication	-	-	55.55	5.15

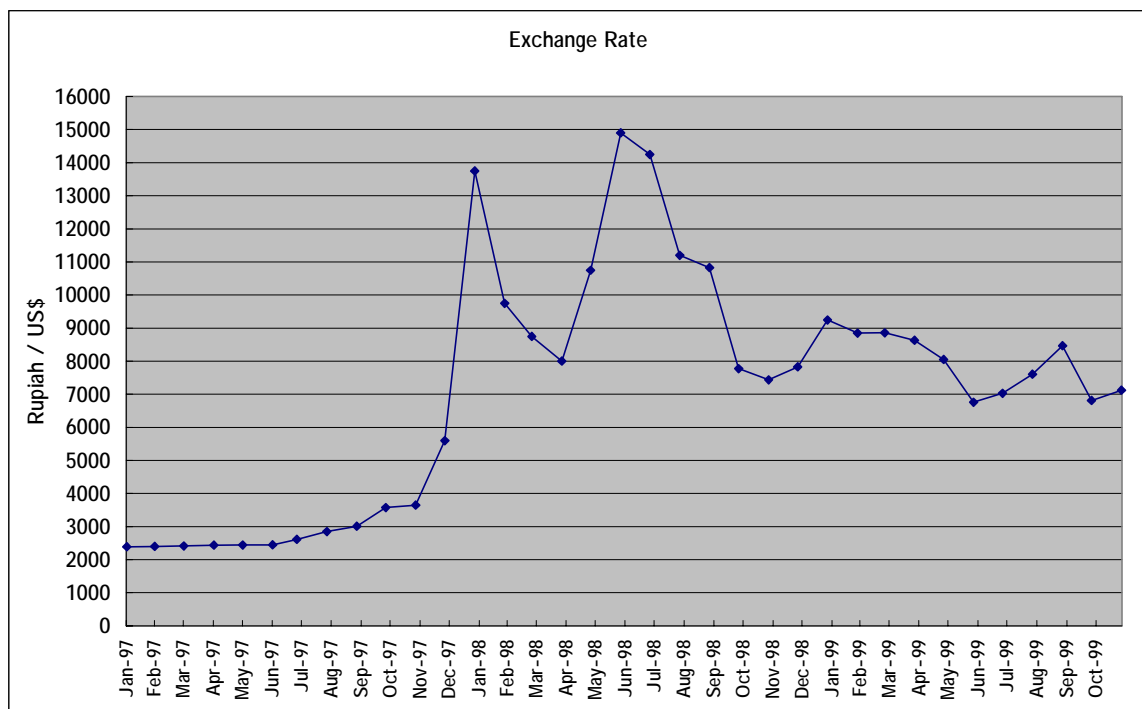
Source: Statistical Year Book of Indonesia, 1999, BPS

Note: 1) Inflation rate for 44 cities (1996=100)

2) Inflation rate for 43 cities (1996=100)

3) Inflation rate of Food

4) Inflation rate of Miscellaneous



Source: IBRA ORR Valuation Study

Figure 3.2.3 Exchange Rate : Jan. 1997 – Dec. 1999

3.2.4 Employment in Jakarta

Since 1997, the economic crisis has affected economic activities in DKI Jakarta, and as a consequence the number of unemployed has been increasing. In 1997 those seeking a job amounted to 443,000 persons which was equivalent to some 11 percent of the labor force as indicated in Table 3.2.4. The number of people who are unable to get a job has continued to increase to 564,000 persons in 1999.

Table 3.2.4 Unemployed Population in DKI Jakarta

Unit: 000 persons

	1997		1998 1)		1999 2)	
Labor Force	4052.6	100.0 %	4053.4	100.0 %	4262.2	100.0 %
Working	3609.4	89.1 %	3553.9	87.7 %	3698.2	86.2 %
Seeking for a job	443.2	10.9 %	499.5	12.3 %	564.0	13.2 %

Source: INFO EKS edisi Januari – Desember 1999, Bappeda DKI Jakarta, pp.24

Note: Original sources from BPS Propinsi DKI Jakarta

1) Sakernas (Keadaan bulan Agustus)

2) Susenas (Keadaan bulan Pebruari)

3.2.5 Business Suspension

During the riots in May 1998, downtown Jakarta and many other areas were damaged by fires. Some infrastructure was also damaged such as muddy roads due to water leaks and spoiled traffic signals. Shops and offices in new settlement areas away from Jakarta are still vacant. In the aftermath of the crisis, the private developers have been badly hurt financially.

For instance in Tangerang, only 78 out of 398 developers still exist after the crisis. Before the crisis many of the developers sold housing units without the required public and social facilities and now they are unidentified by the Tangerang Housing Service (Dinas Perumahan Kabupaten Tangerang). Eleven large shopping centers were forced to close business between 1997 and 1998 as shown in Table 3.2.5.

Table 3.2.5 Business Suspension of Shopping Centers

Name	Location	Year of Initial Opening	Gross Lease Area (m2)	Current Development Status
Ratu Plaza	Jakarta South	1980	22,500	To be reopened in 2000
Glodok Plaza	Jakarta Central	1987	26,936	Planning for renovation
Slipi Jaya	Jakarta West	1989	10,000	Planning for renovation
Kebayoran Plaza	Jakarta South	1992	6,000	Partly burnt-down
Central Klender Plaza	Jakarta East	1992	8,000	Totally demolished
Jatinegara Plaza	Jakarta East	1993	20,900	To be reopened in 2000
Lippo Supper Mall	Tangerang	1995	87,000	Partly reopened in 1999
Cimone Indah Mall	Tangerang	1996	12,000	Will be reopened in 2000
Permata Cimone Mall	Tangerang	1996	33,400	Partly burnt-down
Daan Mogot Mall	Jakarta West	1997	27,000	Partly burnt-down
Menteng Plaza	Jakarta Central	1997	14,000	Reopened I 1998

Source: Jakarta Property Market, Colliers Jardine, December 1999

3.3 Impact on Public Finance

Generally speaking, the economic crisis has made it extremely difficult for the central and local governments to maintain pre-crisis level revenues and expenditures, in particular development and/or net-investment expenditures. Revenues (including grants, but excluding receipts from privatization) have declined from 16.1 percent of the GDP in FY 1994/95 to 10.2 percent in FY 1999/2000. Expenditures have grown, on the other hand, from 15.7 percent in FY 1994/95 to 16.0 percent in FY 1999/2000. Current expenditures have grown from 8.4 percent of GDP in FY 1994/95 to 11.0 percent in FY 1999/2000, while development expenditures have declined from 7.3 percent of GDP in FY 1994/95 to 5 percent in FY 1999/2000.

The major reasons for the expenditures are 1) to cover recurrent expenditures, 2) to cover cost (recapitalization and guarantees) for bank restructuring, and 3) to maintain the social fabric of the country through social safety-net programs.

As a result of, inter alias, the above, outstanding Government debts have increased dramatically further limiting the Government's short to medium-term capability to increase investment expenditures. The government debt service amounted in FY 1996/97 to 23 percent of the GDP, but it has drastically increased since then to 60 to 70 percent during the economic crisis of the fiscal years 97/98 and 98/99. In the fiscal year 99/00 it is estimated to increase to as much as 90 percent, due to the increase in domestic debt for bank restructuring. Total government debt service payment was projected to account for about 40 percent of tax revenues in 2000.

This situation has forced the Central government to reduce outstanding debt as much as possible, as the State Policy Guidelines pointed out the importance of controlling government debt and external borrowing. Therefore it appears difficult for the government to finance a large-scale infrastructure development project on its own and/or through short term external borrowing.

Table 3.3.1 Government Outstanding Debt

	(unit: billion US \$, end of period)				
	FY96/97	FY97/98	FY98/99	FY99/00	2000
	Actual	Actual	Actual	Projection	Projection
Total	52.6	51.2	78.1	147.4	161.9
Domestic a)	0.0	0.0	18.9	84.7	95.9
External b)	52.6	51.2	59.2	62.7	66.0
Government Debt/GDP	22.9	61.9	67.2	90.9	93.4
Of which External Debt/GDP	22.9	61.9	50.9	38.7	38.1

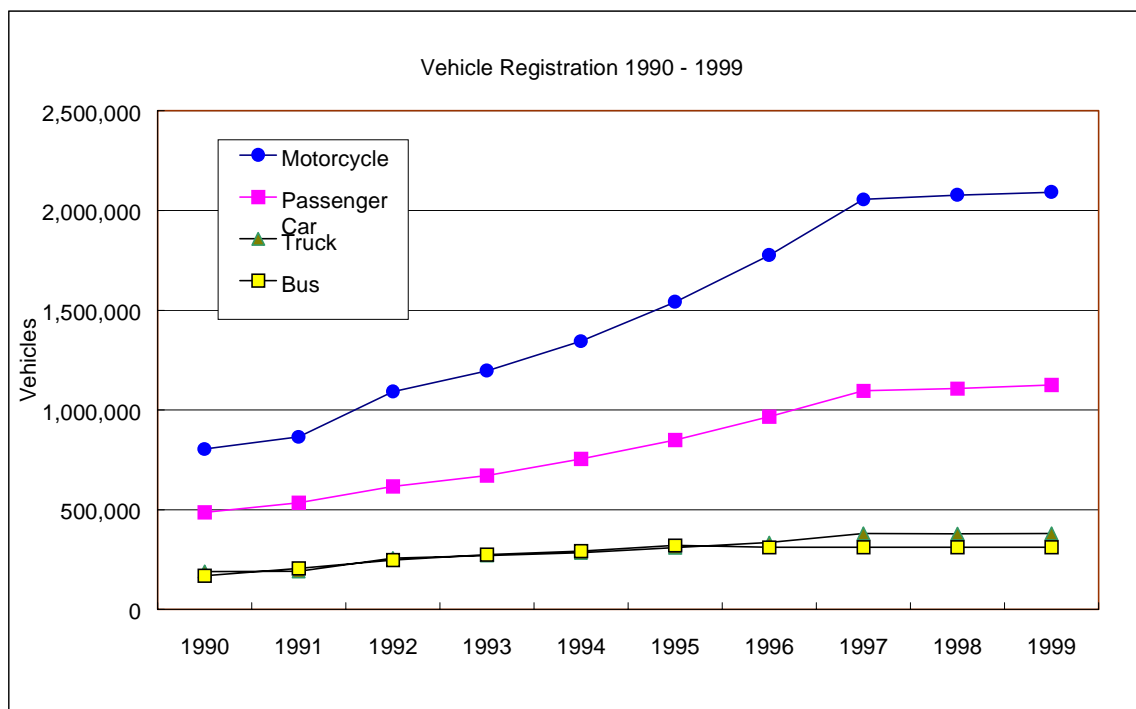
Source: Economic Brief for the Consultative Group of Indonesia, Indonesia: Seizing the Opportunity, World Bank Office in Jakarta, January, 2000

Note: a) Assuming an exchange rate of Rp. 7000 per US Dollar for 2000
b) This excludes credits owed to the IMF.

