

## Appendix C.5 POLICY ON PORT DEVELOPMENT

### C.5.1 Policy for Transportation System

#### C.5.1.2 National Transportation System

##### C.5.1.2.1 Port structure (Based on the “National Transportation System”)

- (1) Primary trunk port  
: Batam
- (2) Secondary trunk ports  
: Belawan, Panjang, Bojanegara, Tanjung Priok, Tanjung Emas, Tanjung Perak, Bitung, Ujung Pandang
- (3) Tertiary trunk ports  
: Lhokseumawe, Dumai, Pekanbaru, Tanjung Pinang, Teluk Bayur, Palembang, Cirebon, Cilacap, Bena, Pontianak, Sampit, Balikpapan, Samarinda, Banjarmasin, Batu Licin, Kendari, Anggrek/Kwandang, Tenau Kupang, Ambon, Sorong, Biak, Jayapura
- (4) Regional feeder ports  
: Malahayati, Kuala Langsa, Sibolga, Kuala Tanjung, Jambi, Bengkulu, Pangkal Balam, Cirebon, Tegal, Meneng, Lembar, Maumere, Sampit, Tarakan, Pantoloan, Kendari, Ternate, Dilli, Kumai, Luwuk, Pare-Pare, Ende, Bima, Fak-Fak, Merauke, Manokwari
- (5) Local feeder ports  
: Gunung Sitoli, Tanjung Balai, Bengkalis, Air Bangis, Kuala Tungkal, Toboali, Juwana, Pasuruan, Badas, Kalabahi, Sintete, Gorontalo, Bau-Bau, Tual, Dobo, Nunukan, Pangkalan, Bun, Kendawangan, Toli-Toli, Poso, Ampenan, Pagimana, Banggai, Raha, Bulukumba, Labuhan Bajo, Badas, Wikelo, Larantuka, Sangkulirang/Bontang, Kolonedale, Blinyu, Pangkal Balam, Kuala Enok, Tanjung Pandan, Muara Sabak, Wahai, Sarmi, Serui, Amahai, Larat, Saulaki, Namlea, Tobelo, Bandaneira, Nabire, Kaimana, Amamapare, Sanana, Mangole, Laiwisi, Labuha, Bobong, Sedanau, Selat Lampa, Ranai, Dabo Singkep, Letung, Tarempa, Enggano, Pulau Tello, Siberut, Siuban, Sikakap, Bintuhan, Scumeue, etc.



## Appendix C.7 PORT DEVELOPMENT PLAN

### C.7.2 Five year Development Plan (REPELITA)

Table C.7.2.1 Target Policies and realization in developing the National Transport System

	Policy	Realization
	Building and expanding transportation network	- Coordinating with Communication Department and Public Works Department in building/implementing access road
	Functioning hierarchy of ports	- Establishment of the Port Structure, Trunk port and Feeder port
	Expanding infrastructure standard	- Standardized sea transportation infrastructure
	Simplifying documentation process and other procedure	- Centralized transportation service at 5 main ports Realized joint venture with private sectors in building UTPK III such as Tanjung Priok, Tanjung Perak and Bojonegara - Applied EDI(Electronic Data Interchange) at the main ports ( Tanjung Priok ) - Simplified the procedure for the foreign ship to enter Indonesian territory

Table C.7.2.2 Target policies and realization in developing the Regional Transportation System

	Policy	Realization
	Providing sea Transportation services to the less advanced areas ( especially East Indonesia)	- Provided pioneer transportation services (35 ships per year)
	Increasing private sector participation in pioneer transportation	- Increased private sectors participation
	Increasing transportation services in isolated areas	- Determined pioneer transportation route

Table C.7.2.3 Target policies and realization in supporting industrial sectors development

	Policy	Realization
	Developing transportation system	- Issued deregulation supply ship
	Motivating the industrial development by transportation infrastructure development	- Issued port building licenses
	Developing transportation for tourism area	- Increased port facilities in tourism area ( Belawan, Batam, Bintan, Nias, Teluk Bayur, Tanjung Emas, Bena, Ujung Pandang, Bitung, Ambon and Biak )

Table C.7.2.4 Target policies and realization for developing transportation service quality

	Policy	Realization
	Upgrading schedule of departure and arrival time	- Upgraded schedule for sea transportation
	Reconstructing ships	- Built 80 unit ships of Caraka Jaya type - Realized 32 unit ships ( 111,600DWT), 5 unit ships for calling Palwa Buana and 2 unit container ships ( 400TEU capacity)

Table C.7.2.5 Target policies and realization for upgrading community roles

	Policy	Realization
	Starting joint venture with private sector	- Applied joint venture with private sector especially in port development ( UPKTI at Tanjung Priok, Bojonegara and Tanjung Perak
	Increasing relationship with private service provider (?)	- Providing an authority from the Government to association (?)

Table C.7.2.6 Target policies and realization for developing human resources and technology

	Policy	Realization
	Determining career system	- Issued Ministry decree no. KM 87/1994 about staff level and position
	Expanding education's schedule and qualification requirement	- Issued STCW 1995 about inducement of appropriate education schedule
	Applying high education technology system in field of sea transportation service	- Applied high education about high technology system, such as EDI internet, computer and CCTV (?)

Table C.7.2.7 Target policies and realization for increasing national competitiveness

	Policy	Realization
	Increasing incentives for gaining the international competitiveness by coordinating with relevant agencies	- Simplified procedure for ship - Freed the tax for import ship, renting and delivery
	Expanding bilateral and multilateral relationship	- Expanded regional coordination in field of sea transportation ( IMT-GT, IMS-GT, BIMP-EAGA and AIDA ) - Expanded bilateral relationship especially in the field of sea transportation - Motivated alliance strategy with international shipping company
	Developing the capacity for handling the container cargo	- Provided the Ro/Ro route between Tanjung Priok and Surabaya - Motivated container service by development of ICD(Inland Container Depo), LCD(Local Container Depo) and CDC(Cargo Distribution Center)

### C.7.2.3 Draft Plan of REPELITA VII

#### C.7.2.3.1 Acknowledgment of the Current Problems and Necessary Countermeasures

Table C.7.2.8 Acknowledgment of the Current Problems and Necessary Countermeasures

Current Problems	Countermeasures
<p>a) Quality of the sea transportation service is still low. One trip of Pioneer ship transportation takes long days (approximately 12-26days in average).</p>	<ul style="list-style-type: none"> <li>- Designating the route which is not served by private companies</li> <li>- Increasing the role of pioneer ships</li> <li>- Increasing the capability of shipping company by providing them with investment mechanism with low interest</li> <li>- Increasing coordination which will create the synergy effect for all sectors</li> </ul>
<p>b) Investment for sea transportation development is limited.</p>	<ul style="list-style-type: none"> <li>- Increasing the finance for domestic shipping by a low interest. (ex: Two step loan by OECF Interest rate 2.7% )</li> <li>- Increasing private company participation for port facilities development</li> <li>- Prioritizing the government fund to the port facilities development under non IPCs, such as small ports and basic quays)</li> <li>- Supporting the IPCs to find the port facilities fund by private sectors</li> <li>- Examining the possibility for charging the cost of maintaining the navigation facilities to the users</li> </ul>
<p>c) Organizational establishment for sea transportation is still not effective.</p>	<ul style="list-style-type: none"> <li>- Strengthening the shipping companies by way of alliance with other shipping companies, providing low interest fund and so on</li> <li>- Increasing sea transportation monitoring system and data processing system</li> </ul>
<p>d) Safety and security for sea transportation is not optimum yet.</p>	
<p>e) Human resources competence and technology application is still low.</p>	<ul style="list-style-type: none"> <li>- Developing educational quality, including teachers, educational facilities and curriculums</li> <li>- Increasing port service standard to the international standard quality(ISO) by using Indonesian technology, computer</li> </ul>

f) Environmental conservation and energy saving is not optimum yet.	<ul style="list-style-type: none"> <li>- Formulating the clear regulation for facilities for waste processing</li> <li>- Increasing facility investment for handling waste process</li> <li>- Using the solar energy</li> <li>- Implementing the regulation which stipulate that each ship should have a facility for waste processing in order to conserve the environment</li> <li>- Strengthening the National Contingency Plan(NPC), which is national leading agency for dealing with the oil spilled emergency</li> </ul>
g) Institution and regulation are not well effective.	<ul style="list-style-type: none"> <li>- Preparing the detail rules of Shipping Law no. 21, 1992</li> </ul>

#### C.7.2.3.2 Main direction of REPELITA VII ( Proposal of GBHN )

##### (1) General direction

Transportation system development plays an upgrading role for artery economy, people's life, socio-culture, national policy, security defense, creating healthy condition and obtaining high competitiveness.

Special attention should be given to expanding transportation system in isolated area, especially in Eastern Indonesia..

All mode of Transportation development should be implemented integrally, so that global development can be attained through transportation development.

##### [Roles of transportation]

Roles of Total transportation are as follow.

- Providing reliable, smooth, safe and comfortable national transportation system in order to support and motivate dynamic national and regional development
- Supporting human mobility and distribution system of the goods and services
- Supporting area development and upgrading international relationship
- Uniting the Nusantara areas

##### [ Importance of the private sectors participation]

In order to fulfill community needs and the demand from the national transportation and international trade, reliable transportation facilities should be developed.

In implementing transportation development, creation of healthy competitive condition, such as providing more pioneer ship transportation route, is very important for the private

sectors to be motivated to invest. Roles of private sectors and Government State Enterprises in international transportation system ( land, air and sea) must be developed with business oriented way. By doing so, important standard market segment can be introduced in the transportation system.

Moreover transportation service is crucial parts of the states and affects lots of people. So in formulating the relevant regulation, condition and capacity should be considered.

## (2) Sea transportation

In order to form an Archipelago concept, which unites all Indonesia area and ocean as one unity, sea transportation should be developed. Sea transportation development can ease ship visiting and make industrial, trading and other development activity efficient and effective, especially in the anticipated globalization era.

Also sea transportation development should motivate national development and regional development, especially Eastern Indonesia.

Especially in Nusantara ocean, reliable, safe and effective sea transportation should be provided in order to create job opportunity.

## (3) Shipping

National shipping development should be continuously upgraded and expanded, ????? Sea transportation will be able to be operated efficiently and effectively in supporting national development to unite all Indonesian areas. National sea transportation ships (so called "Armada ") continuously should be developed. In addition, support facilities, strong investment structure, qualified human resources, simple license procedure , taxation system and ship maintenance and repair should be developed in order to compete with international shipping.

For domestic shipping, priority is given to Indonesian Flag. In order to improve inter-island transportation, especially an isolated area, wood vessel and Pioneer ship should be continuously developed and constructed. To fulfill export & import goods necessary infrastructure facilities should be developed.

