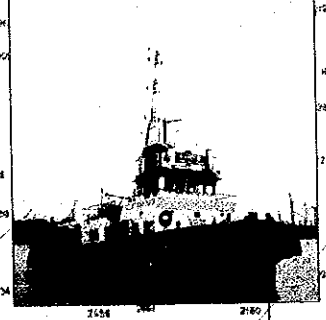
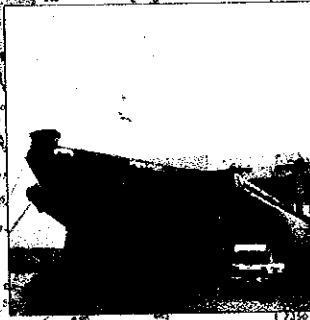
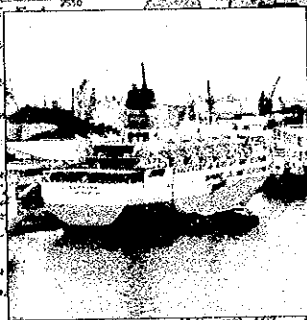


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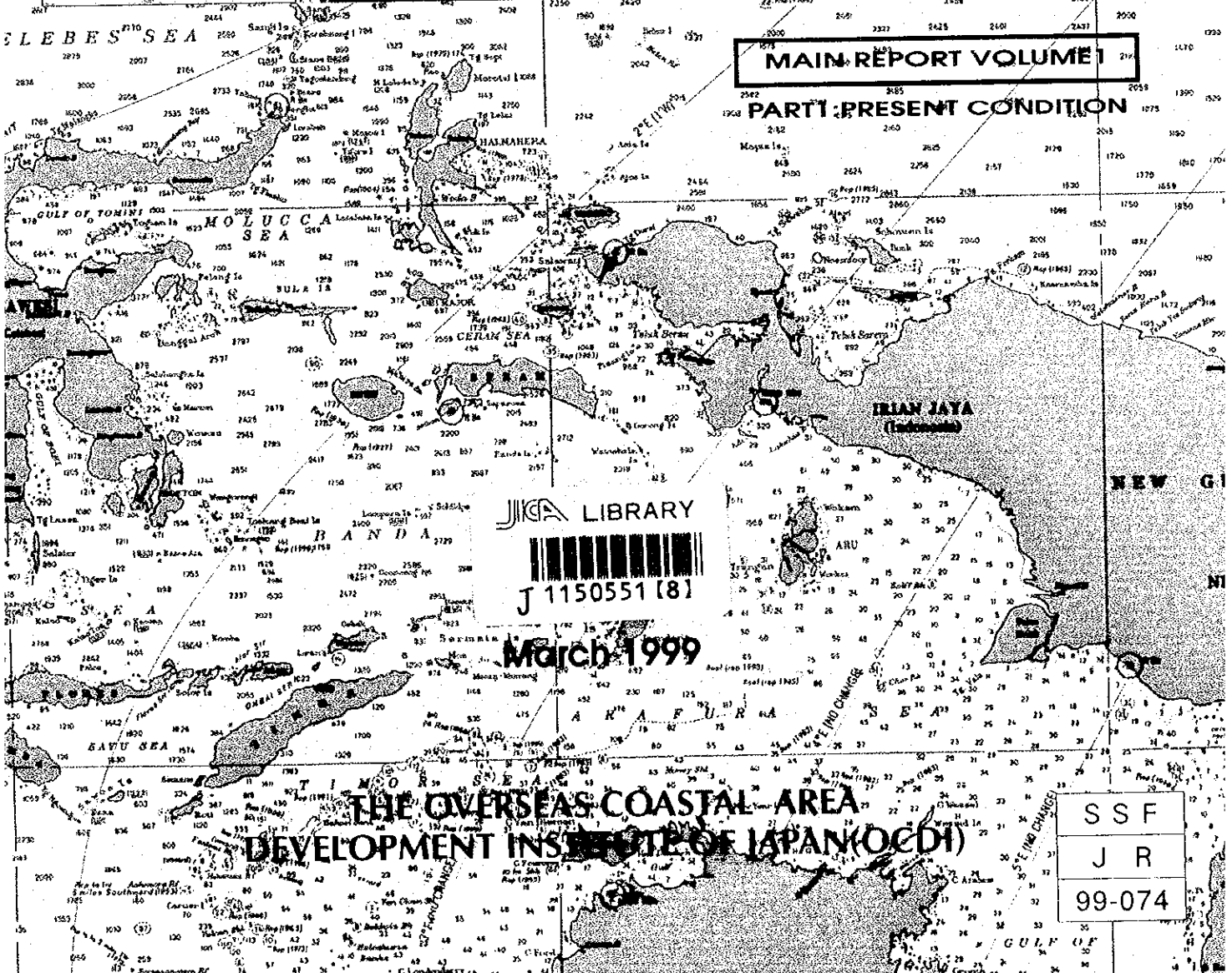
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FINAL REPORT THE STUDY ON THE PORT DEVELOPMENT STRATEGY IN THE REPUBLIC OF INDONESIA



MAIN REPORT VOLUME I
PART I: PRESENT CONDITION



THE OVERSEAS COASTAL AREA
DEVELOPMENT INSTITUTE OF JAPAN (OCDAI)

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Japan International Cooperation Agency (JICA)
Directorate General of Sea Communication (DGSC)
Ministry of Communications

FINAL REPORT THE STUDY ON THE PORT DEVELOPMENT STRATEGY IN THE REPUBLIC OF INDONESIA

MAIN REPORT VOLUME 1

PART I: PRESENT CONDITION

March 1999

**THE OVERSEAS COASTAL AREA
DEVELOPMENT INSTITUTE OF JAPAN(OCDI)**



1150551 [8]

PREFACE

In response to a request from the Government of the Republic of Indonesia, the Government of Japan decided to conduct a study on Port Development Strategy in the Republic of Indonesia and entrusted to study to the Japan International Cooperation Agency.

JICA selected and dispatched a study team headed by Dr. Tadahiko Yagyu, Senior Advisor of the Overseas Coastal Area Development Institute of Japan (OCDI) to the Republic of Indonesia, three times between November 1997 and December 1998.

The team held discussions with the officials concerned of the Government of the Republic of Indonesia and conducted field surveys at the study area. Upon returning to Japan, the team conducted further studies and prepared this final report.

I hope that this report will contribute to the promotion of this project and to the enhancement of friendly relationship between our two countries.

Finally, I wish to express my sincere appreciation to the officials concerned of the Government of the Republic of Indonesia for their close cooperation extended to the study.

March 1999



Kimio Fujita

President

Japan International Cooperation Agency

LETTER OF TRANSMITTAL

March 1999

Mr. Kimio FUJITA
President
Japan International Cooperation Agency

Dear Mr. Fujita:

It is my great pleasure to submit herewith the Final Report of the Study on Port Development Strategy in the Republic of Indonesia.

The study team of the Overseas Coastal Area Development Institute of Japan (OCDI) conducted surveys in the Republic of Indonesia over the period between November 1997 and December 1998 as per the contract with the Japan International Cooperation Agency.

The findings of this study, which are compiled in this report, were fully discussed with the officials of the Ministry of Communications of the Indonesian Government and other authorities concerned to formulate the Port Development Strategy in the Republic of Indonesia for the period up to the year 2018.

On behalf of the study team, I would like to express my heartfelt appreciation to the Government of the Republic of Indonesia, the Ministry of Communications and other authorities concerned for their diligent cooperation and assistance and for the heartfelt hospitality which they extended to the study team during our stay in the Republic of Indonesia

I am also greatly indebted to the Japan International Cooperation Agency, the Ministry of Foreign Affairs, the Ministry of Transport and the Embassy of Japan in Indonesia for giving us valuable suggestions and assistance during the preparation of this report.

Yours faithfully,



Tadahiko Yagyu

Team Leader for the Study
on Port Development Strategy
in the Republic of Indonesia



Map of Indonesia

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VOLUME II

PART 2 PORT DEVELOPMENT STRATEGY

CONCLUSIONS AND RECOMMENDATIONS

ABBREVIATION LIST

A	ADPEL	Port Administrator Office
	AMDAL	Environmental Impact Analysis
	ADB	Asian Development Bank
	ASEAN	Association of South East Asian Nations
	ATN	Aids to Navigation
B	BAPEDAL	Environmental Impact Management Agency
	BAPPEDA	Provincial Development and Planning Board
	BAPPENAS	National Development Planning Agency
	BHI	Indonesia Legal Entity
	BIRO	Bureau
	BKPM	Investment Coordination Board
	BKPMD	Regional Investment Coordination Board
	BOD	Biological Oxygen Demand
	BOR	Berth Occupancy Rate
	BOT	Built-Operate-Transfer
	BPS	Central Bureau of Statistics
	BTKP	Shipping Safety Technology Office
	BUMN	State Owned Company
C	CFC	Chlorofluorocarbon
	CFS	Container Freight Station
	CHT	COSCO-HIT Terminals (Hong Kong) Limited.
	COD	Chemical Oxygen Demand
	COSCO	China Ocean Shipping Company
	CT I	Container Terminal I
	D	Dati I
Dati II		Second Level Local Government (District / Municipality)
DGLC		Directorate General of Land Communication
DGSC		Directorate General of Sea Communication
DNI		Negative Investment List
DO		Delivery Order
DO		Dissolved Oxygen

E	EDI	Electric Data Interchange
	EIA	Environmental Impact Assessment
	EIDC	Eastern Indonesia Development Council
	EIJA	Export Import Bank of Japan
	EMKL	Sea Freight Forwarding Company
F	FIRR	Financial Internal Rate of Return
	FOI	Foreign Direct Investment
G	GBHN	National Development Guideline
	GDP	Gross Domestic Product
	GHG	Green House Gas
	GOI	Government of Indonesia
	GOJ	Government of Japan
	GRDP	Gross Regional Domestic Product
	GT	Gross Tonnage
H	HGB	Building Use Right
	HIT	Hongkong International Terminal Limited.
	HMC	Harbor Mobile Crane
I	IBRD	International Bank of Reconstruction and Development
	IDB	Islamic Development Bank
	IEAT	Industrial Estate Authority of Thailand
	ILS	Inter-Island Liner System
	IMF	International Monetary Fund
	INPRES	President Instruction
	INSA	Indonesian National Ship Owner Association
IPC	Indonesia Port Corporation	
J	JICA	Japanese International Cooperation Agency
	JKT	Jakarta
	JO	Joint Operation
	JVC	Joint Venture Company

K	KANPEL	Port Administration Office (Non-commercial Port)
	KANWIL	Province Office of a Central Ministry
	KANWIL DEPHUB	Regional Office of MOC
	KAPET	Integrated Economical Development Area
	KM	Minister Decree
	KSO	Kerjasama Operasi (Joint Operation)
L	L't Beacon	Lighted Beacon
M	MOC	Minister of Transport
	MOF	Minister of Finance
	MOTC	Ministry of Transport and Communications of Thailand
	MOU	Minute of Understanding
	MPA	Maritime and Port Authority
	MSDP	Maritime Sector Development Program
	MSTC	Maritime Training Center
	MTL	Modern Terminals Limited.
N	Nav. Aids	Navigation Aids
	NPSP	National Port System Plan
O	OD	Origin and Destination
	OECF	Overseas Economic Cooperation Fund
P	PAT	Port Authority of Thailand
	PBM	Stevedoring Company
	PBMTO	Terminal Operator Loading-unloading
	PDB	Port Development Board
	PEB	Export Documents
	PELNI	Indonesian National Shipping Company
	PERINTIS	Pioneer Ship System to Serve Remote Area
	PERUMKA	Indonesia State Railways
	PELRA	Rakyat (Traditional Wooden Vessel)
	PERSERO	State-Owned Company
	PERTAMINA	State-Owned Oil Company
	PERUM ASDP	State-Owned Ferry Terminal Company
PJP II	The Second Long Term Development Plan	

	PKL	Local Activity Center
	PKN	National Activity Center
	PKW	Regional Activity Center
	PL	Sailing Vessel
	PLM	Sailing Vessel with Engine
	PP	Government Regulation
	PPKB	Permintaan Pelayanan Kapal dan Barang (The Demands of Ship and Good Services)
	PPSA	One Roof Port Service Center
	PSA	PSA Company (changed from Port of Singapore Authority)
	PSP	Private Sector Participation
	P.T.	Limited Company
	PTPI	IPC (Indonesia Port Corporation)
	PT.RUKINDO	Indonesia Dredging State Limited Company
R	REPELITA	National Five-year Development Plan
	REPELITADA	Local Five-year Development Plan
	Rp.	Rupiah
	RTRW	Spatial Use Plan
S	SAR	Search and Rescure
	SFD	Saudi Arabia Fund Development
	SIMOPPEL	Port Operation Management Information System
	SLOT	Sea-Land Orient Terminals Limited.
	SO	Supervisi Operasi (Operation Supervisor)
	SOLAS	International Convention on Safety of Life at Sea
	SS	Suspended Solid
	STCW	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers
T	TEU	Twenty Foot Equivalent Unit
	TKBM	Loading / Un-loading Workers
	TOR	Term of Reference
	TSP	Total Suspended Particular
U	UPT	Technical Planning Unit
	ULCC	Ultra Large Crude Oil Carrier

V	VLCC	Very Large Crude Oil Carrier
W	WB	World Bank
	WPPI	Central Area of Industrial Development

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PART 1

PRESENT CONDITIONS

Chapter I INTRODUCTION

(1) Background of the Study

Indonesia is the biggest archipelago country in the world with over 17,000 islands. Sea transportation is vitally important to both domestic and international transportation.