3.4 Impact on Land Transport Sector

3.4.1 Vehicle Registration

The total number of registered motor vehicles has increased dramatically from 1995 to 1997 reaching a total of 3.8 million units. After the economic crisis the rate of growth has declined substantially compared to the pre-crisis period.



Source : Ditlantas Polda Metro Jaya

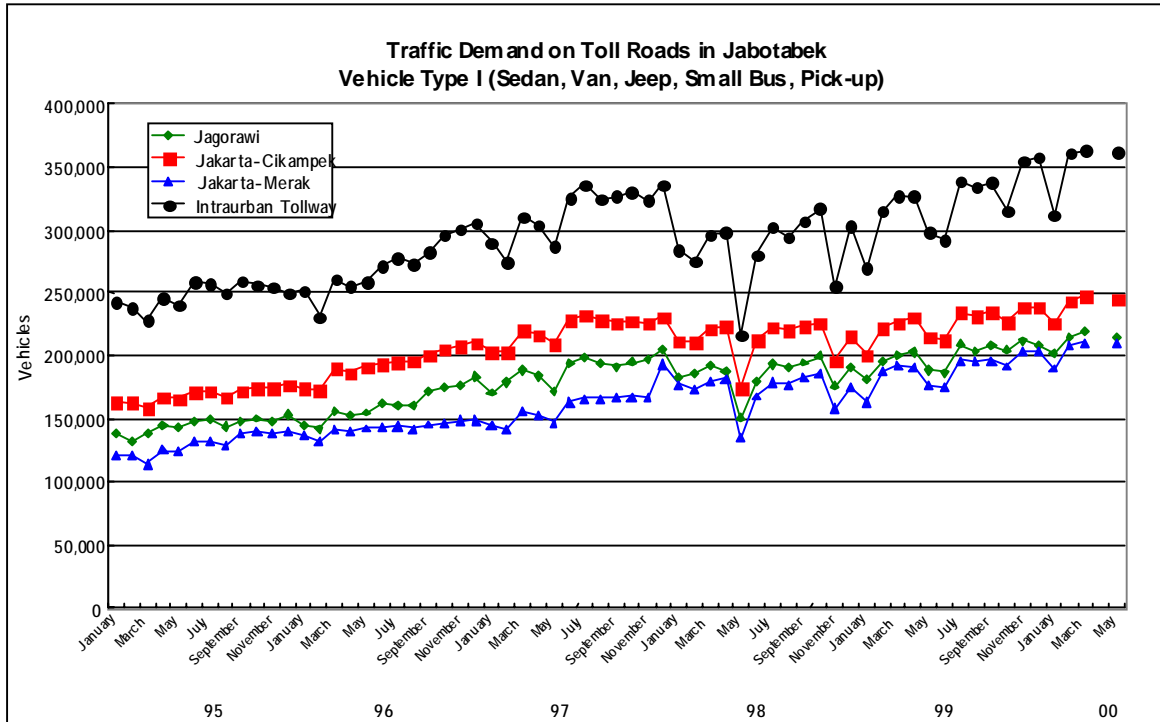
Figure 3.4.1 Change in Vehicle Registration

3.4.2 Traffic Demand on Jabotabek Toll Roads

The economic crisis had a significant impact on the travel demand on toll roads as shown in Figures 3.4.2 through 3.4.4. The number of vehicles using toll roads has dropped sharply after the crisis. From the middle of 1998 the number of vehicle type I, including sedan, jeep, small bus and pick-up, had been decreasing up till May 1998. In May 1998, a dramatic decrease in vehicular trips was observed due to the riots in Jakarta. Since mid-1998, the demand had gradually recovered and by the end of 1999, the demand of vehicle type I had already reached the pre-crisis level.

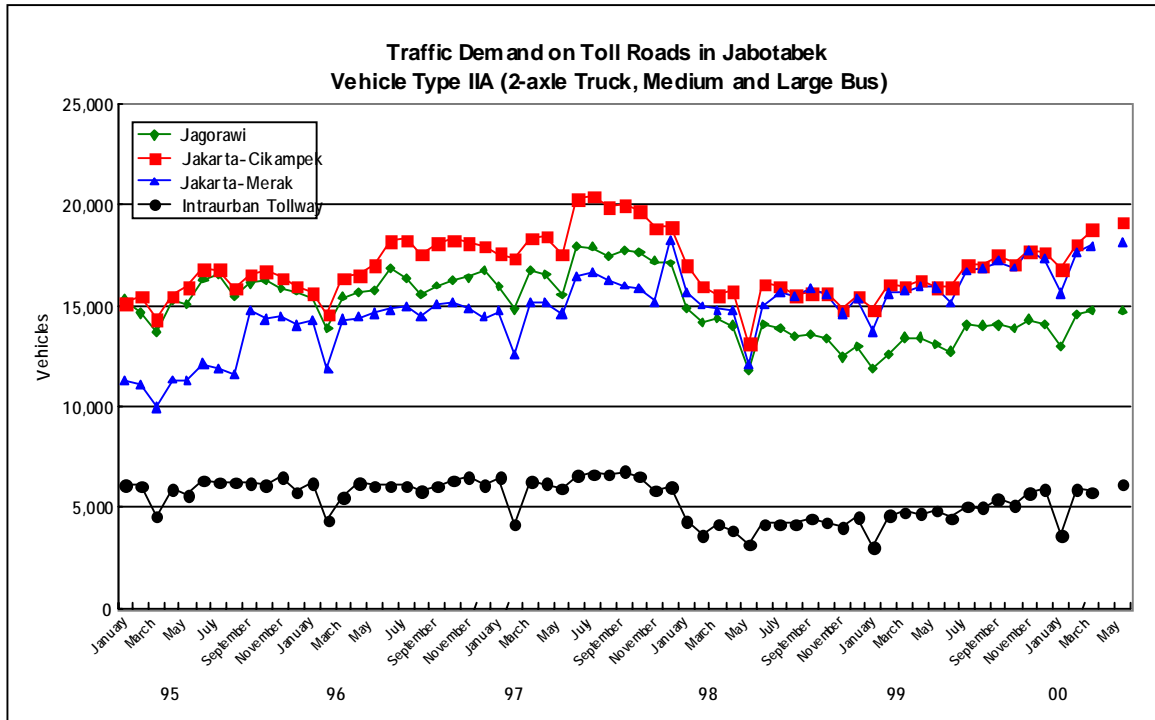
Although the traffic volume of both vehicle types II and III have been recovering since the crisis, the recovery of their traffic demand has been slower than that of vehicle type I. Vehicle types II and III consist mainly of trucks and trailers, since the traffic volume of these types of vehicles is directly related to economic activities, the slower recovery of cargo vehicular demand reflects the slow recovery of the regional economy.

Nevertheless the economic crisis hit the regional economy in Jabotabek seriously and although usage of automobiles had decreased temporarily due to the fear of the riots, vehicular demand, especially that of private passenger cars, appears to be recovering well. This implies that when the regional economy recovers, traffic demand will increase rapidly like the pre-crisis period and bring about traffic congestion.



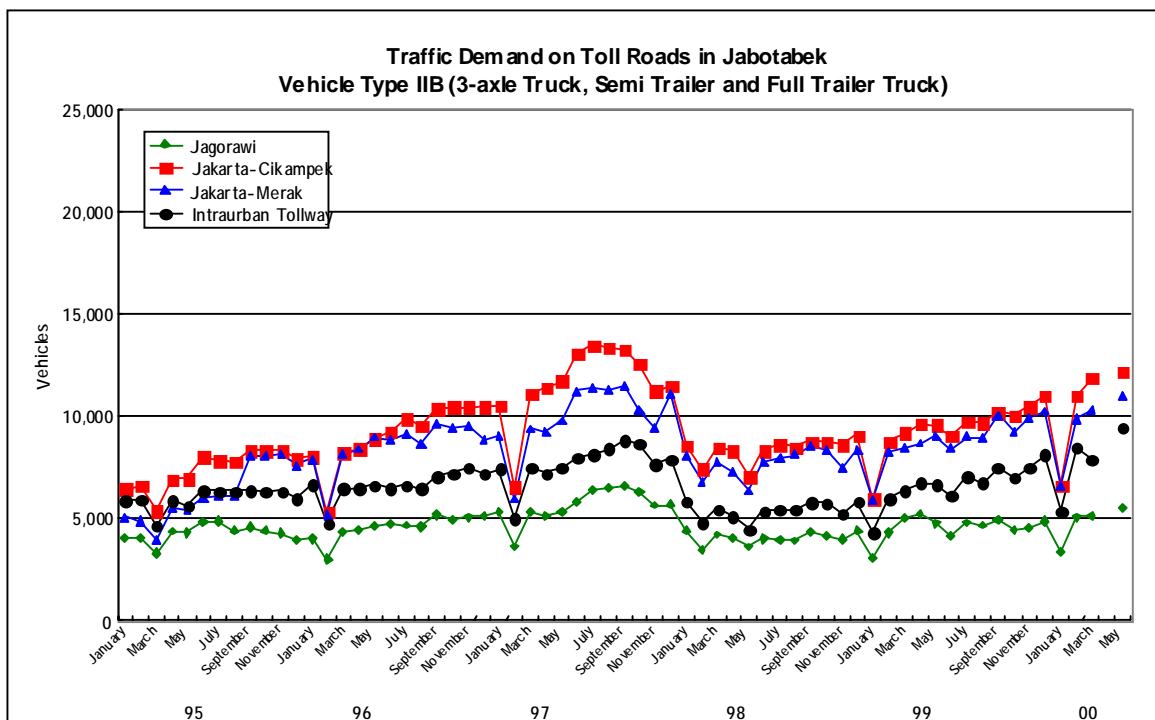
Source: Jasa Marga Monthly Report 1995 - 2000

Figure 3.4.2 Traffic Demand on Toll Roads in Jabotabek (Type I)



Source: Jasa Marga Monthly Report 1995 - 2000

Figure 3.4.3 Traffic Demand on Toll Roads in Jabotabek (Type Iia)



Source: Jasa Marga Monthly Report 1995 - 2000

Figure 3.4.4 Traffic Demand on Toll Roads in Jabotabek (Type Iib)

3.4.3 Railway Passenger and Freight Demand

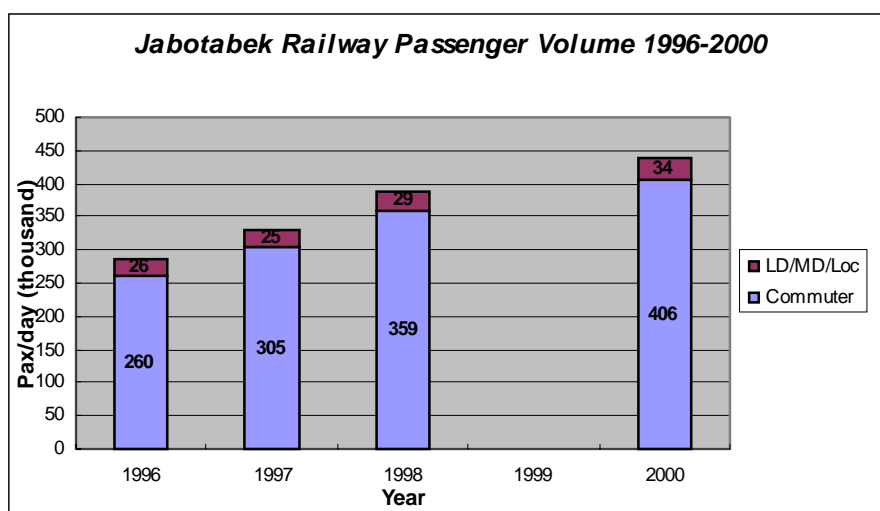
Railway passenger demand is increasing despite the economic crisis in 1997 as shown in Table 3.4.1 and Figure 3.4.5, although the rate of growth during the recovery period is lower than rate during the previous economic growth period.