### C.7.2.3.3 Basic policy for port development (Draft)

#### (1) Upgrading Sea Transportation Service

- 1) Supporting national economic activity by giving the industry sector efficient and effective transportation method
- 2) Upgrading port network (including public port, special port and crossing port) to be efficient and effective national transportation system
- 3) Developing transshipment ports which have function as a collecting port through



which cargoes can be distributed to the consign place

- 4) Upgrading port facilities which can manage to handle the cargoes by government ( especially for wooden shipping and pioneer shipping) in order to resolve regional isolation, abolish poverty and develop economic activity and environmental consideration
  - 5) Coordinating growth among Container terminal, inland container depo, local container depo and cargo distribution center (CDC) in international and domestic ports
  - 6) Upgrading management service quality which was oriented with ISO
  - 7) Upgrading loading and unloading system aiming at "One Unit Serve System (PPSA) in Ports, such as ports of Dumai, Palembang, Panjang, Pontianak, Banjarmasin, Sampit, Balikpapan, Samarinda, Bitung and Ambon
  - 8) Developing information system in serving management at 25 strategic ports, including "Real Time Processing System", "Electronic Data Interchange (EDI)", "Paperless Document Service System", "Just in Time Concept", "Vessel Traffic Information System (VTIS)"
  - 9) Improving productivity for container loading and unloading equipment at main container ports
  - 10) Using pneumatic equipment for liquid bulk cargo loading which has a cruising speed about 300 ton/hour at certain port
  - 11) Utilizing CCTV for handling cargo and operation at main ports
  - 12) Improving the truck control system in access road and inside yard area at main port
  - 13) Upgrading service activity through improving ship service, port facility utilization and productivity
  - 14) Providing port facilities and equipment which are able to accommodate demand of port services
- (2) Increasing budget for sea transportation development
- 1) Optimizing budget for port facility development by allocating budget for prioritized projects
  - 2) Limiting the allocation of government budget for the ports under IPC, by allocating the government budget only for main facilities
  - 3) Emphasizing allocating of the government budget in wooden shipping and pioneer shipping quays development in isolated areas
  - 4) Supporting business growth through simplification of the procedures in ports
  - 5) Supporting IPC to utilizing the peoples money through share selling in money market

- (3) Establishing institutional matter related to the port development
  - 1) Completing the laws and regulations regarding cooperation between government and private sector
  - 2) Improving port charge structure
  - 3) Supporting IPC to upgrade port activity services, increase port facilities and equipments
  - 4) Decreasing the subsidy by the government to the IPC in port facilities development
  - 5) Improving Safety and Security of sea transportation

Appendix C.9 PORT FACILITIES

Table C.9.1.1 Number of Public Port and Special Port

No.	Province	Commercial Port			Non-commercial Port					Special Port			Total
		Str.	Other	Subtotal	Facilit	No. faci	Subtotal	New loca	Total	Port	Wharf	Subtotal	
1	ACEH	1	5	6	8	2	10	0	10	14	11	25	41
2	NORTH SUMATRA	1	7	8	16	29	45	0	45	34	19	53	106
3	RIAU	3 (1)	9	12	27	16	43	3	46	58	57	115	173
4	WEST SUMATRA	1	2	3	6	0	6	0	6	3	4	7	16
5	SOUTH SUMATRA	1	7	8	3	0	3	0	3	57	12	69	80
6	LANPUNG	1	0	1	7	4	11	5	16	1	4	5	22
7	BENGGULU	0	1	1	2	1	3	0	3	0	2	2	6
8	JAMBI	0	4	4	4	4	8	1	9	4	41	45	58
9	D. K. I. JAKARTA	1	2	3	0	0	0	0	0	14	9	23	26
10	WEST JAWA	1	2	3	5	8	13	3	16	4	31	35	54
11	CENTRAL JAWA	1	2	3	7	3	10	0	10	26	31	57	70
12	EAST JAWA	1	7	8	12	6	18	0	18	17	18	35	61
13	BALI	1	1	2	1	6	7	1	8	9	9	18	28
14	EAST NUSA TUNGARA	0	3	3	5	7	12	0	12	14	5	19	34
15	WEST NUSA TUNGARA	1	4	5	19	11	30	4	34	10	9	19	58
16	EAST TIMOR	0	1	1	2	7	9	1	10	1	1	2	13
17	WEST KALIMANTAN	1	6	7	3	1	4	0	4	86	110	196	207
18	CENTRAL KALIMANTAN	0	8	8	0	3	3	0	3	18	93	111	122
19	SOUTH KALIMANTAN	1	1	2	4	0	4	0	4	4	90	94	100
20	EAST KALIMANTAN	2	3	5	6	7	13	0	13	15	123	138	156
21	NORTH SULAWESI	1	2	3	16	20	36	1	37	26	4	30	70
22	CENTRAL SULAWESI	0	2	2	13	9	22	0	22	33	9	42	66
23	SOUTH SULAWESI	1	3	4	16	21	37	1	38	5	2	7	49
24	SOUTHEAST SULAWESI	0	1	1	12	21	33	1	34	5	4	9	44
25	MALUKU	1	2	3	39	17	56	1	57	17	8	25	85
26	IRIAN JAYA	3	3	6	29	79	108	3	111	17	15	32	149
Grand Total		24	88	112	262	282	544	25	569	492	721	1,213	1,894

Table C.9.1.2 Development of Port Facilities and Equipment until 4th Year and Plan for 5th Year of Five Year Development Plan(REPELITA VI)

Facilities	Construction and Development (Physical)											
	5 year Plan			Realization until 4th			Plan for 5th year			5 year total		
	Government	IPC/Private	Total	Government	IPC/Private	Total	Government	IPC/Private	Total	Government	IPC/Private	Total
Berth (m)	12,000	2,850	14,850	9,661	4,697	14,358	1,342	856	2,198	11,003	5,553	16,556
Shed (m <sup>2</sup> )	69,000	11,000	80,000	24,590	1,400	25,990	3,110	-	3,110	27,700	1,400	29,100
Open storage (m <sup>2</sup> )	792,500	107,500	900,000	259,897	465,108	725,005	29,296	274,892	304,188	289,193	740,000	1,029,193
Passenger terminal (m <sup>2</sup> )	19,210	5,040	24,250	15,720	3,232	18,952	2,350	-	2,350	18,070	3,232	21,302
Equipment (unit)	20	30	50	3	25	28	-	22	22	3	47	50
Human resource	-	2,725	2,725	-	2,180	2,180	-	545	545	-	2,725	2,725
Rehabilitation (Physical)												
Name of Facilities	5 year Plan			Realization until 4th			Plan for 5th year			5 year total		
	Government	IPC/Private	Total	Government	IPC/Private	Total	Government	IPC/Private	Total	Government	IPC/Private	Total
	40,800	1,955	42,755	35,874	29,107	64,981	3,680	-	3,680	39,554	29,107	68,681
Shed (m <sup>2</sup> )	33,400	7,450	40,850	7,264	14,296	21,562	-	-	-	7,264	14,298	21,562
Open storage (m <sup>2</sup> )	38,000	1,000	39,000	7,916	60,495	68,411	1,000	-	1,000	8,916	60,495	69,411
Construction and Development (Expense) (Billion Rupiah)												
Name of Facilities	5 year Plan			Realization until 4th			Plan for 5th year			5 year total		
	Government	IPC/Private	Total	Government	IPC/Private	Total	Government	IPC/Private	Total	Government	IPC/Private	Total
	1,529.9	25.5	2,088.9	728.1	11.5	739.6	215.1	2.7	217.8	943.3	14.3	957.6
Berth	59.4	134.6	194.0	26.1	412.6	438.7	3.3	55.8	59.1	29.4	488.4	497.8
Shed	8.6	1.5	10.1	10.7	2.3	13.0	1.7	-	1.7	12.4	2.3	14.7
Open storage	373.5	400.3	773.8	36.3	416.6	452.9	0.9	171.0	171.9	37.3	587.6	624.9
Passenger terminal	-	4.5	4.5	-	3.6	3.6	-	0.9	0.9	-	4.5	4.5
Equipment	Rehabilitation (Expense) (Billion Rupiah)											
Name of Facilities	5 year Plan			Realization until 4th			Plan for 5th year			5 year total		
	Government	IPC/Private	Total	Government	IPC/Private	Total	Government	IPC/Private	Total	Government	IPC/Private	Total
	38.7	1.5	40.2	36.2	34.8	71.0	3.9	-	3.9	40.2	34.8	75.0
Berth	5.0	0	5.0	1.6	0.2	1.8	-	-	-	1.6	0.2	1.8
Shed	5.0	0	5.0	0.1	13.3	13.4	0	0	0	0.1	13.3	13.4
Open storage	Source : DGSC											

Table C.9.1.3 Existing Container Terminal Facilities and Future Development Plan

	Length (m)	Berth		Container Yard		Container Handling Facilities					Handling Equipment			CFS (ME)	
		Width (m)	Depth (m)	Area (Ha)	Capacity (TEUs)	Gantry (Units)	Harbor Mobil Crane (Units)	Transtrainer (Units)	Rubber Tyred Gant (Units)	Top Loader (Units)	Forklift (Units)	Head Truck (Units)	Chassis (Units)		
1	Tg. priok	900	27	11.0	31.4	27,800	8	31			2	13	59	66	
	CT I	510	16	8.6	6.8	7,400	4	1			1	7	15	18	
	CT II	450	40	14.0	15.0	12,900	5	12			1	9	40	45	
	Pasoso				1.5	714							74	84	4,500
2	Future Plan														
	Belawan	500	31	10.0	7.7	8,000	2	5			5	12	12	12	10,400
	Semi Cont.	350	26	10.0	3.0		(4)								12,910
3	Future Plan	(500)	(31)	(10.0)	(11.0)	(8,944)	3	8			1	11	18	18	
	Tg. Perak	420	50.0	8.0	2.2	14,850	5	2			2	24	44	99	10,000
	TPK I (semi)	500	50.0	10.5	12.0			2							
	TPK II	500	50.0	12.0	14,850	4		2					40	40	
4	Future Plan	450	50.0	7.5	5.0	5,000	2						20	20	
	Inner Island														
	Panjang	300	29	12.0	4.5	4,745	2	2			2	12	18	20	6,000
	Berth E	(100)	(29)	(12.0)											
5	Future Plan	345	25	10.0	7.0	7,400	2	3			3	6	10	20	3,464
	Tg. Emas														
	Container	(600)					2	5							
6	Future Plan	490		10.0	2.5	7,616									
	New Hatra	180		12.0											
	U. Pandang						2				5	8	6		3,564
7	Future Plan	200	12	7	3.0	2,000									
	Banjarasin						Land Crane								
	Trisaki (Semi)	40	12	7.0			3								
8	Future Plan	150		9.5	3.9										
	Teluk Bayur														
	(Semi)														
9	Future Plan	150	20		4.6										
	Palembang														
	(Semi)	120	20												5,200
10	Future Plan	100	18	5.5	2.5										
	Pontianak														
	CT07 (Semi)	100	18	5.5			1								
11	Future Plan	390	30	12	12.0										
	CT08 (Full)														
	Balikpapan														
12	Future Plan	130	40	9.0	3.7										
	Bitung (Semi)														
	Container														
13	Future Plan	(1,800)	(32)	(15)	(81)	(214)	(18)								
	*Bojonegara														

Note : \* Preliminary Value

Source : DGSC

Table C.9.1.4 Number of Non-Commercial Ports

No.	Province	Total number of port	With Facility	without Facility	until 4th year Development REPEVI		No.	Province	Total number of port	With Facility	without Facility	until 4th year Development REPEVI			
					Number	New Location						Number	New Location		
1	ACEH	10	8	2	2	0	14	EAST NUSA TUNGGARA	12	5	7	3	0		
2	NORTH SUMATRA	45	16	29	3	0	15	WEST NUSA TUNGGARA	30	19	11	9	4		
3	RIAU	43	27	16	9	3	16	EAST TIMOR	9	2	7	1	1		
4	WEST SUMATRA	6	6	0	3	0	17	WEST KALIMANTAN	4	3	1	1	0		
5	SOUTH SUMATRA	3	3	0	3	0	18	CENTRAL KALIMANTAN	3	0	3	0	0		
6	LANPUNG	11	7	4	6	5	19	SOUTH KALIMANTAN	4	4	0	0	0		
7	BENGKULU	3	2	1	0	0	20	EAST KALIMANTAN	13	6	7	3	0		
8	JAMBI	8	4	4	4	1	21	SOUTH SULAWESI	37	16	21	9	1		
9	D. K. I. JAKARTA	0	0	0	0	0	22	SOUTHEAST SULAWESI	33	12	21	8	1		
10	WEST JAWA	13	5	8	3	3	23	CENTRAL SULAWESI	22	13	9	7	0		
11	CENTRAL JAWA	10	7	3	3	0	24	NORTH SULAWESI	36	16	20	6	1		
12	EAST JAWA	18	12	6	7	0	25	MALUKU	56	39	17	8	1		
13	BALI	7	1	6	1	1	26	IRIAN JAYA	108	29	79	14	3		
Sub-total		177	98	79	44	13	Sub-total		367	164	203	69	12		
Source : DGSC									Total		544	262	282	113	25

