

4.1.3 Strategy for National Spatial Plan

Concerning the national and regional spatial plan, the Act No. 24 was established in 1992. In this Act, following matters are referred to in articles 20, 21 and 22;

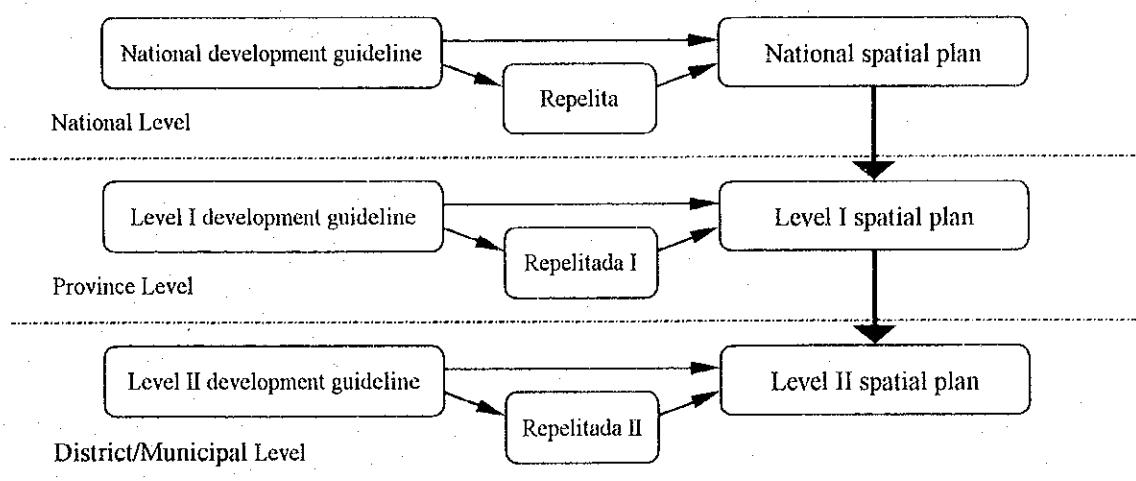
- “National Spatial Plan” shall be stipulated by Government Regulation.
- “Province Region Level I Spatial Plan” shall be stipulated in a Regional Regulation.
- “District/Municipal Region Level II Spatial Plan” shall be stipulated in a Regional Regulation.

Relation between development plan and spatial plan is shown in Table 4.1.4 and Figure 4.1.1.

Table 4.1.4 Development Plan and Spatial Plan

	Development Plan	Spatial Plan
National level	- National development guideline (GBHN) - Repelita	- National spatial plan
Province level	- Provincial Region Level I development guideline - Repelitada I	- Province Region Level I Spatial Plan
District/Municipal level	- District/Municipal Region Level II development guideline - Repelitada II	- District/Municipal Region Level II Spatial Plan

Figure 4.1.1 Relation between Development Plan and Spatial Plan



According to this Act, Government Regulation concerning national spatial plan was established at the end of December 1997. In this Government Regulation, the national space is divided into “protection area” and “cultivation area” based on the main function of area, and the area which has especially strategic importance is classified as a “special area”.

Each area is defined as follows;

- "Protection area" is an area consisting of natural and artificial resources which requires protection.
- "Cultivation area" is an area to be cultivated according to the condition and potency of natural, human and artificial resources
- "Special area" is an area which has strategic importance for which spatial use management is a high priority. A special area can be located in a protection area, cultivation area or both.

"Special areas" in all Indonesia are shown in Figure 4.1.2. Main function of each special area and priority of development in Repelita VI, VII are shown in Table 4.1.5.

We can see the characteristics and the potential of each "Special area" from this table; for example, potential of forestry is high in "Special area" of Kalimantan and Irian Jaya, and potential of food crops is high in "Special area" of whole Indonesia.

In "Special area", the functional hierarchy of city which has the potential to be developed is defined as "Activity center". "Activity center" is further divided into the following three categories;

- National activity center (PKN)
- Regional activity center (PKW)
- Local activity center (PKL)

The function of each type of activity center is shown in Table 4.1.6, and activity centers in each special area are listed in Appendix Table C.4.1.7.

In formulating the port strategy, it is important to grasp the characteristics and the potential of each "Special area", including the role of "Activity centers".

Figure 4.1.2 Special Areas in National Spatial Plan



Table 4.1.5 Main Function of each Special Area and Priority of Development in Repelita VI, VII

Province	No.	Special Area	Main Function of Area										High Priority in Repelita VI, VII			
			Industry	Estate	Forestry	Food Crops	Mining	Fishery	Animal Husbandr	Tourism	Trade	Services				
Special Territory of Aceh	1	Banda Aceh														★
	2	Lhokseumawe	○	○		○	○									★
	3	Pantai Barat Selatan		○		○		○								
North Sumatra	4	Medan	○	○		○					○					★
	5	Pematang Siantar	○	○		○					○					
	6	Rantau Prapat-Kisaran	○	○		○										★
	7	Tapanuli	○	○		○										★
West Sumatra	8	Toba Lake	○			○					○					★
	9	Nias		○							○					★
	10	Padang Pariaman	○			○					○					★
	11	Agam-Bukit Tinggi				○					○					★
Riau	12	Solek		○		○										★
	13	Pekanbaru	○	○		○										★
	14	Dumai	○	○		○										★
	15	Rengas-Kuala Enok		○		○										★
	16	Natuna				○										★
Jambi	17	Batam Zone	○								○					★
	18	Muara Bulian	○	○		○					○					★
	19	Muara Bungo-Sarolangun		○		○										★
South Sumatra	20	Palembang	○	○		○										★
	21	Muara Enim		○		○										
	22	Lubuk Linggau	○	○		○										
Bengkulu	23	Bangka-Belitung		○		○										
	24	Bengkulu	○	○		○										★
	25	Manna	○	○		○										★
Lampung	26	Bandar Lampung-Metro	○	○		○										★
	27	Mesuji	○	○		○					○					★
	28	Kotabumi		○		○										★
Special Territory of Jakarta	29	Jakarta	○											○		★
	30	Bojonegara-Merak-Cilegon	○			○										★
West Java	31	Buffer Area of DKI Jakarta	○													★
	32	Cirebon-Indramayu	○			○										★
	33	Bopunjur				○										★
	34	Cekungan Bandung	○	○		○										★
	35	East Priangan	○	○		○										★
	36	Sukabumi		○		○										★
	37	Pangandaran		○		○										★

Source : National Spatial Plan (BAPPENAS)

(Table 4.1.5 continued)

Province	No.	Special Area	Main Function of Area										High Priority in Repelita VI, VII			
			Industry	Estate	Forestry	Food Crops	Mining	Fishery	Animal Husbandry	Tourism	Trade	Services				
Central Jawa	38	Subosuko	○			○							○			★
	39	Semarang-Demak	○			○				○						★
	40	Bregas	○		○											★
	41	Pati-Kudus-Jepara	○			○							○			
	42	Purwokerto	○			○										
	43	Kebumen	○			○										
	44	Cilacap	○			○										★
	45	Borobudur	○			○							○			★
	46	Yogyakarta	○			○										★
	47	Gerbang kertokusila	○			○								○		★
Special Territory of Yogyakarta East Jawa	48	Probolinggo-Pasuruan	○	○		○										
	49	Tuban	○	○												
	50	Kediri-Tulang Agung-Blihar	○	○		○										
	51	Malang	○	○		○										★
	52	Situbondo-Bondowoso-Jember	○	○		○										
	53	Madiun	○			○										★
	54	Banyuwangi				○										
	55	Singaraja				○										
	56	Depasar-Ubud Kintamani	○			○										★
	57	Mataram	○			○										★
West Nusa Tenggara	58	Sumbawa Besar	○	○		○										
	59	Bima		○		○										
	60	Kupang	○			○										★
East Nusa Tenggara	61	Maumere-Ende	○	○		○										★
	62	Komodo	○			○										★
	63	Dili-Manatuto		○		○										★
	64	Suai-Ainaro		○		○										★
West Kalimantan	65	Los Palos-Baucau		○		○										★
	66	Pontianak	○			○										
	67	Johar-Sanggau	○	○		○										★
	68	Singkawang	○	○		○										
	69	Ketapang	○	○		○										
Central Kalimantan	70	Kapuas Hulu		○		○										
	71	Kuala Kapuas		○		○										★
	72	Sampit	○	○		○										
	73	Pangkalan Bun	○	○		○										
	74	Buntok	○	○		○										
	75	Muarateweh		○		○										

Source : National Spatial Plan (BAPPENAS)

(Table 4.1.5 continued)

Province	No.	Special Area	Main Function of Area										High Priority in Repefit VI, VII			
			Industry	Estate	Forestry	Food Crops	Mining	Fishery	Animal Husbandr	Tourism	Trade	Services				
South Kalimantan	76	Banjarmasin	○			○					○					
	77	Kandangan	○			○					○					★
	78	Batuicin	○		○						○					★
East Kalimantan	79	Balikpapan-Samarinda	○		○					○						
	80	Tanjung Redep	○		○					○						
	81	Tarakan	○		○					○						
North Sulawesi	82	Tanah Grogot	○		○					○						
	83	Gorontalo	○		○					○						★
	84	Manado	○		○					○						
Central Sulawesi	85	Kotamobagu	○			○				○						
	86	Palu	○		○					○						
	87	Poso	○		○					○						★
	88	Luwuk	○			○				○						
	89	Kolonedale	○			○				○						
South Sulawesi	90	Toli-Toli	○			○				○						
	91	Ujung Pandang	○			○				○			○			
	92	Palopo	○			○				○			○			★
Southeast Sulawesi	93	Bulukumba-Watampone	○			○				○						
	94	Pare-Pare	○			○				○						
	95	Mamuju	○			○				○						
	96	Kendari	○			○				○						★
	97	Kolaka	○			○				○						★
Maluku	98	Muna-Buton	○			○				○						★
	99	Buru Seram	○			○				○						★
	100	North Halmahera	○			○				○						★
Irian Jaya	101	Group of Islands of Kai Aru	○			○				○						
	102	Sula Islands	○			○				○						★
	103	Jayapura	○			○				○						★
	104	Merauke	○			○				○						★
	105	Tembagapura	○			○				○						★
	106	Blak	○			○				○						★
	107	Sorong	○			○				○						★
	108	Nabire	○			○				○						★
	109	Fak-Fak	○			○				○						
	110	Manokwari	○			○				○						
	111	Wamena	○			○				○						

Source : National Spatial Plan (BAPPENAS)

Table 4.1.6 Function of Activity Center

Function	National activity center (PKN)	Regional activity center (PKW)	Local activity center (PKL)
	14 centers	55 centers	445 centers
Financial services/banks	Nationally or covering several provinces	One province or several districts	One district or several sub-districts
Processing/collecting of products	Nationally or covering several provinces	One province or several districts	One district or several sub-districts
Transportation network	Nationally or covering several provinces	One province or several districts	One district or several sub-districts
Government services	Nationally or covering several provinces	One province or several districts	One district or several sub-districts
Other public service	Nationally or covering several provinces	One province or several districts	
Others	Center with potential as a gate-way to international areas and to enhance the surrounding areas		Supporting the development of strategic sectors or other particular activities in the district area

Source : National Spatial Plan (BAPPENAS)

4.1.4 Strategy for Industrial Zone Development

In order to unite and arrange the various areas of industrial development, Central Area of Industrial Development (WPPI; Wilayah Pusat Pertumbuhan Industri) is defined as connection of several Industrial Zones. All Indonesia is divided into 6 WPPI, and WPPI consists of 53 Industrial Zones as shown in Figure 4.1.3. An Industrial Zone is defined as an estate/area which is dominated by industrial activity. In the study of industrial zone development conducted by the Ministry of Industry and Trade in 1994, quantity of increasing industrial business unit in each WPPI is estimated according to different growth scenarios. The result in the case of moderate scenario is shown in Table 4.1.7. According to this table, increase of industrial business unit is estimated at 1500-2000 unit per year, and over half of them will still be concentrated in WPPI II, even during PJP II.

Table 4.1.7 Estimation of Quantity of Increasing Industrial Business Unit per year
(unit/year)

WPPI	Term		
	Repelita VI	Repelita VII	PJP II
I	160	185	210
II	860	960	1100
III	300	340	385
IV	110	120	135
V	80	85	95
VI	60	70	75
Indonesia	1570	1760	2000

Source : National Study for Strategy Research of Industrial Zone Development in PJP II, 1994
(Ministry of Industry and Trade)

Meanwhile, each Industrial Zone is classified into 4 groups as follows;

- Industrial Zone which has high potential for natural resource/raw material and is located close to natural resource/raw material. ("S" type)
- Industrial Zone which is strategically located for domestic and international trade. ("K" type)
- Industrial Zone which has good available infrastructure support. ("R" type)
- Industrial Zone which has higher potential on consumption/market support. ("P" type)

In addition, Industrial Zones are ranked by calculating zone value from some variable factor, and priority of the development is classified into three stages; short term (Repelita VI), middle term (Repelita VII) and long term (PJP II).

Classification of each Industrial Zone in WPPI is shown in Table 4.1.8.

This classification by potential and priority of development for each industrial zone can be considered as reference in formulating the port strategy.

Figure 4.1.3 Six Central Areas of Industrial Development (WPPI) and Industrial Zones of each WPPI

Source : National Study for Strategy Research of Industrial Zone Development in PJP II, 1994
(Ministry of Industry and Trade)