In recent years, the socio-economic disparity between advanced and less advanced regions of Indonesia has been widening despite steady economic growth.

Under these circumstances, one of the Government's principal policies is to develop the sea transportation as a measure to deal with the increasing traffic demand and to eliminate the regional socio-economic disparity.

Rapid changes in port activities, such as the increase in the number of import/export cargoes as well as the worldwide trend of containerization and the necessity of private sector participation even in port activities, have been clearly identified.

To cope with these recent changes in port activities, the Government of Indonesia has begun to prepare the REPELITA VII and to formulate a new long-term port development strategy.

Considering the situation as mentioned above, Government of Indonesia requested the Government of Japan to conduct a study for formulating a port development strategy in January 1996.

In response to this request of Government of Indonesia, Government of Japan has decided to conduct the Study for Port Development Strategy in the Republic of Indonesia and dispatched the study team composed of members of the Overseas Coastal Area Development Institute of Japan through the Japan International Cooperation Agency accordingly.

(2) Objectives of the Study

Based on the background described above, the objective of the Study is to formulate the long-term port development strategy for the Indonesian ports up to the year 2018.

(3) Scope of the Study

In order to achieve objectives as mentioned above, the Study shall cover the following items ;

1. Analysis of the present situation of Indonesian sea-borne trade and ports
 - 1-1 Collection of existing data and information
 - 1-2 Identification of present problems
2. Analysis of future trend of Indonesian sea-borne trade and ports
 - 2-1 Review of past studies and development plans as well as projects related to the ports
 - 2-2 Forecast of the demand for passenger, cargo and vehicle traffic through ports
3. Formulation of the port development strategy up to the year 2018
 - 3-1 Review of the present strategy for port development
 - 3-2 Establishment of the fabric of the new port development strategy
 - 3-3 Strategy for port infrastructure development
 - (1) Establishment of appropriate port hierarchy system
 - (2) Selection of strategic ports
 - (3) Allocation of functions and traffic between strategic ports for the initial 5-year term
 - (4) Preliminary estimate of required investment for the initial 5-year term
 - (5) Preparation of maintenance and investment policy for navigation channels
 - 3-4 Strategy for management and operation
 - (1) Allocation of roles between government, public enterprise and private sector
 - (2) Identification of possible areas for private sector participation
 - (3) Preparation of measures for improvement of port service efficiency
 - 3-5 Strategy for finance
 - (1) Preparation of the framework for port financing
 - (2) Preparation of guideline for private sector participation
 - (3) Preliminary identification of financing resources for the initial 5-year term
 - 3-6 Others
 - (1) Identification of environmental factors and its possible prevention measures
 - (2) Preparation of staff training programs for port sector
 - (3) Preparation of institutional framework
4. Conclusion and recommendations

(4) Steering Committee

Directorate General of Sea Communication, Ministry of Communications has set up the Steering Committee for the duration of the Study, which is organized by related officials of BAPPENAS, MOC, DGSC and others as shown Table 1.1. Director General of DGSC chairs the committee.

(5) Counterparts

DGSC has nominated its officials as counterparts of each professional field for the Study Team, which are as shown in Table 1.2. Drs. Tjipto TH is the chairman of the counterparts.

(6) Members of the Study Team

The Study Team is headed by Dr. Tadahiko Yagyū and composed of 12 experts. Their names and responsibilities are shown in Table 1.3.

Table 1.1 Organization of Steering Committee

Chairman : Director General of Sea Communication

Vice Chairman: 1. Secretary of Directorate General of Sea Communication
2. Head of Port and Dredging Directorate, DGSC

Secretary : Head of Planning Division, DGSC

Members : 1. Head of Communication & Transportation Bureau, BAPPENAS
2. Head of Planning Division, MOC
2. Head of Planning Bureau, DGSC
3. Head of Sea Traffic Directorate, DGSC
4. Head of Navigation Directorate, DGSC
5. Head of Marine Safety Directorate, DGSC
6. Head of Sea Cost Guard Directorate, DGSC
7. Board of Director Port Corporation I; II; III and IV Indonesia

Table 1.2 Counterparts

No.	Name	Position	Division
1.	Drs. Tjipto TH	Chairman	Planning Division
2.	Ir. Djoko Pramono	Vice Chairman I	Port & Dredging Directorate
3.	Ir. Adolf R. Tambunan, MSc	Vice Chairman II	Planning Division
4.	Drs. Eko H. Rumecko, MBA	Secretary	Planning Division
5.	Ir. Kemal Heryandry, Dipl. Ing (Ir. Iskandar S)	Member	P & D Directorate
6.	Drs. Cholik Kirom	Member	P & D Directorate
7.	Ir. Suwandi Saputro	Member	P & D Directorate
8.	Ir. Bambang Ristianto	Member	Planning Division
9.	Drs. Hotman OP	Member	Planning Division
10.	Ir. Bhakti Sitepu	Member	Planning Division
11.	Ir. Harry Budiarto	Member	P & Directorate
12.	Ir. Albert Samboh, MSc	Member	P & D Directorate
13.	Drs. TW Pasaribu	Member	P & D Directorate
14.	Ir. Frankie Napitupulu	Member	Planning Division
15.	Ir. Wijayanto	Member	P & D Directorate
16.	Ir. M. Tohir	Member	P & D Directorate
17.	Ir. Irawan Setiabudi	Member	Planning Division

18.	Simson Sinaga, SE, MSc	Member	Sea Traffic Directorate
19.	Ir. A. Tonny Budiono	Member	Navigation Directorate
20.	Ir. T. Sitorus	Member	Navigation Directorate
21.	Ir. Tumbaksyah	Member	Planning Division
22.	Ir. Paulus Raga, MStr	Member	Research & Development Agency of MOC
23.	Ir. Fadly Sulaiman, MStr	Member	Research & Development Agency of MOC
24.		Member	Planning Bureau MOC
25.	Sri Ida Lumongga, SE	Member	Planning Division
26.	Drs. Soepardi	member	Indonesian Port I
27.	Ir. Iskarnanto	Member	Indonesian Port I
28.	Ir. Syambu Rizal, MM	Member	Indonesian Port II
29.	Ir. S. Djauharianto, MM	Member	Indonesian Port III
30.	Drs. Ferdinand N.MBA	Member	Indonesian Port III
31.	Ir. Alfred Natsir	Member	Indonesian Port IV
32.	Ir. Edy DM Nursewan	Member	Indonesian Port IV

Table 1.3 Members of the Study team

Dr. Tadahiko YAGYU	Team Leader, Basic Direction of Port Policy
Mr. Yukio NISHIDA	Sub-Leader, Port Management and Operation (1)
Dr. Shuichi SODA	Sub-Leader, Port Management and Operation (1)
Mr. Takeo KONO	Maritime Transportation
Mr. Shinichi TAGAWA	National and Regional Development
Mr. Tomoo AMANO	Demand Forecast
Mr. Hidetoshi KUME	Port Planning (1)
Capt. Nobuaki KOJIMA	Navigation Safety and Waterway Maintenance
Mr. Makoto SAWAI	Port Planning (2)
Mr. Toshihiro OKURA	Port Finance
Mr. Hidetoshi TAKAHASHI	Port Management and Operation (2)
Mr. Hideki KOBAYASHI	Environmental Consideration
Mr. Hiroshi MAEDA	Coordination

Chapter 2 SOCIO-ECONOMIC CONDITIONS

2.1 Socio-Economic Activity

2.1.1 Gross Domestic Products (GDP)

GDP from 1980 to 1996 is shown in Table 2.1.1, Table 2.1.2 and Table 2.1.3 which were prepared by Central Bureau of Statistics (BPS). Based on the above tables, the study team prepared Table 2.1.4 showing GDP at constant 1983 price by industrial sectors from 1983 to 1996.

According to Table 2.1.3, the growth rates of GDP with and without oil, gas and its products from 1993 to 1996 are approximately 7.3% and 8.5% respectively. The highest growth rate is Electricity, gas and drinking water (17.4%) and the lowest one is agriculture (3.1%).

Gross Regional Domestic Product (GRDP) and per capita GRDP at constant price of 1993 in each province from 1993 to 1996 are shown in Table 2.1.5. The highest per capita GRDP in 1996 is about Rp.8.5 million/person (with oil and gas) in East Kalimantan. The highest per capita GRDP without oil and gas in 1996 is approximately Rp.7.1 million/person in Jakarta.

Table 2.1.6 shows GRDP at constant price of 1993 by industrial sector in each province from 1994 to 1996. The highest average annual growth rate without oil, gas and its products for the period from 1994 to 1996 in each province is shown in Table 2.1.7. According to Table 2.1.7, the highest average annual growth rate of industrial sector between 1994 and 1996 is Mining and quarrying in East Kalimantan (154.8%).

Major industries in each province for 1996 are shown in Table 2.1.8, which is prepared based on Table 2.1.6.

Table 2.1.9 shows GDP at constant market price of 1987 in Asian countries from 1991 to 1995. According to Table 2.1.9, Indonesia ranks sixth among Asian countries in respect of GDP with approximately US\$139 billion in 1995. The growth rate of GDP in Indonesia between 1991 and 1995 is approximately 7.5% per annum.

2.1.2 Population

Table 2.1.10 shows the change of total population and its population density from 1990 to 1996. Population in Indonesia exceeds 198 million and its population density is 102 person/km² in 1996. The growth rate of population from 1990 to 1996 is about 1.6% per year, according to Table 2.1.10.

The highest population province is West Jawa with approximately 40 million in 1996. As for the population density, Jakarta is the highest with approximately 14,000 persons/km² in 1996. The lowest population density province is Irian Jaya with about 8 persons/km² in 1996. The province with the highest annual population growth rate is East Kalimantan with 4.28%.

2.2 Trade

2.2.1 International Trade

Table 2.2.1 shows the change in foreign trade between 1990 and 1995. In 1995, Indonesia's international trade reached about 301 million tons (US\$86 billion) which consisted approximately 246 million tons (approximately US\$45 billion) for export and 55 million tons (approximately US\$41 billion) for import.

According to Table 2.2.1, the average annual growth rate of exported cargo volume and value between 1990 and 1995 is about 18%. The average annual growth rate of imported cargo volume in the same period is approximately 13%.

Foreign trade volume and value in each province in 1996 is shown in Table 2.2.2. According to this table, the province with the biggest foreign trade volume is Jakarta for import with about 18 million tons and East Kalimantan for export with about 44 million tons in 1996.

2.2.2 Domestic Trade

The domestic cargo volume has reached approximately 292 million tons in 1995. Table 2.2.3 shows the change of domestic cargo volume by sea transportation. According to this table, the average annual growth rate of domestic cargo volume between 1983 to 1995 is approximately 13%.

The number of domestic passengers exceeded 23 million persons in 1995. Table 2.2.3 shows the change in the number from 1983 to 1995. The average annual growth rate for the same period is approximately 14%.