Table C.9.1.5(1) Port name of Commercial and Non-commercial Port in each province

1. Port Name List (D.I Aceh)

Commercial	Sabang Kuala Langsa	Malahayati Meulaboh	Ulee Lheue	Lhok Seumawe(46.2) 6 ports
Non Commercial	With Facilities		Without Facilities	
	Idi <u>Singkil(50)</u> P.Serok Calang	Tapak Tuan P.Banyak <u>Sinabang(70)</u> Susoh 8 ports	Sigli Kuala Beukah	2 ports

2. Port Name List (North Sumatra)

Commercial	Pangkalan Brandan Sibolga Teluk Nibung / Bagan Asahan	Belawan Gunnung Sitoli	Kuala Tanjung Pangkalan Susu	Tg. Balai Asahan 8 ports
Non Commercial	With Facilities		Without Facilities	
	<u>Teluk Dalam(100)</u> Hinako Pulau Tello Tg. Beringin Teluk Leidong Natal Sei Berombang Tg. Sarang Elang	<u>Sirombu(35)</u> Lahewa Sigolo-golo <u>Tg.Tiram(30)</u> Labuhan bilik Sialang Buah Pulau Kampai Sikara-kara 16 ports	Lahusa Muale Solonako P.Bias P. Tanah Mas Percut Rantau Panjang Pangkalan Dodek Simandulang Tabuyung Singkuang Sei kubung Barus Muara Tapus Tapak Kuda	Lagundri Lelhelawau Tuhembarua Lab. Hiyu Pantai Cermin Pantai Labu Perupuk Gaja Mati Ajamu Pulau Sembilan Pantai Pukat Manduamas Tg. Pura Kuala Serapu 29 ports

Note 1 : underlined port name is constructed or reconstructed during REPELITA VI

Note 2 : ( ) value is constructed or reconstructed length of berthing facilities

Source : DGSC

Table C.9.1.5(2) Port name of Commercial and Non-commercial Port in each province

3. Port Name List(Riau)

Commercial	Bagan Siapiapi Dumai Bengkalis Selat Panjang Pakanbaru / Parawang Rengat Tembilahan Tg. Pinang Pulan Kijang Kuala Enok Tg. Balai Karimun Siak Indrapura				12 ports
Non Commercial	With Facilities		Without Facilities		
	Pulau Sambu Sungai Pakning Bandul Tg. Samak Tarempa Midai Serasan Tg. Batu Penyalai Sei Buluh Kuala Raja Sinaboi <u>Batu Panjang(30)</u> <u>Sei Kolak Kijang(104)</u>	Tg. Uban Sei Apit Buatan Tg. Kedadu <u>Letung(70)</u> Sedanau Tambelan Sungai Guntung <u>Dabo Singkep(50)</u> <u>Penumba(35)</u> Senayang Panipahan <u>Batam(32)</u>	Pulau Bulan Kurau/Selat Lalang Pasir Panjang Kakap Natuna Sikumbang kundur Daik Parigi Raya Kuala Madah	Bandul Melibur Ranai Udang Natuna Moro Sapat Kuala Gaung Halang	27 ports
	· Now Location <u>Midai(67)</u> <u>Sribintan Pura(15)</u> <u>Payalaman(115)</u>				

4. Port Name List(West Sumatra)

Commercial	Air Bangis	Teluk Bayur	Muara Padang	3 ports
Non Commercial	With Facilities		Without Facilities	
	<u>Toapejat(35)</u> Sikabalu <u>Bake(67)</u>	Siberut <u>Sikakap(67)</u>	Siuban	0 ports
	6 ports			

5. Port Name List(Jambi)

Commercial	Jambi	Muara Sabak	Kuala Tungkal	3 ports
Non Commercial	With Facilities		Without Facilities	
	<u>Simbur Naik(25)</u> <u>Sungai Jambat(25)</u> Kuala Mendahara · New Location <u>Pangkal Duri(30)</u>	<u>Sungai Lokan(25)</u>	Nipah Panjang Air Hitam Laut	Pemusiran Lambur Luar 4 ports
	4 ports			

Note 1 : underlined port name is constructed or reconstructed during REPELITA VI

Note 2 : ( ) value is constructed or reconstructed length of berthing facilities

Source : DGSC



Table C.9.1.5(3) Port name of Commercial and Non-commercial Port in each province

6. Port Name List(South Sumatra)

Commercial	Palembang Sungai Lais	Pangkal Balam Sungai Selan	Tg. Pandan Sungai Liat	Muntok Belinyu	8 ports
Non Commercial	With Facilities			Without Facilities	
	<u>Manggar</u> (40) <u>Sei Lumpur</u> (30)	<u>Toboali</u> (35)	3 ports		

7. Port Name List(Bengkulu)

Commercial	Bengkulu I/ Pulau Baai			1 ports
Non Commercial	With Facilities			Without Facilities
	Malakoni	Bintuhan/Linau	2 ports	Muko-Muko 1 ports

8. Port Name List(Lampung)

Commercial	Panjang			1 ports
Non Commercial	With Facilities			Without Facilities
	Kuala Teladas Kruai Way Seputih Kalianda · New Location <u>P.Tabuan</u> (25) <u>Legundi</u> (25) <u>Ka Penet</u> (25)	Kota Aguhg <u>Maringgai</u> (30) Mesuji 7 ports <u>P. Simbesi</u> (30) <u>Kelumbayan</u> (25)		Manggala Teluk Betung Sungai Burung Way Penet 4 ports

9. Port Name List(DKI Jakarta)

Commercial	Sunda Kelapa	Tg. Priok	Kali Baru	3 ports
Non Commercial	With Facilities			Without Facilities
	0 port			0 port

10. Port Name List(West Jawa )

Commercial	Cigading	Banten/Bojonegara	Cirebon	3 ports
Non Commercial	With Facilities			Without Facilities
	Karangantu Pangandaran Pamanukan · New Location <u>Ma. Cituis</u> (30) <u>Ma. Gebang</u> (30)	Anyer Lor Bojanegara 5 ports <u>Ma. Gembong</u> (30)		Labuhan Indramayu Kresiek Eretan Pelabuhan Balongan M.Binuangeun Kejawanan 8 ports

Note 1 : underlined port name is constructed or reconstructed during REPELITA VI

Note 2 : ( ) value is constructed or reconstructed length of berthing facilities

Table C.9.1.5(4) Port name of Commercial and Non-commercial Port in each province

11. Port Name List(Central Jawa)

Commercial	Semarang	Tegal	Cilacap	3 ports
Non Commercial	With Facilities		Without Facilities	
	Jepara	<u>Karimun Jawa(70)</u>	Brebes	Lasem
	<u>Juwana(70)</u>	<u>Rembang(30)</u>	Wiradesa	
	Batang	Pemalang		
	Pekalongan		7 ports	3 ports

12. Port Name List(East Jawa)

Commercial	Gresik	Tg. Perak	Pasuruan	Probolinggo	8 ports
	Tg.Wangi / Meneng	Kalianget	Tuban	Panarukan	
Non Commercial	With Facilities		Without Facilities		
	Bawean	Masalembo	Sepulu	Branta	
	<u>Telaga biru(30)</u>	Gayam	Besuki	Kamal	
	<u>Sampang(30)</u>	<u>Sapudi(53)</u>	Paiton	Ketapang	
	<u>P.Raas(35)</u>	<u>Sepekan(76)</u>			
	Kangean	<u>Kalbut(30)</u>			
	<u>Brondong (30)</u>	Jangkar	12 ports		6 ports

13.Port Name List(Bali)

Commercial	Benoa	Celukan Bawang	Padang Baai	3 ports
Non Commercial	With Facilities		Without Facilities	
	Nusa penida		Gilimanuk	Kusamba
		1 ports	Sanur	Nusa Lembongan
	• New Location		Labuhan lalang	Buleleng
	<u>Padangbai(30)</u>			6 ports

14. Port Name List(NTB)

Commercial	Lembar	Badas	Bima	3 ports
Non Commercial	With Facilities		Without Facilities	
	Tg. Luar	Pamenang	Tanjung	Labuhan Haji
	<u>Labuhan Lombok(70)</u>			Labuhan Ialar
	<u>Sape(50)</u>	<u>Kempo(35)</u>		Alas
			5 ports	Senggigo
				Calabahi
				Dumpu/Cempi
				Ampenan
				7 ports

Note 1 : underlined port name is constructed or reconstructed during REPELITA VI

Note 2 : ( ) value is constructed or reconstructed length of berthing facilities

Source : DGSC

Table C.9.1.5(5) Port name of Commercial and Non-commercial Port in each province

15. Port Name List(NTT)

Commercial	Waingapu	Ende	Tenau	Kalabahi	Maumere	5 ports
Non Commercial	With Facilities			Without Facilities		
	Larantuka Balauring <u>Reo(38)</u> <u>Rua(50)</u> Wini Baa <u>Ndao(70)</u> <u>Rajua(50)</u> Aimere Naikliu · New Location <u>Maumbawa(70)</u> <u>Waiwadan(35)</u>	Waiwerang Lewoleba Waikelo Atapupu Baranusa Papela Seba <u>Mborong(40)</u> Marapokot	19 ports	Robek Kabir Maritaing Batutua Biu Labuhan Bajo	Baing Kolbano Oelaba Maurole Nangalili	11 ports

16. Port Name List(East Timor)

Commercial	Dili	1 ports
Non Commercial	With Facilities	
	Com · New Location <u>Tibar(50)</u>	Oekusi 2 ports
	Lautem Santana Laga Beaso	Lora Baucau Lalete 7 ports

17. Port Name List(West Kalimantan)

Commercial	Singkawang	Sintete	Pontianak	Telok Air
	Ketapang	Pemangkat	Sambas	7 ports
Non Commercial	With Facilities			Without Facilities
	Paloh/Sakura Air Hitam	<u>Kendawangan(35)</u>	3 ports	Teluk Melano 1 ports

18. Port Name List(Central Kalimantan)

Commercial	Pulau Pisau	Kuala Kapuas	Samuda	Sampit
	Kuala Pembuang	Pangkalan Bun	Sukamara	Kumai 8 ports
Non Commercial	With Facilities			Without Facilities
	0 ports			Kereng Bangkirai Pegatan Mendawai Bahaur 3 ports

Note 1 : underlined port name is constructed or reconstructed during REPELITA VI

Note 2 : ( ) value is constructed or reconstructed length of berthing facilities

Source : DGSC

Table C.9.1.5(6) Port name of Commercial and Non-commercial Port in each province

19. Port Name List(South Kalimantan)

Commercial	Banjarmasin Kotabaru / Batulicin	2 Ports
Non Commercial	With Facilities	Without Facilities
	Satui/Sei Danau Pagatan Kotabaru Simpang Empat Batulicin Gunung Batu Besar 4 ports	0 port

20. Port Name List(East Kalimantan)

Commercial	Nunukan Tarakan Samarinda Balikpapan Kampung Baru	5 ports
Non Commercial	With Facilities	Without Facilities
	<u>Tg. Laut(40)</u> Sangkulirang <u>Tanah Grogot(70)</u> <u>Tg.Redep(50)</u> Tg. Santan Teluk Adang 6 ports	Lhok Tuan Sangata Tg. Selor Kuala semboja Talisayan Sungai Nyamuk Pulau Bunyu 7 ports

21. Port Name List(South Sulawesi)

Commercial	Makassar Pare-pare Paotere Capa Ujung	4 ports
Non Commercial	With Facilities	Without Facilities
	<u>Mamuju(30)</u> Majene <u>Malili(30)</u> Polewali <u>Tinambung(42.5)</u> <u>Selayar(70)</u> <u>Awarange Baru(70)</u> Sinjai <u>Bulukumba(35)</u> Belang-belang <u>Palopo(66)</u> <u>Siwa(40)</u> Biringkasi Jeneponto Palipi Pattirobajo 16 ports · New Location <u>Marabombang(30)</u>	Budong-budong Kalukku Pasang Kaya Sampaga Tappalang Sendana Pamboang Mulunda Campalagian Bira/Tanah Beru Kayu Angin Kambuno Bonerate Pammatata Burung Leo Tujuh-Tujuh Cendrana Barebbo Kading Jampea Bajoe 21 ports