Unlike passenger demand, freight transported by the railway has been gradually decreasing. Freight demand dropped sharply in 1998 due probably to the decrease in production caused by the economic crisis as depicted in Figure 3.4.6. In 1999 demand increased slightly compared to the previous year but the volume was still about half of that in 1995.

Table 3.4.1 Growth of Jabotabek Railway Passenger Demand: 1996 - 2000

	ANNUAL GROWTH		
	1996-1997	1997-1998	1998-2000
Central Line	22.9%	15.8%	4.5%
Bekasi & Eastern Line	-0.4%	29.7%	9.8%
Serpong & Western Line	-7.7%	14.9%	17.9%
Tangerang Line	75.3%	35.9%	9.4%
Jabotabek	16.9%	17.8%	6.4%

Source: 1) PMS for passenger demand in 1996,1997, and 1998
2) SITRAMP Railway Passenger Survey, 2000

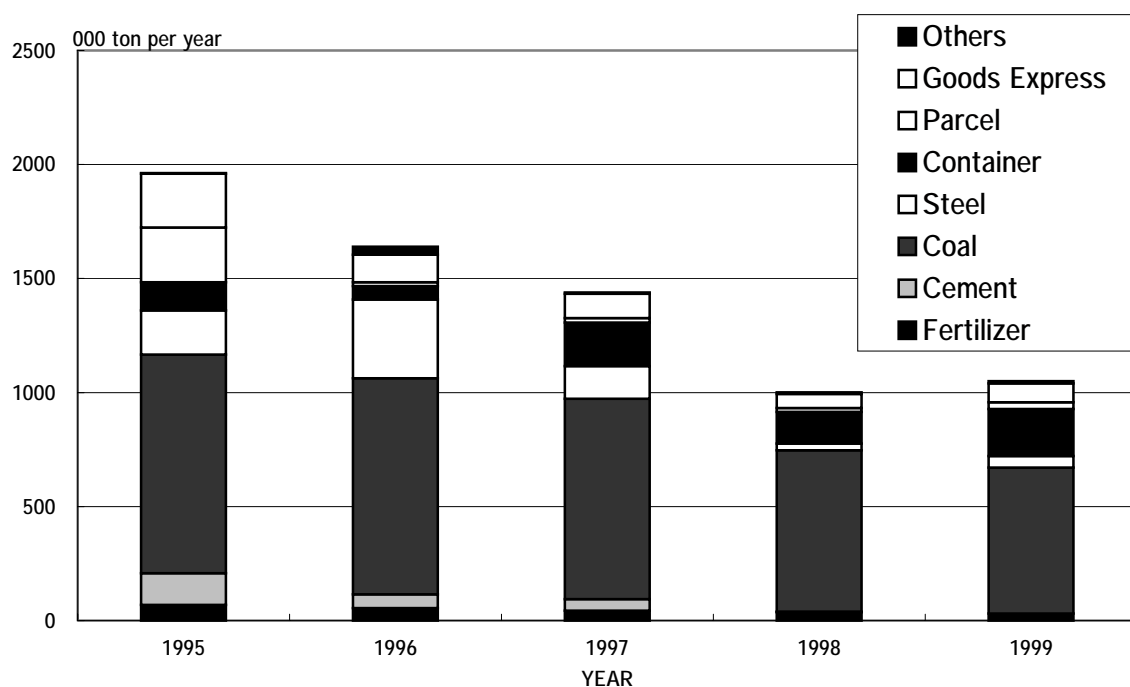


Source: 1) PMS for passenger demand in 1996,1997, and 1998
2) SITRAMP Railway Passenger Survey, 2000

Figure 3.4.5 Railway Passenger Demand: 1996 – 2000

3.4.4 Shortage of Road Maintenance

As discussed in Section 3.3, the economic crisis brought about financial difficulties for the central and local governments. The shrinkage in revenue caused a decrease in maintenance costs allocated for the transportation facilities. As a consequence, many urban streets have deteriorated due to the lack of routine or periodical maintenance.



Source : PT KAI

Figure 3.4.6 Railway Freight Demand: 1995 – 1999

3.4.5 Increased Operation Costs of Public Transport

The economic crisis had a negative impact on bus operation in the Jabotabek region by increasing the price of imported spare parts due to the sharp decrease in exchange rate against US dollars as discussed in Section 3.2.3. As a consequence, many buses could not be repaired thus went out of service. It is estimated that compared to the pre-crisis period, about 40 percent of buses are no longer being operated at present. PT KAI, the railway company, has also faced the same problem of increasing spare part costs, due to the depreciation of the Rupiah against foreign currencies.

3.4.6 Increase of Crime on Public Transport

The economic crisis has resulted in considerable number of people being unemployed. As a consequence, crimes such as pickpockets and robberies have increased inside buses, train cars, at bus terminals, bus stops and railway stations. Taxi drivers have been attacked by robbers, while taxi passengers have been threatened by unauthorized taxi drivers. This has discouraged people from using public transport, especially those who can afford to use a private mode of transport. However the majority of the current public transport users do not have an alternative mode of transport, and they continue to use the public transport system albeit reluctantly.

Chapter 4

Analysis of Impediments to Project Implementation (Lessons from the Past Projects)

4. Analysis of Impediments to Project Implementation (Lessons from the Past Projects)

4.1 General

The first comprehensive transportation study, known as the “ Jakarta Metropolitan Area Transportation Study (JMATS)”, was completed in 1975, and it proposed an extensive urban railway system in Jakarta. Since then, however, neither a new railway line nor a new mode of public transport other than buses have been introduced in the Jakarta Metropolitan Area. A prosperous picture of Jakarta’s urban transport network was drawn up in the master plan with little concerns about financial and institutional viability.

Plans and projects have been prepared for developing Jakarta, Jakarta Metropolitan Area or Jabotabek Region from overall urban or regional development aspects or more specifically from certain sectors development aspects. However, all these plans and projects have not been easily implemented as expected in their preparation/study phases. There exist impediments to project implementation in the due process from the planning stage to the realization stage.

Planning studies in the past often lacked the essential component to bring their ideas into reality. A study should not only aim to figure out the subject plan/project but also cover all necessary aspects necessary for their realization.

It is imperative in this first phase of the Study to study the problems of previous studies which hindered project implementation, in order not to repeat the same mistakes during the second phase of the transport master plan preparation. Also, discussions of this chapter will have to be reflected in this coming Chapter 8 of “Transport Policies and Strategies” in pursuit of plan/project realization.

4.2 Past Plans and Studies Related to Jabotabek Transport Planning

During the last few decades, a variety of plans and studies related to the Jabotabek transport system have been carried out as introduced in Figure 4.2.1.

(1) National Development Plan

The Five-year National Development Plan (Replita) was first prepared in 1969 by BAPPENAS and guided national, provincial and sector developments and the allocation of the budget. It continued up to the Seventh Plan of 1999, which was never implemented because of the change in political regime that year. The new national development program (Propenas) was drafted in 2000 for discussion at the national assembly but it had not yet been implemented by the end of October, 2000. Since the Jabotabek region is composed previously of DKI Jakarta and West Java provinces, the national development plan has largely affected the development directions, policies and strategies of the Jabotabek region as well as its transport sector development.

(2) Jabotabek Development Plan

In the 1970's, it was recognized that urban planning within a limited administrative boundary could not effectively cope with urban problems, particularly in DKI Jakarta. Therefore, INPRESS (Presidential Instruction) No. 13/1976 was issued to establish a comprehensive Jabotabek Metropolitan Development Plan (JMDP) 2005, that begun with the preparation of the Jabotabek Regional Planning in 1975 which was revised several times before the final version was completed in 1985. The review work continued since then and the Jabotabek Metropolitan Development Plan Review (JMDPR) was made available in 1993. Further, the JMDPR has been updated and planning coordination among agencies concerned resulted in the threshold of the process for the presidential decree on a development zoning of the Jabotabek region in 2015.

(3) Jakarta Urban Development Plan

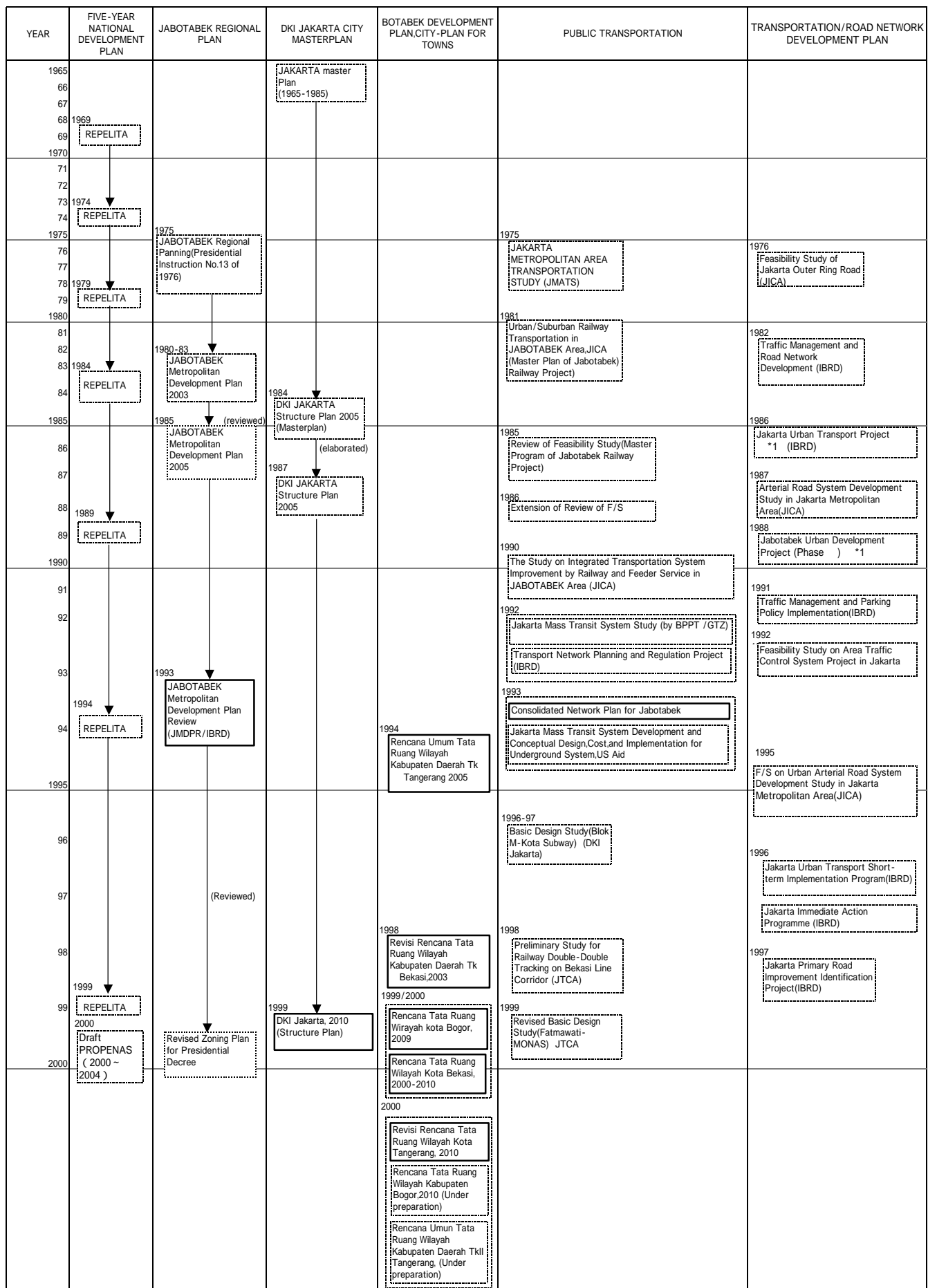
Jakarta's first master plan in 1965, and which was published in 1967 to exhibit a physical development and map out strategies for the period 1965 to 1985. Although there is no formal functional mechanism for planning Jabotabek as a region, JMDP had an important influence on the subsequent master plan for DKI Jakarta. The second Jakarta master plan was issued in 1987, entitled "Jakarta 2005", and it adopted the same spatial form for Jakarta as delineated in the JMDP. A similar relationship between the JMDPR and the third master plan can be observed in "Jakarta 2010" which was ratified and issued in 1999.