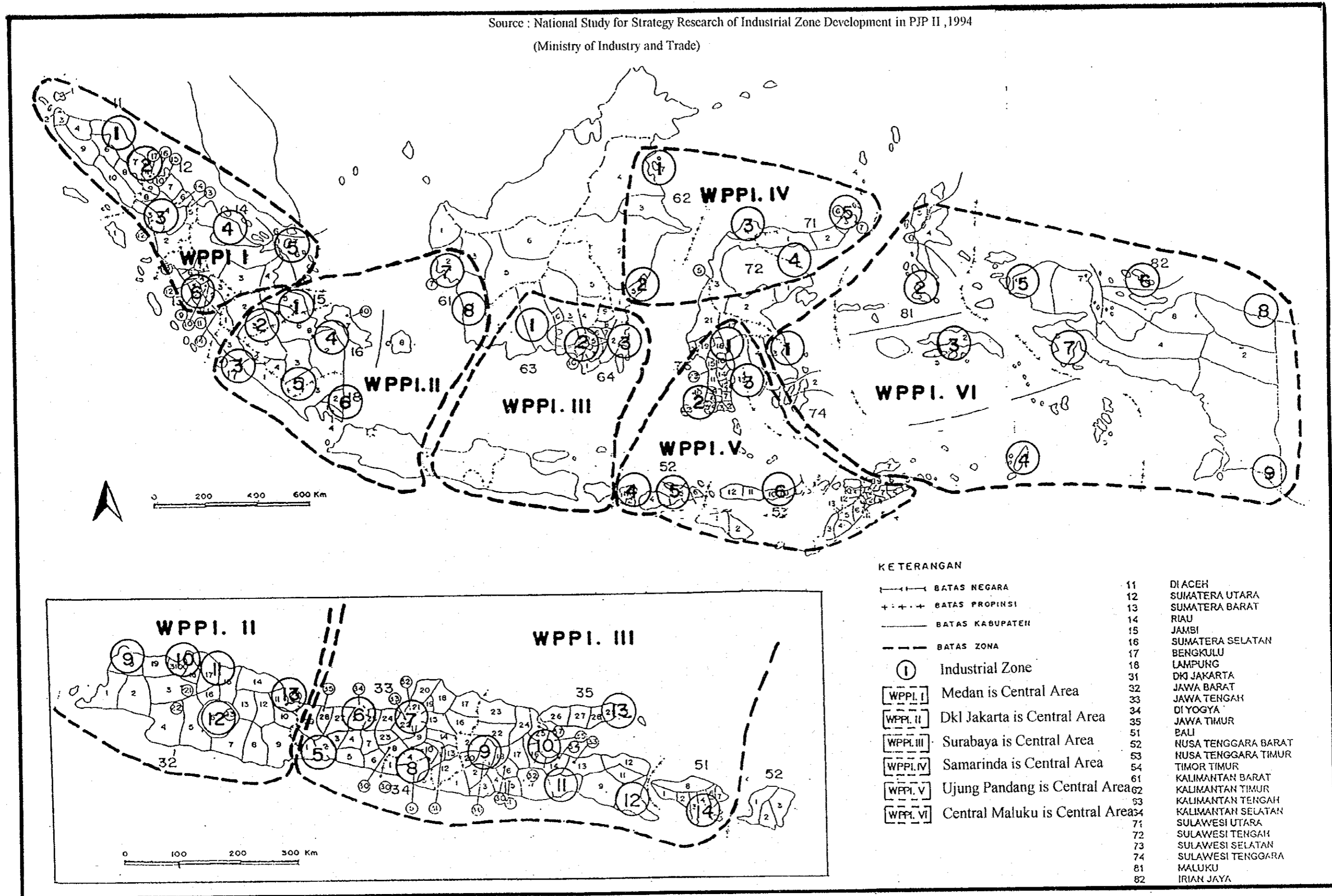


Table 4.1.8 Classification of each Industrial Zone in WPPI

WPPI		Name of Industrial Zone	Classification	Zone Value	Ranking	Priority
I	1	North Aceh	S	23.084	4	II
	2	Medan	RSP	24.541	1	I
	3	Asahan	KP	23.664	3	II
	4	Bengkalis	KP	19.580	6	III
	5	Batam-Riau	RK	24.003	2	I
	6	Padang	KP	19.837	5	III
II	1	Tanjung Jabung	KP	24.600	9	III
	2	Sarolangun Bangko	S	15.444	12	III
	3	Bengkulu	S	22.855	11	III
	4	Palembang	SP	27.256	7	II
	5	Ogan Komering Ulu	S	15.162	13	III
	6	Lampung	SKP	30.310	6	II
	7	Pontianak	SK	26.609	8	II
	8	Ketapang	SK	24.392	10	III
	9	Serang	RKP	40.399	4	I
	10	DKI Jakarta	RKP	44.938	1	I
	11	Bekasi-Krawang	RKP	42.121	3	I
	12	Bandung	RP	42.394	2	I
	13	Cirebon	RKP	36.218	5	I
III	1	East Kotawaringin	SK	22.727	13	III
	2	Palangka Raya	SK	16.190	14	III
	3	Banjar	SK	28.609	12	II
	4	Kotabaru	SK	29.673	11	II
	5	Cilacap	RP	33.766	7	I
	6	Pekalongan	RKP	37.111	4	I
	7	Semarang	RKP	39.100	3	I
	8	Yogyakarta	RP	32.814	9	II
	9	Kediri	RP	44.290	2	I
	10	Surabaya	RKP	45.267	1	I
	11	Pasuruan	RP	35.264	5	I
	12	Banyuwangi	RP	31.680	10	II
	13	Sumenep	KP	34.160	6	I
	14	Bali	RP	32.863	8	II
IV	1	Bulungan	S	14.964	3	II
	2	Samarinda	SK	21.059	2	I
	3	Donggala/Palu	K	10.996	5	III
	4	Gorontalo	K	12.669	4	III
	5	Manado	K	22.420	1	I
V	1	Tanah Toraja	S	11.380	6	III
	2	Ujungpandang	S	13.922	1	I
	3	Wajo	S	12.324	2	II
	4	West Lombok	S	11.803	3	III
	5	Sumbawa	S	11.776	4	III
	6	Sika	S	11.690	5	III
VI	1	Kendari	S	7.465	9	III
	2	North Maluku	S	46.844	1	I
	3	Middle of Maluku	S	46.533	2	I
	4	South East Maluku	S	23.214	7	III
	5	Sorong	S	25.538	4	II
	6	Biak Numfor	S	25.568	3	II
	7	Fak-fak	S	12.893	8	III
	8	Jayapura	S	24.818	5	II
	9	Merauke	S	24.074	6	II

Note : I (Short Term), II (Middle Term), III (long Term)

Source : National Study for Strategy Research of Industrial Zone Development in PJP II ,1994

(Ministry of Industry and Trade)

4.2 Regional Development in the Eastern Part of Indonesia

4.2.1 Eastern Indonesia Development Council (EIDC)

Eastern part of Indonesia is lagging far behind compared with the development achieved in the western part of Indonesia. Therefore efforts to accelerate the development of the eastern part of Indonesia have long been conducted. In 1993, it was stipulated in the National Development Guideline (GBHN) that development in the eastern part of Indonesia be accelerated.

To implement this policy, Eastern Indonesia Development Council (EIDC) was formed in 1993 via Presidential Decree No.120/1993.

The main tasks of EIDC are as follows;

- To formulate the strategy for developing the eastern part of Indonesia for Repelita VI and PIP II
- To coordinate development policies in the eastern part of Indonesia so as to ensure its continuity and integrity
- To monitor the integrated plan and implementation of the development in the eastern part of Indonesia

EIDC consists of five working groups and permanent secretariat. The five working groups are as follows;

- Working group of Natural Resources and Environmental Assets
- Working group of Human Resources and Technology
- Working group of Infrastructure
- Working group of Organizational and Institutional Aspects
- Working group of Regional Development Cooperation

4.2.2 Integrated Economical Development Area (KAPET)

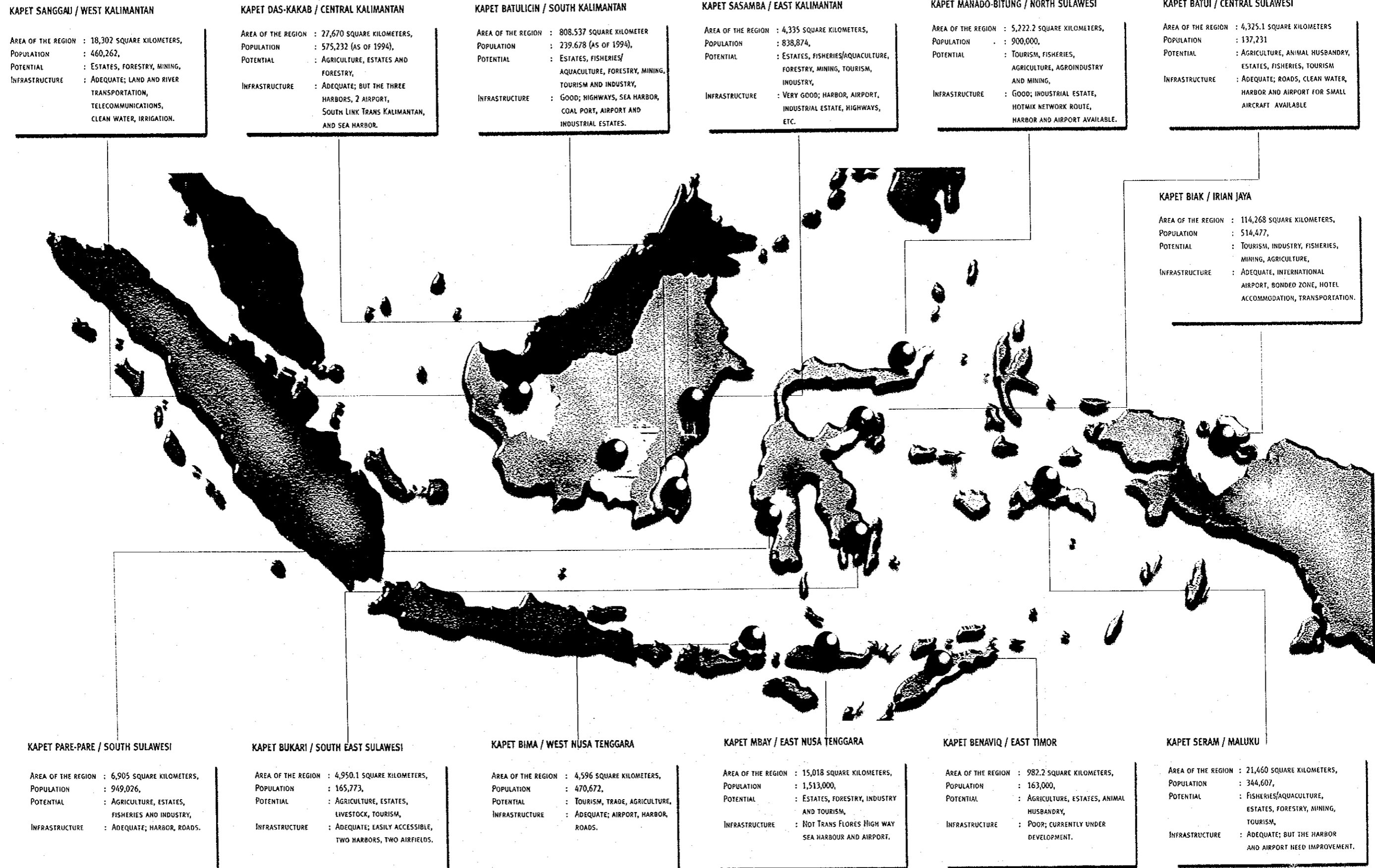
(1) Outline of KAPET

In order to give priority to the development in the provinces of the eastern part of Indonesia, 13 strategic areas (one by one in each province) have been chosen as Integrated Economical Development Zone (KAPET). The definition of KAPET is the area which has the potential of growing fast compared to other areas in one province. The development in this area is expected to give positive effect to the development of its hinterland. The location of KAPET is shown in Figure 4.2.1, and the major potential of each KAPET is shown in Table 4.2.1.

It is important to consider the potential of each KAPET in formulating port strategy.

Figure 4.2.1 Location of Integrated Economic Development Zone (KAPET)

Source : The Opportunity of Investment in Eastern Indonesia (EIDC)



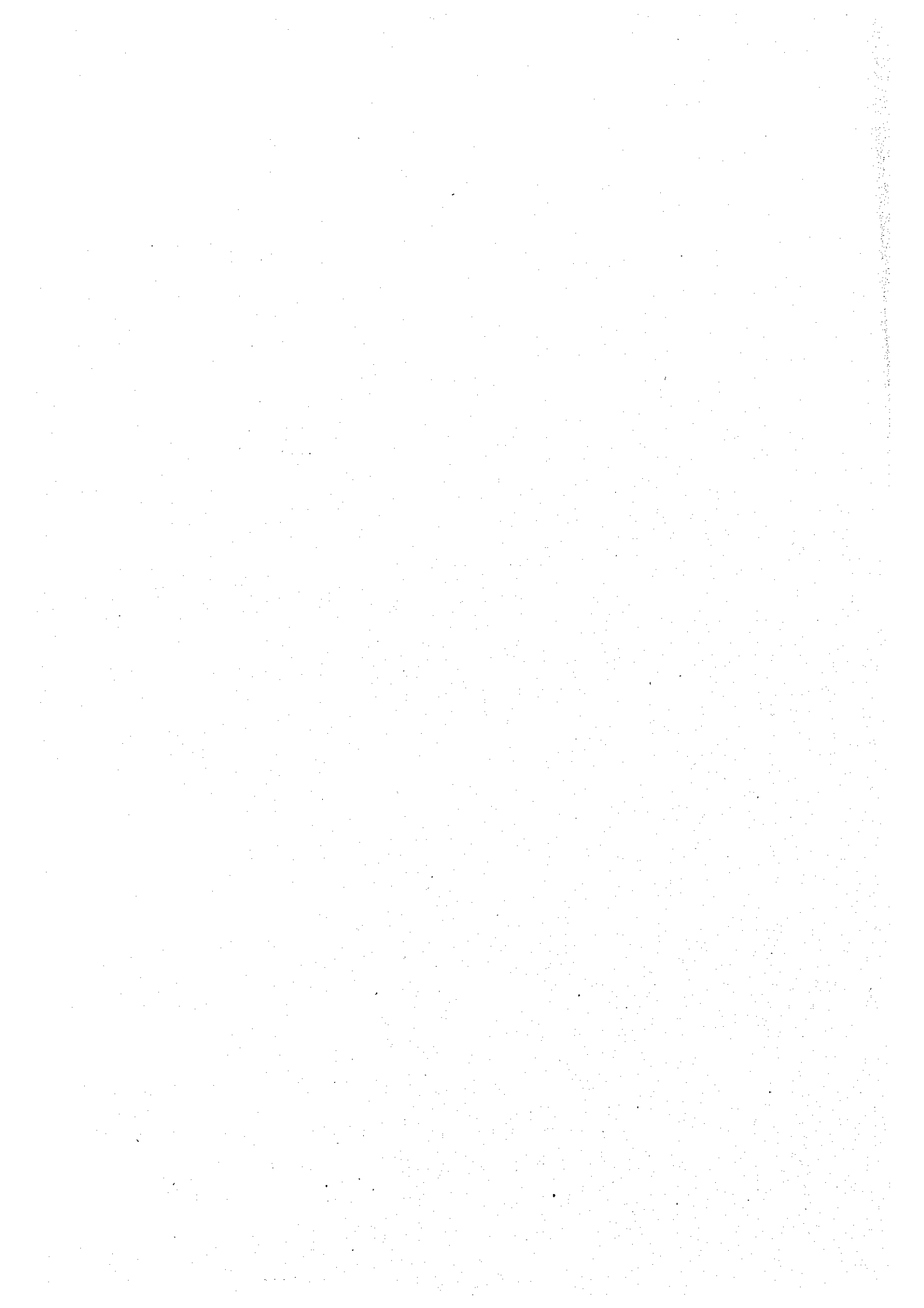


Table 4.2.1 Potential of each KAPET

Province	Name of KAPET	Potential													
		Industry	Agriculture	Agroindustry	Estates	Forestry	Mining	Fisheries /Aquaculture	Animal Husbandry	Livestock	Tourism	Trade			
West Kalimantan	Sanggau				○ 130,555ha	○ Industrial timber estate 1,032,750ha	○ Bauxite 400 million ton								
Central Kalimantan	DAS-KAKAB		○ rice field 1 million ha (cancelled)		○ CPO 746,048ha	○ 2,500,000ha									
South Kalimantan	Batulicin	○ industrial estate 900ha			○ 326,248ha	○ Industrial timber estate 462,361ha	○ coal mine 852,115.691ha oil, gold, precious stones, diamonds, quartz sand, iron ore, kaolin	○ Fisheries 171,730ton /year shrimp ponds 1,100ha				○ marine, golf course			
East Kalimantan	SASAMBA	○ industrial estate 5,000ha			○ 46,266ha	○ Industrial timber estate 100,000ha	○ oil, natural gas, quartz sand, kaolin, clay	○				○			
North Sulawesi	Manado-Bitung		○	○			○ gold, natural gas	○ 2,784,000ton /year			○ sea park				
Central Sulawesi	Batui		○ soybeans 30,000ha		○ cocoa 53,790ha cashew nuts 3,152ha coconuts 43,229ha			○ shrimp ponds 4,425ha	○ cattle 41,470ha, 414,170head		○				

Source : The Opportunity of Investment in Eastern Indonesia (EIDC) and Data from DGSC

(Table 4.2.1 continued)

Province	Name of KAPEI	Potential														
		Industry	Agriculture	Agroindustry	Estates	Forestry	Mining	Fisheries /Aquaculture	Animal Husbandry	Livestock	Tourism	Trade				
South Sulawesi	Parepare	○	○		○											
Southeast Sulawesi	BUKARI		○ food crops 277,125ha		○ cocoa 4,000ha cashew nuts 25,000ha sugar cane 26,000ha								○		○	
West Nusa Tenggara	Bima		○				○ gold mine								○	○
East Nusa Tenggara	Mbay	○			○ coffee 3,500ha candle nuts 2,850ha cashew nuts 2,405ha			○							○	
Maluku	Seram				○ 750,000ha			○ 869,200ha		○ lime 10 million ton/year		○ Fisheries 316,665ton /year shrimp ponds 10,000ha				
Irian Jaya	Biak	○ industrial estate 300ha	○							○		○ Fisheries 280,000ton /year			○	
East Timor	BENAVIC		○ rice field 21,000ha		○ 40,000ha								○			

Source : The Opportunity of Investment in Eastern Indonesia (EIDC) and Data from DGSC

Under Presidential Decree No.89/1996, special investment incentives such as tax reduction and licensing facilities are awarded in KAPET area. Foreign investment to Indonesia has been increasing rapidly in the past few years, and KAPET aims to attract even more investors in future.

(2) Current Situation

Current situation of KAPET is in the stage of preparing the master plan, and area determination of each KAPET is being now enforced in order. Current situation of area determination of KAPET is shown in Table 4.2.2.