Note 1 : underlined port name is constructed or reconstructed during REPELITA VI

Note 2 : ( ) value is constructed or reconstructed length of berthing facilities

Source : DGSC

Table C.9.1.5(7) Port name of Commercial and Non-commercial Port in each province

22. Port Name List(Southeast Sulawesi)

Commercial	Kendari	1 ports
Non Commercial	With Facilities	Without Facilities
	<u>Tangke Tada(30)</u> Bau-Bau <u>Wanci(70)</u> Boepinang Sikeli <u>Raha(35)</u> <u>Maligano(35)</u> <u>Kolaka(70)</u> Watunohu Langara <u>Molawe(35)</u> <u>Lapuko(35)</u> 12 ports · New Location <u>Pagimana(70)</u>	Pomalaa Dawi-Dawi Toari Bana Bungi Kasipute Lasalimu Dongkala Kaledupa Waha/Usuku Papaliya Ereke Tampo Labuhan Belanda Boranga Lasusua Ranteangin Olo oloho Wollo Torobulu Malombo Munse 21 ports

23. Port Name List(Central Sulawesi)

Commercial	Pontoloan / Donggala Toli-tori	2 ports
Non Commercial	With Facilities	Without Facilities
	<u>Leok(50)</u> <u>Ogoamas(70)</u> Poso Parigi <u>Moutong(60)</u> Ampana Bunta Pagimana <u>Luwuk(50)</u> <u>Salakan(35)</u> <u>Banggai(100)</u> Kolanedale <u>Bungku(50)</u> 13 ports	Lokodidi Palele Kumalele Sabang Ogutua Wakai Sabang/P.Peleng Wosu Wani 9 ports

24. Port Name List(North Sulawesi)

Commercial	Bitung Manado Gorontalo	3 ports
Non Commercial	With Facilities	Without Facilities
	Lirung <u>Miaggas(70)</u> Karatung Melanguane Mangarang <u>Tahuna(15)</u> Marore <u>Petta(30)</u> <u>Kawaluso(35)</u> Ulu Siau <u>Tagulandang(70)</u> Labuhan Uki Kwandang Belang Air Tembaga Rainis 16 ports · New Location <u>Anggrek(120m)</u>	Esang Beo Marompit Tamako Pehe Tumbak Amurang Kotabunan Molibagu Inobonto Kema Boroko Tolinggula Gentuma Tilamuta Bumbulan/Labulo Marisa Popayato Lemito Likupang 20 ports

Note 1 : underlined port name is constructed or reconstructed during REPELITA VI

Note 2 : ( ) value is constructed or reconstructed length of berthing facilities

Source : DGSC

Table C.9.1.5(8) Port name of Commercial and Non-commercial Port in each province

25. Port Name List(Maluku)

Commercial	Ambon	Ternate	Bandaneira	3 ports
Non Commercial	With Facilities			Without Facilities
	Tobelo	Labuha/Babang	Wailei	Tatani
	Soa-siu	Weda	Pulau Amutu Besar	
	<u>Saketa(35)</u>	Gita/Payahe	Guruapin	Gelela
	Sanana	<u>Dofa(70)</u>	Bobong	Wulu
	Namlea	Amahai	Tehoru	Dawera
	Kataloka/Ondor		Geser	Bere-bere
	<u>Tulehu(50)</u>		Kairatu	Air Buaya
	Saparua/Haria		Piru	Ilwaki
	Hitu	Tual	Elat	<u>Dobo(58)</u>
	Batu Goyang		Saumlaki	P.Gebe
	Larat	Tepa	<u>Sarwatu(134)</u>	
	Kaiwatu/Moa		Mangole	
	Jailolo	Daruba	Laiwui	
	<u>Leksula(35)</u>	Wonreli	Wahai	
	Bula	<u>Kobisonta(70)</u>	Buli	
	Kao		39 ports	
• New Location				
<u>Mafa(35)</u>				
			17 ports	

Note 1 : underlined port name is constructed or reconstructed during REPELITA VI

Note 2 : ( ) value is constructed or reconstructed length of berthing facilities

Source : DGSC

Table C.9.1.5(9) Port name of Commercial and Non-commercial Port in each province

26. Port Name List(Irian Jaya)

Commercial	Sorong Jayapura	Fak-Fak Merauke	Manokwari	Biak	6 ports	
	With Facilities			Without Facilities		
Non Commercial	<u>Serui(70)</u> Kaimana Sarmi <u>Waren(70)</u> <u>Janggerbun(70)</u> <u>Windesi(70)</u> Saukorem Teminabuan Waigama <u>Sausapor(70)</u> <u>Pomako/Timika(50)</u> Bintuni Kokas Kimaan Saunek New Location <u>Fatanlap(70)</u> <u>Weru(50)</u>	Nabire/Tlk.Kimi <u>Kabare(42)</u> <u>Teba(70)</u> <u>korido(35)</u> Oransbari <u>Ransiki(42)</u> Wasior Inawatan Kalobo <u>Seget(42)</u> Bade Babo Agats Amamapare 29 ports <u>Numfor(70)</u>		Ansus Poom Kaipuri Wapoga Susunu Selasai Adijaya Etna Betaf Armopa Takar Wardo Korem Makbon Klamano Salawati Kumbati Hiripau Yaosakor Atsy Kepi Gententeri Bian Anggamburan Mindiptanah Arambu Kumbe	Wainapi Dawai Wanggur Kuatisore Lobo Weti Senini Wakde Apauwer Kasonaweja Barapasi Kameri Bosnik Konda Sele Arandai Bomberai Uta Jipawer kamur Tanah Merah Okaba Kaptei Senggo Cabang Tiga Muting Eci	Ambai Napan Nusa Kanoka Karas Pulau Adi Demta Matabor Bagusa Yamna Misbipondi Sailolof Mega Kasim Sagan Kokonao Sawaerma Yamas Pirimapun Tanah Miring Semanggi Bayun Moor Bupui Bulaka 79 ports

Note 1 : underlined port name is constructed or reconstructed during REPELITA VI

Note 2 : ( ) value is constructed or reconstructed length of berthing facilities

Source : DGSC

Table C.9.1.6(1) Foreign Aid during REPELITA V and VI

Foreign Aid during REPELITA V (1988/1989 -1993/1994)		
Source of Finance	Subject	Remark
1.Japan / OECP	1. Dumai Port Development Phase I & II	
	2. Ujung Pandang port Urgent Rehabilitation Project	
	3. Semarang Port Development Phase II stage I	
	4. Semarang Port Development Phase II stage II	
	5. Maritime Transport In Eastern Indonesia Phase I	
	6. Maritime Transport In Eastern Indonesia Phase II	
	7. Maritime Telecommunication Development Phase III	
2.ADB	Ninth Port Project : Balikpapan, Samarinda, Tarakan, Pantoloan, Toli-Toli, Belang-Belang and Pare-Pare	
3.Germany	1.Passenger Vessels (2vessels) 2.Passenger Vessel (1vessel) 3.Dredging Vessel (3Vessels)	
4.Norway	1.Inter-Island Fleet: Advisory Course and Training	
5.France	1.Navigation Aid: 26beacons	
6.Spain	1.Navigation Aid: 25light house,76beacons,60floating buoy	
7.Export Credit	1.Navigation ship: 5units	
Foreign Aid during REPELITA VI (1994/1995-1998/1999)		
1.Japan / OECP	1. Dumai Port Development Phase II	
	2. Ujung Pandang port Urgent Rehabilitation Project	
	3. Semarang Port Development Phase II Stage I	
	4. Semarang Port Development Phase II Stage II	
	5. Maritime Transport In Eastern Indonesia Phase I	
	6. Maritime Transport In Eastern Indonesia Phase II	
	7. Maritime Telecommunication Development Phase III	
	8. Kupang and Bitung Port Development Project	
2.ADB	1. ADB Confinance JEXIM: Pilot Boat	
	2. Study : Port of Belawan Technical Assistance	
	3. Study : Balikpapan,banjarmasin and Gresik Port Development Project	
	4. Study : Privete Sector Participation for transportation Sector	
3.IBRD	1.Study : Southern Sumatra and West Jawa port Development	
4.IDB	1.Ujung Pandang Port Container Handling Facilities Procurement	
5.Germany	The 16th - 20th Ship	
6.Norway	1.Inter-Island Fleet Development	
7.France	1.Navigation Aid: 26Light	
8.Export Credit	1.Navigation ship: 7units	
9.US EXIM Bank	1.5unit split barges, 1unit tug boat and spare parts	



Table C.9.1.6(2) Plan for Foreign Aid during REPELITA VII

Plan for Foreign Aid during REPELITA VII (1999/2000-2003/2004)		
Source of Finance	Subject	Remark
1. Japan / OECF	1. Kupang and Bitung Port Development Project	
	2. Dumai Port Development Project Phase III	
	3. Small Port Development Project (12port)	
2.ADB	1. Belawan,Banjarmasin and Balikpapan Development Project	
3.IBRD	1. Procurement of Container Crane in Belawan Port	

Table C.9.1.6(3) Foreign Aid Proposal for Blue Book (1998)

Subject
1. Development of Local port in Eastern Indonesia
2. Belawan,Banjarmasin and Balikpapan Development Project
3. Development Project of Inland Container Terminal for Ujung Pandang
4. Urgent Development Plan of Semarang Port Phase III
5. The Deepening and Widening of Channel Banjarmasin Port
6. The Deepening and Widening of Channel Surabaya Port
7. Modernization Port of Tanjung Perak
8. Procurement of Maritime Disaster Prevention Ship
9. Development and Improvement of Marine Aids to Navigation
10.Maritime Safety Training Centre
11.Upgrading of Oil Spill Response Capabilities in Indonesia
12. Study of The Maritime Traffic Safety System Development Plan
13.Monitoring & Management Environmental Study for Commercial port
14.Feasibility Study on Vessels traffic Services for Malacca and Singapore Straits
15.Technical Assistance for Feasibility Study for Development Port of Telok Air in West Kalimantan
16.The Study of River Port Development
17.Domestic Shipping Modernization in Indonesia
18.Procurement of 6 units Container Vessel for PT.Djakarta Lloyd
19.Procurement of 2 units Ro-Ro Vessels and Spare Parts Project
20.Procurement 10 units of Pioneer Inter Island Passenger Vessels