(4) Structure Plans in Botabek

The Botabek area belonged administratively to West Java Province, though Kabupaten Tangerang and Kota Tangerang now belongs to the new province of Banten in the year 2000. Each local government of the Botabek area, that is Kabupaten Bogor, Kota Bogor, Kota Depok, Kabupaten Tangerang, Kota Tangerang, Kabupaten Bekasi and Kota Bekasi, has its own structure plan under the guideline of the provincial structure plan of West Java.

(5) Railway Development Plan

The Jabotabek railway master plan, after JMATS in 1975, was prepared in 1981 under the title of "Urban/Suburban Railway Transportation in Jabotabek Area". Again in 1990, the railway master plan was reviewed by "The Study on Integrated Transportation System Improvement and Feeder Service in Jabotabek Area" (ITSI) with special emphasis on the improvement of railway access and feeder services. Aside from the improvement of the existing railway network, new rail line plans have been proposed by the Jakarta Mass Transit System Study (JMTSS) and the "Transport Network Planning and Regulation Project" (TNPR). These rail based new network plans were integrated into the "Consolidated Network Plan for Jabotabek" in 1993. Since then, the "Blok M – Kota Mass Rapid Transit Project" has been highlighted as a priority project for implementation, and the "Basic Design" was conducted in 1996-1997. However, the Blok M – Kota MRT Project has been suspended since 1998, mainly because of Indonesia's economic crisis. In 1999, refinement of the Basic Design was carried out for the section between Fatmawati – Monas, which lies on the same corridor of the Blok M – Kota MRT Project, to lower the cost of the project.



Note:

Current Masterplan Masterplan not yet approved

*1: The Phase1 of JUDP, sponsored by the World Bank, has taken over the Jakarta Urban Transport Project (1986).

Figure 4.2.1 Historical Records of Past Transport Related Plas and Studies

(6) Road Development Plan

The overall road network development plan was established by the “Arterial Road System Development Study in Jakarta Metropolitan Area” (ARSDS) in 1987, and it provided the person trip data necessary for the subsequent road and public transport planning studies. First Jabotabek Urban Development Project (JUDP-1) started in 1988 till 1996 to execute the loan program of urban infrastructure development in Jakarta together with technical assistance including the “Jabotabek Integrated Urban Infrastructure Development Planning”. Following the ARSDS in 1987, the “Feasibility Study on Urban Arterial Road System Development Study in Jakarta Metropolitan Area” (ARSDS-II) was conducted in 1993-1995, which examined the feasibility of the East-West and North-South transport corridors in the Jakarta Metropolitan Area. During the second half of the 1990’s, some short-term and immediate action programs for the road sector in Jakarta were established by the studies listed in Figure 4.2.1.

4.3 Status-quo of Selected Major Plans and Studies in the Past

Through the overview of transport-related plans and studies in the past, several of them were selected for further analysis on impediments to project realization and discussed in the following sections for (1) their objectives, (2) major outputs and recommendations, (3) measures taken by the Government and the project status-quo, and (4) lessons learnt from the impediment analysis.

4.3.1 Jabotabek Metropolitan Development Plan (JMDP)

(1) Objectives

This plan was first prepared in 1975 to enable the two provincial governments of DKI Jakarta and West Java to prepare a long-term structure plan which was compatible with each other beyond the administrative jurisdiction.

(2) Major Outputs

The plan defined urban and regional development directions and strategies for Jabotabek, future social and economic framework, development zoning, land use plan, and transport network in the region.

(3) Measures taken by the Government and the Project Status-quo

BKSP Jabotabek (Jabotabek Development Cooperation Agency) was established in line with the Presidential Instruction No. 13 issued in 1976. BKSP still exists and it is expected to function as a planning coordinator among relevant provincial as well as lower level local governments in Jabotabek with the technical assistance by the previous Cipta Karya (Directorate General of Human Settlement, Ministry of Public Works).

Development directions and strategies proposed by the JMDP are reflected in a broad sense in the structure plan of DKI Jakarta. However, structure plans prepared by the local governments of Botabek are inconsistent not only among themselves but also with the JMDP’s land use and development zoning. The function of BKSP Jabotabek has not fully realized at present. Its role is limited to secretarial work.

(4) Lessons from JMDP

As the governmental decentralization progresses the necessity of BKSP Jabotabek or its function is growing more importantly to co-ordinate urban and regional development plans that should be prepared across administrative boundaries. To make this organization function as expected, a strong power and mechanism that empowers BKSP to become a decisive & responsible leader would have to be legally established. Authorities to determine the plan, human resources to prepare quality plan and own budget to implement Jabotabek projects should be attached thereto. The Second Phase of the Study should elaborate the examination of institutional and legal aspects on planning and project execution entity in such an area of inter-governmental jurisdictions. This issue will be one of the most essential conditions to seek for the integrated transport master plan in Jabotabek.

4.3.2 Urban/Suburban Railway Transportation in Jabotabek Area

(1) Objectives

The comprehensive urban transport study, the “Jakarta Metropolitan Area Transportation Study” (JMATS), was based on a person trip survey and it proposed a rail-based urban transport system for Jakarta in 1975. The JMATS plan, however, required a huge investment for extensive railway system development, and which was considered inappropriate as a basis to cope with the improvement of the existing railway facilities for urban transport use.

Accordingly, the “Intermediate Program” was established to urgently fulfill the shortage of urban trains and to improve related facilities within the five years period of 1976 and 1983. There was a necessity to prepare a railway development plan which followed the “Intermediate Program”. The planning study, begun in 1980 with the following objectives:

- to prepare a railway development master plan for Jabotabek with the target planning year of 2000, and
- to prioritize projects identified in the master plan, and to conduct feasibility studies for selected priority projects that should set out before around 1985.

(2) Major Output and Recommendations

The master plan recommended that the implementation schedule be divided into three phases as described below:

Phase 1:

Rehabilitation and improvement of the existing facilities to restore their functions and development of urgently required minimum railway facilities to normalize the railway operation, and which were scheduled to set out by the year 1987.

Phase 2:

Facility improvement and development programs to enhance the transport capacity were selected, though duplicated to some extent as adopted in the phase 1, to cope with the projected future traffic demand, and which were scheduled to set out by the year 1991.

Phase 3:

The objective of this phase is enhancing the rider-ship of Jabotabek railways, including such programs as the construction of new railway stations, and railway lines by the year 2000.

The implementation plan was categorized into two groups, “Basic Development of Existing Lines” and “Increase of Transport Capacity”, and project packages were identified as shown in Figure 4.3.1. The feasibility study was conducted for the project package (Project Items) numbers 1~8, 11, 19, and 22 as indicated in the Figure.

(3) Measures taken by the Government and the Project Status-quo

Upon completion of the railway master plan for Jabotabek in 1981, the GOI applied for external loans for the execution of either the detailed design or the construction of the project packages. The progress is also outlined in Figure 4.3.1.

Almost all the project packages scheduled under the first phase were completed but many of the capacity increase packages remain postponed/suspended or cancelled as of the end of 2000. Automatic signaling and electrification of the Jabotabek railway lines were completed but double tracking plans for the Tangerang and Merak Lines (between Serpong and Tanah Abang) were not completed and new station plans have not been fully completed yet in 2000. The status-quo of the incomplete projects is presented in Table 4.3.1.

Subsequent to the master planning study, additional preliminary study on the Track Elevation of the Central and Eastern Lines, other than the feasibility study of selected project packages in the master plan, was conducted in 1981.

(4) Lessons from 1981 Master Planning Study

During the first five-year period, the recommended project packages were successfully implemented with the external loan assistance, but since then many of the capacity increase projects have been suspended, except for Central Line and Bekasi Line (Jatinegara-Bekasi section) improvements. Lessons learnt from this experience include:

- Since the GOI had to depend namely on external loans to carry out the projects, the fund required for the later stage of the master plan was inevitably constrained by the accumulated debt service. The budgetary analysis should have considered the constraint of the overall cash flow imposed on GOI throughout the master plan period. Presently, a repayment capacity of the government to the external loan is a critical condition, additionally to local fund portion to be prepared by the government for the plan.
- Many of the proposed new stations, except for Central Line outside DKI Jakarta, have not yet been constructed. Although the master plan should be reviewed periodically the need to either improve or newly construct railway stations has not been raised by the urban planning side.