Among all KAPET area, KAPET Biak has the lead somewhat, compared with the others. However KAPET is still in the preparing stage, and the concrete projects have not yet started. It is still not clear whether all KAPET projects will be conducted or not as this greatly depends on governmental policy. It is necessary to pay attention to the progress of planning in each KAPET.

Table 4.2.2 Current Situation of Area Determination of KAPET

Province	Name of KAPET	Presidential Decree	Date
Iran Jaya	Biak	No.90	3 Dec. 1996
		No.10* (*changes of No.90)	19 Jan. 1998
South Kalimantan	Batulicin	No.11	19 Jan. 1998
East Kalimantan	SASAMBA	No.12	19 Jan. 1998
West Kalimantan	Sanggau	No.13	19 Jan. 1998
North Sulawesi	Manado-Bitung	No.14	19 Jan. 1998
East Nusa Tenggara	Mbay	No.15	19 Jan. 1998

4.3 Transportation Infrastructure Development

4.3.1 Road Transportation

(1) Current Situation

One of the most important forms of land transport is road transportation.

The total length of road in 1996 is 385,836km. Road length and density by each province, type of surface and road condition are shown in Table 4.3.1, Appendix Table C.4.3.1 and Appendix Table C.4.3.2. Regarding motorization, the number and type of registered motor vehicles are shown in Table 4.3.2 and Appendix Table C.4.3.3. According to these tables, the characteristics of road development can be seen as follows;

- Road development in Jawa is remarkable and the density (1) is very high, while that in Kalimantan and Irian Jaya is much lower. Moreover, the ratio of road of good quality is higher in the industrialized provinces (i.e. Jawa, North and South Sumatra, South Sulawesi), on the other hand, it is lower in the eastern part of Indonesia.
- Population in the eastern part of Indonesia is much lower than that in the western part of Indonesia, so that density (2) of the eastern part of Indonesia is higher than that of the western part of Indonesia in spite of the limited road length.
- The number of motor vehicles is increasing rapidly, though most are concentrated in Jakarta (as seen in Table 4.3.1, density (3) is very high). Traffic congestion during peak traffic hours in Jakarta becomes rather intensified like Bangkok in Thailand. On the other hand, the number of motor vehicles in the eastern part of Indonesia is still low, but due to the limited road length, density (3) is not that low. Namely the number of motor vehicles seems to be correlated with the road length.

From the viewpoint of port strategy, road distribution system for cargoes is weak in the eastern part of Indonesia at present, especially long-distance transportation by road is unsuitable, so that the role of sea transportation is important as means to distribute cargoes. Meanwhile, in the western part of Indonesia, road distribution system for cargoes is well developed, that is, transportation between regions is easy. However, it is necessary to pay attention to the concentration of traffic around big cities, especially Jakarta. It is important to consider these characteristics of road development in formulating the port strategy.

Table 4.3.1 Road Length and Density by Province in 1996

Province	Land Area Km ²	Population 1000person	Vehicles Cars	Length		Density (1)		Density (2)		Density (3)	
				Km	%	Km/1000Km ²	note	Km/1000person	note	Cars/Km	note
1 Special Territory of Aceh	55,390	3,945	221,432	14,241	3.7	257		3.6		16	○
2 North Sumatra	71,680	11,306	960,338	30,990	8.0	432		2.7		31	
3 West Sumatra	42,898	4,390	224,238	18,297	4.7	427		4.2	○	12	○
4 Riau	94,561	4,057	304,239	13,289	3.4	141		3.3		23	
5 Jambi	53,436	2,459	856,844	9,268	2.4	173		3.8		21	
6 South Sumatra	109,254	7,413		15,135	3.9	139		2.0			
7 Bengkulu	19,789	1,464		5,985	1.6	302		4.1	○		
8 Lampung	35,385	6,806		11,320	2.9	320		1.7			
9 Special Territory of Jakarta	664	9,341	3,397,748	8,651	2.2	13,029	◎	0.9	×	393	×
10 West Java	43,177	40,118	1,243,076	28,329	7.3	656	○	0.7	×	44	
11 Central Java	32,549	29,881	2,576,856	24,973	6.5	767	○	0.8	×	63	×
12 Special Territory of Yogyakarta	3,186	2,915		15,742	4.1	4,941	◎	5.4	○		
13 East Java	47,923	34,124	2,591,890	33,066	8.6	690	○	1.0		78	×
14 West Kalimantan	146,807	2,924	205,115	11,817	3.1	80	×	4.0	○	17	○
15 Central Kalimantan	153,564	3,708	352,523	14,075	3.6	92	×	3.8		16	○
16 South Kalimantan	36,535	3,641		7,823	2.0	214		2.1		34	
17 East Kalimantan	210,985	860	240,234	6,977	1.8	33	×	8.1	◎	17	○
18 North Sulawesi	27,488	3,732	334,017	9,804	2.5	357		2.6			
19 Central Sulawesi	63,689	1,686		9,797	2.5	154		5.8	○		
20 South Sulawesi	62,483	2,960	499,166	27,772	7.2	444		9.4	◎	14	○
21 Southeast Sulawesi	38,140	2,429		6,820	1.8	179		2.8			
22 Bali	5,633	2,686	749,792	8,004	2.1	1,421	◎	3.0		19	○
23 West Nusa Tenggara	20,153	1,997		7,127	1.8	354		3.6			
24 East Nusa Tenggara	47,349	7,693		16,181	4.2	342		2.1			
25 East Timor	14,609	1,643		8,160	2.1	559	○	5.0	○		
26 Maluku	77,871	2,142	55,043	9,359	2.4	120		4.4	○	6	◎
27 Irian Jaya	421,981	2,021	73,531	12,834	3.3	30	×	6.4	◎	6	◎
Western part of Indonesia	615,525	160,906	13,126,453	237,290	61.5	386		1.5		55	
Eastern part of Indonesia	1,321,654	37,437	1,759,649	148,546	38.5	112		4.0		12	
Total	1,937,179	198,343	14,886,102	385,836	100	199		1.9		39	

Note : (Density (1) : Length / Land Area)
 ◎ : > 1,000 (Km/1000Km²)
 ○ : 500~1,000 (Km/1000Km²)
 × : < 100 (Km/1000Km²)
 (Density (2) : Length / Population)
 ◎ : > 6 (Km/1000person)
 ○ : 4~6 (Km/1000person)
 × : < 1 (Km/1000person)
 (Density (3) : Cars / Length)
 ◎ : < 10 (Cars/Km)
 ○ : 10~20 (Cars/Km)
 × : > 50 (Cars/Km)

Source : Made by OCDI based on Statistical Data in BPS

Table 4.3.2 Number of Registered Motor Vehicles by Type

	1978	1988	1996
Passenger car	535,442	1,073,106	2,410,526
Bus	58,389	385,731	724,914
Truck	336,753	892,651	1,454,585
Motorcycle	1,990,250	5,419,531	10,296,077
Total	2,920,834	7,771,019	14,886,102

Source : Statistics during 50 years Indonesian independence (BPS),
Statistical Yearbook of Indonesia 1996 (BPS)

(2) Development Plan in PJP II and Repelita VI

Target of road development in PJP II and Repelita VI are shown in Table C.4.3.4 and Table C.4.3.5. Indonesian government put much emphasis on road development, so that total development expenditure of road sub sector during Repelita VI is estimated at Rp 22 trillion, or 67 % of total development expenditure of whole transportation sector; i.e. Rp. 33 trillion.

(3) Development Plan in National Spatial Plan

Road transportation development plan in national spatial plan (target year: end of PJP II) is shown in Figure 4.3.1.

4.3.2 Rail Transportation

(1) Current Situation

Another form of land transport is rail transportation. It is managed by PERUMKA (Perusahaan Umum Kereta Api : Indonesian State Railways). Rail transportation plays an important role in connecting port with major cities and producing districts. A typical case is the transport of coal to port of shipment in Sumatra.

At present, the length of railway is 6,441km (4,726km, 73% in Jawa and 1,715km, 27% in Sumatra), but active operating length is still 5,042km (3,672km, 73% in Jawa and 1,370km, 27% in Sumatra); in addition, the majority (96.6%) is single track.

Regarding rail freight transportation, the average distance of freight transportation is approximately 200-250km as shown in Table 4.3.3. And main commodities carried by rail are coal and cement as shown in Table 4.3.4. These commodities are also mainly loaded in special port/wharf, especially in Sumatra, so that rail development is closely related to development of special port/wharf.

Table 4.3.3 Rail Freight Transportation

Description	Unit	Figure in 1996
Jawa and Madura		
- Ton loaded	000	6,734
- Ton-Km	000 000	1,435
- Average distance	Km	213
Sumatra		
- Ton loaded	000	11,324
- Ton-Km	000 000	2,926
- Average distance	Km	258
Total		
- Ton loaded	000	18,058
- Ton-Km	000 000	4,361
- Average distance	Km	242

Source : Statistical Yearbook of Indonesia 1996 (BPS)

Table 4.3.4 Main Commodities Carried by Rail
(thousand ton)

Description	1995
Cement	3,240
Coal	7,945
Container	635
Cilegon Steel	193
Fertilizer	981
Fuel Oil	1,873
Palm Oil	382
Miscellaneous	2,128
Baggage & Package	74

Source : Transportation statistics 1996 (MOC)

(2) Development Plan in PJP II and Repelita VI

Targets of rail development in PJP II and Repelita VI are shown in Table C.4.3.6 and Table C.4.3.7.

(3) Development Plan in National Spatial Plan

Rail transportation development plan in national spatial plan (target year: end of PJP II) is shown in Figure 4.3.1. The development plan is still given emphasis in Jawa and Sumatra as before. However, the new development plans of rail transportation in Kalimantan and Sulawesi are additionally mentioned in this plan. There are many special port/wharf of coal in Kalimantan, so that this new plan is expected to contribute to transportation of coal from the producing district to port.

4.3.3 River, Lake and Ferry Transportation

(1) Current Situation

River, lake and ferry transportation form an important part of land transportation in cooperation with road or rail transportation. In Kalimantan, Sumatra and Irian Jaya, the role of river transportation is very important. Especially in Kalimantan, river transportation is the main transportation means at present. Meanwhile, the development of lake transportation is prioritized in big lakes such as Toba lake.

Ferry transportation has the function as a part of road or rail transportation facility. At present, there are around 110 ferry lines which connect one ferry port with another ferry port or which connect several ferry ports in whole Indonesia.

Major lines of river, lake and ferry transportation in 1995 are shown in Table 4.3.5.

Table 4.3.5 Major Lines of River, Lake and Ferry Transportation in 1995 (thousand person)

Line	Number	Line	Number
1. Ujung-Kamal	14,828	11. Kupang-Rote	116
2. Merak-Bakauheni	12,042	12. Sabang-Malahayati	109
3. Ketapang-Gilimanuk	5,282	13. Bira-Pamatata	104
4. Poka-Galala	4,795	14. Kupang-Larantuka	73
5. Kodya Pontianak	1,396	15. Bau Bau-T. Dona	71
6. Padang Bai-Lembar	1,132	16. Sape-Komodo-L. Bajoe	58
7. Lombok-Potano	953	17. Sibolga-Nias	55
8. Balikpapan-Penajam	786	18. Cilacap-Sidareja	51
9. Hunimua-Waipirit	398	19. Kupang-Ende	42
10. Bajoe-Kolaka	126	20. Sorong-Jefman	38

Source : Transportation statistics 1996 (MOC)

(2) Development Plan in Repelita VI

Target of development Repelita VI is shown in Table C.4.3.8.

(3) Development Plan in National Spatial Plan

Ferry transportation development plan in national spatial plan (target year: end of PJP II) is shown in Figure 4.3.2. The development is emphasized on the following three corridors which are connected by ferry and road transportation networks;

- Northern transportation network from Sabang to Jayapura through Pontianak, Nunukan, Manado, Ternate and Biak
- Central transportation network from Palembang to Jayapura through Banjarmasin, Ujung Pandang, Kendari, Ambon, Sorong and Biak
- Southern transportation network from Sabang to Merauke through Jakarta, Bali, Bima, Kupang, Dili and Tual

4.3.4 Air Transportation

(1) Current Situation

Air transportation has the function to transport the passengers and cargoes quickly. In addition, it plays an important role in transportation of passengers and cargoes to less-developed and isolated areas, together with ferry and sea transportation.

In Indonesia, 21 major airports are managed by two state-owned enterprises, PAP (PT. Angkasa Pura) I and II. Other airports are managed by DGAC (Directorate General of Air Communications), and those airports are classified at the class status I, II, III, IV, V and non class in accordance with the Ministry's Decree of No.KM.36/1993. The classification is decided based on estimating credit values of each airport, such as the evaluation of air transportation service, flight safety and security service, airport capacity, flight safety facilities, airport status and function. The location and the number of airports by class is shown in Figure 4.3.3 and Table 4.3.6. And the number of aircraft and major air lines are shown in Table 4.3.7, Table 4.3.8 and Table 4.3.9.

As for the characteristics of airport location, there are many airports (mainly low class airports) in Irian Jaya around mountain areas. It shows that airport transportation plays a role in transport people and goods to isolated areas that are not accessible by sea or road transportation.

In terms of major origins and destinations, most domestic passengers are concentrated on flights from/to Jakarta, while international passengers mainly travel between Jakarta and Singapore.

(2) Development Plan in PJP II and Repelita VI

Target of air development in PJP II and Repelita VI is shown in Table C.4.3.9 and Table C.4.3.10.

(3) Development Plan in National Spatial Plan

Air transportation development plan in national spatial plan (target year: end of PJP II) is shown in Figure 4.3.4.

Table 4.3.6 Number of Airports by Class

Class	I	II	III	IV	V	Non Class	Total
Number	16	14	20	36	46	105	237

Source : Transportation statistics 1996 (MOC)

Table 4.3.7 Number of Aircraft by Ownership and Kind in 1995 (Unit)

	Fixed wing	Rotary wing	Total
Government	298	32	330
Private	418	162	580
Total	716	194	910

Source : Statistical Yearbook of Indonesia 1996 (BPS)

Table 4.3.8 Major Domestic Air Routes in 1994

(thousand person)

Route	Number	Route	Number
1. Jakarta-Surabaya	1,365	11. Jakarta-Batam	286
2. Jakarta-Bali	1,347	12. Jakarta-Balikpapan	249
3. Jakarta-Medan	731	13. Jakarta-Padang	243
4. Jakarta-Yogyakarta	542	14. Jakarta-Pekanbaru	241
5. Jakarta-Semarang	504	15. Surabaya-Ujung Pandang	230
6. Bali-Yogyakarta	374	16. Surabaya-Balikpapan	221
7. Jakarta-Palembang	371	17. Surabaya-Banjarmasin	219
8. Jakarta-Pontianak	337	18. Bari-Mataram	211
9. Bali-Surabaya	329	19. Jakarta-Solo	200
10. Jakarta-Ujung Pandang	308	20. Jakarta-Pangkal Pinang	152

Source : Indonesia Handbook 1995/1996 (Jakarta Japan Club)

Table 4.3.9 Major International Air Routes in 1994

(thousand person)

Route	Number	Route	Number
1. Jakarta-Singapore	1,620	11. Medan-Kuala Lumpur	144
2. Bali-Singapore	464	12. Bali-Sidney	133
3. Jakarta-Tokyo	438	13. Jakarta-Amsterdam	127
4. Jakarta-Hong Kong	361	14. Jakarta-London	123
5. Jakarta-Taipei	250	15. Surabaya-Singapore	121
6. Bali-Perth	187	16. Bali-Maryborough	115
7. Bali-Bangkok	184	17. Jakarta-Jeddah	110
8. Bali-Taipei	176	18. Medan-Penang	109
9. Jakarta-Kuala Lumpur	174	19. Bali-Nagoyaa	109
10. Medan-Singapore	166	20. Bali-Hong Kong	106

Source : Indonesia Handbook 1995/1996 (Jakarta Japan Club)