Table C.9.1.7(1)-1 Existing Port Facilities In Main port

No.	Province	Location	Port Classification	Present Condition of Port								Infrastructure				Remarks					
				Access Channel Length, Width, Depth (km, (m), (m))	Basin Depth (Ha)	Area (m)	Brackwater Length (m)	Container Berth Full/Sem Len Dep F/S (m), (m)	Conventional Length Depth (m)	Bulk Terminal Length Depth (m)	Passenger Terminal Length Depth (m)	Small or Pioneer Length Depth (m)	Conventional Length Depth (m)	Bulk Terminal Length Depth (m)	Passenger Terminal Length Depth (m)		Small or Pioneer Length Depth (m)				
1 (I)	ACEH	Sabang																			
		Lhok Seumawe	Tertiary	L 0.6 W 200 D 10	A 40 D 10		1,000			L 32 D 9	L 195 D 4.5	L 288 D							wooden deck		
		Malahayati	Regional		A 156 D 6.5					L 567 D 9.5									transferred from AAF		
2 (I)	NORTH SUMATRA	Meulaboh	Regional		A 15 D 1.5					L 100 D 7											
		Kuala Langsa	Regional	L 7 W 80 D 6	A 15 D 7					L 52.5 D 1.5											
		Pangkalan Susu		L 20 W 60 D 5.7						L 75 D 8											
3 (I)	RIAU	Belawan	Secondary	L 20 W 100 D 10	A 4.117 D 6.5-10					L 2562 D 6-10	L 350 D 7*	L 215 D 9							*Multi/liquid cargo		
		Tg. Balai Asahan	Regional		A 10 D 6-12					L 80 D 6										past of INALUM	
		Sibolga	Regional	L 21 W 80 D 1.5	A 7.5 D 2.5					L 204 D 1.5	L 138 D 5-7	L 893 D 8*	L 86 D 3.5	L 146 D 2						*Multi purpose	
4 (II)	WEST SUMATRA	Dumai	Tertiary	L 57 W 250 D 18	A 74 D 7-10					L 617 D 3-8											
		Tg. Pinang	Tertiary	L 19 W 100 D 3.5-8	A 315 D 3.5-8					L 346 D 4-6*											
		Fekambaru	Tertiary	L 161.5 W 60 D 6	A 2.8 D 6					L 31.5 D 0.5											
5 (II)	SOUTH SUMATRA	Bagan Siapi-api	Tertiary	L 6.7 W 100	A 0.5 D 1					L 75 D 4.5		L 18 D 2.5									
		Bengkalis								L 207 D 7		L 10 D 2.5									
		Selat Panjang		L 19.6 W 100	A 64 D 6.5					L 60 D 7											
6 (II)	SUMATRA	Tembilahan		L 58 W 100	A 10 D 7					L 100 D 6											
		Kuala Enok		L 5 W 30 D 7	A 40 D 8					L 70 D 5											
		Tg. Balai Karimun		L 6 W 30 D 1.5	A 57 D 4-8																
7 (I)	BENGKULU	Rengat		L 71.25 W 100 D 5-8	A 2.25 D 6.5																
		Batam	Primary																		
		Teluk Bayer	Tertiary	L 1.8 W 150 D 10	A 22.4 D 12		1,199		Semi L 150 D 9.5	L 940 D 9.5	L 248 D 9.5										
8 (I)	LAMPUNG	Air Bangis			A D 1.5					L 53 D 1.5											
		Jambi	Regional	L 140 W 80 D 4.5	A 3 D 4					L 400 D 7											
		Palembang	Tertiary	L 111 W 120 D 6	A 100.4 D 9/11				Semi L 265 D 9.2	L 475 D 7		L 100 D 6*									
9 (II)	WEST JAWA & DKI JAKARTA	Muntok								L 25 D 3											
		Pangkal Balam	Regional		A 2.3 D 2/5					L 654 D 5											
		Bengkulu	Regional	L 107 W 120 D 11	A 1,000 D 2-11					L 150 D 9	L 125 D 9										
10 (III)	CENTRAL JAVA	Panjang	Secondary		A 55 D 12					L 1,007 D 7-12											
		Banten (Ciwanda)	Secondary	L 0.7 W 150 D 13	A 54.8 D 7/10					L 322 D 10-15	L 132 D 7										
		Sunda Kelapa			A 24.9 D 3-4																
11 (III)	EAST JAVA	Tg. Priok	Secondary	L 2 W 200 D 13	A 424 D 12					L 7,090 D 7	L 2300 D 7.5-12	L 600 D 7.5-12									
		Cirebon	Ter. Reg	L 1.7 W 70 D 7	A 8.5 D 3/7		1,711			L 713 D 6-7	L 131 D 7										
		Tg. Emas	Secondary	L 33 W 150 D 9	A 97 D 4/9		5,100			L 605 D 9	L 180 D 3-8	L 150 D 7									
12 (III)	BALI	Tegal	Regional							L 783 D											
		Cilacap	Tertiary	L 17.6 W 70 D 9	A 180 D 7					L 495 D 7.5-9	L 10 D 7										
		Tg. Perak	Secondary	L 46.3 W 100 D 9.7	A 1,634 D 9/12				Semi L 590 D 10.5	L 5,385 D 4-9.5		L 400 D 9-10									
13 (III)	JAVA	Probolinggo	Regional	L 2 W 50 D 5	A 6.1 D 2					L 1,460 D 1											
		Meneng kali Anget	Regional	L W D 20	A 316 D 12					L 388 D											
		Pasuruan	Regional							L 80 D 4											
14 (III)	BALI	Gresik	Regional							L 1,130											
		Benoa	Tertiary	L W 160 D 9.5	A D 4					L 250 D 6											
		Celukan Bawang		L 0.7 W 350 D 17	A 10 D 9					L 186 D 4-6	L 30 D 5	L 290 D 9									

Table C.9.1.7(1)-2 Existing Port Facilities In Main port

No.	Province	Location	Port Classification	Present Condition of Port Infrastructures										Remarks
				Access Channel Length, Width, Depth (km) (m)	Basin Depth (Ha) (m)	Area (m)	Breakwater Length (m)	Container Berth Full/Sem Len Dep (m) (m)	Conventional Length Depth (m) (m)	Bulk Terminal Length Depth (m) (m)	Passenger Terminal Length Depth (m) (m)	Small or Pioneer Length Depth (m) (m)		
13 (III)	WEST NUSA TUNGGARA	Lembar	Regional	L 0.3 W 150 D 20	A 76 D		L 218 D 7		L 199 D 6	L 120 D	L 200 D 3			
		Badas	Local	L 0.3 W 150 D 20	A 9 D 3/17		L 199 D 6		L 140 D 6		L 50 D 4			
		Bima	Regional	L 7.5 W 1,000 D 25	A 30 D 12		L 323 D 7		L 193 D 8		L 100 D 4			
		Tenau/Kupang	Tertiary	L 5.7 W 2,760 D 20	A 2,858 D 50		L 175 D 6		L 140 D 6		L 60 D 4			
14 (III)	EAST NUSA TUNGGARA	Wangapu	Regional				L 110 D 6		L 140 D 6		L 100 D 4			
		Ende	Regional				L 240 D 6							
		Mauwere	Regional				A D 0.5							
15 (III)	EAST TIMOR	Kalabahi	Regional											
		Dilli	Regional	L 3 W D 0.5										
		Singawang	Regional	L 20 W 80 D 5.5	A 21.4 D 5		L 517 D 6		L 140 D 6		L 200 D 4			See Sintete
16 (II)	WEST KALIMANTAN	Pontianak	Tertiary	L 4 W D 1.3			L D 2.5				L 100 D 5			
		Katapang	Tertiary	L 7 W D 2.5			L D 3.5				L 335 D 4			wooden deck and Singawang
		Sintere	Tertiary	L 40 W D 7			L D 2.5				L 100 D 5			
		Telok Air	Tertiary	L 3.5 W D 1			L D 1.0							
		Sambas	Tertiary	L 40 W 400 D 0.5	A 0.6 D 3									
17 (III)	CENTRAL KALIMANTAN	Kuala Kapus	Local				L 300 D 6				L 190 D 4			
		Kumai	Local				L 418 D 6				L 306 D 3			
		Sampit	Ter.Reg				L 590 D 5-9		L 40 D 7		L 428 D 4			incl. PELRA
18 (III)	SOUTH KALIMANTAN	Banjarmasin	Tertiary	L 25 W 55 D 6	A 3 D 4		Semi L 240 D 7				L 70 D 9			
		Batu Licin	Tertiary	L 32 W 120 D 19			L 70 D 5				L 24 D 3			
		Kotabaru	Tertiary	L 19 W 25 D 16	A 3.03 D 8/15		L 239 D 5				L 100 D 6			
		Balikpapan	Tertiary	L 59 W 70 D 7	A 20 D 7		L 329 D 7				L 102 D 4			
		Samarinda	Tertiary				L 827 D 7				L 50 D 5			
		Nunukan	Local				L 160 D 6							
		Tarakan	Regional	L 28 W 150 D 9	A 1 D 7		L 250 D 7							
20 (IV)	SOUTH SULAWESI	Makassar	Secondary	L 3 W 125 D 18	A 319 D 12		L 1,000 D 8		L 360 D 7		L 520 D 3			
		Pare-Pare	Regional	L 5 W 50 D 18	A 5 D 8		L 437 D 6				L 100 D 4			
21 (IV)	SOUTHEAST SULAWESI	Kendari	Ter.Reg	L 10 W 150 D 20	A 37.5 D 8		L 331 D 6				L 80 D 3			
		Pantoloan	Regional	L 16 W 320 D 30	A 10 D 9		L 230 D 7				L 100 D 3			
		Toli-Toli	Local	A 3 D 6			L 155 D 7							
22 (IV)	SULAWESI	Luwuk	Regional								L 100 D 4			
		Bitung	Secondary	L 16.2 W 4,000 D 68	A 4.3 D 14		L 1,207 D 7		L 146 D 7		L 60 D 4			
		Manado	Local	L 8 W 200 D 15	A 1 D 7						L 53 D 2			
23 (IV)	NORTH SULAWESI	Gorontalo	Regional				L 134 D 6							
		Anggrek	Regional				L 100 D 8							Under construction
		Ambon	Tertiary	L 24 W 400 D 200	A 635 D 10		L 617 D 7				L 100 D 4			
24 (IV)	MALUKU	Terate	Regional	L 11.2 W 1.3 D 4	A 1.9 D 7		L 400 D 7				L 50 D 3			
		Sorong	Tertiary	L 5.6 W 800 D 20	A 93 D 9		L 280 D 7							
		Biak	Tertiary	L 6.4 W 360 D 16	A 50 D 9		L 262 D 7							
		Jayapura	Tertiary	L 4.8 W 500 D 50	A 500 D 9		L 132 D 7				L 33 D 4			
		Fak-Fak	Regional	L 1.5 W 556 D 8	A 2 D 6		L 154 D 5							
		Manokwari	Regional	L 4 W 926 D 13	A 24.98 D 6		L 163 D 7				L 50 D 3			
		Merauke	Regional	L 9.6 W 100 D 15	A 1 D 6		L 74 D 5				L 50 D 3			

Source : DGSC

Table C.9.1.7(2)-1 Existing Port Facilities In Main port

No.	Province	Location	Port Classification	Present Condition of Port Facilities										Remarks			
				Container Yard (ha)	Container Handling Lorry/No./Cap	Container Handling Stock Yard Operation:Facilities Name/No./Cap.	Container Freight Station (m2)	Open Storage Area (m2)	Shed facilities Area (m2)	Cargo Handling Equipment /no./Cap	Passenger Terminal Area (m2)						
1 (I)	ACEH	Sabang	Tertiary							9,410							
		Lhok Seumawe	Regional							20,158	2,000	MC / 2 / 10-25		290			
		Malahayati	Regional							30,820	10,802	MC / 2 / 15		788			
2 (I)	NORTH SUMATRA	Meulaboh	Regional							500	800	FC / 2 / 5					
		Kuala Langasa	Regional														
		Pangkalan Susu	Secondary	9.5	GC / 2 / 40	Top Loader / 5 / 40 Travel lift / 4 / 40	7,300	96,915	70,000	MC / 5 / 25-40 FL / 20 / 2-15				7,605			
3 (I)	RIAU	Belawan	Regional							6,125	3,820	FC / 2.1 / 3.5		645			
		Kuala Tanjung	Regional							1,783	2,900			160			
		Tg.Balai Asahan	Tertiary							11,175	18,066	MC / 2 / 35-40		1,100			
		Sibolga	Tertiary							2,000	2,400	MC / 2 / 5-15		2,443			
		Dumai	Tertiary							5,215	1,920	MC / 3 / 2.5-8		188			
		Tg.Pinang	Tertiary											70			
		Pekanbaru	Tertiary											196			
		Bagan Siapiapi												760			
		Bengkalis									1,600	1,120			159		
		Seiat Panjang										300					
4 (II) 5(II)	WEST SUMATRA JANBI	Tembilahan															
		Kuala Enok															
		Tg.Balai Karimun									2,400	400					
		Rengat															
		Batari	Primary														
		Teluk Bayer	Tertiary	3.9		TL / 1 / 40	5,250	724,500	12,400	MC / 1 / 25							
		Air Bangis	Regional		0.6			2,650	1,860	MC / 2 / 15-50							
		Yambi	Tertiary		4.5	TL-SL / 1.2 / 40	6,000	35,000	897,200	MC / 2 / 25-35							
		Palembang															
		Muntok									6,700	1,760	MC / 1 / 15				
6 (II)	SUMATRA	Pangkal Balam	Regional							5,700	3,850						
		Bengkulu	Regional			MC / 1 / 25											
7 (II)	BENGKULU	Panjang	Secondary	4.5	GC / 2 / 40	TT / 3 / 40	6,000	19,088	19,102	MC / 2 / 25							
		Banten(Ciwanda)	Secondary							22,400	1,500	MC / 1 / 15					
9 (II)	WEST JAWA & DKI JAKARTA	Banten(Ciwanda)	Secondary							4,517	33,000						
		Sunda Kelapa	Secondary	54.7	GC / 17 / 40	TT / 56 / 40	4,500	260,000	189,000	TL SP / 3 / 24-35			9,000				
		Tg.prok	Ter.Reg							55,600	33,300	MC / 3 / 10-25					
10 (III)	CENTRAL JAVA	Cirebon	Secondary	7.0	GC / 2 / 40	TT / 6 / 40	3,564	122,500	40,400	MC / 8 / 5			4,530				
		Tg.Emas	Regional							5,380	840	FL / 1 /					
		Tegal	Tertiary							21,200	7,100	MC,FL / 1.4 /					
11 (III)	EAST JAVA	Cilacap	Secondary	14.4	GC / 5 / 40	TT,RTG / 15 / 40	10,000	110,147	122,317	FC / 82 / 5			7,129				
		Tg.Perak	Regional							10,000	17,280	FL / 2 / 5					
		Probolinggo	Regional							32,450	8,050	MC,FL / 1.6 / 25,		200			
12 (III)	BALI	Meneng	Regional							2,030	690			300			
		kali Anget	Regional							32,900	1,400						
		Pasuruan	Regional							6,880	1,400	MC,FL / 1.1 / 11.11					
		Gresik	Tertiary						6,400	1,614	FC / 2 / 5		1,400				
		Benoa							13,600	810							
		Celukan Bawang															