Code No.		Project Items	Details	Cost Rp. x 10 ⁹			82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	2000	2001	
				Total	Foreign	Local																					
Basic Development of Existing Railway Lines		Depok-Bogor Line development	Track, crossings, Fences (not including station section)	4	2	2																					
		Bekasi Line development	Track, crossings, Fences (not including station section)	4	3	1																					
		Merak Line development	Track, crossings, Fences (not including station section)	2	1	1																					
		Tangerang Line development	Track, crossings, Fences (not including station section)	4	2	2																					
		Manggarai factory development	Track, engineering, construction, equipment, electrification	8	5	3																					
		Jakarta Kota Depot development	Track, engineering, construction, equipment, electrification	5	4	1																					
		Crossing improv. on Eastern-Western Lines	Signals, track	0.5	0.4	0.1																					
		Increase of train cars		33	32	1																					
Increase of Transport Capacity	Central Line		Kota-Manggarai track elevation	Track elevation, track, station development, station plaza, electrification, automatic signals, ATS	52	32	20																				
		10	Manggarai station multi-level crossing	Overhead bridge, track, station development, station plaza, electrification, automatic signals, ATS	34	22	12																				
			Manggarai-Depok Line double tracking	Track addition, track, station development, station plaza, electrification, automatic signals, ATS, new station, train cars.	57	45	12																				
		12	Depok-Bogor Line double tracking	Track addition, track, station development, station plaza, electrification, automatic signals, ATS, train cars	37	28	9																				
	Eastern Line	13	EasternLine track elevation (Kota-Gang Sentiong)	Overhead bridge, track, station development, station plaza, electrification, automatic signals, ATS	61	37	24																				
			Automatic signals and station improv. on Eastern Line (Gang Sentiong-Jatinegara)	Automatic signals, track, station development, station plaza, electrification, ATS	4	2	2																				
			Kampung Bandan station improvements	Station development, track, station plaza, electrifications, automatic signals, ATS	11	7	4																				
	Western Line		Automatic signals and station improvements on Western Line	Automatic signals, track, station development, station plaza, electrification, ATS, new station	22	14	8																				
			Automatic signals and station improvements (Kampung Bandan-Tanjung Priok)	Automatic signals, track, station development, station plaza, electrification, ATS, electrification	12	7	5																				
		18	Overpasses crossing Western Line	Flyovers	13	8	5																				
	Other line		Bekasi Line electrification (Jatinegara-Bekasi)	Track addition, track, station development, station plaza, electrification, automatic signals, ATS, new station, train cars	75	65	10																				
		20	Merak Line double tracking, etc.	Track addition, track, station development, station plaza, electrification, automatic signals, ATS, new station, train cars	109	95	14																				
		21	Tangerang Line double tracking, etc.	Track addition, track, station development, station plaza, electrification, automatic signals, ATS, new station, train cars	63	52	11																				
	Train car depot, etc.	22	Construction of new depot at Depok	Track, engineering, construction, electrification, signals, equipment	18	11	7																				
		23	Manggarai factory expansion	Engineering, track construction, equipment	12	8	4																				
		24	Establishment of car depot for pass. trains	Engineering, track, construction, electrification, signals, equipment	3	2	1																				
	New lines	25	Construction of new line to airport	New line, track, station development, station plaza, electrification, automatic signals, ATS	36	24	12																				
		26	Passenger train operation for Cibinong Line	New line, track, station development, station plaza, electrification, automatic signals, ATS	64	44	20																				
Total				743.0	552.0	191.0																					
				Yen 261.7	Yen 194.4	Yen 67.3																					

Note) 1. Based on costs in June 1980. 1 Yen = 2.84 Rp.

2. ○ : cases where yen-based loans were applied

□ : cases where D/D were conducted by yen-based loans

Figure 4.3.1 Progress of 1981 Jabotabek Railway Development Master Plan (as of end of year 2000)

**Table 4.3.1 Status-quo of Incomplete Projects of 1981 Master Plan
(as of end of year 2000)**

* Code No.	Recommended Project	Planned Years of Execution	Progress of Study/Design			Status-quo or reasons why projects have not been realized
			M/P	F/ S	D/D	
10	Manggarai Station Multi-level crossings	1988/ 1991	⊙	⊙	⊙	Although D/D was accomplished it will have to be reviewed, because of the emerging Bekasi Line Double-Double tracking project
11	Manggarai – Depok Line Double Tracking (New stations)	1994/ 1995	⊙	⊙	⊙	Two out of three proposed stations were constructed. There is no plan to construct the remaining station.
13	East Line Track Elevation	1991/ 1994	⊙	⊙	x	Lack of budget to execute such a Mega project. No clear concept for future train operation plan.
16	Automatic Signaling and new station improvements on Western Line	1992/ 1993	⊙	x	x	The signaling project was finished, but the new station project has been suspended, as the demand is not as large as projected.
17	Automatic Signaling and station improvements (Kampung Bandang-Tg. Priok)	1992/ 1993	⊙	x	x	Demand level is lower than projected; Diversion of cargo from trucks to railway is limited.
18	Overpasses crossing Western Line	1989/1990 &1993/19 95	⊙	x	x	Delay of the project (16) above resulted in the suspension of this project
19	Bekasi Line Electrification (Jatinegara-Bekasi)	1989	⊙	⊙	x	Electrification is finished but ATS has not been adopted yet by the Jabotabek railway system.
20	Merak Line Double Tracking, etc.	1987/ 1990 & 1996/1997	⊙	x	x	Existing single track can afford to accommodate the passenger demand; only an increase in number of rolling-stock is necessary for now.
21	Tangerang Line Double Tracking, etc.	1994/1995	⊙	x	x	Electrification is finished but necessity was not raised to construct new stations
22	Construction of New Depot at Depok	1998/2000	⊙	⊙	⊙	Detailed design is finished and the construction is to start in 2001
24	Establishment of Passenger Train Car Depot	1998/2000	⊙	⊙	x	Associated with the Double-double tracking of the Bekasi Line, improvement of the Cipinang yard will be given priority.
25	Construction of New Line to Airport	1998/2000	⊙	x	x	Demand projection was too optimistic.
26	Passenger Train Operation for the Cibinong Line	1996/2000	⊙	⊙	x	The Cibinong line is now considered as the freight line; demand on rail cargo is stagnating as a whole, and land acquisition on this corridor is difficult.

Note: (1) ⊙ indicates the completion of relevant study/design.

(2) ✕ indicates incompleteness of relevant study/design.

*(Project) Code number corresponds to Figure 4.3.1.

Source: JICA Study Team

- The master plan mentioned the necessity of improving station front plazas and the feeder system to accommodate a smooth inter-modal transshipment and to increase the passenger demand and urban amenity around the stations, but the master plan failed to elaborate on the detailed proposals and recommendations to realize these facilities. This resulted in the necessity to review the 1981 master plan in 1990 with special emphasis on the feeder service improvement.
- The demand projection was so optimistic that the reality was not well reflected to plan facility development of railways. An integrated transport demand projection, which should consider modal choice, accessibility and urban land uses, was needed at that time.
- Coordination between PJK/PHBD (Directorate General of Land Transport and Inland Waterways) and other relevant agencies was not satisfactory in terms of the local structure or sector plans, despite the fact that the steering committee was made up of personnel from DKI Jakarta, BAPPENAS, Directorate General of Highways and Directorate General of Human Settlement.

4.3.3 Integrated Transportation System Improvement by Railway and Feeder Service in Jabotabek Area (ITSI)

(1) Objectives

After the 1981 Railway Master Plan, the study review was undertaken in 1985 to prepare the “Master Program” which aimed at implementing the re-scheduled railway system development by the year 1992, on one hand. GOI, on the other hand, intended to set out a new long-term railway development plan in Jabotabek that would substitute for the 1981 master plan, and ITSI planning study was conducted between 1988 and 1990 with special emphasis on the improvement of feeder services to the rail transport.

When ITSI study begun, fundamental premises that affect very importantly the study were made available at that time, they are “Jabotabek Metropolitan Development Plan 2005”, “DKI Jakarta Structure Plan 2005” and the 1985 comprehensive person trip data surveyed by “Arterial Road System Development Study in Jakarta Metropolitan Area” (ARSDS). Based on these urban and regional frameworks and traffic data, the ITSI study was carried out to attain the following objectives:

- to prepare a long-term development plan with the target year of 2005 for the establishment of an integrated transport system in Jabotabek,
- to undertake feasibility studies on priority projects selected for urgent implementation.

(2) Major Output and Recommendations

ITSI recommended the following projects:

a) On-going or committed projects in 1990:

- 1) Track elevation and automatic signaling of Central Line (Kota-Mri)

- 2) Automatic signaling of Eastern Line
- 3) Automatic signaling of Western Line
- 4) Electrification and automatic signaling of Serpong Line (including Srp. sub-depot)
- 5) Electrification and automatic signaling of Bekasi Line (including Bks. sub-depot)
- 6) Double tracking, electrification and automatic signaling of Central Line (Mri-Dp)
- 7) Automatic signaling for single track on Central Line (Mri-Boo)
- 8) Improvement of Kampung Bandan Station
- 9) Rolling stock (EC 44 cars)

b) Projects for rationalized execution plan

- 10) Grade separation at Manggarai Station
- 11) Automatic signaling on Tangerang Line (including Tng. sub-depot)
- 12) Improvement of passenger handling facilities, such as platform elevation and widening (Jng, Pse, Thb)
- 13) Investment of Manggarai workshop (2nd step)
- 14) Construction of Depok depot

c) Recommended additional facility development plan

- 15) Double tracking, electrification and automatic signaling of Central Line (Dp-Boo)
- 16) Relocation of Kota Station
- 17) Construction of car-depot in relation to Kota Station
- 18) Track elevation of Eastern Line (Kota-Gangsentiong)
- 19) Flyovers on Western Line
- 20) Electrification of Tangerang Line
- 21) Double tracking of Serpong Line

d) Recommended Feeder and Station Facilities (21 high priority stations)

22) Jakarta Kota, 23) Sawah Besar, 24) Gambir, 25) Cikini, 26) Manggarai, 27) Duren Kalibata, 28) Pasar Minggu, 29) Depok Baru, 30) Kebon Pedes, 31) New Kampung Bandan, 32) Kemayoran, 33) Pasar Senen, 34) Angke, 35) Tanah Abang, 36) Dukuh Atas, 37) Jatinegara, 38) Kelender, 39) Bekasi, 40) Tanjung Priok, 41) Palmerah, 42) Kebayoran.

(3) Measures taken by the Government and the Project Status-quo

GOI applied to the Japanese and French governments for external loans for project implementation. The progress of the above mentioned projects are summarized in Tables 4.3.2 through 4.3.5.

Table 4.3.2 (A) Progress of On-going or Committed Projects in 1990

Project No.	Project Name	Adopted also by 1981 Master Plan? (Yes or No)	Status-quo/Progress of Project by the year 2000
1)	Track elevation and automatic signaling of Central Line (Kota-Mri)	Yes	Completed
2)	Automatic signaling of Eastern Line	Yes	Completed
3)	Automatic signaling of Western Line	Yes	Completed
4)	Electrification and automatic signaling of Serpong Line (including Srp. sub-depot)	Yes	Completed
5)	Electrification and automatic signaling of Bekasi Line (including Bks. sub-depot)	Yes	Completed
6)	Double tracking, electrification and automatic signaling of Central Line (Mri-Dp)	Yes	Completed
7)	Automatic signaling for single track on Central Line (Mri-Boo)	Yes	Completed
8)	Improvement of Kampung Bandan Station	Yes	Completed
9)	Rolling stock (EC 44 cars)	Yes	Completed

Source: Compiled by JICA Study Team.