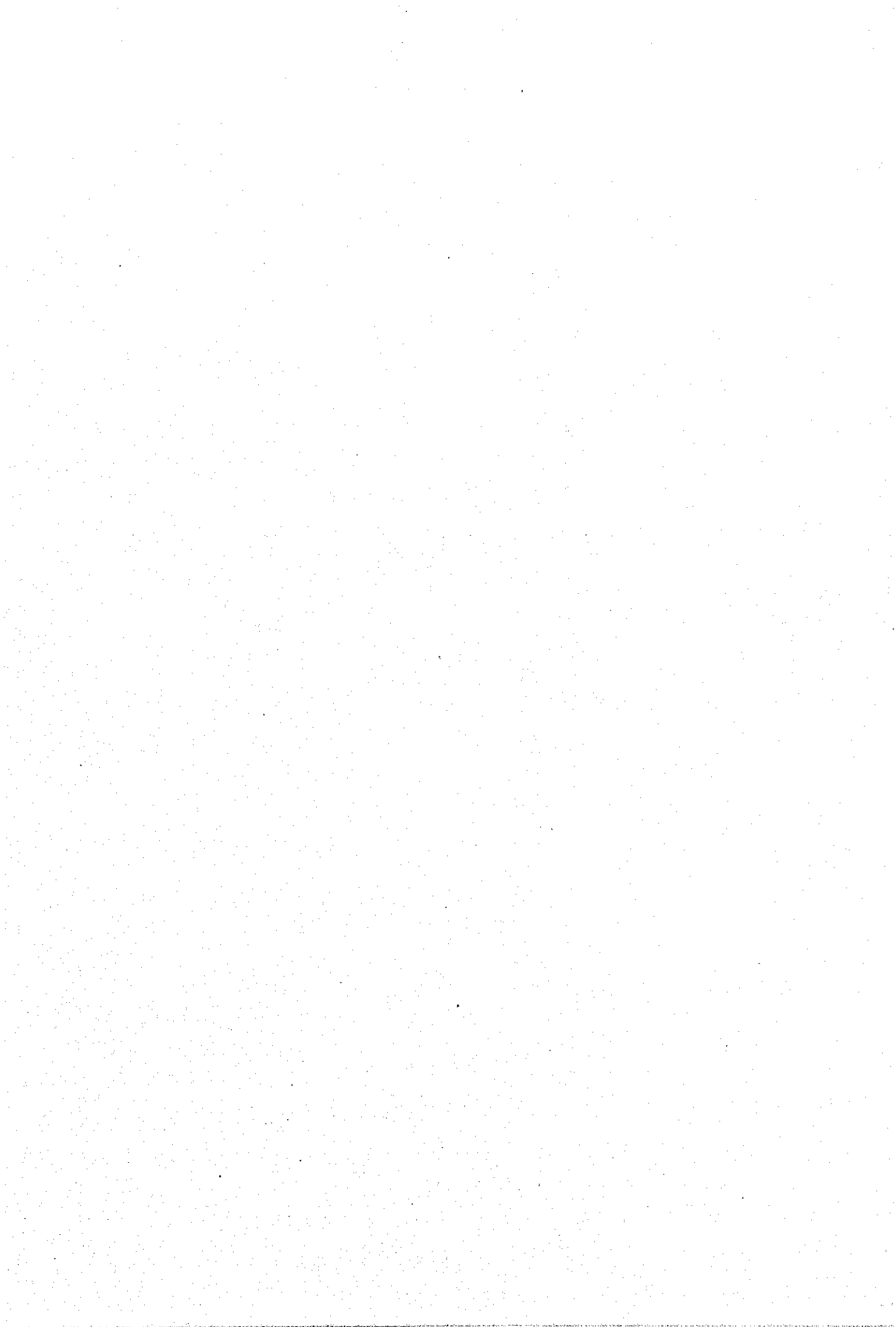


Figure 4.3.1 Road and Rail Transportation Development Plan in National Spatial Plan
(in the end of PJP II)

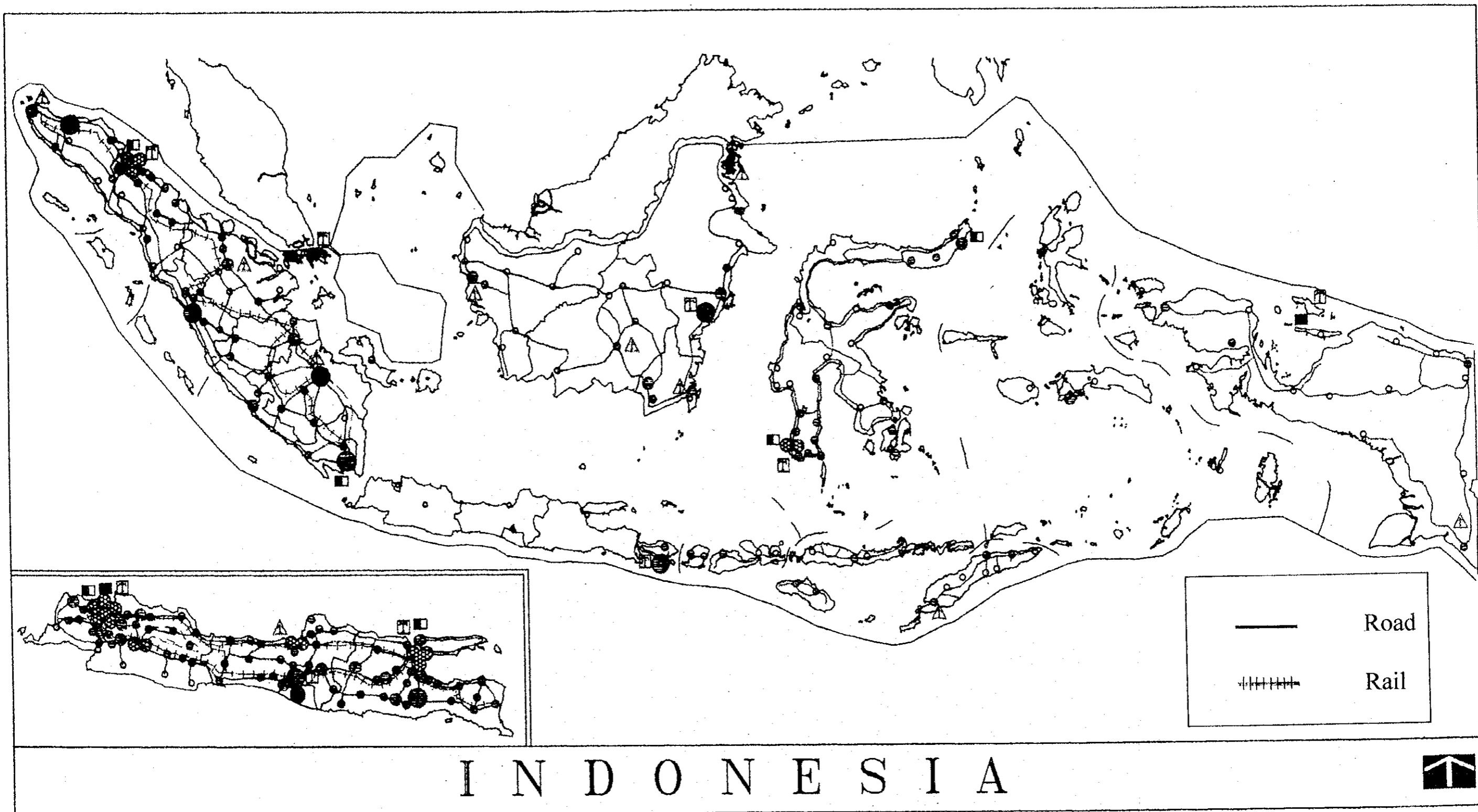


Figure 4.3.2 Ferry Transportation Development Plan in National Spatial Plan
(in the end of PJP II)

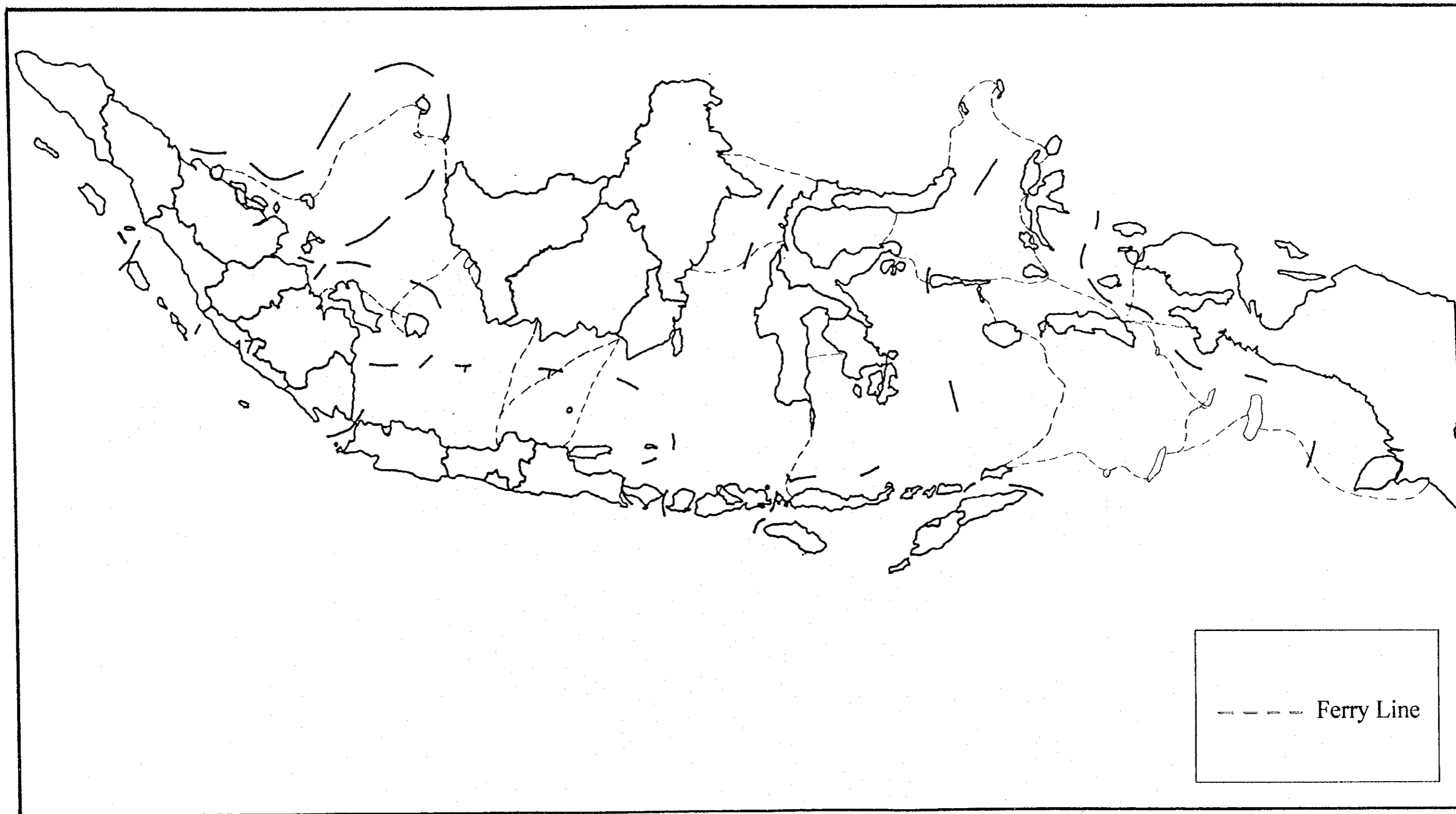
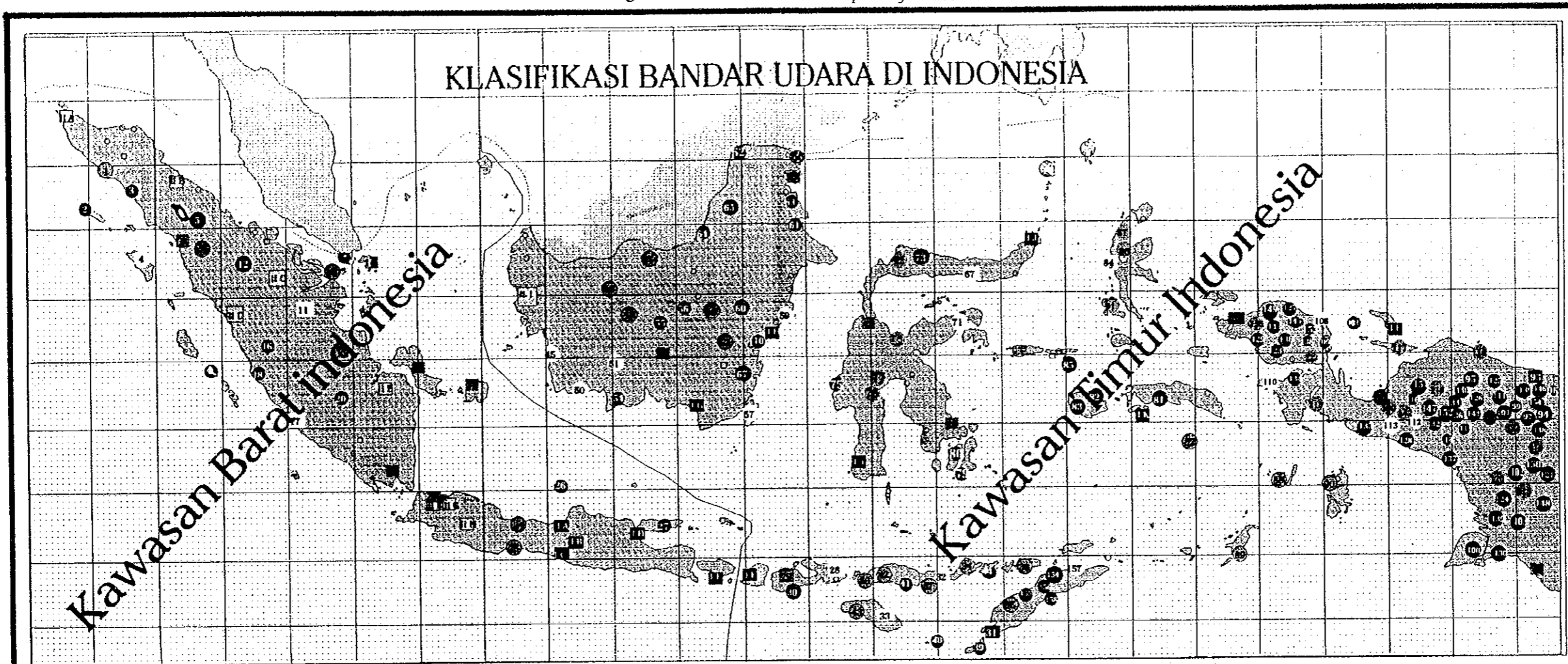


Figure 4.3.3 Location of Airport by Class

Source : DGAC



1. Cut Nyak Dhien - Meulaboh
2. Lasikin - Sribabang
3. Teuku Cut Ali - Tapak Tuan
4. Binaka - Gunung Sitoli
5. Sibisa - Parapat (Satker)
6. Pinang Sorit - Sibolga
7. Aek Godang - Padang Sidempuan
8. Rokot - Sipora
9. Hang Nadim - Batam
10. Kijang - Tanjung Pinang
11. Japura - Rengas
12. P. Pangaralan - P. Pangaralan (Satker)
13. Dabo - Singkep
14. Seibat - Tanjung Balai Karimun
15. Sultan Thaha - Jambi
16. Depati Parbo - Kerinci
17. Padang Kemiling - Bengkulu
18. Muko-muko - Muko-muko
19. Pangkal Pinang - Pangkal Pinang
20. Lubuk Linggau - L. Linggau (Satker)
21. Bujur Tumbang - Tanjung Pandan
22. Branti - Tanjung Karang
23. Budiarto - Ciuug
24. Penggung - Cirebon
25. Tunggul Wulung - Cilacap
26. Dewa Daru - Karimun Jawa
27. Trunojoyo - Sumenep (Satker)
28. M. Salahuddin - Bima
29. Brangbiji - Sumbawa Besar
30. Lunyuk - Sumbawa (Satker)

31. Eltari - Kupang
32. Wai Oti - Maumere
33. Mau Hau - Waingapu
34. Gewayantana - Larantuka
35. Halilwen - Alambua
36. Komodo - Labuhan Bajo
37. H. Hasan Aroeboesman - Ende
38. Mali - Akor
39. Lekunik - Rote
40. Tardamu - Sabu
41. S o a - Bajawa
42. Satarfacik - Ruteng
43. Tambolaka - Waikabubak
44. Wonopito - Lewoleba
45. Rahadi oesman - Ketapang
46. Susilo - Sintang
47. Pangsuma - Putusibau
48. Nangapinoh - Nangapinoh
49. Tjilik Riwut - Palangkaraya
50. Iskandar - Pangkalan Bun
51. H. Asan - Sampit
52. Sanggu - Buntok
53. Beringin - Muara Teweh
54. Kuala Pembuang - Kuala Pembuang
55. Tumbang Samba - Tumbang Samba
56. Kuala Kurun - Kuala Kurun
57. Stagen - Kota Baru
58. Juwata - Tarakan
59. Temindung - Samarinda
60. Kota Bangun - Kota Bangun (Satker)
61. Kalimantan - Tanjung Redep