Table 2.1.1 GDP From 1980 to 1983(1973 constant price)

Year	1980	1982	1983
Industry			
Agriculture, animal husbandry, forestry, fishery	3424.9	3669.8	3845.6
Mining and quarrying	1034.6	939.8	956.5
Manufacturing industry	1704.6	1900.7	1942.5
Electricity, gas and drinking	77.9	105.5	112.8
Construction	639.3	757.8	804.5
Wholesale and retail trade	1851.9	2158.8	2240.2
Transport and communication	609.4	716.6	752.5
Banking and other financial institution	207.8	258.4	276.5
Services	1,618.8	1,818.0	1,911.1
Gross Domestic product	11169.2	12325.4	12842.2

Source: BPS

Table 2.1.2 GDP From 1983 to 1993 (1983 constant price)

Year	(Billion Rupiah)							
	1983	1984	1986	1988	1990	1991	1992	1993
Industry								
Agriculture, animal husbandry, forestry, fishery	17,765	18,513	19,799	21,214	22,357	22,715	24,226	24,569
Mining and quarrying	16,107	17,120	16,309	15,893	17,532	19,317	18,958	19,370
Manufacturing industry	9,896	12,079	14,678	18,182	22,337	24,585	26,964	29,484
Electricity, gas and drinking	314	324	430	549	726	843	928	1,022
Construction	4,597	4,394	4,609	5,259	6,673	7,424	8,224	9,223
Wholesale and retail trade	11,419	11,811	13,399	15,657	18,569	19,576	21,009	22,850
Transport and communication	4,098	4,443	4,668	5,212	6,368	6,869	7,555	8,302
Banking and other financial institution	2,359	2,829	3,483	3,752	4,894	5,535	6,256	7,070
Services	11,068	11,525	12,706	14,264	15,763	16,361	17,067	17,816
Gross Domestic Product	77,623	83,037	90,080	99,981	115,217	123,225	131,185	139,707
GDP(Without Oils)	58,351	60,764	65,503	80,714	94,001	100,143	108,601	

Source: BPS

Table 2.1.3 GDP From 1993 to 1996 (1993 constant price)

Year	(Billion Rupiahs)			
	1993	1994	1995	1996
Industry				
Agriculture, animal husbandry, forestry, fishery	58,963	59,291	61,767	64,564
Mining and quarrying	31,497	33,262	35,502	34,686
Manufacturing industry	73,556	82,649	91,581	100,767
Electricity, gas and drinking water	3,290	3,703	4,277	5,329
Construction	22,513	25,858	29,198	30,843
Wholesale and retail trade	55,298	59,504	64,114	73,754
Transport and communication	23,249	25,189	27,555	29,170
Banking and other financial institution	28,048	30,901	34,369	32,129
Services	33,361	34,285	35,406	36,991
Gross Domestic Product	329,776	354,641	383,768	408,233
GDP(Without Oils)	296,861	320,652	350,290	379,492

Source: BPS

Table 2.1.4 Gross Domestic Products at Constant 1983 prices by province from 1980 to 1996

Year	1980	1982	1983	1984	1986	1988	1990	1991	1992	1993	1994	1995	1996
Industry													
Agriculture, animal husbandry, forestry, fishery	15,821	16,953	17,765	18,513	19,799	21,214	22,357	22,715	24,226	24,569	24,706	25,737	26,903
Mining and quarrying	17,423	15,826	16,107	17,120	16,309	15,893	17,532	19,317	18,958	19,370	20,455	21,833	21,331
Manufacturing industry	8,684	9,683	9,896	12,079	14,678	18,182	22,337	24,585	26,964	29,484	33,129	36,709	40,392
Electricity, gas and drinking water	217	294	314	324	430	549	726	843	928	1,022	1,150	1,329	1,656
Construction	3,653	4,330	4,597	4,394	4,609	5,259	6,673	7,424	8,224	9,223	10,593	11,961	12,635
Wholesale and retail trade	9,439	11,004	11,419	11,811	13,399	15,657	18,569	19,576	21,009	22,850	24,588	26,493	30,477
Transport and communication	3,319	3,903	4,098	4,443	4,668	5,212	6,368	6,869	7,555	8,302	8,995	9,840	10,417
Banking and other financial institution	1,773	2,204	2,359	2,829	3,483	3,752	4,894	5,535	6,256	7,070	7,789	8,663	8,098
Services	9,375	10,529	11,068	11,525	12,706	14,264	15,763	16,361	17,067	17,816	18,310	18,908	19,755
Gross Domestic Product	69,704	74,725	77,623	83,037	90,080	99,981	115,217	123,225	131,185	139,707	149,715	161,474	171,663

Source 1983—1993: BPS

1980—1982 and 1993—1996: Study Team Calculate

Table 2.1.5 Cross Regional Domestic Products at Constant 1993 Price from 1993 to 1996

(Unit: Million Rupiahs)

Province	1993			1994			1995			1996		
	With oil & Gas	Without oil & Gas	Per capita	With oil & Gas	Without oil & Gas	Per capita	With oil & Gas	Without oil & Gas	Per capita	With oil & Gas	Without oil & Gas	Per capita
	GDP	GDP	GRDP	GDP	GDP	GRDP	GDP	GDP	GRDP	GDP	GDP	GRDP
Aceh	10,883,405	4,826,477	2,950	11,026,162	5,204,948	2,921	11,186,874	5,756,876	2,998	11,477,246	6,213,757	2,909
Bali	18,216,459	17,733,037	1,645	19,942,024	18,616	1,816	21,689,806	19,946	1,946	23,714,738	20,997	
Banten	6,027,053	1,434	1,434	6,474,313	1,518	1,518	7,054,418	1,630	1,630	7,606,970	1,733	
Bengkulu	17,230,487	4,698	1,645	17,550,088	4,730	1,736	18,783,290	4,786	1,838	19,808,996	4,882	
Borneo	2,483,369	1,101	1,101	2,397,926	1,072	1,072	2,664,626	1,122	1,122	2,816,530	1,182	
Borneo	10,736,166	1,562	1,562	11,515,291	1,633	1,633	12,516,761	1,730	1,730	13,657,726	1,830	
DIY	1,391,818	1,064	1,064	1,487,061	1,088	1,088	1,609,991	1,138	1,138	1,726,349	1,179	
Jawa Barat	5,410,530	8,842	8,842	5,796,641	8,884	8,884	6,404,819	9,959	9,959	6,912,303	1,016	
Jawa Barat	53,939,673	1,427	1,427	50,784,525	1,344	1,344	60,648,689	1,589	1,589	67,522,301	1,683	
Jawa Tengah	33,978,989	1,161	1,161	31,827,289	1,091	1,091	36,345,176	1,233	1,233	41,759,827	1,308	
D.I.Yogyakarta	4,069,026	1,391	1,391	4,066,026	1,391	1,391	4,387,074	1,503	1,503	4,741,903	1,654	
Jawa Timur	49,172,247	1,473	1,473	52,727,482	1,567	1,567	67,040,504	1,683	1,683	71,794,259	1,811	
Bali	5,689,921	1,992	1,992	6,689,921	2,124	2,124	6,802,400	2,275	2,275	7,141,433	2,442	
Nusa Tenggara Barat	2,550,564	0,719	0,719	2,735,899	0,760	0,760	2,955,628	0,809	0,809	3,195,295	0,862	
Nusa Tenggara Timur	2,036,917	0,505	0,505	2,276,174	0,546	0,546	2,471,688	0,590	0,590	2,679,099	0,736	
NTT	515,425	0,538	0,538	566,730	0,686	0,686	620,186	0,736	0,736	687,228	0,799	
NTT	5,147,968	1,476	1,476	5,530,110	1,550	1,550	6,062,230	1,660	1,660	6,712,361	1,798	
Kalimantan Barat	3,066,884	1,989	1,989	3,309,851	2,082	2,082	3,608,697	2,204	2,204	4,036,152	2,384	
Kalimantan Tengah	4,567,505	1,642	1,642	4,629,976	1,629	1,629	5,117,940	1,868	1,868	5,387,649	1,994	
Kalimantan Selatan	7,472	3,252,780	3,849	17,662,510	7,913	7,913	18,401,173	7,894	7,894	20,762,487	8,546	
Kalimantan Timur	16,021,538	1,086	1,086	3,018,172	1,153	1,153	3,271,947	1,234	1,234	3,674,695	1,331	
Sulawesi Utara	2,806,960	0,948	0,948	1,888,875	0,995	0,995	2,042,474	1,049	1,049	2,212,649	1,108	
Sulawesi Tengah	1,765,457	1,023	1,023	1,888,147	1,084	1,084	2,042,474	1,154	1,154	2,212,649	1,230	
Sulawesi Selatan	7,511,772	1,023	1,023	8,088,147	1,084	1,084	8,744,917	1,154	1,154	9,465,267	1,230	
Sulawesi Tenggara	1,289,181	0,861	0,861	1,289,181	0,861	0,861	1,472,513	0,924	0,924	1,561,002	0,950	
Sulawesi Tenggara	2,453,203	1,226	1,226	2,453,203	1,226	1,226	2,768,482	1,328	1,328	2,969,943	1,387	
Maluku	4,745,740	2,695	2,695	4,507,622	2,465	2,465	5,103,319	2,770	2,770	5,948,162	3,041	
Irian Jaya	324,832,527	1,717	1,717	281,854,375	1,543	1,543	345,925,604	1,641	1,641	408,232,917	1,760	
Total GRDP												

(Source: BPS)

Table 2.1.6 GDP of each Province at Constant 1993 Price, by Industrial Origins, from 1994 to 1996
(Without Oil, Gas & Its Products)

Year	Industry	Aceh	Sumatra Utara	Sumatra Barat	Riau	Jambi	Sumatra Selatan	Bengkulu	Lampung	Jakarta	Jawa Barat	Jawa Tengah	Yogyakarta	Jawa Timur	
1996	Agriculture, animal, forestry, mining and quarrying	2,390,315	6,197,978	1,571,284	1,347,203	877,534	2,625,699	525,727	2,351,882	122,561	3,383,964	8,480,479	795,211	10,182,236	
	Manufacturing industry	105,697	189,653	504,355	227,559	43,846	913,083	50,521	144,230	0	825,974	433,672	69,960	941,032	
	Electricity, gas and drinking water supply	1,048,847	5,731,121	2,366,398	388,281	2,133,649	388,281	63,475	1,004,809	13,928,084	23,369,381	11,472,362	694,724	17,814,917	
	Construction	19,434	237,524	101,141	70,623	22,874	98,209	14,917	40,174	1,071,297	1,633,677	346,833	34,110	1,136,861	
	Wholesale and retail trade	533,621	1,043,358	468,112	583,263	195,484	1,080,364	127,420	718,514	10,135,328	4,298,221	2,011,485	532,827	4,310,274	
	Transport and communication	619,810	4,453,035	1,267,898	1,446,425	557,123	2,422,942	248,303	1,060,856	15,112,910	12,532,514	8,972,204	797,939	12,905,780	
	Banking and other financial services	187,768	1,704,547	421,428	724,883	143,110	712,321	83,980	412,214	14,341,226	3,157,865	2,114,467	544,356	3,979,809	
	Gross Regional Domestic Product	6,213,758	23,273,773	7,606,971	7,853,087	3,045,828	11,611,903	1,726,349	6,912,303	56,201,775	54,716,986	39,838,796	5,111,563	61,752,872	
	1995	Agriculture, animal, forestry, mining and quarrying	89,570	177,496	475,231	203,781	41,442	790,274	57,146	121,664	0	737,661	434,886	67,714	950,684
		Manufacturing industry	906,060	5,243,329	1,098,601	2,068,702	523,413	1,897,680	55,902	917,033	12,865,288	20,780,199	10,305,833	635,002	15,802,745
		Electricity, gas and drinking water supply	18,230	209,100	80,955	66,193	21,802	86,693	11,479	34,141	1,009,380	1,590,037	304,155	30,607	1,011,892
		Construction	511,830	926,165	425,352	511,524	182,150	973,705	118,295	603,472	8,783,484	3,847,812	1,808,179	493,891	3,854,810
		Wholesale and retail trade	591,665	4,094,269	1,176,767	1,333,433	511,663	2,214,940	220,518	966,953	13,664,018	11,577,618	8,293,591	733,368	11,866,747
		Transport and communication	680,302	1,824,951	821,521	486,383	292,478	629,553	261,436	461,244	5,100,642	3,569,072	1,510,648	538,537	3,800,166
Banking and other financial services		170,795	1,542,377	407,942	690,763	136,693	678,276	76,915	374,787	13,326,468	3,019,196	1,974,206	499,920	3,766,256	
Gross Regional Domestic Product		5,756,875	21,241,205	7,054,419	7,211,639	2,816,530	10,631,751	1,609,991	6,404,819	50,648,689	59,754,116	36,978,571	4,741,903	57,021,123	
1994		Agriculture, animal, forestry, mining and quarrying	2,049,763	5,249,345	1,373,560	1,263,956	761,861	2,211,374	461,012	1,999,906	124,943	8,989,698	7,782,116	716,889	9,666,050
		Manufacturing industry	75,732	158,793	398,914	172,910	34,823	732,120	56,420	106,115	0	691,534	399,031	64,045	940,960
		Electricity, gas and drinking water supply	739,331	4,801,050	978,413	1,801,931	445,481	1,656,675	49,303	840,946	11,651,125	18,102,796	9,346,238	601,917	13,990,976
		Construction	17,045	182,412	64,156	61,878	19,085	77,251	11,009	28,333	974,402	1,303,723	264,698	28,327	787,545
		Wholesale and retail trade	468,013	873,556	389,351	457,289	172,816	874,649	110,066	495,394	7,595,541	3,538,630	1,688,679	451,468	3,433,306
		Transport and communication	566,620	3,744,438	1,105,079	2,230,157	473,822	2,021,886	206,440	923,799	12,317,610	10,797,261	7,580,717	676,167	10,911,199
	Banking and other financial services	166,487	1,367,384	395,054	654,280	131,633	650,109	70,126	332,952	12,592,349	2,836,519	1,869,210	444,862	3,563,711	
	Gross Regional Domestic Product	6,08,878	1,409,880	1,033,671	506,743	288,022	890,134	293,671	637,991	5,342,375	5,580,892	5,342,375	4,025,868	9,910,274	
	Gross Regional Domestic Product	5,294,948	19,525,021	6,474,313	6,589,047	2,590,865	9,687,887	1,487,061	5,796,541	55,505,268	54,937,135	34,335,430	4,387,074	52,713,235	