Table C.9.1.7(2)-2 Existing Port Facilities In Main port

No.	Province	Location	Port Classification	Present Condition of Port Facilities							Remarks	
				Container Yard (ha)	Container Handling Load/unload Name /No./ Cap	Container Handling Stock Yard Operation Facilities Name/ No./ Cap.	Container Freight Station (m2)	Open Storage Area (m2)	Shed facilities Area (m2)	Cargo Handling Equipment name /no./Cap		Passenger Terminal Area (m2)
13 (III)	WEST NUSA TUNGGARA	Lembar	Regional					12,750	720	FL/ 1/3	500	
		Badas	Local					2,700	600		300	
14 (III)	EAST NUSA TUNGGARA	Bima	Regional					20,000	2,500	MC,FL/1.6/5	700	
		Tenau/Kupang	Tertiary					2,250	800		300	
		Waingapu	Regional					2,000	2,450		720	
		Ende	Regional					3,100			300	
15(III)	EAST TIMOR	Maumere kalabahi	Regional					480	200		300	
		Dilli	Regional					6,270	3,225		400	
16 (II)	WEST KALIMANTAN	Singkawang						1,300	2,030			
		Pontianak	Tertiary	0.4				9,080	19,800	MC/ 2/25		
		Ketapang										
		Simete										
17 (III)	CENTRAL KALIMANTAN	Telok Air										
		Sambas										
		Kuala Kapuas kumai	Local					1,000	980			
18 (III)	SOUTH KALIMANTAN	Sampit	Ter.Reg					3,000	1,310		500	
		Banjarmasin	Tertiary	2.8	LC/2.1/25.50	CS/ 2/40		21,900	12,430	MC/ 2/25	2,110	
		Batu Licin	Tertiary						800			200
19 (IV)	EAST KALIMANTAN	Kotabaru							430		300	
		Bahkpapan	Tertiary					12,900	3,170	MC/3/25-35	2,500	
		Samarinda	Tertiary					21,116	4,400	MC/ 1/15	1,260	
		Nunukan	Local					1,000	570			
20 (IV)	SOUTH SULAWESI	Tarakan	Regional					5,890	1,720		1,268	
		Makassar	Secondary	7.5	RS,TL/3.2/42.35			43,500	20,200	MC/3/25-40	3,620	
		Pare-Pare	Regional					12,767	456			
21(IV)	SOUTHEAST SULAWESI	Kendari	Ter.Reg					8,600	1,000		500	
		Pantoloan	Regional					6,700	4,350		2,000	
22 (IV)	SULAWESI	Toli-Toli	Local					2,100	900		840	
		Luwuk	Regional					623	750		300	
23 (IV)	NORTH SULAWESI	Bitung	Secondary					36,000	5,000	CS/ 1/25	2,750	
		Manado							6,480			
		Gorontalo	Local					2,800	1,560		2,000	
24 (IV)	MALUKU	Angrek	Regional									
		Ambon	Tertiary					10,180	6,210	MC/ 1/25	103	
		Temate	Regional					1,000	2,284		650	
		Sorong	Tertiary					7,000	1,950		1,226	
25 (IV)	IRIAN JAYA	Blak	Tertiary					10,000	4,700		400	
		Jayapura	Tertiary					11,700	3,020	MC/ 1/25	1,200	
		Fak-Fak	Regional					1,200	600		390	
		Manokwari	Regional					6,100	600		2,000	
		Merauke	Regional				2,450	640		240		

Source : DGSC

Table C.9.1.7(3)-1 Existing Port Facilities In Main port

No.	Province	Location	Port Classification	Present Condition of Port and Hinterland							Remarks
				Port Area Sea / Land (Ha) (Ha)	Road in Port Area Length(m)/Width(m)	Access Road Length/Width (m)	Access Rail/Ways	Port Service Facilities	Parking Area (m <sup>2</sup> )	Typical Soil condition	
1 (I)	ACEH	Sabang	Tertiary	314 / 11.9	L512 W5.5 A8.320	L 1,500 W 6				sandy clay	
		Lhok Seumawe	Regional	10,496/41.6	L300 W5.5 A1.650						
		Malahayati	Regional	700 / 23.1							
		Meulaboh	Regional	232 / 0.45	L1,500 W6 A9,000						
		Kuala Langasa	Regional	36,000/13.4							
2 (I)	NORTH SUMATRA	Pangkalan Susu	Secondary	15 / 2.1	L9,722W7.5A72,918	L 2,500 W 8				Soft soil	
		Belawan	Regional	3,387/3.68	L 650 W6 A3,900						
		Kuala Tanjung	Regional	9,555/1.45	L1,565 W5 A8,326						
		Tg.Balai Asahan	Regional	4,250/6.9	L2,373 W6 A14,240	L 2,400 W12					silty soil
3 (I)	RIAU	Sibolga	Tertiary	6,800 /144.1	L2,099W5.5A11,546	L 1,000 W 5					
		Dumai	Tertiary	12,656 /33.5	L1,070 W5 A5,350	L W 5					
		Tg.Pinang	Tertiary	1,670 /66.5							
		Pekanbaru	Tertiary	17,625/0.72							
		Bagan Siapiapi		500 / 0.66							
		Bengkalis		2,642 / 9.4	L360 W5 A1,800						
		Selat Panjang		2,675 / 1	L100 W6 A 600						
		Tembilahan		6,200/1,000							
		Kuala Enok		23,031/6.12	L671 W5.5 A3,695						
		Tg.Balai Karimun		100 / 13							
		Rengat									
4 (II)	WEST SUMATRA	Batam	Primary								
		Teluk Bayer	Tertiary	6,470 / 12.4							silty soil
5 (II)	JANBI	Air Bangis	Tertiary								
		Jambi	Regional								
6 (II)	SUMATRA	Palembang	Tertiary	1,120/22,409							
		Muntok	Regional								
		Pangkal Balam	Regional	4,875							
7 (II)	BENGKULU	Bengkulu	Regional	71,200							
		Panjang	Secondary	7105							sandy soil
8 (II)	LAMPUNG	Banten(Ciawnda)	Secondary	4,150/42.6							
		Sunda Kelapa	Secondary	750.8							
9 (II)	WEST JAWA & DKI JAKARTA	Tg.priok	Secondary	424 /575							
		Cirebon	Ter.Reg	11 / 31.2	L W 8	L 1,500 W 8					silty soil
10 (III)	CENTRAL JAVA	Tg.Emas	Secondary	17,800/838							soft soil
		Tegal	Regional	1,232/112	L W 8	L 3,500 W12					soft soil
11 (III)	EAST JAVA	Citacap	Tertiary	11,583/18.7							2,250 sandy soil
		Tg.Perak	Secondary	1,634 /542	L W5-12.5A122000	L W10-15	P & C				12,875 soft soil
12 (III)	BALI	Probolinggo	Regional	92.6 /11.6							
		Meneng	Regional	25.1 /112							
13 (III)	BALI	kali Anget	Regional	2.4 / 3.1							
		Pasuruan	Regional	0.5 / 10.2							
14 (III)	BALI	Gresik	Regional	8,138/236	L2,290 W8 A18,320	L 4,100 W 7					
		Benoa	Tertiary	227,852.1	L2,900 W7 A20,300	L 2,500 W12					
15 (III)	BALI	Celukan Bawang	Tertiary	49.5 / 19.7	L2,000 W5 A16,000						

Table C.9.1.7(3)-2 Existing Port Facilities In Main port

No.	Province	Location	Port Classification	Port Area Land (Ha) / Sea (Ha) (Ha)	Raod in Port Area Length(m)/Width(m) /Area(m <sup>2</sup> )	Access Road Length/Width (m) (m)	Present Condition of Port and Hinterland			Remarks
							Access Rail/Ways /Passes/Carrco	Port Services Facilities	Parking Area (m <sup>2</sup> )	
13 (III)	WEST NUSA TUNGGARA	Lembar	Regional	481 /156.5	L1,275 W7 A8,925					
		Badas	Local	758 /46.5	L 825 W6 A4,950					
		Bima	Regional	4,529/37.6	L275 W12 A3,300					
		Tenau/Kupang	Tertiary	32 /42.7	L1,300W10A13,000	L3,000 W 5			coral reef	
		Wangapu		3,000/ 8.3	L600 W6 A3,600				coral reef	
14 (III)	EAST NUSA TUNGGARA	Ende	Regional	483 /7.2	L1,150 W6 A6,900				sundy soil	
		Maumere	Regional	34.5/ 4.3	L500 W6 A3,000				coral reef	
		kalabahi		2,925/ 2.1	L1,040 W6 A6,240				sundy soil	
15(III)	EAST TIMOR	Dilli	Regional	20 / 5.8	L1,400 W6 A8,400				sundy soil	
		Singkawang								
16 (II)	WEST KALIMANTAN	Pontianak	Tertiary	1,0438/17.32		L 800 W 8			soft soil/silty	
		Ketapang								
		Sintete								
		Telok Air								
		Sambas								
17 (III)	CENTRAL KALIMANTAN	Kuala Kapus	Local	1,067/ 56.1	L525 W6 A3,150					
		Kumai	Local	5,786/ 6.0	L175 W6 A1,050					
		Sampit	Ter.Reg	93,687/5.6	L760 W6 A4,560					
18 (III)	SOUTH KALIMANTAN	Banjarmasin	Tertiary	115,000/95	L4,205W10A42,046	L 700 W 8				
		Batu Licin	Tertiary	237,217 /190	L475 W6 A2,850					
		Kotabaru		273,217/218	L500 W6 A3,000					
		Baikpapan	Tertiary	3,032/ 8.5		L 1,500 W 8			sandy soil	
19 (IV)	EAST KALIMANTAN	Samarinda	Tertiary	11,032/ 4.4						
		Nunukan	Local							
		Tarakan	Regional	17,220/4.38						
20 (IV)	SOUTH SULAWESI	Makassar	Secondary			L W 8			sandy soil	
		Pare-Pare	Regional							
21(IV)	SOUTHEAST SULAWESI	Kendari	Ter.Reg	7,201 /22.1						
22 (IV)	CENTRAL SULAWESI	Pantoloan	Regional	681.9 /11.1						
		Toli-Toli	Local	16,950/1.85						
		Luwuk	Regional					1,750		
		Bitung	Secondary	3,217/38.8					sandy soil	
23 (IV)	NORTH SULAWESI	Manado	Local	1,754/ 4.0						
		Gorontalo	Regional							
		Angrek	Tertiary	239,040/14.9					silt	
24 (IV)	MALUKU	Ambon	Regional							
		Terbate	Tertiary	207,570/20.3					mudy soil	
		Sorong	Tertiary	12,900/12.7						
		Biak	Tertiary	688 /4.7						
25 (IV)	IRIAN JAYA	Jayapura	Regional							
		Fak-Fak	Regional							
		Manokwari	Regional							
		Merauke	Regional							