62. Yurval Semarang - Long Bawan
63. Tanjung Harapan - Tanjung Selor
64. Long Apung - Long Apung
65. Dajah Dawai - Dajah Dawai
66. Nunukan - Nunukan
67. Jalauddin - Gorontalo
68. N a h a - Tahuna
69. Melongguane - Sangir Talud
70. Mutiara - Palu
71. Bubung - Luwuk
72. Lalos - Toli-toli
73. Pogogul - Buol (Satker)
74. Kaiguncu - Poso
75. Tampa Padang - Mamuju
76. Pongtiku - Tana Toraja
77. Andi Jemba - Masamba
78. Wolter Monginsidi - Kendari
79. Beto Ambari - Bau-bau
80. Sugimanaru - Raha
81. Amahai - Pulau Seram (Satker)
82. Namlea - Pulau Buru (Satker)
83. Namrole - Pulau Buru (Satker)
84. Sultan Babulah - Temate
85. Ernalamo - Sanana (Satker)
86. Kuabang - Kao
87. Gamer Malamo - Galela
88. Dumatubun - Tual
89. Otilik - Saumlaki (Satker)
90. Dobo - Pulau Aru (Satker)
91. Oesman Sadik - Labuha
92. Bandanera - Pulau Banda

93. Sentani - Jayapura
94. Ubrub - ubrub (Satker)
95. Dabra - Dabra (Satker)
96. Yuruf - Yuruf (Satker)
97. Molof - Molof (Satker)
98. Mopal - Merauke
99. Kamur - Kamur (Satker)
100. Kiman - Kimam (Satker)
101. Elelim - Elelim (Satker)
102. Bomakia - Bomakia (Satker)
103. Senggo - Senggo (Satker)
104. Jefman - Sorong
105. Wamena - Wamena
106. Kelila - Kelila (Satker)
107. Nabire - Nabire
108. Rendani - Manokwari
109. Angi - Angi (Satker)
110. Torea - Fak-fak
111. Akimuga - Akimuga
112. Enarotali - Enarotali
113. Waghete - Waghete
114. Marera - Sarimi
115. Tanah Merah - Tanah Merah
116. Mulla - Mulla
117. Sudjarwo - Serui
118. Ularom - Kaimana
119. Oksibil - Oksibil
120. Moanamani - Moanamani
121. Mindiptanah - Mindiptanah
122. Bintuni - Bintuni
123. Teminabuan - Teminabuan

124. Kepi - Kepi
125. Wasior - Wasior
126. Bokondini - Bokondini
127. Ijahabra - Ijahabra
128. Kokonau - Kokonau
129. Inanwatan - Inanwatan
130. Okaba - Okaba
131. Numfor - Numfor
132. Ilaga - Ilaga
133. Ilu - Ilu
134. Babo - Babo
135. Kambuaya - Kambuaya
136. Tiom - Tiom
137. Ewer - Ewer
138. Batom - Batom
139. Bade - Bade
140. Lereh - Lereh
141. Karubaga - Karubaga
142. Obano - Obano
143. Ayawasi - Ayawasi
144. Senggeh - Senggeh
145. Kebar - Kebar
146. Waris - Waris
147. Kebo - Kebo
148. Manggelum - Manggelum
149. Werur - Werur
150. Kiwirok - Kiwirok
151. Bidai - Bidai
152. Biloroy - Biloroy

153. Rasinki - Rasinki
154. Komoro - Dili
155. Oekusi - Oekusi
156. Maliana - Maliana
157. Baucau - Baucau
158. Holbells - Suai

- II A. A. Yani - Semarang
- II B. Adi Sumarmo - Soto
- II C. Adi Sucipto - Yogyakarta
- II D. Juanda - Surabaya
- II E. Ngurah Rai - Bali
- II F. Selaparang - Ampenan
- II G. Syamsuddin Noor - Banjarmasin
- II H. Sepinggan - Balikpapan
- II I. Hasanuddin - Ujung Pandang
- II J. Sam Ratulangi - Manado
- II K. Pattimura - Ambon
- II L. Frans Kaisiepo - Biak

- II A. Sultan Iskandar Muda
- II B. Polonia - Medan
- II C. Simpang Tiga - Pekanbaru
- II D. Tabing - Padang
- II E. S.M. Badaruddin - Palembang
- II F. Soekarno - Hatta - Jakarta
- II G. Halim P. - Jakarta
- II H. Husein S. - Bandung
- II I. Supadio - Pontianak

Keterangan :

- Bandar Udara Kelas I
- Bandar Udara Kelas II
- Bandar Udara Kelas III
- Bandar Udara Kelas IV
- Bandar Udara Kelas V
- Satuan Kerja

■ PT. ANGKASA PURA I

■ PT. ANGKASA PURA II

BERDASARKAN KEPUTUSAN MENTERI NOMOR : KM 4 TAHUN 1995
TENTANG PENYEMPURNAAN & PENATAAN KELAS BANDAR UDARA

Figure 4.3.4 Air Transportation Development Plan in National Spatial Plan
(in the end of PJP II)



Chapter 5 POLICY ON PORT SECTOR DEVELOPMENT

5.1 The Current Policy for Transportation System

5.1.1 National Transportation System (SISTRANAS)

(1) Outline

The average economic growth rate in PJP I was 6.8% per annum, which exceeded the target in PJP I. This achievement was attributed to the role of transportation sector as an artery for supporting the economy and socio-cultural aspects. In order to deal with rapid economic development, national transportation system must be continuously arranged and completed.

Based on the above background, in December 1996, Indonesian Government issued the National Transportation System as the first step in formulating a nationwide master plan of transportation.

National Transportation System describes purpose and function of national transportation system, future structure of transportation network and direction of the transportation network development.

It stated that the function of the national transportation system is to support and stimulate the national and regional development, to strengthen the unity of the entire country and to promote international exchange.

(2) Direction of transportation network development

National Transportation System states that the development of medium and long term transportation network must consider present transportation network, medium and long term space arrangement, hierarchy of city, consumption and production system, geography and so on.

It stresses the importance for considering the hierarchy of the city, geography and regional development. In the National Spatial Plan, transportation development is directed to support the development of the mainstay area and the activity centers in order to achieve the optimal result of the development. Sufficient transportation network provide the access between the above areas and market and material source areas. The transportation network plan itself is an important part of the National Spatial Plan.

For hierarchy of the city, sufficient transportation network which considers the hierarchy

of the city, such as National Activity Center, Regional Activity Center and Local Activity Center, enables smooth distribution of goods and movement of people.

For geography, transportation network must be determined by paying attention to the service possibility from the geographical aspect. For example the west coast area of Sumatra and Kalimantan are swampy, thus the development of river and sea transportation should be given priority over land transportation.

For regional development, the transportation service has to be developed from the viewpoint of securing the civil minimum, especially in undeveloped or remote areas.

It also stated that in formulating the transportation network the character of each transportation mode and achievement of the minimal transportation cost shall be considered.

Sea transportation has the advantage of being able to transport a large volume of goods and passengers over a long distance. In addition, the transportation cost per ton-mile is relatively low.

(3) Sea transportation

As mentioned above, it is stated in this system that sea transportation is able to transport both a large volume of passengers and cargoes over a long distance inter-regionally and internationally. Therefore, sea transportation network development can play a crucial role in supporting and stimulating national and regional development and in uniting all Indonesian regions.

Sea transportation network is composed of ports as nodes, their hinterlands and shipping routes as links. Sea ports have different features by their port functions, facilities, operation activities and management organizations.

In this system, new port structure has been formulated based on the above aspects. This new system is described in 5.2.

5.1.2 Regional Transportation System (SISTRAREG)

National Transportation System has been formulated from the viewpoint of national level. Due to the large area of Indonesia and the vast differences between regions, it is necessary to establish more detailed transportation system at the regional level.

Now MOC is preparing the Regional Transportation System. In this system all areas are divided into 5 regions, Sumatra, Java-Bali, Kalimantan, Sulawesi, Nusatimi (Irian Jaya, Maluku etc).

The function of this system is to support and to stimulate regional development. As a supporting element, Regional Transportation System has function to prepare the effective transportation service in order to support the regional development. And it can stimulate development by preparing effective transportation service in order to open the isolated area and develop left behind areas.

Concerning the port development, the Regional Transportation System describes the close relation between peoples activity and port development and puts emphasis on the sea transportation as the essential transportation mode which support the peoples activity.

For example it says that, in most part of Indonesia, peoples initially settled along the coast to secure the accessibility to the outside. Then the small towns along the coast started to develop into bigger towns.

Table 5.1.1 Population and GRDP of the 5 Region

	Population (1995)			GRDP (1995)	
	Figure(Thous and person)	Growth Rate (%)	Density (person/km2)	Figure (Trillion Rp)	Growth Rate (%)
Sumatra	40,970	2.37	86.53	82.23	6.58
Java-Bali	117,890	1.32	855.84	229.00	7.90
Kalimantan	10,521	3.00	19.50	33.48	7.78
Sulawesi	13,772	1.95	72.28	15.52	7.81
Nusatimi	12,132	2.24	20.94	14.93	9.94

Source : Regional Transportation System

5.1.3 Economic Regional Cooperations in Asian Countries

Indonesia, which is located in the intersection of the world trade, cannot isolate itself from the influence of the growing economic activity in the world , especially in the neighboring countries.

Economic Regional Cooperations between Indonesia and neighboring countries, such as I.M.T.-GT (Indonesia, Malaysia, Thailand Growth Triangle), I.M.S.-GT (Indonesia, Malaysia, Singapore Growth Triangle), B.I.M.P.-EAGA (Brunei, Indonesia, Malaysia, Philippines East ASEAN Growth Area) and AIDA (Australia, Indonesia Development Area) are discussed and promoted among related countries including Indonesia.

In the above international regional cooperations, ports will play an important role and necessary port development shall be examined.

Especially in northern Sumatra and the eastern part of Indonesia, relations with neighboring countries are becoming closer. In order to promote international economic cooperation, close contact shall be enhanced. This cooperation is also expected to contribute to the development of less advanced areas in Indonesia.

In this cooperation, sea linkages will play a vital role. Then port development closely related to the international and regional economic cooperation shall be examined. For example, considering the fact that more than 10% of the international cargo is transported from/to Australia, MOC is studying the regional development plan in the Eastern Indonesia aiming at the economic cooperation with Northern Australia.

Table 5.1.2 Possible Port Network related to International Regional Port Cooperation

Regional Economic Cooperation	Basic Policy	Possible Port Network	Prioritized Port Development Project
I.M.T.-GT (Indonesia, Malaysia, Thailand Growth Triangle)	President's Decree Number 72 of 1996 a) To increase the international competitiveness b) Economizing the transportation cost	a) Belawan (Indonesia) - Penang (Malaysia) b) Tg. Balai Asahan (Indonesia) - Lumit (Malaysia)	
I.M.S.-GT (Indonesia, Malaysia, Singapore Growth Triangle)	President's Decree Number 74 of 1996	Under preparation	Under preparation
B.I.M.P.-EAGA (Brunei, Indonesia, Malaysia, Philippines East ASEAN Growth Area) Launched in 1994	President's Decree Number 73 of 1996 a) economic liberalization b) priority accorded to the private sector c) outward-oriented industrial strategies d) attracting foreign direct investment e) "open regionalization" of ASEAN	a) Bitung - General Santos b) Zamboanga - Bitung c) Dabao - Bitung	a) Bitung b) Pontianak c) Balikpapan d) Tarakan e) Sampit f) Banjarmasin g) Ujung Pandang h) Ambon i) Sorong g) Biak h) Jayapura
AIDA (Australia, Indonesia Development Area)	Under preparation	Under preparation	Under preparation

Source : Prepared by OCDI based on information from DGSC

5.2 The Current Policy for Port System

5.2.1 Port System

(1) Port system and organization according to Shipping Law No. 21/1992

In accordance with Shipping Law No. 21/1992, ports in Indonesia are categorized into two kinds: public ports and special ports. Public ports are developed to serve public/common users, while special ports are developed and used by and for the interest of industries to support them, such as manufacturing, forestry, fishery, mining, tourism and other sectors.

Now, Indonesia has 656 public ports and 1,233 special ports. In order to improve effectiveness and efficiency of public port management, the government decided that 110 public ports would be managed commercially by four Indonesian Port Corporation. The remaining 546 public ports are managed non-commercially by the government.

To support the smoothness of international trade, ports that open for international trade are to be determined according to Shipping Law No.21. Now, 131 international ports have been determined based on consideration of the regional economic growth and development, national economic development as well as other national interests.

Table 5.2.1 Port System (based on Shipping Law No.21/1992)

Port Management Bodies	Operators	Number of Ports	Port Classification	
			International Port	Local Port
Public Ports				
1. Commercial Port	Indonesian Port Corporation	112	72	40
2. Non Commercial Port	Government Unit	544	8	536
Special Ports	Private Sector - Industry - Mining - Fishery - Agriculture - Tourism etc.	1,233	51	1,182
Total		1,889	131	1,758

Source : DGSC

(2) Port system and organization according to Ministerial decree no. 15/1997

The government decided the National Transportation System in 1996. In this system, ports are classified by their functions into two categories, trunk port and feeder port, as follows.

But, the actual classification of the ports has not yet been determined and there are inconsistencies between the National Transportation System and other plans. For example, in the National Spatial Plan, Batam, Tanjung Priok (Bojonegara) and Biak ports are categorized as Primary trunk port, on the other hand, in National Transportation System, only Batam port is categorized as Primary trunk port.

Table 5.2.2 Port Structure according to the National Transportation System

Classification		Definition
Trunk port		Ports which handle a large traffic volume and have a broad hinterland and function as the key node of the sea transportation network in national and regional level
	Primary trunk ports	Ports which handle a large traffic volume of mainly international cargoes and have a broader hinterland and function as the key node mainly in international sea transportation network
	Secondary trunk ports	Ports which handle a large traffic volume of international/domestic cargoes and have a broad hinterland and function as the key node in international/domestic sea transportation network
	Tertiary trunk ports	Ports which handle a large traffic volume of domestic cargoes and have a broad hinterland and function as the key node mainly in domestic sea transportation network.
Feeder port		Ports which handle medium traffic volume and have the medium hinterland and function as the node of the sea transportation network in province or local level
	Regional feeder ports	Ports which handle medium traffic volume and have the medium hinterland and function as the node of the sea transportation network in province level
	Local feeder ports	Ports which handle medium traffic volume and have the medium hinterland and function as the node of the sea transportation network in local level

Source : National Transportation System

Table 5.2.3 Port system and organization according to Ministerial decree no. 15/1997

	Number	Name of Main Ports
Trunk port		
Primary trunk ports	1	Batam
Secondary trunk ports	8	Belawan, Panjang, Bojonegara, Tg. Priok, Tg. Emas, Tg. Perak, Bitung, Ujung Pandang
Tertiary trunk ports	22	
Feeder port		
Regional feeder port	26	
Local feeder port	67	
	124	

Source : National Transportation System

Chapter 6 SEABORN CARGO AND PASSENGER TRAFFIC

6.1 Cargo and Passengers of International Trade/Travel

Total cargo volume at all public ports in Indonesia is reached 400 million tons in 1995, which includes the cargo volume (about 86 million tons) handled at non-commercial ports. Total foreign trade cargo at the public ports is approximately 201 million tons (including 52 million tons at non-commercial ports) in the same year. Table 6.1.1 shows the change in throughput at the public ports in 1995.

As for the number of passengers at all public ports in 1995, those for commercial and non-commercial ports are about 13 million persons and 6 million person respectively. The annual growth rate of the foreign travel passengers at public ports between 1993 and 1996 is about 6.2%. Table 6.1.2 shows the change in throughput of IPC ports.

According to Table 6.1.2, the average growth rates of cargo volume from 1988 to 1995 are about 13% for import and 8% for export. The average growth rate of passenger of international routes during the same period as that of the cargo is 14.4%. As for the export cargo volume, the growth tendency during the first five years (until end of 1993) is increased with an average of about 10.7%, but that of the latter period is decreased about -5.4%. Figure 6.1.1 shows the change in cargo volume for import/export at IPC ports from 1988 to 1995.