Source: BPS

Table 2.1.6 continued

Year	Industry	(Unit: Million rupiah)																Total
		Bali	N.Tenggar Barat	N.Tenggar Timur	Timor Timur	Kariman Barat	Kariman Tengah	Kariman Selatan	Kariman Timur	Sulawesi Utara	Sulawesi Tengah	Sulawesi Selatan	Sulawesi Tenggara	Maluku	Irian Jaya	Total		
1996	Agriculture, animal, forestry,	1,388,757	1,159,683	1,019,609	166,263	1,556,550	1,491,861	1,296,316	1,967,424	974,312	829,725	3,448,387	485,792	767,973	1,219,041	64,563,766		
	Mining and quarrying	53,991	99,490	46,030	7,000	90,180	125,274	623,654	1,177,131	1,779,482	63,766	338,524	54,498	168,928	3,475,619	10,973,149		
	Manufacturing industry	483,460	153,367	69,997	22,368	1,316,671	460,914	1,175,494	2,022,528	315,835	175,340	1,128,290	126,729	538,180	374,830	89,914,537		
	Electricity, gas and drinking	73,070	14,949	19,652	5,485	49,381	12,054	72,642	58,265	25,171	15,237	108,823	10,240	17,117	18,649	5,328,609		
	Construction	349,727	271,263	239,956	151,975	437,923	257,042	356,521	612,804	400,604	189,120	553,488	196,812	231,881	335,285	30,942,962		
	Wholesale and retail trade	2,000,841	523,293	354,431	70,947	1,390,939	709,624	986,291	1,855,578	411,709	268,686	1,515,202	182,257	362,195	304,420	73,754,152		
	Transport and communication	932,515	342,087	279,286	70,553	682,914	472,224	594,456	2,049,261	493,182	210,701	631,705	130,332	178,657	242,239	29,170,298		
	Banking and other financial	502,254	101,342	122,593	30,662	430,128	110,440	277,407	709,864	190,718	101,639	603,545	173,240	133,482	32,129,256	36,990,706		
	Services	1,056,818	329,821	527,546	161,976	737,475	396,718	514,405	462,689	358,592	2,212,649	9,465,266	1,561,002	2,955,004	6,748,556	373,667,435		
	Gross Domestic Product	7,141,433	3,195,295	2,679,100	687,229	6,712,361	4,036,151	5,897,186	10,915,544	3,574,693	2,212,649	9,465,266	1,561,002	2,955,004	6,748,556	61,617,680		
	Agriculture, animal, forestry,	1,335,731	1,093,249	945,055	148,967	1,442,874	1,380,699	1,227,408	1,767,316	902,024	760,910	3,241,399	473,733	746,933	1,136,280	61,617,680		
	Mining and quarrying	51,283	90,283	42,029	6,132	76,816	87,416	391,881	1,043,724	1,19,534	58,263	302,292	45,519	142,154	2,932,174	9,557,049		
	Manufacturing industry	529,487	137,484	63,283	20,731	1,212,278	451,254	1,151,561	1,914,132	286,859	163,118	1,040,763	122,096	508,688	324,610	81,026,131		
	Electricity, gas and drinking	63,126	13,302	17,998	4,060	41,624	10,812	65,992	53,189	22,039	12,543	89,403	8,760	15,400	16,877	4,709,789		
Construction	318,582	243,595	218,279	143,680	380,519	223,248	312,375	535,411	364,742	175,994	504,985	183,004	210,622	486,410	27,342,115			
Wholesale and retail trade	1,998,471	472,373	307,434	64,757	1,279,289	632,422	928,374	1,673,644	378,225	247,748	1,406,473	165,150	527,605	284,916	67,612,431			
Transport and communication	850,108	303,251	259,720	62,042	614,345	382,548	551,284	1,794,548	436,225	188,680	560,212	121,745	161,350	219,851	26,502,842			
Banking and other	458,716	89,905	107,244	24,386	410,103	108,092	260,478	635,689	176,544	96,239	535,739	77,008	160,741	120,628	29,926,306			
Services	996,896	512,185	510,546	145,431	604,381	332,208	498,196	412,375	565,755	338,979	1,063,653	275,499	294,987	426,418	35,364,094			
Gross Domestic Product	6,602,400	2,955,627	2,471,588	620,186	6,062,229	3,608,699	5,387,549	9,830,028	3,271,947	2,042,474	8,744,919	1,472,514	2,768,482	5,948,164	343,659,437			
Agriculture, animal, forestry, fish	1,277,987	1,038,720	911,141	155,666	1,341,633	1,271,256	1,143,463	1,650,936	829,837	701,130	3,002,814	448,440	762,338	1,050,949	58,236,783			
Mining and quarrying	49,320	82,624	35,776	5,342	65,304	19,296	304,010	794,634	1,11,946	53,797	274,653	41,862	108,449	2,089,061	7,867,471			
Manufacturing industry	470,879	128,960	59,418	17,070	1,123,573	433,852	1,024,984	1,785,020	260,496	149,679	963,182	88,489	481,333	223,678	72,216,789			
Electricity, gas and drinking	34,119	11,663	16,333	3,439	35,054	8,212	59,420	48,921	18,783	10,309	87,044	7,716	13,893	15,076	4,209,848			
Construction	299,916	220,588	184,965	123,636	322,284	209,765	283,224	483,453	331,940	162,848	469,589	177,910	175,687	432,506	24,447,275			
Wholesale and retail trade	1,833,470	410,925	269,563	62,233	1,165,358	580,295	881,545	1,533,411	337,370	230,496	1,300,053	153,869	467,704	266,328	62,067,815			
Transport and communication	776,539	263,561	223,520	49,513	566,104	357,461	509,434	1,565,416	414,379	169,475	492,404	113,257	149,071	203,592	24,237,920			
Banking and other financial	424,836	82,685	100,492	21,961	375,942	100,617	255,416	594,841	164,507	92,195	510,967	72,264	153,612	111,736	28,136,747			
Services	930,174	496,175	474,966	127,870	540,859	329,097	474,273	382,257	548,908	318,946	987,441	267,603	288,292	403,648	34,004,295			
Gross Domestic Product	6,117,234	2,735,901	2,276,174	566,730	5,536,111	3,309,851	4,935,769	8,858,889	3,018,172	1,888,875	8,088,147	1,371,410	2,600,381	4,796,574	315,424,043			

Source: BPS

Table 2.1.7 The Highest Growth Rate of Industrial Origin in each Province from 1994 to 1996

Province	Industry	Annual Growth
Aceh	Manufacturing industry	19.11%
Sumatra Utara	Electricity, gas and drinking water	14.11%
Sumatra Barat	Electricity, gas and drinking water	25.56%
Reau	Mining and quarrying	14.72%
Jambi	Manufacturing industry	14.92%
Sumatra Selatan	Manufacturing industry	13.49%
Bengkulu	Electricity, gas and drinking water	16.40%
Lampung	Construction	20.43%
DKI.Jakarta	Construction	15.52%
Jawa Barat	Manufacturing industry	13.62%
Jawa Tengah	Electricity, gas and drinking water	14.47%
D.I.Yogyakarta	Banking and other financial institutio	10.62%
Jawa Timur	Electricity, gas and drinking water	20.15%
Bali	Electricity, gas and drinking water	16.20%
Nusa Tenggara Barat	Electricity, gas and drinking water	13.21%
Nusa Tenggara Tim	Wholesale and retail trade	14.67%
Timor Timur	Electricity, gas and drinking water	26.29%
Kalimantan Barat	Electricity, gas and drinking water	18.93%
Kalimantan Tengah	Mining and quarrying	154.80%
Kalimantan Selatan	Mining and quarrying	43.42%
Kalimantan Timur	Mining and quarrying	21.71%
Sulawesi Utara	Mining and quarrying	26.62%
Sulawesi Tengah	Electricity, gas and drinking water	21.57%
Sulawesi Selatan	Transport and communication	13.27%
Sulawesi Tenggara	Manufacturing industry	19.67%
Maluku	Mining and quarrying	24.81%
Irian Jaya	Manufacturing industry	29.45%

Source: BPS

Table 2.1.8 Major Industries in Each Province

Province	Major Industries
Aceh	Agriculture, Manufacture and Transportation &
Sumatra Utara	Agriculture, Manufacture and Wholesale & retail trade
Sumatra Barat	Agriculture, Wholesale & retail trade and Manufacture
Reau	Agriculture, Manufacture and Wholesale & retail trade
Jambi	Agriculture, Manufacture and Wholesale & retail trade
Sumatra Selatan	Agriculture, Wholesale & retail trade and Manufacture
Bengkulu	Agriculture, Transportation & communication and Wholesale & retail trade
Lampung	Agriculture, Wholesale & retail trade and Manufacture
DKI.Jakarta	Wholesale & retail trade, Bankig & Other financial institution and Manufacture
Jawa Barat	Manufacture, Wholesale & retail trade and Agriculture
Jawa Tengah	Manufacture, Wholesale & retail trade and Agriculture
D.I.Yogyakarta	Wholesale & retail trade, Agriculture and Manufacture
Jawa Timur	Manufacture, Wholesale & retail trade and Agriculture
Bali	Wholesale & retail trade, Agriculture and Transportation & communication
Nusa Tenggara Bara	Agriculture, Wholesale & retail trade and Transportation & communication
Nusa Tenggara Tim	Agriculture, Wholesale & retail trade and Transportation & communication
Timor Timur	Agriculture, Construction and Wholesale & retail trade
Kalimantan Barat	Agriculture, Wholesale & retail trade and Manufacture
Kalimantan Tengah	Agriculture, Wholesale & retail trade and Transportation & communication
Kalimantan Selatan	Agriculture, Manufacture and Wholesale & retail trade
Kalimantan Timur	Manufacture, Transportation & communication and
Sulawesi Utara	Agriculture, Transportation & communication and Wholesale & retail trade
Sulawesi Tengah	Agriculture, Wholesale & retail trade and Transportation & communication
Sulawesi Selatan	Agriculture, Wholesale & retail trade and Manufacture
Sulawesi Tenggara	Agriculture, Construction and Wholesale & retail trade
Maluku	Agriculture, Wholesale & retail trade and Manufacture
Irian Jaya	Mining & quarring, Agriculture and Construction

Source:BPS

Table 2.1.9 GDP in Asian Countries
(Constant 1987 market prices)