Source : DGSC

Table C.9.1.8 Number of Special Port and Main Activities

No.	Province	Special Port		Special Wharf		Total	No.	Province	Special Port		Special Wharf		Total	
		Number	Main Activity	Number	Main Activity				Number	Main Activity	Number	Main Activity		
1	ACEH	14	Other wood Cement Fuel oil	9 1 1	11	4	14	NUSA TUNGARA BARAT	Other wood Fuel oil Fertilizer	4 4 2	5	4	19	
2	SUMATRA UTARA	34	Fish Other wood Others	23 4 6	19	7	15	NUSA TUNGARA TIMUR	Fuel oil Plywood Cement	4 5 1	9	5	19	
3	RIAU	58	Granite sand Fuel oil Other wood	14 12 10	57	19	16	TIMOR	Plywood Fuel oil Other wood	19 10 7	1	1	2	
4	SUMATRA BARAT	3	Other wood	3	4	1	17	KALIMANTAN	Cement Fuel oil Coal	1 1 1	86	21	196	
5	SUMATRA SELATAN	57	Other wood Granite sand Fuel oil	16 15 4	12	3	18	KALIMANTAN	General cargo Fuel oil Rubber	3 2 1	18	75	111	
6	LUNPUNG	1	Fuel oil	1	4	2	19	TENGAH	Other wood Fuel oil Coal	2 1 1	4	32	94	
7	BENGKULU	0			2	1	20	SELATAN	Fuel oil Fish	1 1	15	28	138	
8	JAMBI	4	Other wood	4	41	4	21	SULAWESI	Other wood Plywood Coconut oil	9 5 4	26	3	30	
9	D. K. I. JAKARTA	14	Tourism Fish Fuel oil	9 3 1	9	3	22	SULAWESI	Fish tourism Wheat	3 2 1	33	8	42	
10	JAWA BARAT	4	Fuel oil Fish Bentonit	2 1 1	31	5	23	TENGAH	Chemical Fuel oil Fish	15 5 3	5	2	7	
11	JAWA TENGAH	26	Fish Tourism	19 3	31	2	24	SULAWESI	Fuel oil Cement Fertilizer	13 3 2	5	3	9	
12	JAWA TIMUR	17	Fish Fuel oil Salt	9 5 2	18	12	25	TENGGARA	Industry Mining Fuel oil	12 3 2	17	3	25	
13	BALI	9	General Tourism Fish	4 3 1	9	6	26	IRIAN JAYA	Fish Tourism Mining	6 2 1	17	7	32	
Grand Total								492					721	1,213

Note : Data in March 1993

Source : DGSC



Table C.9.2.1 Material Price and Construction Cost (Unit:Rp.)

Material Cost	Unit	Sumatra Utara	DKI Jakarta	Jawa Barat	Jawa Tengah	NTB	Kalimantan Tengah	Timor Timur	Sulawesi Selatan	Sulawesi Tengah	Irian Jaya
Cement	back	10.500	10.500	10.500	10.500	12.500	15.500	15.000	11.000	13.500	16.000
Course aggregate	m3	36.000	45.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	90.000
Fine aggregate	m3	17.000	40.000	40.000	40.000	17.000	18.500	24.000	27.000	9.500	60.000
Water	m3	1.200	1.500	1.200	1.200	1.200	1.200	1.200	1.200	1.200	3.000
Re-bar	Kg	1.687	1.500	1.500	2.500	2.100	2.100	3.500	2.100	2.100	3.200
Shaped Steel	Kg	1.687	1.500	1.500	1.500	2.062	1.875	2.250	2.750	2.062	2.250
Concrete pile φ500	m	210.000	210.000	180.000	210.000	247.500	225.000	405.540	225.000	247.500	270.000
Rubbe fender V250H-1.5L	Unit	4.500.000	4.500.000	4.500.000	4.500.000	4.750.000	4.750.000	5.000.000	4.750.000	4.750.000	5.000.000
Stone	m3	20.250	18.000	18.000	18.000	24.750	60.000	27.000	25.000	12.500	50.000
Asphalt	Kg	600	750	600	600	600	600	600	600	600	1.500
Labour cost	Unit	Sumatra Utara	DKI Jakarta	Jawa Barat	Jawa Tengah	NTB	Kalimantan Tengah	Timor Timur	Sulawesi Selatan	Sulawesi Tengah	Irian Jaya
Foreman	Day	10.000	17.500	17.500	13.000	17.000	9.000	15.000	16.000	7.000	15.000
Common worker	Day	8.500	10.000	10.000	6.000	4.000	7.500	6.000	5.000	4.000	6.000
Bar bender	Day	8.000	10.000	8.000	8.000	8.000	8.000	8.000	8.000	8.000	16.000
Operater	Day	14.000	17.500	14.000	14.000	14.000	14.000	14.000	14.000	14.000	35.000
Assistante operator	Day	8.500	10.000	7.500	7.500	7.500	4.500	11.250	8.000	7.000	9.000
Hiring charge of working equipment	Unit	Sumatra Utara	DKI Jakarta	Jawa Barat	Jawa Tengah	NTB	Kalimantan Tengah	Timor Timur	Sulawesi Selatan	Sulawesi Tengah	Irian Jaya
Crawler crane	Day	675.000	600.000	600.000	600.000	825.000	750.000	900.000	750.000	825.000	900.000
Diesel hammer	Day	337.500	300.000	300.000	300.000	412.500	375.000	450.000	375.000	412.500	450.000
Piling pontoon	Day	956.250	850.000	850.000	850.000	1.168.000	1.062.500	1.275.000	1.062.500	535.000	1.275.000
Dump truck	Hour	11.875	9.500	11.875	11.875	11.875	11.875	11.875	11.875	11.875	19.000
Buldozer	Hour	31.250	25.000	31.250	31.250	31.250	31.250	31.250	31.250	31.250	50.000
Construction cost	Unit	Sumatra Utara	DKI Jakarta	Jawa Barat	Jawa Tengah	NTB	Kalimantan Tengah	Timor Timur	Sulawesi Selatan	Sulawesi Tengah	Irian Jaya
Pile driving	m	80.775	71.350	69.750	71.366	90.858	84.173	101.691	84.850	71.336	105.933
Concrete(R300)	m3	231.225	264.725	256.655	230.630	232.255	286.955	278.730	222.130	237.630	358.950
Concrete form	m2	31.530	31.100	30.955	33.720	34.686	32.217	39.135	27.906	30.481	41.045
Reinforce bar	Kg	3.663	3.443	3.230	4.100	3.485	3.716	5.180	3.557	3.480	5.852
Quay construction	m2	2.336.585	2.249.945	2.075.800	2.381.360	2.569.710	2.481.650	2.947.190	2.400.000	2.517.000	3.187.500
Preparation	unit	129.429	123.215	86.750	123.220	141.810	135.570	91.685	135.600	141.800	159.195
Mobilization	unit	93.750	83.330	83.330	83.330	114.580	104.170	125.000	104.170	114.580	125.000
Construction	m2	2.097.000	2.028.820	1.891.140	2.160.230	2.293.320	2.223.680	2.708.630	2.142.000	2.240.570	2.881.430
Others	uint	16.406	14.580	14.580	14.580	20.000	18.230	21.875	18.230	20.050	21.875

Source : DGSC



## Appendix C.10 PORT ADMINISTRATION, MANAGEMENT AND OPERATION

### C.10.1 "No. KM 41/1997 Organization and Working Procedure of DGSC"

Main tasks and functions of DGSC are as follows ;

(1) Tasks

: to carry out a part of the main tasks of MOC in the sea transport sector in accordance with the policies determined by the Minister of Communications and based on related laws and regulations.

(2) Functions

: to formulate technical policies, provide guidance and standards for sea transportation and port activities, issue permits for ships and seamen and execute navigation aids, coast-guard and rescue, which are determined by MOC .

DGSC comprises of :

Secretariat of the Directorate General

Directorate of Sea Transport

Directorate of Port and Dredging

Directorate of Marine Safety

Directorate of Navigation

Directorate of Coast-guard

1) Secretariat of the Directorate General is responsible for providing technical and administrative services to all Directorates within DGSC.

2) Directorate of Sea Transport carries functions of ;

a. preparing the formulation of technical policies in the sector of domestic, international and special sea transport, and sea transport supports

b. fostering the domestic, international and special sea transport, and sea transport supports

c. coordinating and fostering national fleet development

d. coordinating and servicing domestic, international and special sea port, and sea transport supports

3) Directorate of Port and Dredging carries functions of ;

a. preparing the formulation of technical policies in port and dredging works

b. coordinating and guiding port development

c. coordinating and guiding the program of technical designs of ports

- d. coordinating and guiding the dredging and reclamation
- e. coordination and guiding the pilotage and ship mooring
- f. coordinating and guiding the activities of operation services of ports

4) Directorate of Marine Safety carries functions of ;

- a. preparing the formation of technical policies in the field of ship worthiness, ship measurement, ship registration and nationality, nautical technology, radio, pollution prevention and management of marine safety and seamanship
- b. coordinating and establishing ship worthiness, ship measurement, ship registration and nationality, nautical technology, radio, pollution prevention and management of marine safety and seamanship
- c. coordinating and providing services of ship worthiness, ship measurement, ship registration and nationality, nautical technology, radio, pollution prevention and management of marine safety and seamanship

5) Directorate of Navigation carries functions of ;

- a. preparing the formation of technical policies of navigation aids, signal installation, maritime telecommunication, sea watching, own ships and bases
- b. fostering navigation aids, signals, maritime telecommunication, own ships and facilities of bases
- c. coordinating and developing facilities of navigation
- d. providing services and information of navigation aids, signals and maritime telecommunication

6) Directorate of Coast-guard carries functions of ;

- a. preparing the formation of technical policies on the security, patrol and disaster, order and disciplines at waters and port, salvage and underwater works, preparation of facilities and equipment of coast-guard and life saving
- b. fostering the security, patrol and response to the pollution and disaster, order and disciplines at waters and port, salvage and underwater works, preparation of facilities and equipment of coast-guard and life saving
- c. coordinating the security, patrol and response to disaster, order and disciplines at waters and port, salvage and underwater works, preparation of facilities of coast-guard and life saving.

C.10.2 "No. KM 89 / 1993 The Permanent Method of Implementing the Working Relationship of the Regional Office of Communications (KANWIL)", "No. KM 55 / 1995 Organization and working System of Regional Office of MOC", "No. KM 13 / 1996

Perfecting of No. KM 60 / 1993 “

(1) The Regional Office of MOC (KANWIL) is installed at each capital of province, just same other Regional Offices of Ministries and to the KANWIL, ADPELs, KAMPELs and other MOC Branch Offices are subjected.

(2) The main duty of KANWIL is to execute MOC policies of Planning Bureau, Directorates of Land, Sea and Air Communications in each provincial area as the vertical organization of MOC.

(3) For example, Type A KANWIL is organized as follows as ;

- a. Administration Division
- b. Plan and Program Division
- c. Land Communication Division
- d. Sea Communication Division
- e. Air Communication Division

(4) Within Plan and Program Division, Plan Preparation Section is there. Its duties are : to arrange long and middle term development plans, to collect and process all communications data and other related information in the region.