Table 6.1.3 shows the ratio of cargo volume by packing style in 1995 at IPC ports. According to Table 6.1.3, liquid bulk cargo has the biggest shares in packing style at the ports under IPC-1 and IPC-4. As for the ports under IPC-2 and IPC-3, dry bulk cargo has the biggest share in packing style.

6.2 Cargo and Passenger of Domestic Trade/Travel

Cargo volume of domestic trade at IPC ports from 1988 to 1996 is shown in Table 6.1.2. According to Table 6.1.2, the average growth rate of total cargo volume for domestic routes from 1988 to 1995 is about 10.1%. Table 6.2.1 shows the number of passengers for domestic routes at IPC ports in 1995 and 1996. The average growth rate of number of passengers for domestic routes between 1995 and 1996 is about -7%.

6.3 Container Cargo

Container cargoes are handled at major ports under jurisdiction of each IPCs. Table 6.3.1 shows the number of containers handled by the container size and the container cargo volume at ports under all IPCs in 1995 and 1996.

According to Table 6.3.1, approximately 65% of containers are handled by 20's type. The growth rates of container cargo and the number of TEU from 1995 to 1996 are approximately 10.6% and 10%.

According to the interview at Tg. Perak, the ratio of transshipment containers to the total handling containers is approximately 30%.

Figure 6.1.1 Change of Cargo Volume at IPC Ports

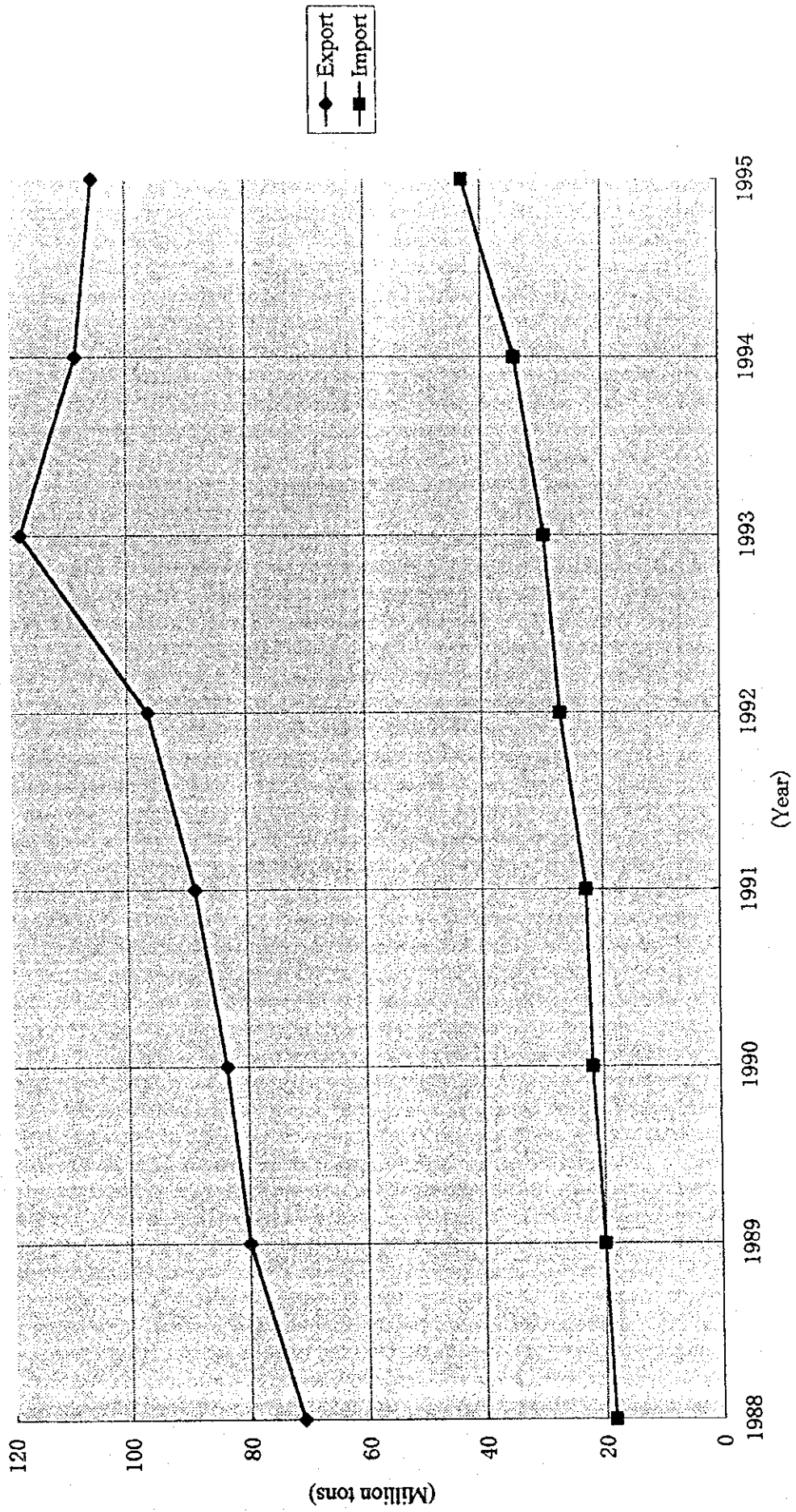


Table 6.1.1 Throughput of Public Ports in 1995

Unit: Cargo: thousand tons
Passenger: thousand persons

	Foreign Trade			Domestic Trade			Total Passenger		
	Import	Export	Total	Loading	Unloading	Total	Get on	Get off	Total
IPC Port									
IPC-1	3,455	59,781	63,236	21,232	9,091	30,323	1,816	1,473	3,289
IPC-2	17,680	10,929	28,609	22,142	31,592	53,734	936	914	1,850
IPC-3	12,677	16,144	28,821	17,912	32,706	50,617	1,573	1,537	3,110
IPC-4	6,204	22,011	28,216	14,979	14,792	29,771	2,622	2,396	5,018
Total	40,016	108,865	148,881	76,264	88,181	164,445	6,947	6,320	13,266
Non Commercial Port									
Area of IPC-1	11,888	1,541	13,429	8,991	6,278	15,270	554	666	1,220
Area of IPC-2	52	3,105	3,158	606	4,739	5,346	28	29	56
Area of IPC-3	35	117	153	1,184	343	1,527	580	533	1,113
Area of IPC-4	34,042	939	34,981	3,458	7,983	12,627	1,621	1,632	3,552
Total	46,018	5,704	51,721	14,239	19,344	34,769	2,783	2,860	5,942
Total	86,034	114,569	200,603	90,503	107,525	199,214	9,730	9,179	19,208

Source: DGSC

Table 6.1.2 Change of IPC Cargo

	Unit	1988	1989	1990	1991	1992	1993	1994	1995	1996
IPC-1	Export	42,405.0	45,599.3	49,755.0	50,446.1	52,170.4	75,293.4	61,355.9	58,193.8	58,069.2
	Import	1,390.3	1,718.1	1,908.0	1,706.2	2,072.4	2,235.9	2,326.6	4,005.5	3,312.7
	Total foreign trade	43,795.3	47,317.4	51,663.0	52,152.3	54,242.7	77,529.3	63,682.4	62,199.3	61,381.9
	Domestic trade	18,480.9	17,436.0	19,742.5	23,044.4	26,678.0	42,181.4	27,404.2	30,092.0	32,330.1
	Total cargo	62,276.2	64,753.3	71,405.6	75,196.7	80,920.7	119,710.8	91,086.6	92,291.3	93,712.0
	Container	40.1	62.7	82.6	109.6	106.1	168.4	200.9	200.8	274.0
	Passenger	1,368.4	1,404.7	1,427.7	2,089.6	1,958.4	2,381.9	2,501.1	3,277.5	3,204.2
	Export	9,474.6	12,597.6	10,893.8	10,173.2	13,455.9	13,177.5	12,836.6	10,314.6	9,605.3
	Import	11,106.9	12,600.0	13,076.1	14,001.2	15,704.8	17,689.5	20,914.4	19,282.7	19,368.7
	Total foreign trade	20,581.6	25,197.6	23,969.8	24,174.3	29,160.8	30,867.0	33,751.0	29,597.2	28,974.1
Domestic trade	22,836.1	29,989.0	33,777.3	35,955.7	40,301.9	42,129.9	52,088.6	53,538.7	59,536.6	
Total cargo	43,417.6	55,186.6	57,747.1	60,130.1	69,462.7	72,996.9	85,839.6	83,135.9	88,510.7	
Container	453.0	460.2	672.3	779.6	926.4	1,093.5	1,350.9	1,551.9	1,692.2	
Passenger	778.5	903.2	857.5	1,238.6	1,495.1	1,557.8	1,659.6	1,849.7	1,737.9	
IPC-2	Export	4,334.1	5,377.9	5,899.2	7,208.2	9,154.8	9,314.5	12,754.1	14,944.9	-
	Import	5,042.5	5,240.3	6,093.8	6,713.7	7,389.6	7,515.7	8,927.9	13,628.7	-
	Total foreign trade	9,376.6	10,618.1	11,993.0	13,921.9	16,544.4	16,830.3	21,682.0	28,573.6	-
	Domestic trade	18,120.1	18,930.1	21,195.3	23,698.6	23,057.3	27,295.4	29,923.2	55,747.2	-
	Total cargo	27,496.6	29,548.3	33,188.2	37,620.5	39,601.7	44,125.6	51,605.2	84,320.8	-
	Container	128.3	177.5	238.7	317.4	397.0	512.0	635.8	718.4	-
	Passenger	987.6	1,037.8	1,397.3	1,516.6	1,935.4	2,277.0	2,927.7	3,110.2	-
	Export	14,840.9	16,410.9	17,098.3	21,069.1	21,663.4	20,381.1	21,715.3	22,321.2	28,087.7
	Import	859.3	477.2	875.8	440.7	1,830.5	2,157.3	2,351.7	6,235.8	6,130.8
	Total foreign trade	15,700.2	16,888.1	17,975.1	21,509.7	23,493.9	22,538.5	24,067.0	28,557.0	34,218.5
Domestic trade	28,070.8	28,048.2	33,425.2	31,003.6	34,183.9	35,353.9	32,650.3	32,353.4	29,784.9	
Total cargo	43,771.1	44,936.3	51,400.3	52,513.3	57,677.8	57,892.4	56,717.3	60,910.4	64,003.3	
Container	0.8	2.7	6.5	17.0	26.3	167.5	90.1	136.1	155.1	
Passenger	2,035.4	2,595.9	2,899.7	3,380.6	4,172.4	4,016.2	4,795.9	5,017.8	4,364.5	
Total	Export	71,054.6	79,985.7	83,646.3	88,896.5	96,444.5	118,166.6	108,661.9	105,774.4	95,762.2
	Import	18,399.1	20,035.5	21,954.7	22,861.7	26,997.3	29,598.5	24,520.6	43,152.7	28,812.2
	Total foreign trade	89,453.7	100,021.2	105,601.0	111,758.2	123,441.8	147,765.1	143,182.5	148,927.1	124,574.5
	Domestic trade	87,507.9	94,403.3	108,140.3	113,702.4	124,221.0	146,960.6	142,066.1	171,731.2	121,651.6
	Total cargo	176,961.6	194,424.5	213,741.3	225,460.5	247,662.8	294,725.6	285,248.7	320,658.3	246,226.0
	Container	622.3	703.1	1,000.1	1,223.6	1,455.8	1,941.5	2,277.6	2,607.2	2,121.4
	Passenger	5,169.9	5,941.6	6,572.2	8,225.4	9,561.4	10,232.9	11,884.3	13,255.3	9,306.6

Note: Data of IPC-3 in 1996 is not available
Source: DGSC

Table 6.1.3 Cargo Volume of Foreign Trade Cargo at IPC Ports by Packing Style

Year	IPC	(Unit: thousand tons)				Total
		General Cargo	Bagged Cargo	Dry Bulk Cargo	Liquid Bulk Cargo	
1995	IPC-1	4,357	1,317	4,634	52,927	63,236
	IPC-2	10,256	2,169	12,227	3,958	28,609
	IPC-3	6,216	2,253	15,137	5,215	28,821
	IPC-4	2,036	763	4,295	21,122	28,216
	Total	22,865	6,502	36,293	83,222	148,881
1996	IPC-1	4,910	1,764	5,445	49,842	61,960
	IPC-2*	14,947	11,532	27,609	30,457	84,546
	IPC-3	6,664	2,245	18,269	6,022	33,201
	IPC-4	28,075	595	4,346	183	33,199
	Total	54,597	16,136	55,669	86,505	212,907

Source :DGSC(except IPC-2 in1996)

*: IPC-2

Table 6.2.1 Number of Passenger at IPC Port in 1995 and 1996

Year	IPC	Unit(1,000 persons)		
		Get On	Get Off	Total
1995	IPC-1	1,563	1,234	2,798
	IPC-2	828	814	1,642
	IPC-3	1,558	1,504	3,063
	IPC-4	2,596	2,380	4,976
	Total	6,545	5,933	12,478
1996	IPC-1	1,274	1,314	2,588
	IPC-2	792	814	1,606
	IPC-3	1,550	1,564	3,115
	IPC-4	2,283	2,030	4,312
	Total	5,898	5,722	11,621

Source:DGSC

Table 6.3.1 Number of Containers at IPC Ports in 1995 and 1996

year	IPC	Unloading						Loading						Total				
		20'		40'		Total ton	20'		40'		TEU	Total ton	20'		40'		TEU	Total ton
		20'	40'	TEU	Total ton	20'	40'	TEU	Total ton	20'	40'	TEU	Total ton	20'	40'	TEU	Total ton	
1995	IPC-1	51,829	24,816	101,461	552,496	48,623	25,381	99385	1,223,083	100,452	50,197	200,846	1,775,579	421,678	1,531,408	1,775,579	1,775,579	
	IPC-2	363,678	210,401	784,480	7,898,633	344,845	211,277	746,928	6,775,148	708,523	421,678	1,531,408	14,673,781	205,977	731,844	7,333,903	14,673,781	
	IPC-3	154,032	110,632	375,296	3,364,416	165,958	95,345	356,548	3,969,487	319,990	205,977	731,844	7,333,903	2,696	137,083	1,184,706	7,333,903	
	IPC-4	54,945	1,413	57,771	761,289	75,786	1,283	79,312	423,417	130,731	2,696	137,083	1,184,706	680,548	2,601,181	24,967,969	1,184,706	
	Total	624,484	347,262	1,319,008	12,576,834	635,212	333,286	1,282,173	12,391,135	1,259,696	680,548	2,601,181	24,967,969	57,737	273,986	2,379,551	24,967,969	
1996	IPC-1	84,122	28,982	142,086	995,626	74,390	28,755	131,900	1,383,925	158,512	57,737	273,986	2,379,551	450,738	1,662,679	15,657,543	2,379,551	
	IPC-2	373,193	217,744	808,682	7,615,372	387,997	232,994	853,997	8,042,171	761,190	450,738	1,662,679	15,657,543	204,400	771,252	8,069,339	15,657,543	
	IPC-3	172,234	95,403	363,440	3,689,037	189,818	108,997	407,812	4,380,302	362,052	204,400	771,252	8,069,339	3,159	155,148	1,502,940	8,069,339	
	IPC-4	77,910	1,773	81,456	1,005,272	72,920	1,386	73,692	497,668	150,830	3,159	155,148	1,502,940	716,034	2,863,065	27,609,373	1,502,940	
	Total	707,459	343,902	1,395,664	13,305,307	725,125	372,132	1,467,401	14,304,066	1,432,584	716,034	2,863,065	27,609,373	2,863,065	27,609,373	27,609,373	27,609,373	

Source: DGSC

Chapter 7 PORT DEVELOPMENT PLANS

7.1 Current Long-term Development Plan Related to Ports

7.1.1 "Maritime Sector Development Program in Indonesia"

In 1984 DGSC formalized "Maritime Sector Development Program in Indonesia" (MSDP), a long-term port development program. In this program, "Gateway Port Policy" was advocated as the main port development strategy, in which four ports were designated as international ports handling foreign cargo.

But recent changes in port activities, such as the rapid increase in the number of ports handling import and export cargoes as well as the worldwide trend of containerization, were not envisioned in the above program. Participation of the private sector, which is interested in participating in port development projects, was also not envisioned.