Unit: Million US\$

Countries	GDP			Growth Rate(%)
	1991	1993	1995	
Armenia	5,530	1,941	2,206	—
Azerbaijan	7,254	3,615	2,664	—
Bahrain	3,820	4,442	4,552	4.48%
Bangladesh	20,447	22,238	24,165	4.27%
Bhutan	327	354	397	4.97%
Brunei	2,987	2,994	3,109	1.01%
Cambodia	1,038	1,178	1,328	6.36%
China	353,620	461,610	577,490	13.05%
Cyprus	4,671	5,211	5,475	4.05%
Hong Kong	59,310	66,889	73,726	5.59%
India	319,580	349,780	394,600	5.41%
Indonesia	104,180	119,770	139,060	7.49%
Iran	163,600	178,990	186,050	3.27%
Israel	45,654	50,903	58,250	6.28%
Japan	2,945,700	2,977,900	3,018,200	0.61%
Jordan	5,035	6,236	—	—
Kazakhstan	27,158	21,355	15,957	—
Korea, Rep.	193,420	214,940	254,000	7.05%
Kuwait	—	27,163	28,314	—
Kyrgyz	4,285	3,019	2,262	—
Lao PDR	1,350	1,529	1,772	7.04%
Malaysia	44,773	52,311	62,597	8.74%
Maldives	136	154	175	6.57%
Mongolia	3,335	2,927	3,183	—
Nepal	3,659	3,948	4,415	—
Oman	10,071	11,518	12,304	5.13%
Pakistan	41,503	45,618	49,451	4.48%
Philippines	38,512	39,463	43,193	2.91%
Saudi Arabia	93,079	95,068	95,041	0.52%
Singapore	28,500	33,440	40,173	8.96%
Sri Lanka	7,498	8,332	9,286	5.49%
Syria	13,460	15,877	17,881	7.36%
Thailand	77,529	90,803	107,370	8.48%
Turkey	98,126	112,020	113,890	3.79%
Uzbekistan	16,397	14,223	13,480	—
Vietnam	42,817	50,275	59,940	8.77%

Source: World Bank

Table 2.1.10 Population and Population Density in Indonesia

Unit: Population:Persons
Density:Persons/km²

No.	Province		Year					
	Name	Area(km ²)	1990		1993		1996	
			Population	Density	Population	Density	Population	Density
1	Aceh	55390	3,430.80	61.94	3,689.2	66.6	3,945.1	71.2
2	Sumatra Utara	71680	10,286.80	143.51	10,813.4	150.9	11,306.3	157.7
3	Sumatra Barat	42898	4,010.30	93.48	4,203.0	98.0	4,390.0	102.3
4	Reau	94561	3,301.20	34.91	3,667.7	38.8	4,057.2	42.9
5	Jambi	53436	2,029.50	37.98	2,237.3	41.9	2,458.7	46.0
6	Sumatra Selatan	109254	6,344.40	58.07	6,875.1	62.9	7,413.0	67.9
7	Bengkulu	19789	1,187.30	60.00	1,320.4	66.7	1,464.2	74.0
8	Lampung	35385	6,041.90	170.75	6,426.7	181.6	6,806.2	192.3
9	DKL Jakarta	664	8,259.60	12,439.16	8,796.8	13,248.2	9,341.4	14,068.4
10	Jawa Barat	43177	35,520.40	822.67	37,791.2	875.3	40,117.5	929.1
11	Jawa Tengah	32549	28,569.80	877.75	29,272.5	899.3	29,881.4	918.0
12	D.I.Yogyakarta	3186	2,915.20	915.00	2,918.3	916.0	2,914.6	914.8
13	Jawa Timur	47923	32,545.40	679.12	33,380.4	696.5	34,124.3	712.1
14	Bali	5633	2,782.60	493.98	2,856.0	507.0	2,924.4	519.2
15	Nusa Tenggara Ba	20153	3,380.40	167.74	3,547.6	176.0	3,707.7	184.0
16	Nusa Tenggara Tin	47349	3,277.40	69.22	3,464.0	73.2	3,640.9	76.9
17	Timor Timur	14609	751.2	51.420357	808.3	55.3	859.7	58.8
18	Kalimantan Barat	146807	3,247.60	22.12	3,490.8	23.8	3,732.3	25.4
19	Kalimantan Tengah	153564	1,404.80	9.15	1,542.3	10.0	1,685.9	11.0
20	Kalimantan Selatan	36535	2,606.50	71.34	2,781.5	76.1	2,960.3	81.0
21	Kalimantan Timur	210985	1,888.40	8.95	2,144.2	10.2	2,429.4	11.5
22	Sulawesi Utara	27488	2,483.60	90.35	2,584.3	94.0	2,686.3	97.7
23	Sulawesi Tengah	63689	1,711.30	26.87	1,850.8	29.1	1,997.0	31.4
24	Sulawesi Selatan	62483	1,357.30	21.72	7,346.3	117.6	7,693.1	123.1
25	Sulawesi Tenggara	38140	6,996.60	183.45	1,497.6	39.3	1,643.4	43.1
26	Maluku	77871	1,861.00	23.90	2,001.2	25.7	2,141.7	27.5
27	Irian Jaya	421981	1,638.60	3.88	1,828.7	4.3	2,020.9	4.8
	TOTAL	1937179	179,829.90	92.83	189,135.6	97.6	198,342.9	102.4

Source: BPS

Table 2.2.1 Foreign Trade Cargo in Indonesia from 1990 to 1995

Year	Export			Import		
	Volume		Value (Million US\$)	Volume		Value (Million US\$)
	Volume (1000 tons)	Growth Rate(%)		Volume (1000 tons)	Growth Rate(%)	
1990	107,566	—	25,675	30,279	—	21,837
1991	115,461	7.34%	29,142	34,215	13.00%	25,869
1992	151,536	31.24%	33,967	36,016	5.26%	27,280
1993	177,471	17.11%	36,823	37,961	5.40%	28,328
1994	225,344	26.98%	40,053	46,128	21.51%	31,983
1995	246,109	9.21%	45,418	55,360	20.01%	40,629
Average	—	18.00%	—	—	12.83%	—

Souce:BPS

Table 2.2.2 Foreign Trade Volume and Value in Each Province in 1996

Origin	Export		Import	
	Net Weight (1000 tons)	Value Million US\$	Net Weight (1000 tons)	Value (Million US\$)
D.I. ACEH	16,947.5	2,579.3	167.2	112.5
SUMATERA UTARA	3,920.0	3,102.4	2,302.6	1,062.9
SUMATERA BARAT	2,299.2	360.5	167.0	60.3
RIAU	104.8	8,661.6	1,931.5	1,322.1
JAMBI	783.4	574.8	108.8	75.5
SUMATERA SELATAN	2,577.4	1,274.7	178.5	206.9
BENGKULU	593.0	17.4	5,401.0	1,032.9
LAMPUNG	1,425.5	813.2	3,351.5	680.5
DKI JAKARTA	10,826.1	15,574.7	18,651.6	26,253.4
JAWA BARAT	2,554.6	491.4	6,925.8	1,978.5
JAWA TENGAH	1,395.1	1,307.7	5,279.3	1,837.5
D.I. YOGYAKARTA	0.6	3.8	0.0	0.1
JAWA TIMUR	3,033.0	3,979.3	8,786.9	5,704.0
B A L I	25.3	162.5	461.6	115.1
NUSA TENGGARA BARAT	13.1	0.5	1.0	0.5
NUSA TENGGARA TIMUR	38.5	24.5	3.2	2.8
KALIMANTAN BARAT	934.9	705.1	69.4	55.0
KALIMANTAN TENGAH	214.6	190.0	4.5	5.6
KALIMANTAN SELATAN	11,322.6	1,070.9	138.4	109.7
KALIMANTAN TIMUR	43,948.9	5,390.5	3,684.0	1,511.0
SULAWESI UTARA	322.4	194.2	75.7	25.3
SULAWESI TENGAH	57.2	61.5	11.0	2.5
SULAWESI SELATAN	459.0	616.1	839.7	332.7
SULAWESI TENGGARA	310.1	79.5	0.1	2.1
MALUKU	2,184.9	498.6	10.5	19.6
IRIAN JAYA	3,219.5	2,080.1	225.8	411.6
TOTAL EXPORT	214,184.3	49,814.8	58,819.4	42,928.5

Source: BPS

Table 2.2.3 Domestic Cargo Volume and Number of Passengers from 1983 to 1995

Unit: passenger: thousand persons

Cargo : Thousand tons

Year	Loading	Unloading	Total Cargo	Passengers
1983	26,285	40,075	66,360	4,735
1988	53,308	62,925	116,233	8,176
1993	94,000	112,462	206,462	17,712
1994	111,131	123,332	234,463	19,306
1995	155,378	136,954	292,332	23,181

Source: BPS

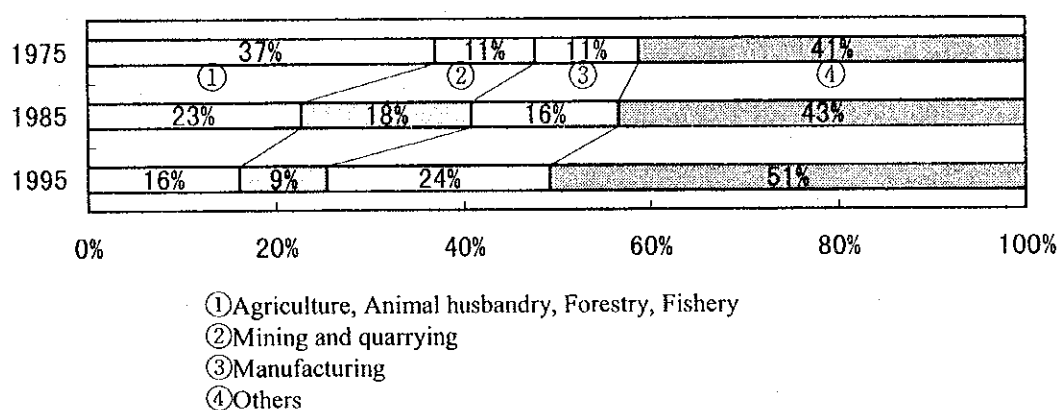
2.3 Industries

2.3.1 Structure of Industry

Generally speaking, structure of industry changes in accordance with the degree of economic growth. The structural change of industry in Indonesia is shown in Figure 2.3.1. As is evident from this figure, the percentage of the agricultural sector (①) is decreasing, while that of the manufacturing sector (③) is increasing. Economic growth is generally led by the manufacturing sector as the engine of growth, and it can be applicable to the Indonesian case. It is also expected that this trend will similarly continue in future, and the target of GDP composition in PJP II is shown in Table 2.3.1.

In PJP II, it is estimated that the manufacturing sector will grow by approximately 9% annually, while the agricultural sector will grow by 3.5%. On the assumption of this growth estimation, the share of the manufacturing sector in GDP is expected to increase from 20.8% at the end of Repelita V to 32.5% at the end of Repelita X. Namely, this shows that a high level of industrialization will be achieved, which bears comparison with 29% in Korea (1990 year), 34% in Taiwan (1990 year) and so on.

Figure 2.3.1 The Structural Change of Industry in Indonesia
(GDP Composition by Industrial Origin)



Source : Statistics during 50 years Indonesian independence (BPS)

Table 2.3.1 Target of GDP Composition in PJP II

Category	unit	End of Repelita V	Target in PJP II (End of Repelita)				
			VI	VII	VIII	IX	X
a. Agriculture	%	20.2	17.6	15.2	12.8	10.5	8.2
b. Manufacturing	%	20.8	24.1	27.4	30.5	32.4	32.5
- Non-oil/gas Manufacturing	%	17.6	21.3	25.1	28.7	31.0	31.5
c. Others	%	59.0	58.3	57.4	56.7	57.1	59.4
Total (=a+b+c)	%	100	100	100	100	100	100

Source : Repelita VI, a Summary (BAPPENAS)

2.3.2 Outline of each Industries

(1) Agriculture

Production estimates for selected agricultural products in Repelita VI are shown in Appendix Table C.2.3.1. Output of paddy, rice and cassava is relatively high. Moreover, Indonesia is the principal producing country of coconut and palm oil.

Self-sufficiency in the supply of rice was achieved in 1984, but in recent years, rice has had to be imported due to damage from droughts.

Fishery has also great possibility of growth by developing rich resources from vast sea areas, especially from the less-developed eastern part of Indonesia.

(2) Forestry

Forest area in Indonesia, which covers 75% of national land; i.e. 1,490,000km²; is the largest in Asia and ranks 3rd in the world. Therefore, forest resources are very rich and various kinds of timber are produced, such as ebony, red sandalwood, teak, and so on.

Production estimates for selected forestry products in Repelita VI are shown in Appendix Table C.2.3.2. In particular, growth of industrial crop forest is remarkable.

(3) Manufacturing

Production estimates for selected manufacturing products in Repelita VI are shown in Appendix Table C.2.3.3. In PJP II and Repelita VI, the development of the manufacturing sector is one of the most important matters in stimulating economic growth, in particular, the non-oil/gas manufacturing sector will become more and more important.

Among the various manufacturing industries, the textile industry is one of major export industries in Indonesia, and also its output is high. In the chemical industry, output of urea fertilizer, cement, pulp and paper is high relatively. Moreover, Indonesia is the principal producing country of rubber, which accounts for the conspicuously high output of tires for motor vehicles. The iron and steel industry also provides high output.