Table 4.3.3 (B) Projects for Rationalized Execution Plan

Project No.	Project Name	Adopted also by 1981 Master Plan? (Yes or No)	Status-quo/Progress of Project by the year 2000
10)	Grade separation at Manggarai Station	Yes	This project will have to be reviewed in line with the Bekasi Line Double-double Tracking Project
11)	Automatic signaling on Tangerang Line (including Tng. sub-depot)	Yes	Completed
12)	Improvement of passenger handling facilities, such as platform elevation and widening (Jng, Pse, Thb, Mri)	Yes	Completed
13)	Investment of Manggarai workshop (2 nd stage)	Yes	Completed
14)	Construction of Depok depot	Yes	The project will start in 2001

Source: Compiled by JICA Study Team.

Table 4.3.4 (C) Recommended Additional Facility Development Plan

Project No.	Project Name	Adopted also by 1981 Master Plan? (Yes or No)	Status-quo/Progress of Project by the year 2000
15)	Double tracking, electrification and automatic signaling of Central Line (Dp-Boo)	Yes	Completed
16)	Relocation of Kota Station	Implicitly mentioned beyond year 2000	Plan is Not Fully Consented
17)	Construction of car-depot in relation to Kota Station	No	Plan is Not Fully Consented
18)	Track elevation of Eastern Line (Kota-Gangsentiong)	Yes	Not Completed
19)	Flyovers on Western Line	Yes	Partly Completed
20)	Electrification of Tangerang Line	Yes	Completed
21)	Double tracking of Serpong Line	Yes	Not Completed

Source: Compiled by JICA Study Team.

Table 4.3.5 (D) Recommended Feeder and Station Facilities Development

Project No.	Project Name	Adopted also by 1981 Master Plan? (Yes or No)	Status-quo/Progress of Project by the year 2000
22)	Jakarta Kota	Implicitly Yes but not Specified	Not Completed
23)	Sawah Besar	Implicitly Yes but not Specified	Completed with Central Line Track Elevation Project
24)	Gambir	Implicitly Yes but not Specified	Completed with Central Line Track Elevation Project
25)	Cikini	Implicitly Yes but not Specified	Completed with Central Line Track Elevation Project
26)	Manggarai	Implicitly Yes but not Specified	The station will be improved in line with Bekasi Double-double Tracking Project
27)	Duren Kalibata	Implicitly Yes but not Specified	Not Completed
28)	Pasar Minggu	Implicitly Yes but not Specified	Not Completed
29)	Depok Baru	Implicitly Yes but not Specified	Not Completed
30)	Kebon Pedes	Implicitly Yes but not Specified	Not Completed
31)	New Kampung Bandan	Implicitly Yes but not Specified	Station Front Plaza is not constructed yet.
32)	Kemayoran	Implicitly Yes but not Specified	Waiting for Eastern Line Track Elevation Project
33)	Pasar Senen	Implicitly Yes but not Specified	Waiting for Eastern Line Track Elevation Project
34)	Angke	Implicitly Yes but not Specified	Not Completed
35)	Tanah Abang	Implicitly Yes but not Specified	Station Front Plaza is not constructed yet.
36)	Dukuh Atas	Implicitly Yes but not Specified	Partly Completed
37)	Jatinegara	Implicitly Yes but not Specified	The station will be improved in line with the Bekasi Double-double Tracking Project
38)	Kelender	Implicitly Yes but not Specified	The station will be improved in line with the Bekasi Double-double Tracking Project
39)	Bekasi	Implicitly Yes but not Specified	The station will be improved in line with the Bekasi Double-double Tracking Project
40)	Tanjung Priok	Implicitly Yes but not Specified	Not Completed
41)	Palmerah	Implicitly Yes but not Specified	Not Completed
42)	Kebayoran	Implicitly Yes but not Specified	Not Completed

Source: Compiled by JICA Study Team.

(4) Lessons from ITSI Planning Study

In the review of the ITSI, it was observed that:

- External loans are the major source of funds for implementing the proposed railway development. Accordingly, the implementation schedule relies

much on these commitments. The railway operating entity has changed its legal status from the original Perusahaan Jawatan (PERJAN)¹ Kereta Api (PJKA) to Perusahaan Umum (PERUM) Kereta Api (PERUMKA)², and finally to Persahaan Terbatas (PERSERO) Kereta Api Indonesia (PTKAI)³. Therefore, a subsequent future master plan that follows after ITSI should seek for possible measures to increase the operational revenue and aim to attain the operational surplus.

- Although ITSI had intended to prepare the Jabotabek integrated transportation system, it only managed to carry out railway facility development including the interior of railway stations. In order to deal with such inter-agency/department projects as station front plazas and feeder system developments, collaborative approach, which requires a role sharing in responsibilities and costs among agencies concerned, is indispensable. Legal and institutional solutions must first be discussed before project can be realization.
- For the station front plaza and feeder system development, land acquisition is always the critical factor in evaluating the feasibility of the project. Therefore, a land ownership survey around the subject station area should be undertaken during the feasibility study. Further, participation of the private sector should also be considered, when planning the station area development.
- The electrification and automatic signaling systems were developed throughout the Jakarta metropolitan railway network. However, the trains do not operate frequently enough, on the Tangerang Line, Tanjung Priok Line, Serpong Line and Western Line to fully utilize the advantage of these systems. There is a lack of flexibility or mechanism to alter the investment priority, according to social and economic changes, traffic demand, availability of funds, and difficulty of land acquisition of land acquisition. The functions of the project management unit need to be either improved or strengthened.
- The new Kampung Bandan station was constructed in order to directly connect the Eastern and Western Lines for semi-loop operation, but it has not commenced yet. The Manggarai station improvement and New Kota station projects are also related to the proposed semi-loop train operation, but it has not been officially decided whether the terminal station for medium and long distance trains would be Kota, Gambir or Manggarai. The government should not postpone the decision on such an important issue for so long but should endeavor to reach a consensus among the related agencies.

¹ A public utility enterprise which fully undertakes the Government's mission. The Government grants the funds for the capital and subsidy for the operation's loss.

² A public corporation which still has the Government's mission, but is also profit seeking. The Government gives only funds for capital and the corporation must manage its operational expenses and earn profit.

³ A limited holding company that is defined as an enterprise which the Government is the only shareholder.

4.3.4 Arterial Road System Development Study in Jakarta Metropolitan Area (ARSDS)

(1) Objective

Since 1975 when JMATS undertook the comprehensive person trip survey, new basic data such as person movements had not been available for about ten years. Meanwhile, traffic congestion in the urban area had grown remarkably and the need arose to establish a strategic long-term plan for the urban transport system based on a full-scale person trip survey. ARSDS was carried over a 33-month period from November 1984 to July 1987 in order to accomplish the following study objectives:

- to strengthen the traffic and transportation data base to be used by different transportation planning programs by conducting a full-scale person trip survey.
- to establish an arterial road and street network by 2005 in coordination with the preferred urban system in the Jakarta Metropolitan Area by strengthening the existing development plans.
- to formulate an integrated transportation development strategy to coordinate each transportation system development within an integrated transportation system and to coordinate transportation development with urban development.
- to formulate an implementation program of the priority projects for arterial road and street development according to the recommended transportation development strategy.
- to identify other important development projects related to arterial road and street development.

(2) Major Output and Recommendations

ARSDS emphasized the necessity of introducing mass transportation corridors in the Jakarta Metropolitan area to change the urban structure from traffic concentration to one of traffic dispersion, and recommended the following strategies:

- An east-west urban axis should be established in the form of a mass transportation system with relatively high speed and competitiveness compared to the existing transportation modes, in order to induce development in the eastern and western metropolitan area.
- The east-west mass transportation system should be provided with an exclusive bus-way that jointly runs on right-of-way of the arterial street, and of which corridor should be converted to a guide-way system with a larger transport capacity and higher speed.
- The existing north-south transportation axis, which suffers from heavy traffic congestion, should be improved by providing a mass transportation system too, and not by increasing the road capacity which would discourage usage of the mass transportation system.

- Direct access to the existing central urban area from the suburban activity centers should be assured to induce urban development outwards from the central area. This is the key to encouraging development in the East, West, Tangerang and Bekasi Centers.
- As an implementation strategy for the arterial road system development in Jakarta Metropolitan Area, major transport corridors should be developed first as the backbone of the urban structure, and thereafter a minor system should be developed as the demand grows.
- ARSDS recommended arterial road and street development programs that covered such categories as (1) Mass Transportation Corridor Development, (2) Major Arterial Street Development, (3) Arterial Street Development in the newly urbanizing area, (4) Present Traffic Problem Oriented, (5) East-West Connection Improvement, (6) North-South Axis Strengthening, and (6) Freeway Development.

(3) Measures taken by the Government and Project Status-quo

While ARSDS was being conducted in 1984/1987, the Rupiah was devaluated drastically from Rp.890/US\$ in 1983 to Rp.1,650/US\$ in 1987. Accordingly, the development budget of the central government decreased to about half of the pre-devaluation period. This encouraged the privatization of infrastructure projects, and toll road projects became one of the promising businesses for the private sector.

Consequently, the government decided that the required road budget should be shared both by the public (30%) and private (70%) sectors, and which were responsible respectively for maintenance/rehabilitation and new roads construction by toll roads. Based on this government policy, the North-South Link and the Harbor Road, which were part of the Intra-urban Tollway, and the extension to the Jakarta-Tangerang Freeway were constructed and operated by the private sector under the BOT scheme.

The necessity to improve the overall urban infrastructure in Jabotabek arose in late 1980's, and the World Bank embarked on the Jabotabek Urban Development Project (JUDP) in 1988, consisting of JUDP-I (Urban Transportation Development), JUDP-II (Water Supply and Sanitation) and JUDP-III (Environmental Rehabilitation and Pollution Control). The JUDP-I program was mainly based on the DKI Jakarta Structure Plan 2005 and the selected road projects were executed by the City Government and Bina Marga (Directorate General of Highways, Ministry of Public Works). The Bank loan was shared by City Government (60% as sub-loan) and Central Government (40%), in addition to their own contributions towards the total program cost. Since ARSDS was finalized in 1987 and JUDP-I began in 1988, the arterial road plans proposed by ARSDS in addition to those in the DKI Jakarta Structure Plan 2005, were not adopted by the JUDP-I program which lasted from 1988 to 1995.

However, the arterial road network proposed for the Tangerang area was adopted by Kota Tangerang's structure plan, although its alignment was drawn in a conceptual form.

ARSDS's major recommendations regarding the mass transportation corridors were adopted by the previous ITSI railway master plan with some alignment modifications that were eventually reflected in the Jabotabek Urban Mass Transit System of the Consolidated Network Plan authorized by Ministry of Communications.

Elaboration of the recommended mass transportation corridors had to wait till their feasibility studies were taken up in 1993.