However, since then a long-term port development plan specifically focusing on port development has not been officially formulated.

7.1.2 "Long-term Development Plan"

(1) Outline

In 1969, "Long-term Development Plan I" (PJP I) started as the first long-term national economic development plan. In PJP I, development policy in transportation sector was to support national and regional economic development by providing a transportation means. In PJP I, much was achieved. For example, in the field of sea transportation, pioneer ship fleets operated 9 ships in 1973. At the end of PJP I the number had increased to 26 ships connecting 28 routes with stops at 193 ports. Moreover international sea transportation also became active. However, there were still many things to be resolved, such as the gap between different regions.

Therefore, "The Second Long term Development Plan" (PJP II) started in 1994 consecutively after PJP I. Major challenges mainly related to port development were as follows.

- 1) Sustaining High Economic Growth
- 2) Increasing Equitable Development
- 3) Resolving the Unemployment and Underemployment Problem

In the transportation sector, improvement of the transportation infrastructures as well as improvement of the quality of transportation services, such as improvement of

transportation reliability, were aimed at. In particular, necessity for improving the transportation service in isolated area, especially Eastern Indonesia were described. In the National Transportation System, transportation development policy in PJP II is described as follows.

- 1) Increasing the International Competitiveness
- 2) Expanding Domestic and Foreign Transportation Service Network
- 3) Improving the Skill and Technological capability of Human Resources
- 4) Using Fund Source, Human and Natural Resources effectively and efficiently
- 5) Increasing Environmental Conservation and Life Quality
- 6) Increasing Transportation Safety

(2) Sea transportation sector in PJP II

In PJP II, sea transportation sector including port development is expected to play an important role especially for inter-island and international transportation of the cargo and passengers.

The target volume of sea transportation is shown in Table 7.1.1

Table 7.1.1 The target volume of sea transportation in PJP II

	Unit	1993	End of each Five Year Development Plan				
			1998	2003	2008	2013	2018
Domestic cargo	Million Ton	138.5	167.0	221.0	332.4	505.6	778.0
International Cargo	Million Ton	172.1	210.3	283.5	396.9	575.5	863.3

Source : REPELITAVI

7.2 Five Year Development Plan (REPELITA)

7.2.1 History of the Five year Development Plan

Since REPELITA I, almost 30 years have passed. Based on these REPELITA I ~ VI, port development has been conducted.

During the REPELITA I ~ VI, share of budget of sea transportation for total investment has been 1 ~ 2.5%. Even though port development has played a very important role for socio-economic development, this share is very low compared to the share of other infrastructures, especially considering that Indonesia is the biggest archipelago country. In REPELITAVI, the share of the sea transportation budget for total development budget is about 1.7%,

which is lower than the air transportation budget. (See Table 7.2.1)

Table 7.2.1 Resource Allocation for Transportation under REPELITA I ~ VI
(Rp, million)

	REPELITA					
	I	II	III	IV	V	VI
A. Road	257 (75.0%)	389 (77.7%)	1,475 (66.5%)	4,223 (46.3%)	11,863 (62.7%)	22,195 (67.6%)
B. Land Transportat (Railways, Rreight & Passenger Road Transportat and Ferries)	22 (6.3%)	34 (6.7%)	189 (8.5%)	1,605 (17.6%)	2,327 (12.3%)	3,783 (11.5%)
C. Sea Transportat (Ports & Shipping)	34 (9.8%)	52 (10.4%)	293 (13.2%)	1,970 (21.6%)	2,176 (11.5%)	2,991 (9.1%)
D. Civil Aviation (Airports & Air- crafts)	30 (8.9%)	26 (5.2%)	262 (11.8%)	1,323 (14.5%)	2,554 (13.5%)	3,870 (11.8%)
Total Transport Budget	342 (100%)	500 (100%)	2,218 (100%)	9,121 (100%)	18,920 (100%)	32,839 (100%)
Total Development Budget (in billion Rp)	2,012	3,125	15,845	78,628	107,500	175,933
E. Share of Sea Transport for the total development budget (%)	1.7%	1.3%	2.4%	2.5%	2.0%	1.7%
F. Share of Transport for the total development budget (%)	17.0%	16.0%	14.0%	11.6%	17.6%	18.7%

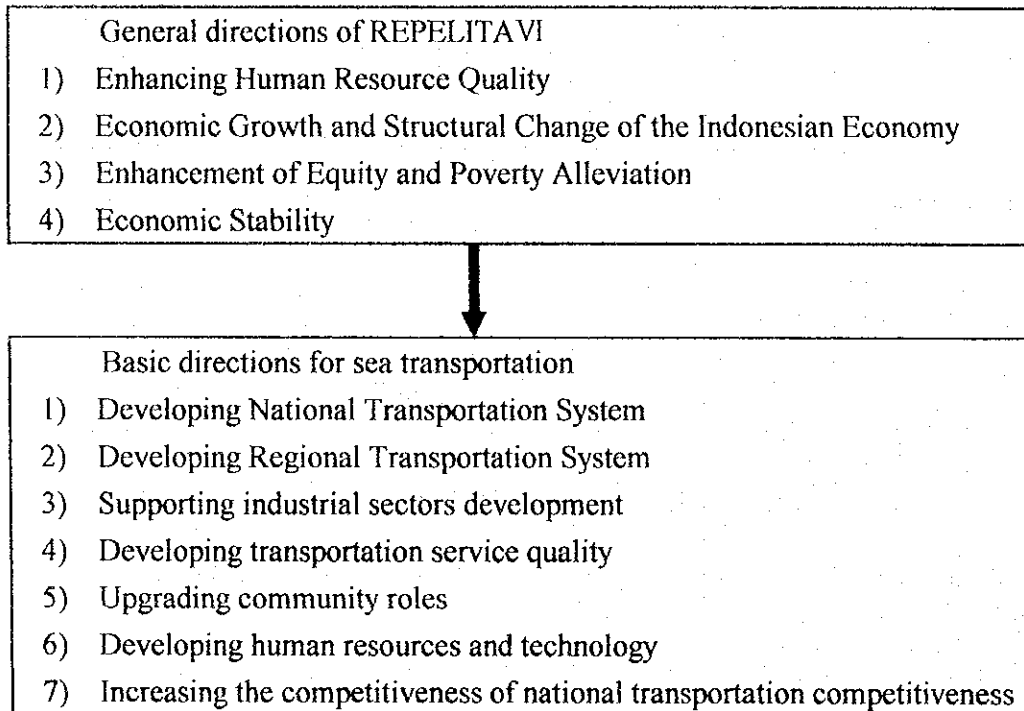
Source : BAPPENAS and DGSC

7.2.2 The 6th Five year Development Plan (REPELITA VI)

(1) General policy related to port development

REPELITAVI started in 1994 as a first step for realizing PJP II. Main pillar of general

directions of REPELITAVI is as follows. In particular, “Economic Growth and Structural Change of the Indonesian Economy” and “Enhancement of Equity” and Poverty Alleviation” are closely related to port development.



(2) Policy of port development

Based on the above general and basic directions as well as based on the steady growth of cargo and passenger in recent years, policy target for port development was determined as follows.

- 1) Increasing international ports which transport direct international cargoes and passengers
- 2) Upgrading certain ports into full or semi container ports
- 3) Increasing the port facilities for handling dry and liquid bulk ports
- 4) Promoting private participation in the field of port development and port service
- 5) Increasing the capacity of the non commercial public ports to improve the living standard of the people in isolated areas
- 6) Improving the container handling port service by introducing ICD (Inland Container Depo), LCD (Local Container Depo) and CDC (Cargo Distribution Center) service.
- 7) Providing the Ro/Ro facilities to cope with the trend of the globalization and international economic cooperation
- 8) Stimulating the productivity and improving the business environment by utilizing

tariff system

REPELITAVI ends in 1998/1999, so realization of this plan cannot be described yet in detail. But up to the third year, the volume of cargo and passengers has been increasing at a much larger growth rate than targeted.

Actual passenger and cargo traffic is described in Table 7.2.2 and in Chapter 9.

Table 7.2.2 Target and Realization of Sea Transportation of REPELITAVI

	Target (A)	Actual (B)	
	Annual Growth rate	Figure	Annual Growth rate
Total domestic passengers (thousand person)	10.6%	13,486 (1996)	17.2%
Total domestic cargo (million ton)	8%	157.36 (1996)	13.33%
Total international cargo (million ton)	6%	349.83 (1996)	13.68%

Source : DGSC

In 1996, the international cargo volume reached almost 350 million tons. This figure already exceeded the target volume of international cargo as of 2003 in PJP II. And in REPELITAVI the growth rate of international cargo is about 14%, which is much higher than the target growth rate of 6% (See Table 7.2.3).

Table 7.2.3 Volume of the Container Cargo Volume

	Thousand TEUs					
	1991	1992	1993	1994	1995	1996
Volume of Container Cargo	1,227.5	1,488.6	1,829.8	2,275.5	2,749.8	3,157.0

Source : DGSC

7.2.3 Draft plan of REPELITAVII

(1) Present situation for preparing REPELITAVII

In April 1998, General direction (GBHN) of REPELITAVII was announced by the Diet.

However, because of the severe currency crisis and political instability, the preparation of REPELITAVII has been suspended. After a new president is elected in 1999, the preparation of REPELITAVII shall be resumed. So, in April, 2000, new GBHN shall be

announced and preparation of the REPELITA VII shall start officially. Thus the preparation of REPELITA VII shall be delayed by almost 2 years.

At present, the Indonesian Government is preparing the "Urgent Plan for the Economic Recovery" which aims at economic recovery in 2 years. (See Volume II, Chapter 8.8.2)

Acknowledgment of the current problems and necessary countermeasures by DGSC is shown in Appendix C.7.2.3.1.

(2) Main Direction of REPELITA VII (Proposal of GBHN)

In the proposal of GBHN, section on dealing with globalization and promoting private sector participation are supposed to be newly added (See Appendix C.7.2.3.2).

Concerning globalization, it is said that "all modes of transportation development should be implemented integrally, so that global development can be attained through transportation development". In promoting private sector participation, it is said that "Roles of private sectors and Government State Enterprises in international transportation system (land, air and sea) must be developed in a business oriented manner. By doing so, important standard market segment can be introduced in the transportation system".

(3) General policies of transportation

General policies of transportation in REPELITA VII are described as follows. Realization of National Transportation System is stressed as main general policy of transportation related to port development. Especially, development of totally efficient transportation system and improvement of the transportation in Eastern part of Indonesia are stated as important policies.

- 1) To develop National Transportation System
- 2) To develop transportation infrastructures considering inter modal transportation
- 3) To build land, sea and air infrastructure for pioneer transportation, especially in the Eastern part of Indonesia as a prioritized area
- 4) To apply EDI system in the terminal

(4) Basic policy for port development

In REPELITA VII, the average annual growth rate for passengers is projected at 14.6% for domestic and 10.8% for international. The average annual growth rate for cargo is projected at 16.6% for domestic and 16.6% for international (See Table 7.2.4).

Table 7.2.4 Annual growth rate targets in REPELITA VII

Items	Target of Annual growth rate
Total domestic passengers (thousand person)	14.60%
Total domestic cargo (million ton)	16.60%
Total international passenger (thousand person)	10.80%
Total international cargo (million ton)	16.60%

Source : DGSC

The sea transportation policies to achieve the above projections are preliminary identified. Summaries are as follows, and details are indicated in Appendix C.7.2.3.3.

- 1) To improve the transportation services and increase the transportation capacity for passengers and cargo
- 2) To actuate balancing and leveling of sea transportation services in Western and Eastern part of Indonesia
- 3) To build international transshipment infrastructure
- 4) To develop the port facilities for supporting socio-economic development and the peoples life
- 5) To develop the container handling capacity, such as Inland Container Depot, Local Container Depot and Cargo Distribution Center
- 6) To provide One Roof Services Center in cargo handling service

Chapter 8 NAVIGATIONAL SAFETY AND WATERWAY MAINTENANCE

8.1 The Present Legislation Governing Navigation Safety

The Government ratified by Presidential Decree the following International Conventions.

No.	International Convention/Code	Date of Effect
1	International Convention for the Safety of Life at Sea (SOLAS), 1960	Jan.26, 1967
	SOLAS 1974	Dec. 9, 1980
	SOLAS PROTOCOL, 1978	Jun.29, 1988
	SOLAS 1981 AMENDMENTS(Construction Requirements)	Sep. 1, 1984
	SOLAS 1983 AMENDMENTS(Life-saving Appliances)	Jul. 1, 1986
	SOLAS 1988 AMENGMENTS(April Ro-Ro)	Oct.22, 1989
	SOLAS 1988 AMENGMENTS(October Ro-Ro)	Apr.29, 1990
	SOLAS 1988 AMENGMENTS(GMDSS)	Feb. 1, 1992
	SOLAS 1989 AMENGMENTS(Passenger Ships Requirements)	Feb. 1, 1992
	SOLAS 1990 AMENGMENTS(Subdivision and Stability)	Feb. 1, 1992
	SOLAS 1991 AMENGMENTS(Fire Protection Requirements)	Jan. 1, 1994
	SOLAS 1992 AMENGMENTS(Damage Stability)	Oct. 1, 1994
	SOLAS 1994 AMENGMENTS(High Speed Craft)	Jan. 1, 1996
	SOLAS 1994 AMENGMENTS(ISM)	Jul. 1, 1998
2	International Regulations for Preventing Collisions at Sea (COLREG), 1972	Oct.11, 1979
3	International Convention on Load Lines, 1966	Nov. 2, 1969
4	International Convention on Tonnage Measurement of Ships, 1969	Jan.25, 1989
5	Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships(MARPOL), 1973/78	Sep. 9, 1986
6	The International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)	-
7	The Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code)	-
8	The International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code)	-
9	The International Maritime Dangerous Goods Code (IMDG Code)	-
10	The Code of Safe Practice for Solid Bulk Cargoes (BC Code)	-
11	International Convention on Standard of Training , Certification and Watchkeeping for Seafarers (STCW), 1978	28 Apr. 1982
12	United Nations Conference on the Law of the Sea, 1982	16 Nov. 1994
13	OPRC, 1990	13 May 1995

Source: Directorate of Marine Safety

In addition to the above, the fundamental system of rules concerning the matter is found in the Chapter V of the Shipping Law 21(1992), which provides navigational aids including telecommunications, hydrography, channels/sea lanes, piloting, inspection of ship's seaworthiness, and salvage/under water works.

Almost all of the regulations stated in the law 21 are of a general nature; further technical or practical provisions are entrusted to the Government Regulations.(e.g. paragraph 8-(6), 21-(4), 23-(2), 35-(5), 44-(3), 55-(5), 76-(3),77-(2), 84-(2).

However, the said Governmental Regulations have not been issued yet, and consequently detailed and practical legal basis concerning navigation safety is actually insufficient.

8.2 Competent Authority

The Directorate General of Sea Communications under the jurisdiction of the Ministry of Communications has control over the maritime safety affairs of the state.

Subdivided duties/functions concerning the affairs into Directorates, Sub directorates and sections in DGSC are schematically shown in Figure 8.1.