(4) Mining

Production estimates for selected mineral products in Repelita VI are shown in Appendix Table C.2.3.4. Production of crude oil has been decreasing gradually in recent years. In Indonesia, the scale of oil fields are mostly middle or small; Minas oil field of Riau is the largest. As capacities of individual oil fields are not very large, the development of new oil field will be required in the near future.

On the other hand, production of natural gas and coal is expected to increase more and more from now on. Indonesia is the biggest producing country of LNG in the world. The main base of LNG plant is in Arun of North Sumatra and Bontang of East Kalimantan. And

the main coal mine is also in Sumatra and East Kalimantan.

2.4 Transportation

2.4.1 Trend of Transportation Mode

Transportation has important roles in supporting national development and in stimulating economic growth. There are three modes of transportation; "land transportation", "sea transportation" and "air transportation". In addition, land transportation is divided into three modes ; "road transportation", "rail transportation", and "river, lake and ferry transportation".

The trend of each transportation mode is shown in Table 2.4.1. Growth rates of each transportation mode are all high. And the growth rate of passenger is higher than that of cargo on the whole (except "air transportation"). This shows that inter-island passengers are rapidly increasing.

Regarding sea transportation, the growth rate of passenger is 16.3% per year, and that of cargo is 14.1% per year. It is amazing growth even if compared with the past high economic growth in Indonesia. This shows the importance of sea transportation is increasing.

Table 2.4.1 Trend of each Transportation Mode

Mode	Category	unit	1988	1995	Growth (% year)
Road	Number of Motorized Vehicles	thousand car	7,771	13,209	7.9
Rail	Passenger	million person	53	141	15.0
	Cargo	thousand ton	10,775	16,868	6.6
River, Lake and Ferry 1)	Passenger	million person	17	62	20.3
	Cargo	thousand ton	4,494	11,601	14.5
Sea (Inter-island)	Passenger	million person	8	23	16.3
	Cargo 2)	thousand ton	58,117	146,166	14.1
Air (Domestic)	Passenger 3)	million person	8	13	7.2
	Cargo 3)	thousand ton	101	178	8.4

Note : 1) Number of state-owned enterprises (PT ASDP)

2) Average of loading and unloading

3) Departure

Source : Statistics during 50 years Indonesian independence (BPS), Transportation statistics (MOC)

Chapter 3 SEA TRANSPORTATION

3.1 Outline of World Sea Transportation

3.1.1 Cargo movement in the world Shipping

Since 1984, cargo movement by sea has been increasing and reached 4.79 billion tons in 1996. The rate of increase is 2.2% lower than the increase rate of 1995, but it is consistent with the growth of the world economy.

On a ton-mile basis, it showed 20 trillion ton-miles which was + 1.0% higher than that of 1995. In terms of transported commodities, crude oil and oil products represented 38.5% of the total, followed by dry bulk cargo such as iron ore and cereals at 34%.

(1) Crude Oil

In 1996, crude oil movement was 1.45 billion tons, a 3.7% increase over 1995. However on a ton-mile basis, the increase rate was relatively low because that European countries changed the import route from the Middle East to North Sea. An average mile of crude oil was 51.03 million miles in 1996 whereas 54.48 million miles in 1993. Its share in the world cargo movement in the 1980's was 49%, but decreased to 36% in 1996 as countries are now relying less on oil for their energy needs.

(2) Iron Ore

Movement of iron ore is largely influenced by iron production. After the world economy recovered in 1992, movement of iron ore increased sharply through 1995 due to increased iron production in Japan and Europe.

In 1996, the market of iron product became dull and iron ore movement decreased. Current main routes of iron ore in the world are South America/Europe, South America/Japan and Australia/Japan etc.

(3) Coal

Movement of coal in 1996 was 437 million tons, an increase of 3.3% over the previous year and a 1.8% increase on a ton-mile basis. This is due to decrease of movement of iron ore despite the increase of coal movement for electric power. Current main routes of coal are U.S.A./Europe and Australia/Japan etc.

(4) Cereals

Movement of cereal in 1996 was 4.5% decrease of 188 million from 1995. China imported cereals from U.S.A. to supply domestic demand in 1995. However, China is usually exporter

of cereals every year.

In 1996 cereals production in China was favorably good, and American imports were not necessary. Main routes of cereal are U.S.A/East Europe, U.S.A/Japan and Far East.

3.1.2 Cargo movement by Oil Tanker and Ore bulk vessel

Tramp cargoes such as crude oil, coal, iron ore, grain etc are generally transported between one industrial terminal to another or sometimes delivered to more than two terminals.

The size and type of vessels are usually determined subject to the market on the spot. The affreightment of cargoes will reflect the quantity and duration of shipment. The size of oil tankers currently ranges from Cape-sized vessel to VLCC vessels. The majority of ore bulk vessels are Pana-max type.

(See Table 3.1.1)

3.2 International Shipping

3.2.1 Full Container Liner Services

There were 1,225 vessels full container vessels which engaged in international trades in 1995; 318 vessels on Far East/North America service, 279 vessels on Far East/Europe and Middle East trade, and 215 vessels on North America/Europe & Mediterranean Sea. Total of the three trades were 812 vessels and load capacity of these three routes were about 2,145,000TEU, or an increase of 1.42 times that of 1990.

There were 365 vessels full container vessels in Asian territories with capacity of around 250,000TEU in 1995. This represents 8.3% of the whole full container fleet, a significant increase of 2.45 times its share in 1990. (See Table 3.2.1 &2)

3.2.2. Sea Transportation in Asian Economic Region

(1) Recent liner services in the shipping market are making a structural change.

1) World economy and trades are basically progressing at a slow pace. Particularly up to middle of 1997, the share of East Asian countries has been much bigger.

2) In this connection, sea transportation in Asian region has become more active which resulted in an increase of container handling at Asian ports;

3) World trade surrounding Japan has been greatly increasing. However Japan's position has been relatively low in Asian trades;

4) Asian shipping companies, based in Taiwan, Hong Kong, China and Singapore have made rapid progress in container traffic;

5) Sea transportation by way of Asian ports has been the main target of major shipping companies in the world.

However, the currency crisis which broke out in Thailand in July of 1997 has spread to other major Asian countries, causing many economic problems in the world.

On the other hand, exporting share by Indonesian shipping companies has largely decreased which might result in an imbalance of international current account.

(See Figure 3.2.1 Table 3.2.3 & 4)

(2) Relations between Indonesia and Hong Kong, Singapore in terms of shipping trade are referred to in Appendix A

3.3 Indonesian Shipping in International and Inter-island trade

The simplification and liberalization of the sea transportation business by the Government Regulation No.17, 1988, has promoted the development of the sea transportation. The numbers of shipping companies, non-shipping companies and supporting companies of sea transportation have remarkably increased.

(See Table 3.3.1-3)

(1) The main special items of deregulation contained in Regulation No.17 are as follows:

- 1) To simplify the type of shipping business i.e. the shipping business is given unlimited shipping license.
- 2) Non-shipping company (industrial company, forestry, mining, tourism etc.) is allowed to operate transportation of the cargoes but should have operational license.
- 3) Shipping route and ship replacement are not determined by the government but determined by shipping or non-shipping company.
- 4) Shipping or non-shipping company are free to use foreign vessel for local transportation without permission from the Indonesian government.
- 5) Shipping company is free to organize foreign vessel so as to ship export and import cargo without permission from the Indonesian government.

(2) The roles of State Owned Corporation in shipping sector are as follows:

1) PT. PELNI

Owing to the sharp demand of passenger in the sea transportation, the utilization of cargo vessel and pioneer service has decreased. In fiscal year of 1996/1997, the participation of PT. PELNI reduced its number in pioneer shipping from 17 to 4.

2) PT. DJAKARTA LLOYD

Fleets of PT. Djakarta Lloyd were far behind in number, type, size and vessel's age compared with other international competitors. Therefore, it is no longer efficient and competitive in global shipping.

3) PT. BAHTERA ADHIGUNA

The transportation demand for industrial material such as cement, fertilizer and coal is increasing, the coal carriers for this company have been programmed since REPELITA V. As it is obvious that future coal transportation is still increasing, the program will be realized promptly.

(3) Regarding the pioneer shipping, some problems are observed in the sea routes which will be reviewed by the government. Here is the comment on composing of sea transportation route network, studied by the Research Body of Institute Technology of Bandung. (See Appendix C 3)

Table 3.1.1. Oil Tanker/Ore Bulker Type fleet

(UNIT: 1000 TON)

VESSEL TYPE	1991		1993		YEAR 1995		RATIO
	NO OF VSL	GROSS TON	NO OF VSL	GROSS TON	NO OF VSL	GROSS TON	
(OIL TANKER)							
100 - 29,999	5,383	30,714	5,098	25,034	5,324	25,083	17.5
30,000 - 49,999	465	18,528	428	17,061	390	15,684	10.9
50,000 - 69,999	363	21,090	390	22,369	415	23,512	16.4
70,000 - 99,999	132	10,501	172	13,751	192	15,242	10.6
100,000 - 139,990	281	34,477	258	32,147	199	25,432	17.7
OVER 140,000	144	23,589	204	32,714	241	38,567	26.9
TOTAL	6,624	138,899	6,550	143,076	6,761	143,520	100
(ORE BULKER)							
100 - 9,999	469	3,179	370	2,704	329	2,297	1.6
10,000 - 19,999	2,192	33,148	2,028	30,633	1,962	29,751	20.9
20,000 - 29,999	1,149	27,480	1,039	24,734	1,182	28,225	19.8
30,000 - 49,999	866	31,324	866	31,290	986	36,372	25.5
50,000 - 69,999	205	12,405	200	12,125	177	10,985	7.7
70,000 - 99,999	262	21,370	288	23,463	337	27,392	19.2
100,000 - 139,000	51	5,842	55	6,285	54	6,177	4.3
OVER 140,000	7	1,136	8	1,290	9	1,430	1
TOTAL	5,201	135,884	4,854	132,524	5,036	142,629	100

Source: Lloyd's List

Table 3.2.1. Full container vessel in main routes

Routes	1990		1995		Container Share For 1990/1995
	Vsl Unt	Cnt Unt	Vsl Unt	Cnt Unt	
Far East/North America	255	587,389	318	871,390	1.48
Far East/Europe, Med	258	560,402	279	802,930	1.43
N.America/Europe, Med	187	367,545	215	470,211	1.28
3 Major routes total	700	1,515,336	812	2,144,531	1.42
Around the world	(30)	^(95,014)^	(56)	(165,000)	(1.74)
Deep Sea other route	252	11,776	413	259,348	
Sub Total (A)	952	1,527,112	1,225	2,403,879	1.57
Asian Routes	182	100,381	365	246,818	2.46
Other Routes	314	168,987	502	318,618	1.89
Sub Total (B)	496	269,368	867	565,436	2.1
Grand Total (A+B)	1,448	1,796,489	2,092	2,969,315	1.44

Source : Japan Ship Owners Association

Table 3.2.2. Major container liner company (1995)

Rank	Rank in 1985	Shipping Company	Nationality	Container Capacity
1	3	M a e r s k	Denmark	173,135
2	4	Sea-Land	U.S.A	152,651
3 Asia	1	Evergreen	Taiwan	144,581
4 Asia	12	COSCO	China	133,108
5 Asia	7	N.Y.K	Japan	106,134
6	6	P & OCL	U.K.	89,919
7	13	Nedlloyd	Holland	89,431
8 Asia	-	Hanjin	Korea	87,431
9 Asia	11	M.O.S.K.	Japan	86,955
10	10	A.P.L.	U.S.A.	80,967
11	5	Hapag Lloyd	Germany	69,180
12	-	DSR - Senator	Germany	67,206
13 Asia	9	K-Line	Japan	62,399
14 Asia	8	OOCL	H.K.	59,874
15 Asia	17	Yang Ming	Taiwan	58,973
16 Asia	20	NOL	Singapore	57,860
17 Asia	-	Hyundai	Korea	54,079
18	16	Z I M	Israel	52,774
19	-	CMA	France	46,864
20	-	MSC	Switzerland	46,599

source : Japan Ship owners Association

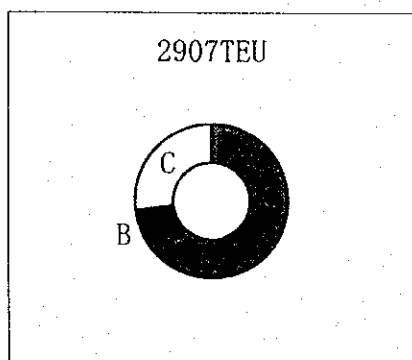
Figure 3.2.1 Trade Pattern

EAST-WEST TRADE

(UNIT: 1,000 TEU)