(4) Lessons from ARSDS

In many ways the ARSDS influenced subsequent urban transport planning studies, but the proposed arterial road plan was not incorporated into the DKI Jakarta Structure Plan. Lessons from the ARSDS can be summarized as follows:

- Although person trip data obtained by the full-scale home interview survey contributed greatly to the various urban transport studies, a system to store, maintain and access the data was not properly established to fully utilize the information.
- The proposed arterial road network was not adopted even in the revised Jakarta structure plans after 1990, although the Jakarta City Government had been a member of the ARSDS Steering Committee (the main counterpart agency was Bina Marga). Within the jurisdiction of the City Government, a plan will never be implemented, unless the local government accepts it in a legal manner. As decentralization progresses in Indonesia, a mechanism to effectively involve local governments in a master plan study, which is unlike conventional steering committee method, should be created.
- Unlike DKI Jakarta, Kota Tangerang adopted the ARSDS's plan in their structure plan. However, they could not further develop the plan to make it compatible with the current changes in land uses or issuance of land development permits. They lack various planning data, human resources and budget to move on to a detailed plan which required for implementation.

4.3.5 Feasibility Study on Urban Arterial Road System Development Project in Jakarta Metropolitan Area (ARSDS (2))

(1) Objectives

ARSDS (2) was conducted during 1993-1995 to examine the feasibility of the east-west and north-south mass transportation corridors recommended by ARSDS (1) in 1987. The study aimed at the following objectives:

- to formulate a basic road development plan for the East-West corridor between Tangerang and Bekasi (approximately 70 kilometers in length) and the North-South corridor between Harbor Road and Outer Ring Road (approximately 20 kilometers in length) in Jakarta Metropolitan Area, and to select priority sections of the two corridors; and
- to carry out a feasibility study on the selected sections of the said corridors.

(2) Major Output and Recommendations

As a result of the study, the following recommendations were made:

- The North-South Axis should be constructed as a toll road that connects Kota to the Jakarta Outer Ring Road (JORR) in Cilandak by an elevated road on viaduct for the whole stretch. The toll road should utilize public spaces above the existing roads and rivers with special double deck structures with racket piers, so that additional land acquisition is minimized and localized as well.
- The North-South toll road should be implemented by private investors in a joint venture with Jasa Marga (Indonesian Highway Public Corporation).
- The East-West Axis should be constructed as a major arterial road of which route coincide in principle with city planning roads. To secure technical feasibility, a 40 m ROW scheme is adopted for developed areas, while a 70 m ROW scheme is adopted for undeveloped as well as urban redevelopment areas. A land readjustment technique should be introduced to the urban redevelopment areas to avert resettlement problems.
- The East-West arterial road (about 32 kilometers within DKI Jakarta) should be implemented by DKI Jakarta except for the Mangga Besar-Sunter Section (about 8.5 kilometers), because of the section's strategic importance at a national level.

(3) Measures taken by the Government and the Project Status-quo

- As recommended by the study, the intension was for the North-South toll road to be constructed by a private sector BOT scheme with such design modifications as a triple-decker comprised of a toll road on the top level, LRT on the middle level, and general arterial road on the bottom level. This plan was submitted to Bina Marga by a private investor and it was finally approved by the then President Soeharto, based on recommendations by the Minister of Public Works.
- Meanwhile, the Blok M-Kota MRT project was also facilitated at the same time by a joint consortium of DKI Jakarta and a private investor group. Thus, the triple-decker and the MRT projects were proposed for same north-south corridor at around the same time.
- These two plans were suspended under the new administration of President Abdurrahman Wahid due to criticism about KKN (corruption, collusion and nepotism) projects (the triple-decker project was promoted by the Soeharto family) and the economic crisis that took place in the middle of 1997.
- In 1999, the Government of Indonesia applied to the Government of Japan for the Special Yen Loan to implement the Blok M-Kota MRT project.
- The East-West mass transportation corridor recommended by ARSDS (1) evolved under ARSDS (2) as a major arterial road, while in ITSI and finally in the Consolidated Network Plan as the MRT, though these plans are not likely to be implemented before Fatmawati-Kota MRT is completed.

(4) Lessons from ARSDS (2)

The proposed North-South toll road and the East-West arterial road were verified by the study to be financially and economically feasible. However, their status in the arterial road network plan of Jakarta Metropolitan Area is unclear.

- Regarding the North-South corridor, inter-department coordination was lacking particularly between the Ministry of Public Works and the Ministry of Communications at the planning stage.
- Transparency was lacking at the planning stage as well as the concession approval stage for the toll road project. In order to avoid the injustice imposed on the government agency, a participatory approach to the development planning should be fully utilized.
- Regarding the proposal to develop the East-West corridor as an arterial road, efforts should be made to convince DKI Jakarta Government to incorporate the corridor plan into the Jakarta's structure plan, because the proposed corridor lies within the jurisdiction of the City Government. A main counter part for the East-West corridor development should have been the Jakarta City Government rather than Bina Marga.
- Since the East-West corridor is proposed by Ministry of Communications to develop as the MRT route in the Consolidated Network Plan it is necessary to reach a consensus among agencies concerned, and it should be noted for the preparation of a subsequent urban transport master plan.
- A legally established institution is needed to powerfully co-ordinate such mega-projects as the east-west and north-south corridor plans. Integrated transportation planning requires various co-ordinations among different levels and sectors of agencies and organizations. A legal or institutional mechanism will have to be established to realize an integrated transport system in Indonesia.

4.4 Overview of Impediments to Project Implementation

4.4.1 Absolute Shortage of Development Funds

There are four major groups of impediments that lead to a delay or suspension in project/program implementation. They are:

- 1) Absolute shortage of development funds,
- 2) Land acquisition problems,
- 3) Institutional failure: lack of power and co-ordination, and
- 4) Lack of human resources, planning data and master plan at local government level

Each type of impediment was analyzed and the results are presented in the following sections.

The government budgets for the fiscal years 1999/2000 and 2000 show clearly that the transport sector development budget relies very much on external loans as shown in Tables 4.4.1 and 4.4.2.

Table 4.4.1 Transport Sector Development Budget Fiscal Year 1999/2000

(Rp. million, current price)

Sub-sectors	Rupiah Funding	External Loans	Total
Road	2,003,129 (38%)	3,240,438 (62%)	5,243,567 (100)
Land Transport	251,700 (16%)	1,328,531 (84%)	1,580,231 (100%)
Sea Transport	166,000 (37%)	286,110 (63%)	452,110 (100%)
Air Transport	190,000 (18%)	890,612 (82%)	1,080,612 (100%)
Others	20,000 (29%)	50,100 (71%)	70,100 (100%)
Total	2,630,829 (31%)	5,795,791 (69%)	8,426,620 (100%)

Source: Bappenas, State Budget Draft of 2000, 24 Jan. 2000 ("The Future of Public Transport in Jakarta" presented by Dr. Suyono Dikun at the International Conference on Sustainable Transport and Clean Air, Jakarta, May 29-31, 2000)

Table 4.4.2 Transport Sector Development Budget Fiscal Year 2000 (Apr.-Dec.)

(Rp. million, current price)

Sub-sectors	Rupiah Funding	External Loans	Total
Road	400,000 (23%)	1,308,087.0 (77%)	1,708,087.0 (100)
Land Transport	116,000 (20%)	451,480.0 (80%)	567,480.0 (100%)
Sea Transport	57,390 (12%)	424,380.6 (88%)	481,770.6 (100%)
Air Transport	81,775 (20%)	334,482.3 (80%)	416,257.3 (100%)
Others	6,065 (100%)	0.0 (0%)	6,065.0 (100%)
Total	661,230 (21%)	2,518,429.9 (79%)	3,179,659.9 (100%)

Source: Bappenas, State Budget Draft of 2000, 24 Jan. 2000 ("The Future of Public Transport in Jakarta" presented by Dr. Suyono Dikun at the International Conference on Sustainable Transport and Clear Air, Jakarta, May 29-31, 2000)

External loans for the transport sector development accounts for 70% and 80 of the national budget in 1999/2000 and 2000, respectively. Generally, the counter-budget, such as land acquisition, compensation and administration costs, is required in association with the committed external loan. Accordingly, the Rupiah budget payable purely for those other than external loan projects remains very limited. Taking into account continued projects, the Rupiah budget for the new project seems quite difficult to come out, unless the external loan is committed for it. Thus, a purely Rupiah funded project is confined inevitably to small projects.

4.4.2 Land Acquisition Problems

Currently, pre-loan conditions for the external loan commitment are getting severe and which usually require the clearance of environmental and land acquisition problems. Therefore, the Rupiah budget for the land acquisition and compensation has to be prepared prior to the loan commitment. Previously, the government could allocate the land acquisition budget after the loan commitment was made.

Before reaching the appraisal stage by an external loan agency, a candidate project has to undergo a priority examination by the respective transport sector ministry as well as BAPPENAS for preparing a list of priority national projects. There is competition among large-scale projects at every stage of the examination and evaluation.

What the government is worried, in case of the early start of the land acquisition lies in the uncertainty of the external loan commitment. Land acquisition always involves difficult social problems. The government does not want to leave the purchased land undeveloped as there will be. Complaints or criticism against the land already settled will be made by the former landowners. The budget to construct the project, whatever the fund is procured from, is expected to be ready soon after the land is available.

Although at present land price is generally based on the tax imposed on real estate property (NJOP: Nilai Jual Objek Pajak), it is said to be quite close to the market price. In the middle of 1990's, it was not a general practice for the government to prepare the land acquisition budget equivalent to the NJOP, despite the Presidential Decree No.55 was effective in 1993 stipulating that the market price should be used at the land acquisition negotiation with landowners.

Regardless of who is the executing the project, the land acquisition process has to be undertaken by the local government. If the project is financed by the central government, the land acquisition budget should, of course, be prepared by the central government. Before they start the negotiation, local government would confirm availability of the budget prepared by the central government. If the budget is small compared to the NJOP, the local government will not begin the negotiations.

Another problem with land acquisition lies in the difference in prices paid by different sources. When the real estate business and BOT scheme projects were booming, speculation on urban land took place in mid1980s up till the economic crisis of 1997. As a result, land purchased by the private sector was higher than public sector within the neighboring area. This happened even among public sector projects, because of the different sources of funds. Such a price difference results in a claim by the people for additional payment to the previous selling price.

The move toward the democratization is progressing at a faster speed especially among the people in the urban areas. Previously, people affected by a project were relatively tolerant towards the low price paid for land required by public projects, since they basically considered that the land belonged to the country not to individuals. However, the situation has changed dramatically with advanced as urbanization and land acquisition in the metropolitan area is getting much harder. The people became aware of right to settle the land dispute as stipulated by the law.

Despite such social changes in the value system of the people, the government cannot expand the land acquisition budget alone. If the land acquisition budget is increased, other budgetary expenses will have to be cut back. Since a share of the land acquisition cost is increasing dramatically for the new road or even the road widening projects in the urban area, it is unavoidable to delay the project that requires the land acquisition in general.

Thus, the development fund is absolutely in short to catch up with the demand to the infrastructure development. It is vital to either increase the development fund or create new sources of funds for the transport sector development.

4.4.3 Institutional Failure: Lack of Power and Co-ordination

Institutional problems concerning the project implementation also vary and will be categorized as shown below:

- Planning process and fund source problems
- Insufficient planning co-ordination among related sectors
- Failure in co-ordination of region-wide planning procedure
- Lack of co-ordination, cooperation and collaboration between central and local governments.