Figure 8.1 Shared responsibility in DGSC

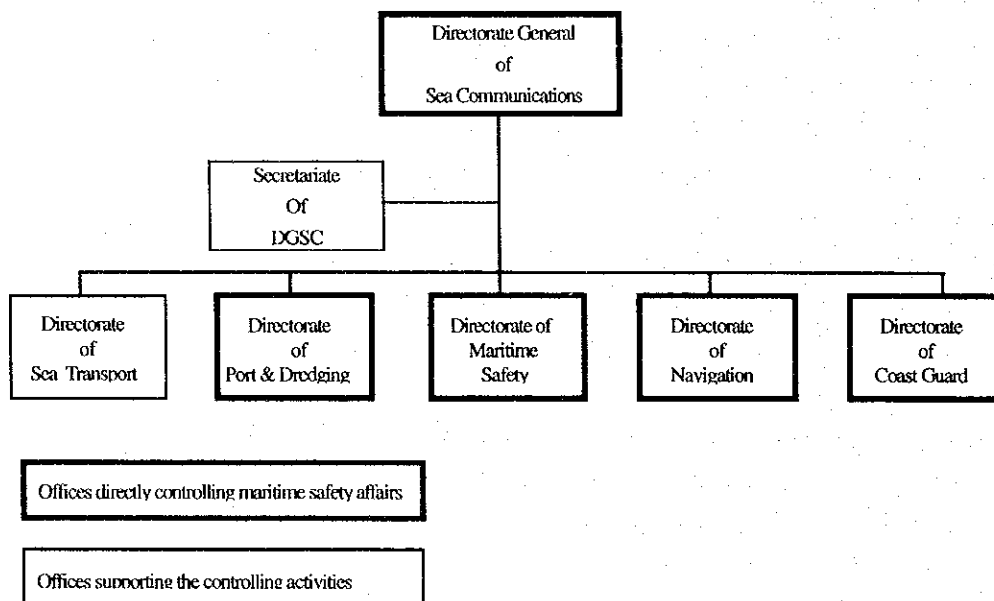
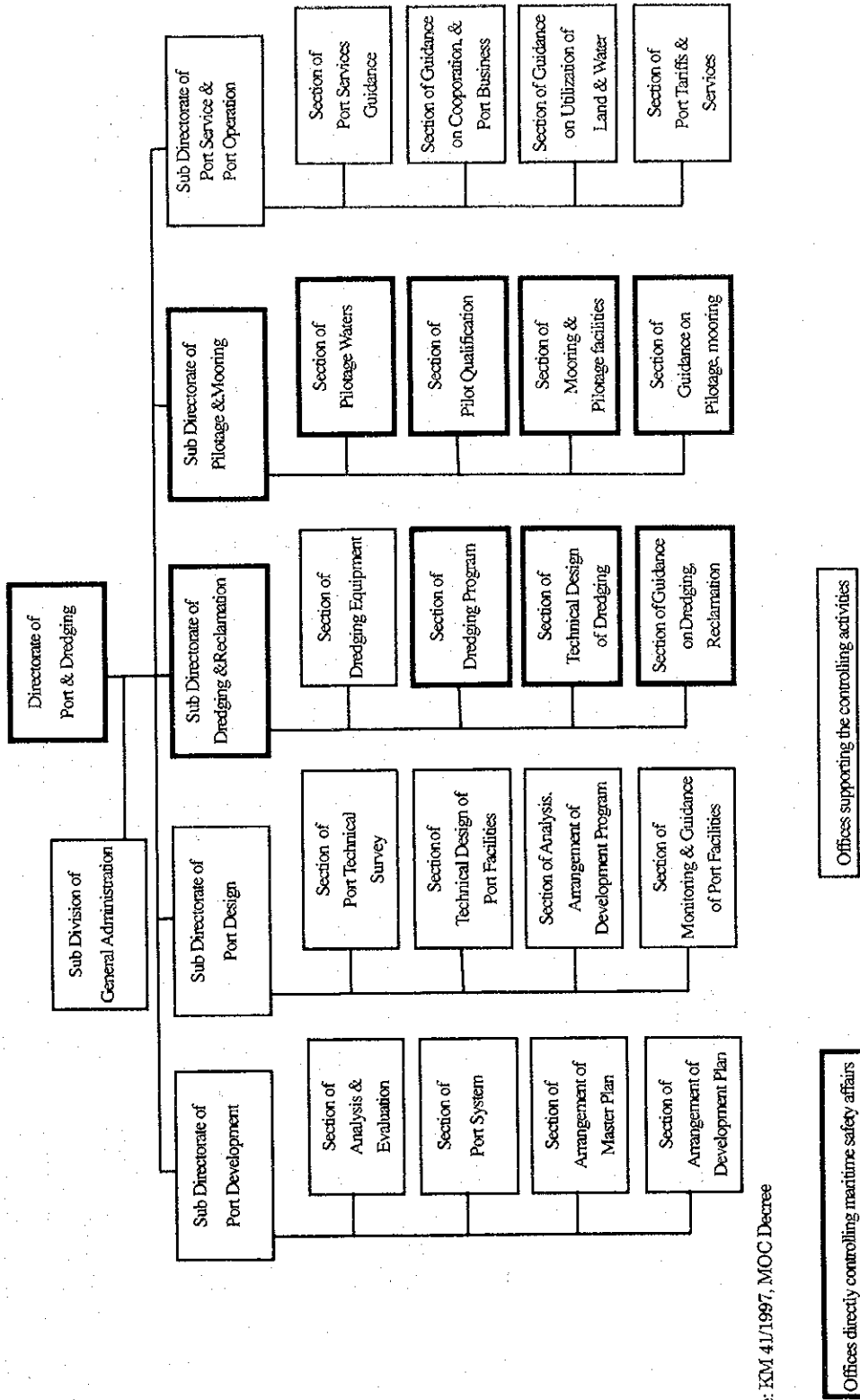
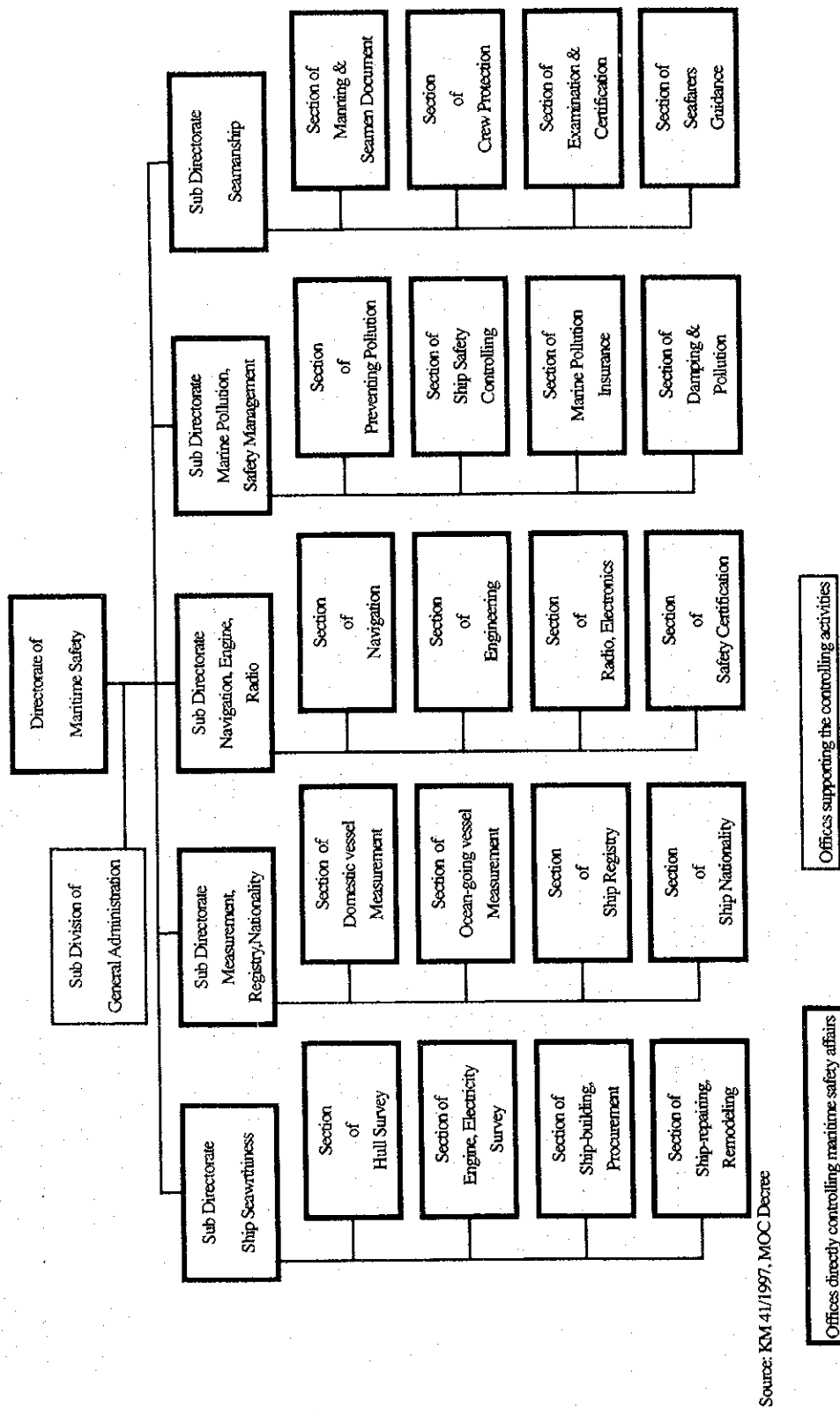


Figure 8.1-A Shared responsibility in Directorate of Port & Dredging



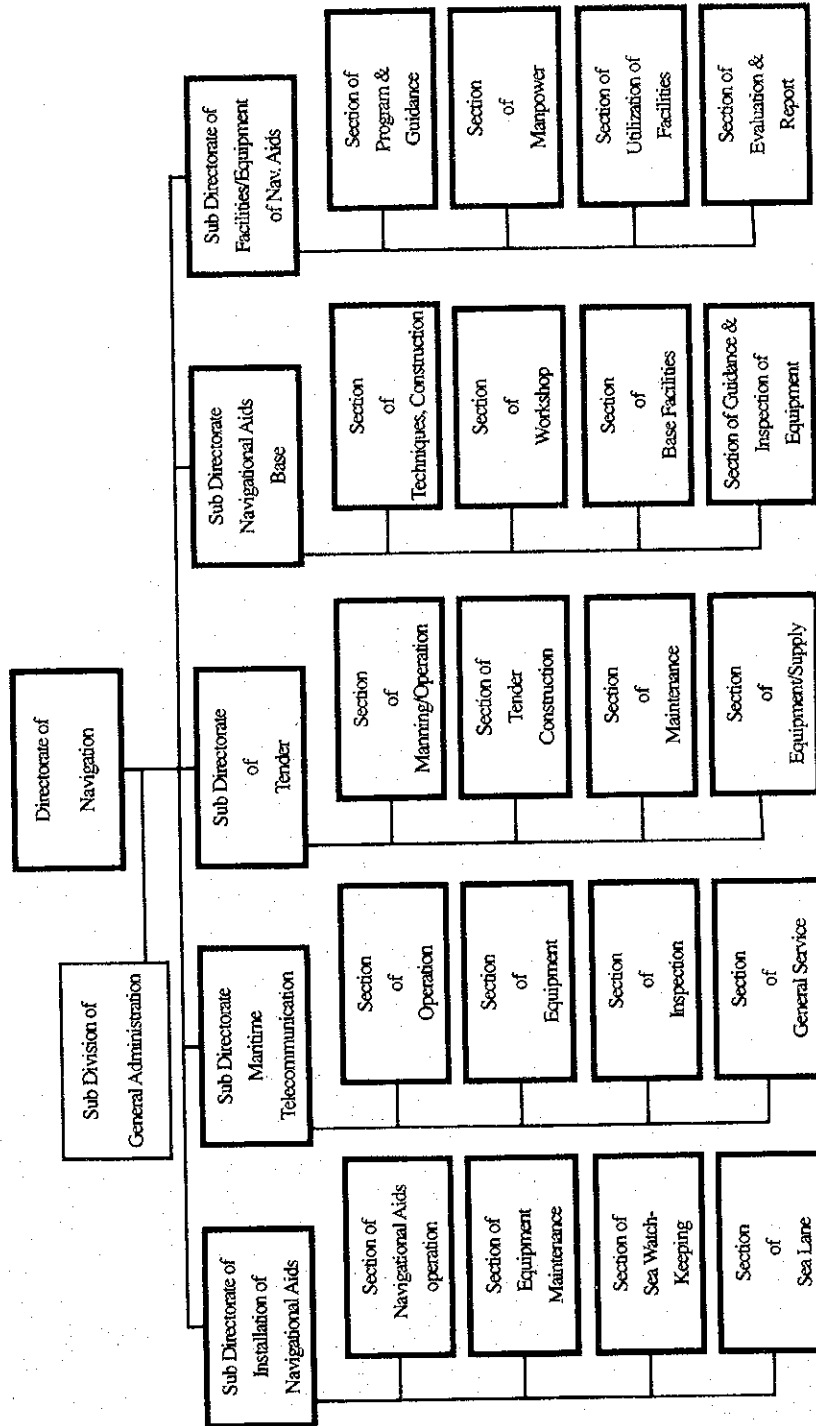
Source: KM 41/1997, MOC Decree

Figure 8.B Shared responsibility in Directorate of Maritime Safety



Source: KM 41/1997, MOC Decree

Figure 8.1-C Shared responsibility in Directorate of Navigation

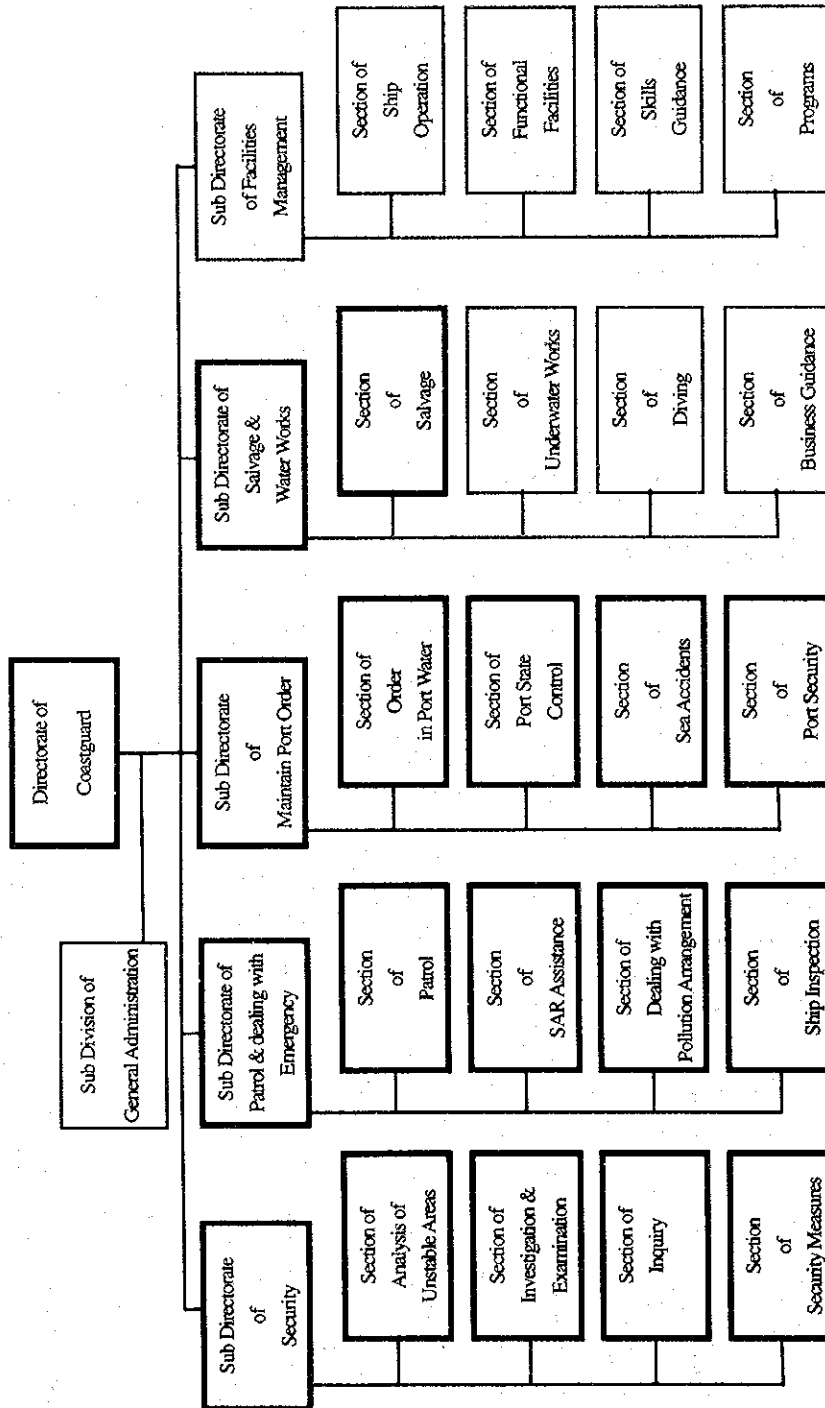


Source: KM 41/1997, MOC Decree

Offices supporting the controlling activities

Offices directly controlling maritime safety affairs

Figure 8.1-D Shared responsibility in Directorate of Coastguard



Source: KM 41/1997, MOC Decree

Offices supporting the controlling activities

Offices directly controlling maritime safety affairs