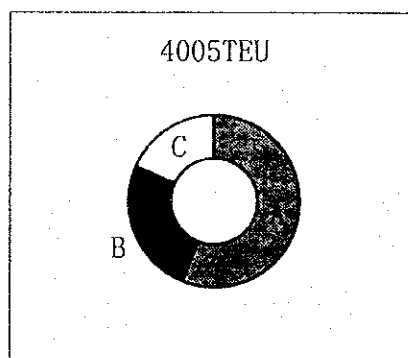
YEAR 1990

A	65.40%
B	7.70%
C	26.90%



YEAR 1995

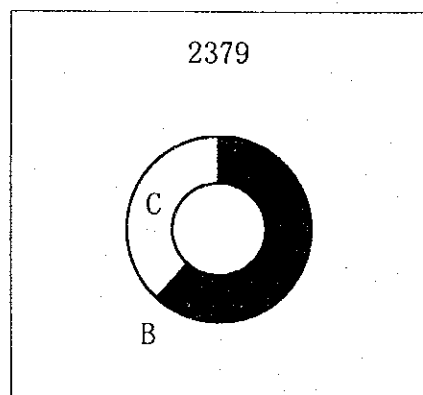
A	56.20%
B	25.60%
C	18.20%



WEST-EAST TRADE

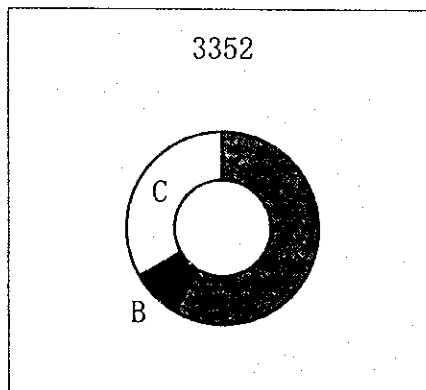
YEAR 1990

A	57.30%
B	4.40%
C	38.30%



YEAR 1995

A	58.30%
B	8.30%
C	33.40%



Source : Japan Shipowners Association

Note :

A : Cargo Origin Asia(Exclud.Japan & China)

B : Cargo Origin China

C : Cargo Origin Japan

Figure 3.2.1 Trade Pattern

EAST-WEST TRADE

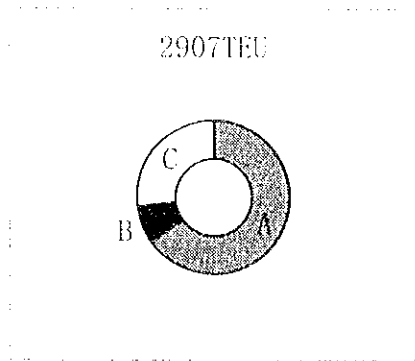
(UNIT: 1,000 TEU)

YEAR 1990

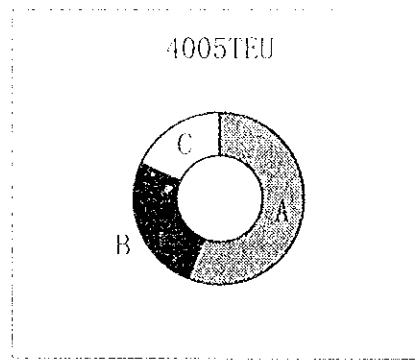
YEAR 1995

A	65.40%
B	7.70%
C	26.90%

A	56.20%
B	25.60%
C	18.20%



⇒



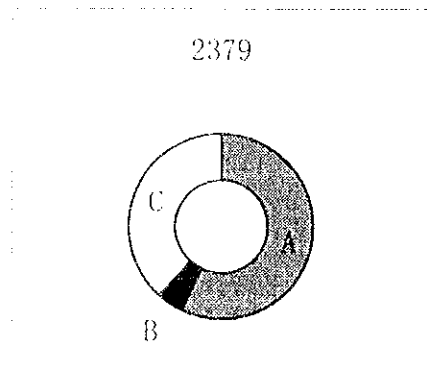
WEST-EAST TRADE

YEAR 1990

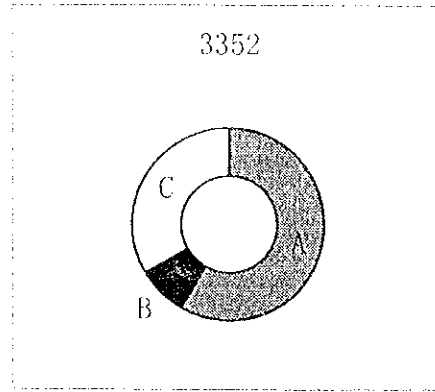
YEAR 1995

A	57.30%
B	4.40%
C	38.30%

A	58.30%
B	8.30%
C	33.40%



⇒



Source : Japan Shipowners Association

Note :

A : Cargo Origin Asia(Exclud.Japan & China)

B : Cargo Origin China

C : Cargo Origin Japan

Table 3.2.3. Cargo movement between Indonesia and Asian Countries

Country Nme	Export (W/T)		Import (W/T)	
	1995	1996	1995	1996
J a p a n	57,472,639	55,690,391	2,962,117	3,081,735
H K	4,510,370	4,587,551	293,364	134,191
K o r e a	14,986,043	15,872,206	1,608,160	1,641,577
T a i w a n	12,021,443	1,761,588	977,331	828,488
C h i n a	7,850,725	8,731,665	3,277,007	3,692,100
Thailand	2,995,388	4,278,652	1,936,097	2,396,422
Singapore	112,045,215	78,134,763	5,862,492	8,034,904
Philipine	1,909,314	2,831,462	104,476	140,331
Malaysia	3,079,849	3,357,089	1,841,104	1,566,543
I n d i a	2,860,417	2,289,907	1,659,165	2,271,575
Sub Total	219,731,403	186,535,274	20,516,313	24,057,866
	(89%)'	(87%)'	(37%)'	(40%)'
Others	26,377,766	27,649,061	34,843,882	34,761,515
	(11%)'	(13%)'	(63%)'	(60%)'
Grand Total	246,109,169	214,184,335	55,360,195	58,819,381
	(100%)'	(100%)'	(100%)'	(100%)'

Source : Biro Pusat Statistic (Central Statistic Bureau)

Table 3.2.4 Export result by National Shipping

YEAR	National Shipping		Foreign Shipping	
	Cargo (T/M)	%	Cargo (T/M)	%
1983	20,081,234	17.90	92,282,704	82.10
1984	18,793,007	14.20	113,841,482	85.80
1985	15,454,376	16.10	80,760,977	83.90
1986	8,179,639	8.00	94,429,129	92.00
1987	6,716,029	6.30	102,767,311	93.70
1988	5,747,121	4.80	112,937,190	95.20
1989	4,214,516	3.00	136,226,391	97.00
1990	6,735,718	4.40	146,971,901	95.60
1991	5,898,956	3.30	160,909,016	96.70
1992	8,026,713	4.00	174,433,543	96.00
1993	6,861,366	3.17	209,836,181	96.83
1994	8,173,593	3.42	230,589,616	96.58
1995	5,989,085	2.15	272,230,980	97.85
1996	22,212,440	6.59	314,850,390	93.41

Source: DGSC

Table : 3.3.1 Growth of Sea Transportation Cargo
Year 1992/1996

(unit : 1000 ton)

Commodity	1992	1993	1994	1995	1996
Inter- island					
General Cargo	29,564	25,745	36,237	29,854	39,489
Bulk	5,487	8,770	15,894	20,780	22,335
Liquid	39,758	46,277	54,656	63,000	71,080
Passenger	6,746	7,105	8,251	9,532	11,021
S.Total	81,555	87,897	115,038	123,166	143,925
International					
General Cargo	66,758	72,024	77,441	95,283	108,527
Bulk	9,450	37,799	61,942	91,940	59,199
Liquid	107,872	106,875	99,307	88,749	166,126
Passenger	19	92	24	1,302	125
S.Total	184,099	216,790	238,714	277,274	333,977
Rakyat					
Cargo	6,087	5,782	6,395	7,364	8,373
Passenger	2,251	751	875	970	753
S.Total	8,338	6,533	7,270	8,334	9,126
Perintis					
Cargo	139	107	104	84	110
Passenger	220	271	259	296	296
S.Total	359	378	363	380	406
Non- Shipping					
Forestry etc.	21,446	14,728	10,867	6,610	12,658
Pertamina	26,925	28,128	22,999	21,254	19,300
S.Total	48,371	42,856	33,866	27,864	31,958
Grand Total	322,722	354,454	395,251	437,018	519,392

Source : DGSC

Table 3.3.2 Number of Companies

Type of Companies	Number of Companies											
	Year 1988	1989	1990	1991	1992	1993	1994	1995	1996			
Shipping Company	343	521	692	839	939	1,078	1,201	1,307	1,156			
Non-shipping Company	200	193	258	323	359	399	445	484	397			
Rakyat	406	420	462	608	616	583	608	635	652			
Stevedoring Company	432	395	690	747	796	844	897	892	915			
Forwarding Company	443	386	537	616	652	826	972	981	985			
Transportation Service Company	-	-	447	569	622	914	1,064	1,072	1,104			
Labor Company	-	-	155	156	161	161	162	162	162			

Source: DGSC

Table 3.3.3. Company Development

Type of Company		Year 1989		Year 1990		Year 1991		Year 1992	
		Unit	Capacity	Unit	Capacity	Unit	Capacity	Unit	Capacity
Shipping Company	DWT	533	1,694,388	611	1,903,248	669	2,014,517	701	2,076,913
	GT	1,300	561,671	1,310	605,891	1,327	620,789	1,396	727,053
Non-shipping Company	DWT	215	1,255,831	219	1,256,266	220	1,256,589	230	1,264,681
	GT	1,671	497,467	1,707	500,263	1,729	504,422	1,798	527,613
Rakyat	GT	2,786	206,619	2,982	255,107	3,131	267,862	2,747	393,481
Perintis	DWT	16	8,741	26	15,800	26	15,800	26	15,800
Total	DWT	764	2,958,960	856	3,175,314	915	3,286,906	957	3,357,394
	GT	5,757	1,265,757	5,999	1,361,261	6,187	1,361,261	5,941	1,648,147

Type of Company		Year 1993		Year 1994		Year 1995		Year 1996	
		Unit	Capacity	Unit	Capacity	Unit	Capacity	Unit	Capacity
Shipping Company	DWT	879	2,385,476	3,095	3,990,818	3,965	4,595,161	5,090	5,230,826
	GT	2,443	927,459	0	0	0	0	0	0
Non-shipping Company	DWT	145	1,286,162	1,832	2,085,139	1,087	1,592,748	1,030	1,401,827
	GT	1,305	422,397	0	0	0	0	0	0
Rakyat	GT	2,004	324,929	2,269	312,616	2,264	315,869	2,793	397,618
Perintis	DWT	30	18,500	34	20,650	34	20,650	36	22,100
Total	DWT	1,054	3,690,138	4,961	6,096,607	5,086	6,208,559	6,156	6,654,763
	GT	5,752	1,674,785	2,269	312,616	2,264	315,869	2,793	397,618

Source : DGSC

Chapter 4 NATIONAL AND REGIONAL DEVELOPMENT RELATED TO THE PORTS

4.1 Outline of National and Regional Development

4.1.1 Basic Concept

(1) Development Concept in PJP II

After PJP I, there are still various inequities, such as the gap between different regions, between the western part and the eastern part of Indonesia, between Java and outside Java, between urban and rural areas, between agriculture and industry, and between different socio-economic groups. In PJP II, great emphasis is placed on the need for more equitable development, and it is explained that reducing the above inequities is a major challenge that must be faced.

(2) Development Concept in Repelita VI

Regarding basic concept of development, it is explained in Repelita VI that the enhancement of equitable development is one of the important general objectives based on PJP II. An outline of the concept is as follows;

- To reduce the discrepancy between urban and rural areas.
- To accelerate the development of the eastern part of Indonesia and other less-developed regions.
- To promote regional development in order to improve the economic efficiency of the regions and maximize their potential.

And the objectives for regional development during Repelita VI are mentioned as follows;

- To further regional autonomy, with an emphasis on increasing responsibility and authority at the district level.
- To distribute growth among regions and between urban and rural areas in such way that the achievement of national development objectives is balanced among areas.
- To further the coordination of development among sectors and regions.
- To increase economic growth in provinces with relatively low per capita income, namely East Timor, Maluku, Irian Jaya, Jambi, Bengkulu, West Kalimantan and Southeast Sulawesi. In order to become comparable to other regions, growth rates for these provinces need to be higher than for the country as a whole.