(1) Planning Process and Fund Source Problems

A plan can be realized, only if a budget is available. As mentioned previously, Rupiah development budget is chronically and greatly less than what is required, and the balance is covered by the external financial aids. Problems discussed in this section are related to the relationship between planning process and fund sources.

Generally, the central government and provincial governments like DKI Jakarta have better planning capabilities than other local governments of lower level. Before the new administration of President Abdurrahman Wahid, the National Development Planning Agency (BAPPENAS) had prepared the National Five-year Development Plan (Repelita) up to the 7th Repelita (Five-year Development Plan). The national Repelita then guided the preparation of provincial as well as Kabupaten/Kota's respective five-year plans for their regional and sector development plans, and budget preparation. These plans, as the consequence, were authorized by the general or local assemblies, and became effective.

Development plans prepared through the technical assistance from JICA, IBRD, ADB, etc. should be authorized independently by the government or should be incorporated into the above five-year plans or long-term development plans for realization.

The Arterial Road System Development Study (ARSDS (1)) sponsored by JICA in 1984/1987 covered DKI Jakarta and the surrounding Jakarta Metropolitan Area, and the counterpart agency was the Directorate General of Highways (Bina Marga), Ministry of Public Works. The steering committee included Bina Marga, Cipta Karya, Directorate General of Land Communication (HUBDAT), Ministry of Communication, West Java Province and DKI Jakarta governments, Jabotabek

Development Cooperation Body (BKSP). In addition, a total of 10-counterpart personnel from Bina Marga and DKI Jakarta were appointed for the project.

The recommendations of ARSDS (1) were, among others, the development of east-west and north-south mass transport corridors to induce the urban development in these directions and to enhance their traffic capacity. Both corridors are classified as the secondary function of which implementation should be undertaken in principle by not Bina Marga but DKI Jakarta government and its neighboring local governments of then Tangerang and Bekasi local governments. Unless the respective governments authorize these plans, a development budget will not be allocated for their realization. In this sense, the planning study will not be achieved till the plan goes through the authorization process. This is the responsibility of the local governments that participate in the steering committee. The extent of local government involvement in the study might be one of determinants to fully utilize the planning study in such secondary system development.

(2) Insufficiency of Planning Co-ordination among Related Sectors

The north-south corridor was recommended by ARSDS (1) as a toll road and its economic and financial viability was confirmed by ARSDS (2). After the study, this project was proposed by the private sector, as a triple-decker comprised of LRT, toll road and general arterial road functions, and it was finally approved by the then President Soeharto.

The north-south corridor proposed by ARSDS (1) in 1984/1987 was also adopted as the Kota – Fatmawati MRT in the Consolidated Network Plan that was authorized by the Ministry of Communication in 1993. Subsequently, a joint consortium of DKI Jakarta and the private sector proposed to construct this MRT as a subway/elevated structure and the basic design was completed in 1995/1997. The triple-decker and the MRT plans were proposed at around the same period for the same north-south corridor.

These two plans were suspended under the new administration of President Abdurrahman Wahid due to criticism about KKN (corruption, collusion and nepotism) projects and the economic crisis of mid-1997.

There are three major reasons why these plans were suspended. They are:

- 1) Many BOT infrastructure projects, toll roads projects in particular, were proposed by private sector in those days. The central government could not evaluate these proposals properly for compliance with such plans as the consolidated network plan jointly acknowledged by the Ministry of Communication and the Ministry of Public Works. Nevertheless, the Ministry of Public Works also recommended the triple-decker. Political influence by KKN on the planning procedure was so large that the government could not resist on that.
- 2) According to the Railway Act No. 13/1992, the authority to construct and operate railways belongs solely to the Ministry of Communication. However, BPPT insisted that DKI Jakarta take main role in the Blok M-Kota MRT project when the public-private consortium was establishment. The Ministry of Communication once agreed on the PPP scheme, but non-existence of the

law that allowed DKI Jakarta to construct and operate the railway, as one of the reasons, hampered the continuation of the MRT project. This problem was now basically solved at present in 2000 by the decentralization policy and its related laws.

- 3) The MRT project was formulated by the scheme of private financing initiative (PFI), anticipating the private sector's efficiency in the thrust of project implementation, swift fund raising and the experience in subway projects. At the threshold of the project, the joint consortium did not recognize that the project required a huge amount of the initial capital investment, and of which risk should be evaded to a large extent possible by the participation of the central government. Indonesia's economic crisis in the middle of 1997 made it more difficult for the MRT project to find appropriate funds.
- (3) Failure in Co-ordination of Region-wide Planning Procedure

BKSP Jabotabek was established in 1976 when the first Jabotabek Metropolitan Development Plan was prepared. The function of BKSP has remained almost unchanged and focuses on planning co-ordination among local governments, especially between DKI Jakarta and the West Java provinces. The planning co-ordination among the local governments of Botabek is vested more in West Java provincial government.

BKSP does not have enough planning personnel and most of the technical assistance and co-ordination function are derived largely from the former Cipta Karya (Directorate General of Regional Development and Human Settlement) of the previous Ministry of Public Works. Therefore, the role of BKSP is that of a secretariat rather than a technical coordinator, with little capacity, authority and funds for planning and co-ordination.

Nevertheless, BKSP contributes to providing opportunities, as required by the local governments concerned, to discuss, for instance, problems on mini-bus operation across administrative boundaries, domestic and industrial waste disposals.

In order to strengthen the co-ordination function for region-wide planning, it is imperative to institute the organization that has a strong leadership supported by technical capability, authority and funds for planning up to the implementation. Under the decentralization policy and its relevant laws, administrative hierarchy between Provincial and Kota/Kabupaten governments was diminished and leveled equal. Therefore, the co-ordination among these local governments became more difficult but is more importantly required to pursue the effective and equitable development of the Jabotabek region. Even stronger power and capability will have to be delegated to a new co-ordination body, such as Jabotabek Development Authority that is under the direct jurisdiction of the Cabinet.

Moreover, it will be a key to determine how much extent the local government could delegate their authority to the new organization together with the budgetary sharing for developing such projects as designated in the Jabotabek plan.

(4) Lack of Co-ordination, Cooperation and Collaboration between Central and Local Governments

According to the Railway Act No. 13/1992, the railway construction and operation are only eligible by the government, Ministry of Communication, and of which authority is partly delegated to the Indonesian Railway Company (P.T. KAI). The Japanese Yen loan played a leading role for the development as well as the improvement of the railway facilities within its right of ways. Despite such inter-modal facilities as station front plaza and a feeder system have been studied (for instance, ITSI “Integrated Transportation System Improvement by Railway and Feeder Service in Jabotabek Area, 1990”), no major improvements have been shared by the local government in the past.

The Jakarta Spatial Plan also failed to present an appropriate landuse plan for the area around railway stations. This is partly because the local government has no authority or responsibility by law to enable the railway facility to be best used in collaboration with the central government (Ministry of Communication). Since the railway has been developed as a medium and long distance travel service, only main stations, such as Kota, Gambil, Pasar Senen, Manggarai, Jatinegara and Tanah Abang, were developed in a limited front area of the stations. There is poor or sometimes no access at all to the other railway stations.

Key issues of the Jabotabek railway development have not been officially settled but remain pending, for example: designation of Manggarai Station as a terminal for medium and long distance trains, relocation of Kota Station, and loop or semi-loop operations of Jabotabek trains. Without the finalization of such important matters in the long-term development plan, the local government can not draw up any land use plans for areas around stations, feeder roads and transport services required.

“Jabotabek 2015” as well as “Jakarta 2005” placed much importance on the development of nodal facilities where buses converge, and also on the LRT plan using the existing right-of-way of roads. Now, the Jakarta City government is going to shift to the inter-modal facility developments, especially between railway and bus. There is increasing concern among local governments to promote interconnection between rail and bus, and therefore to improve or newly construct a feeder system including access roads to the station.

With the issuance of the decentralization policy, and the subsequent government decree No.25/2000, the local government of DKI Jakarta has been enthusiastic about the realization of the Fatmawati-Kota MRT project. To enhance development potential and increase the rider-ship, DKI Jakarta is going to prepare land use plans around railway stations on the Fatmawati-Kota MRT line.

In compliance with the decentralization policy and the relevant laws, a review of the Railway Act is now underway by the Directorate General of Land Communication, and it will soon clarify in detail how the participation by local governments and private companies can be realized.

Co-ordination, cooperation and collaboration are lacking in general between the DGLC/PT. KAI and local governments with regard to railway projects. The local government is not involved right from the beginning of the project planning stage. Further, there exists a top-down approach from the central to the local government in the railway project, since the railway project so far could manage within the

existing right-of-way of railways. The decentralization is expected to help remove the barrier between the two and bring them on the right track of cooperation to realize inter-modal and inter-disciplinary projects.

PT. KAI was established as a company, with 100% of the shares owned by the central government. PT. KAI a range of the business, other than the railway operation, is not clear. For instance, the right-of-way registered by the name of Ministry of Communication is fully delegated to PT. KAI for their business development or only for the limited area. Land in front of railway stations is usually used as parking space or by small restaurants or shops.

The land use development around the railway station is of importance not only for promoting railway rider-ship but also more positive planning to use the railway as urban transport means. Unclear definition of responsibility and authority to utilize the existing railway land is an impediment to develop the station area. This should be defined as soon as possible so that the land can be developed in an optimum way to benefit both railway operators and users.

It is also observed that the station area is often occupied legally or illegally by buildings. To develop the station plaza, a land use plan should be drawn up with the cooperation of the local government and include procedures on how acquire land or recover problems by the authority concerned. It is imperative to attain 3 Cs, i.e. Co-ordination, Cooperation and Collaboration in developing the station area among DGLC/PT. KAI, local governments and private sector. A role sharing among these should be standardized to expedite the station area development, especially in DKI Jakarta.

4.4.4 Lack of Human Resources, Planning Data and Master Plan by Local Governments

The impact of the ARSDS (1) prepared in 1984/1987 on Botabek was relatively high compared to Jakarta, especially to Kota Tangerang and Kabupaten Tangerang. This is seen in the fact that the grid pattern road network proposed by ARSDS (1) for the east-west development belt was adopted by both local governments in their structure plans (1994/1995 RTRW). One of the reasons that they adopted the ARSDS (1) proposal was simply because they did not have a master plan for a future road network. Secondly, the plan recommended by the study was supported by the central government, since Bina Marga was the counterpart agency of the project, and the latter would have been able to persuade the central government to allocate a budget for their road plans.

The urbanization in Botabek area was so fast that the local government could not obtain land development information as required and this was one of the other reasons that the road plan was hampered. Lack of communication and co-ordination between BAPPEDA/Tata Kota (City Planning Bureau) and BPN (Land Agency) resulted in the poor land use control and management.

Causes that hamper the project implementation can be summarize in the above context as follows:

- Lack of human resources to flexibly respond to the reality of changes in land use patterns as well as land use intensities;

- Lack of data and information to examine the progress of land development and administrative processes in a timely manner;
- Lack of institutional, administrative frameworks, and their weakness in overall land development control and management.