4.1.2 Current Situation

(1) Industrial Characteristics of each Province

1) GRDP by Industrial Origin

GRDP by Industrial Origin by province in 1996 is shown in Table 4.1.1. According to this table, industrial characteristics of each area are as follows;

- (Jawa) In every province, various industries are developed, together with remarkable development of the agriculture sector. The value of GRDP in only Jawa is 242 trillion Rp, or approximately 60% of total GRDP in all Indonesia.
- (Sumatra) Various industries are developed in North Sumatra as in Jawa. The value of GRDP in North Sumatra is the biggest in Sumatra.

And the value in Riau is the second biggest one. However, the value excluding oil and gas is not so big. The same thing is applicable to Aceh. Both areas have large petroleum facilities which are responsible for the high GRDP values.

- (Kalimantan) The value of GRDP in East Kalimantan is remarkable. Again, however, this is due to its rich natural resources of petroleum, and so on, like Riau and Aceh in Sumatra.

Other provinces in Kalimantan contain vast undeveloped areas, and the value of GRDP is still small.

- (Sulawesi) The value of GRDP in South Sulawesi is high only in Sulawesi. This is mainly due to the strong agriculture sector, although the development of manufacturing industries, services sectors, etc., can also be observed to some degree.
- (Others) Development of other provinces in the eastern part of Indonesia is proceeding very slowly, especially compared with the western part of Indonesia. The development of the mining sector in Irian Jaya is only superior to other provinces in the eastern part of Indonesia.

2) Industrial Classification of Special Port and Special wharf

Industrial classification of each special port and special wharf in Indonesia is shown in Table 4.1.2. (Special port and special wharf : See chapter 9, 9.1.1 (3))

According to this table, we can also see the general characteristics of each area in Indonesia as below;

- Items of fuel oil and fish are seen in almost all areas.
- Items of LNG/LPG, and coal/charcoal are mainly seen in Sumatra and Kalimantan.
- Similarly, items of wood, rubber, coconut oil and cooking oil are mainly seen in Sumatra and Kalimantan. In addition, item of wood is also largely seen in Sulawesi, Maluku and Irian Jaya.

Table 4.1.1 GRDP by Industrial Origin by Province in 1996

(billion Rp)

Province	Agriculture	Mining and quarrying	Manufacturing Industries	Elect., gas & water supply	Construction	Trade, restaurant & hotel	Transport & communication	Finance, rent of building & business services	Services	Total	Total without oil, gas	Total oil, gas
1 Special Territory of Aceh	2,330	3,254	3,164	19	554	620	724	188	625	11,477	6,214	5,263
2 North Sumatra	6,198	599	5,763	238	1,043	4,453	2,049	1,705	1,667	23,715	23,274	441
3 West Sumatra	1,571	504	1,234	101	468	1,268	889	421	1,149	7,607	7,607	0
4 Riau	1,347	11,104	3,445	71	583	1,446	535	725	551	19,809	7,853	11,956
5 Jambi	878	141	588	23	195	557	311	143	307	3,143	3,046	97
6 South Sumatra	2,626	2,169	2,834	98	1,081	2,423	691	712	934	13,568	11,612	1,956
7 Lampung	2,352	144	1,005	40	719	1,061	515	412	664	6,912	6,912	0
8 Bengkulu	526	51	63	15	127	248	291	84	321	1,726	1,726	0
9 Special Territory of Jakarta	123	0	13,928	1,071	10,135	15,113	5,578	14,341	5,913	66,202	66,202	0
10 West Java	9,384	3,589	23,412	1,634	4,298	12,553	3,844	3,158	5,651	67,522	64,717	2,805
11 Central Java	8,480	499	13,328	347	2,011	8,972	1,705	2,115	4,302	41,760	39,859	1,901
12 Special Territory of Yogyakarta	795	70	695	34	533	798	575	544	1,067	5,112	5,112	0
13 East Java	10,182	982	17,815	1,137	4,310	12,906	4,152	3,980	6,330	61,794	61,753	41
14 Bali	1,389	54	583	73	350	2,201	933	502	1,057	7,141	7,141	0
15 West Kalimantan	1,557	90	1,317	50	438	1,391	683	450	737	6,712	6,712	0
16 Central Kalimantan	1,492	125	461	12	257	710	472	110	397	4,036	4,036	0
17 South Kalimantan	1,296	628	1,175	73	357	986	594	277	514	5,902	5,897	5
18 East Kalimantan	1,967	5,996	7,051	58	613	1,836	2,049	710	463	20,762	10,916	9,847
19 North Sulawesi	974	179	316	25	401	412	493	191	584	3,575	3,575	0
20 Central Sulawesi	830	64	175	15	189	269	211	102	358	2,213	2,213	0
21 South Sulawesi	3,448	339	1,128	109	553	1,515	632	606	1,135	9,465	9,465	0
22 Southeast Sulawesi	486	54	127	10	197	182	130	92	282	1,561	1,561	0
23 West Nusa Tenggara	1,160	99	153	15	271	523	342	101	530	3,195	3,195	0
24 East Nusa Tenggara	1,020	46	70	20	240	354	279	123	528	2,679	2,679	0
25 Maluku	768	184	538	17	232	562	179	173	317	2,970	2,955	15
26 Irian Jaya	1,219	3,713	376	19	535	304	242	133	445	6,987	6,749	238
27 East Timor	166	7	22	5	152	71	71	31	162	687	687	0
Western part of Indonesia	48,181	23,160	87,858	4,901	26,408	64,619	22,793	29,030	30,538	337,488	313,027	24,461
Eastern part of Indonesia	16,383	11,525	12,910	428	4,435	9,136	6,378	3,099	6,452	70,745	60,640	10,105
Total	64,564	34,686	100,767	5,329	30,843	73,754	29,170	32,129	36,991	408,233	373,667	34,565

Note: 'oil and gas' --- crude petroleum & natural gas mining, petroleum refinery, & LNG

Source: GRDP of Provinces in Indonesia by Industrial Origin (BPS)

Table 4.1.2 Industrial Classification of Special Port and Special Wharf

Province	Special Port	Special Wharf	Total	Fuel oil	LNG, LPG	Coal, Charcoal	Tin	Bauxite	Cement	Chemical	Granite, Sand	Plywood	Other Wood	Rubber	Palm Oil	Coconut Oil	Cooking Oil	Fish	Others	Total	(unit)
1 Special Territory of Aceh	14	11	25	5	1				1			13							5	25	
2 North Sumatra	34	19	53	8					1		5	5			1			25	8	53	
3 West Sumatra	3	4	7	1					1			3						1	0	7	
4 Riau	58	57	115	21			3	3			18	19	17	2			5	5	20	115	
5 Jambi	4	41	45	1							5	13				4			22	45	
6 South Sumatra	57	12	69	6			1	2	1		15	16		1			2	2	23	69	
7 Bengkulu	0	2	2																	2	
8 Lampung	1	4	5	2			1					2							0	5	
9 Special Territory of Jakarta	14	9	23	2														4	17	23	
10 West Java	4	31	35	5						15		1						3	11	35	
11 Central Java	25	31	56	13					3		1							22	17	56	
12 Special Territory of Yogyakarta	1	0	1															1	0	1	
13 East Java	17	18	35	6					1									9	19	35	
14 West Kalimantan	86	110	196	13							5	9	50	6		8		10	95	196	
15 Central Kalimantan	18	93	111	5								2	92	1				2	9	111	
16 South Kalimantan	4	90	94	7		8			1			20	35	5				2	16	94	
17 East Kalimantan	15	123	138	22	1	12					1	28	27			4		11	32	138	
18 North Sulawesi	26	4	30	4									2		1	2		11	10	30	
19 Central Sulawesi	33	9	42	8							1		11					1	21	42	
20 South Sulawesi	5	2	7	3					1									1	2	7	
21 Southeast Sulawesi	5	4	9	4														3	2	9	
22 Bali	9	9	18	1														7	10	18	
23 West Nusa Tenggara	14	5	19	3								1						4	11	19	
24 East Nusa Tenggara	10	9	19	9														2	8	19	
25 Maluku	17	8	25	10								5						5	5	25	
26 Irian Jaya	17	15	32	13									9					7	3	32	
27 East Timor	1	1	2	1														1	0	2	
TOTAL	492	721	1213	173	2	25	5	3	10	15	41	93	297	15	2	18	7	139	368	1213	

Source : List of Inventory of Special Port / Special Wharf, 1994 (DGSC)

3) Current Situation of Industrial Estate Development

Industrial estates are areas for the concentration of activities of manufacturing industries complete with infrastructures, facilities and other means of support made available and managed by industrial estate companies. (Definition in Presidential Decree No.98/1993)

Cumulative number and area of Industrial estate development from 1967 to 1996 is shown in Table 4.1.3. The development is overwhelmingly concentrated in West Jawa. Given West Jawa's advantage of market access, well-developed infrastructure, convenient location, cost reduction, it can be seen as natural trend. The situation of industrial estate development is one of the important indicators of valuation for regional development.

Table 4.1.3 Cumulative Number and Area of Industrial Estate Development from 1967 to 1996

Province	Number	Area (ha)
Special Territory of Acch	2	470
North Sumatra	6	972
West Sumatra	1	150
Riau	12	9,448
Special Territory of Jakarta	3	869
West Jawa	66	19,272
Central Jawa	11	2,382
East Jawa	17	3,462
West Kalimantan	1	117
Central Kalimantan	1	95
South Kalimantan	1	100
East Kalimantan	2	900
North Sulawesi	1	150
Central Sulawesi	1	100
Total	125	38,487

Source : BKPM

(2) National and Local Governmental Budget for Development

Building expenditure of local government is shown in Table C.4.1.1. As compared with the expenditures of provinces in the western part of Indonesia, those of provinces in the eastern part of Indonesia are mostly scanty with modest exceptions in East Kalimantan, South Sulawesi and Irian Jaya. The trend is similar to that of GRDP for each province.

And support for regional development by national budget (Inpres) is shown in Table C.4.1.2. Inpres for development of first local government is distributed almost equally to each province, and that of second local government is distributed in proportion to population of each province. On the other hand, Inpres for upgrading provincial road is distributed for the purpose of reducing inequities between regions. Emphasis is being put on the development of the eastern part of Indonesia.

(3) Domestic and Foreign Investment by Private Sector

In the 1970s most investment activities were undertaken by the public sector, but nowadays the situation is reversed. Most investment comes from the private sector, and private sector investment is growing continuously. On the other hand, the role of the government is now to supply infrastructure and other public facilities that can not be undertaken by the private sector.

All investment by the private sector is approved by Investment Coordinating Board (BKPM). The value of foreign and domestic investment by province is shown in Appendix Table C.4.1.3 and Appendix Table C.4.1.4, and cumulative value of foreign and domestic investment by sector is shown in Appendix Table C.4.1.5 and Appendix Table C.4.1.6.

According to these tables, investment trends can be seen as follows;

- Investment in the western part of Indonesia is still much bigger than that in the eastern part of Indonesia. And the concentration to Jawa is remarkable.
- Foreign investment in the eastern part of Indonesia remarkably increased in the past three years; i.e. from 7,058 million US\$ (10.7%) in 1993/94 to 25,135 million US\$ (14.2%) in 1996/97. Growth of South Sulawesi has been particularly remarkable. In the western part of Indonesia, growth of Riau, Jambi, Central and East Jawa has been remarkable.
- Domestic investment in the eastern part of Indonesia has been increasing gradually. In the past three years, growth of Central Kalimantan has been remarkable. In the western part of Indonesia, growth of Riau and South Sumatra has been remarkable.

Meanwhile investment trends by sector are as follows;

- Investment in the agriculture and forestry sector is mainly seen in Sumatra and Kalimantan.
- Investment in the manufacturing and services sector has concentrated in Jawa.
- In the eastern part of Indonesia, investment in the fishery sector in Maluku has been remarkable.
- Mining sector has attracted more foreign than domestic investment, and the investment in East Kalimantan, South Sulawesi and Irian Jaya has been remarkable.

(4) Coordination of National and Regional Development

Development Plans of the national level and regional level which are proposed by several sectors (i.e. several ministries and local office of each ministry (KANWIL)) are coordinated by BAPPENAS and BAPPEDA respectively. Namely they coordinate each planning, budget, development schedule, and so on. They play very important roles in the implementation of national and regional development.