(5) Sea Communication Division is divided into ;

- a. Sea Transportation Section
- b. Port Affairs Section
- c. Ships/Vessels and Sea Affairs Section
- d. Coast-guard/Security and Safety Section

(6) Duties of Sea Transportation Section are to prepare, control and guide the implementation of local shipping, special shipping, traditional shipping, pioneer shipping, loading/unloading, sea expedition, sea transportation service/support, shipping route implementation, tariff and loading/unloading workers.

(7) Duties of Port Affairs Section are to prepare, control and guide commercial activities, port management implementation and to give guidance towards development and maintenance of port facilities, depth of basin/channel.

C.10.3 “No. KM 35 / 1993 Organization and Working Order of Port Administration Office(KANPEL)”

1) Duties

KANPEL is positioned under and responsible to the Head of KANWIL .

KANPEL has duties to execute port activity services, to control and maintain the port basin/channel, sea transportation, harbor-master affairs, security of port and ship berthing as well as maritime service activities in the port.

2) Functions

- a. composing the operational working plan of such as port activity services, harbor-master affairs, controlling and maintaining the port basin/channel and sea transportation traffic.
- b. executing port services and port technical activities as well as controlling smoothness of sea traffic.
- c. executing activities of ship berthing, safety, measurement and registration of ships as well as maritime service activities.
- d. executing activities of security and orderliness in the port working area as well as Search and Rescue(SAR).
- e. implementing fire-fighting and preserving from pollution in the port working area.
- f. coordinating all other government agencies, working units and state-owned enterprises in the port working area.

#### C.10.4 "Corporate Profile - Indonesia Port Corporation II"

##### (1) Historical Background of IPC

In 1960, the management of public ports in Indonesia has been undertaken by PN (Public Corporation) Pelabuhan I to IX under the control of the Government.

The legal status of PN Pelabuhan has been subjected to change in conformity with the Government policies in the effort to support the national development and to keep pace with the dynamic growth of port service demands.

The changes can be described in the following chronologies ;

##### 1960 - 1969

The management of public ports was conducted by the Public Corporation as stipulated in Act No. 19 PRP / 1960. PN Pelabuhan's also function as the port authority.

##### 1969 - 1983

In this period, the management of ports was carried out by the Port Management Body based on Government Regulations No.1 of 1983.

##### 1983 - 1991

The management of public ports was differentiated into those which were commercially managed (commercial ports) and those non-commercially managed (non-commercial ports).

Commercial ports were managed by Perum Pelabuhan, which are state-owned companies. The management of non-commercial ports was done by operational units under the control of DGSC as stipulated in the Government Regulation No.11 of 1983.

PERUM Pelabuhan II ( Public Port Corporation II) established by the Government Regulation No.15 of 1983 was one of four Public Port Companies to manage commercial ports.

##### 1991 - Present

The change of the legal status of PERUM Pelabuhan II into PERSERO Pelabuhan Indonesia II (IPC-II, Indonesia Port Corporation-II) was in conformity with the Government Regulation No.57 dated October 19, 1991 and confirmed by Deed Notary No.3 dated December 1, 1992.

The transformation from PERUM Pelabuhan Indonesia into IPC-II has shown the Government trust on the basis of the successes made so far by the Port Company in managing commercial ports.

C.10.5 "Corporate Profile 1997 - IPC-II", "Decree of IPC-II with regards to Organization (HK. 56/2/15/PL.II-94)"

1) Board of Commissioners

: Chairman ( Director General of DGSC ) and 4 members

2) Board of Directors

: Managing Director and 4 Directors

3) Other Units of Organization

: 3 Bureaus and Internal Auditor

: Port Branches, Container Terminal, Port Hospital and Education & Training Center

4) Purpose and Business of IPC-II

Purpose of IPC-II is ;

: to execute and support the Government programs and policies in the field of economic development.

: to guarantee the corporation's growth by operating port service business

To achieve above mentioned purpose, IPC-II has to operate businesses in the field of, as follows ;

: port basin and waters for ship traffic

: pilotage and tugboat

: quay and other mooring facilities for loading/unloading

: transit-shed, loading/unloading facilities and equipment

: land for providing buildings, yards and others

: providing electricity, freshwater and waste disposal

: port terminal service

: consultant service, education training

C.10.6 "No. 21 / 1992 Shipping Law"

"Shipping Law", among others, is the fundamental law which supports the port administration and management/operation in Indonesia issued in September 1992. This is made up of essential articles and provisions so that supplemental regulations and decrees are necessary for the actual implementation of port administration and management/operation affairs. The important articles related to port affairs are in "Chapter VI Port Affairs" as follows ;



- (Paragraph 21) Definition of port affairs that cover all port management activities
- (Paragraph 22) Classification of ports \* public ports, special ports
- (Paragraph 23) Determination of port location \*land area, waters
- (Paragraph 24) Determination of port working area, port concerned area and of that rights at public port
- (Paragraph 25) Execution of development and operation at public port
- (Paragraph 26) Port operation bodies at public port \* by the Government and IPC
- (Paragraph 27) Port supporting activities bodies at public port \* by Indonesian corporate bodies/Indonesian citizens
- (Paragraph 28) Determination of land area functioning as a public port
- (Paragraph 29) Construction, operation of special port and of that permission
- (Paragraph 30) Prohibition of special port used as a public port
- (Paragraph 31) Determination of the port opened to international trade
- (Paragraph 32) Determination of port tariff
- (Paragraph 33) Compensation for damages of port facilities and equipment by users
- (Paragraph 34) Responsibility of port operator to users

#### C.10.7 "PR No. 70 / 1996 Port Affairs"

This Government Regulation is to supplement above introduced "Shipping Law" for its actual implementation of port affairs, and is the newest one. But for more detailed implementation procedures, it shall be necessary to prepare another Minister of Communications Decrees and others. Here only special articles are introduced briefly ;

- (Paragraph 3) National port structure compilation with regional land use, economic growth, environmental conservation and ship safety
- (Paragraph 8) The port working area and port concerned area determination by the Minister
- (Paragraph 9 and 10) Definition manners for the port working area and port concerned area
- (Paragraph 15) The permission for construction by the Minister or appointed official
- (Paragraph 17) The Minister's determination of the port master plan for the development and operation of public and special ports
- (Paragraph 20 and 21 ) The development and operation of special port with the permission given by the Minister
- (Paragraph 25, 26 and 27) Definition of port management/operation activities by each organization at public port
- (Paragraph 28, 29 and 30) Definition of port services by each organization at public port
- (Paragraph 39,40 and 41) Determination of port tariffs

(Paragraph 42 - 49) Management/operation and development manners of special port  
(Paragraph 50,51 and 52) Determination of internationally opened port  
(Paragraph 53 and 54) Waste reception facilities at port

#### C.10.8 "Draft KM Procedure of Port Master Plan Arrangement"

In Paragraph 17 of "PR 70 /1996 Port Affairs", it is stipulated that the Minister of Communications determines the port master plan after obtaining opinions from the local government and other relevant authorities, and also prepares the standards of port facilities etc. To cope with this stipulation, DGSC is now preparing "Draft KM Procedure of Port Master Plan Arrangement". The outlines shall be as follows ;

(Paragraph 2 and 3) Purpose of port master plan arrangement

(Paragraph 4 - 7) Scope of port master plan arrangement

- \* Public port master plan prepared by IPC, Technical Planning Unit(UPT)
- \* Port master plan divided to Zoning Plan, Detailed Facilities Plan, Detailed Engineering Plan
- \* Long term port master plan with consideration of port development within 25 years
- Medium term port master plan within 10 - 15 years
- Short term port master plan within 5 -10 years

(Paragraph 8 - 11) Status, responsibility and authorization of port master plan arrangement

- \* Port master plan referred to Spatial Use Plan(RTRWN), National Transportation System, National Port Structure etc.
- \* Port master plan used as reference for Port Working Area and Port Concerned Area
- \* Port master plan arrangement method prepared by DGSC

(Paragraph 12 - 17) Procedure of port master plan arrangement

- \* Parameters just like transportation development projection, technique, economical and financial feasibility and environmental impact
- \* Public port master plan legalized by the Minister and/or Directorate General
- \* Port master plan consisted of a) master plan, b) summary of master plan, c) drawing of port activity area, d) relevant attachments

#### C.10.9 "Draft KM National Port Affairs Arrangement"

In order to supplement "No. 21 / 1992 Shipping Law" for its actual implementation, "PR No. 70 / 1996 Port Affairs" was issued. And for more detailed implementation procedures to be made clear, this "Draft KM National Port Affairs Arrangement" is now preparing in the fields of port planning, port use and port control affairs, by DGSC. The

outlines shall be as follows ;

(Paragraph 1) Establishing national port affairs arrangement is of port planning, port use and port control affairs.

(Paragraph 2 and 3) Principles : Establishing national port affairs arrangement has to integrate efficiency, productivity and balance with facilities and other transportation infrastructures nationwide.

: Implementation of port use affairs has to be appropriate with the purpose of national sea transportation system and national transportation system.

(Paragraph 4 and 5) The right and obligation :Every one has right to receive benefit from port affairs and also has obligation to obey the national port affairs arrangement.

(Paragraph 7) Planning of port affairs : Plan of national port affairs arrangement is determined for next 25 years.

(Paragraph 8) Port use affairs : Port use affairs are implemented based on national port affairs arrangement established.

(Paragraph 9) Control of port use : Port use control affairs are implemented through supervision and control activities.

(Paragraph 10) Plan of national port affairs arrangement : Plan of port affairs arrangement is divided in three.

: Plan of national port affairs arrangement is determined by the Minister, planning term is 25 years.

: Plans of regional and local port affairs arrangement are determined by Directorate General, planning terms are 15years and 10 years for each.

C.10.10 "No. IM-7/AL-3011/PHB-1995 The Realization of One Roof Service Center for Ship and Loading/Unloading Services in Tg. Priok Port"

(1) The try-out of One Roof Service Center for ships and loading/unloading in Tg. Priok Port was implemented by No. IM 4/AL 3014/PHB-1995. Then, by No. IM-7/AL-3011/PHB 1995, the try-out period was extended until the completion of the hardware and software structures. The outline of the latter is as follows ;

( I General ) PPSA( One Roof Service Center ) is the job of Tg. Priok Branch Office of IPC-II, which has duty to unite and decide wharf using plan for ship berthing, open storage yard/warehouse involving shipping companies/agents and loading/unloading companies(PBM), and not involving government offices.

( II Duty, Function, Authority and Responsibility ) Duty, function, authority and responsibility of government office, Tg. Priok branch office, PBM and/or Terminal Operator

Loading/Unloading Company(PBM/TO), shipping company/agent and forwarder/transportation company/goods owner are introduced one-by-one.

( III Service Regulations ) Ship services and loading/unloading services procedure is introduced for each case of conventional wharf and container terminal.

(2) The outline under this try-out is as follows ;

1) At least 24 hours before the ship berthing, the shipping company/agent inform PPKB( demand of the ship service ) to Tg. Priok Branch Office through PPSA. That information is conveyed to ADPEL and related Government Offices immediately.

2) Based on PPKB, PPSA plans and determines allocation of berth, transit-shed/open storage yard, and then inform ADPEL and related Government Offices.

3) PBM, after being appointed by cargo-owner/shipping company/agent, can start loading/unloading activities based on the productivity target.

4) In order to accelerate loading/un-loading activities, Tg. Priok Branch Office appoints the Operation Supervisor( SO ) for supervising, directing and improving loading/un-loading activities.

5) In case of conventional wharf, cargoes for loading/un-loading in general must be kept in transit-shed/open storage yard for accelerating productivity ( direct loading/un-loading from/to truck is limited for special cargoes ).

C.10.11 "The Study on Integrated Modernization Plan for Sea Transportation in Eastern Indonesia (3. 1994 JICA)"

\* Page (1) - (8) of Final Report Summary I.

#### General

7. Insufficient infrastructures hinder to the development in the East. Among various infrastructures, maritime transportation is one of the most important elements for the area.

8. The Government of Indonesia is aware of this fact and since the beginning of REPLITA V, budget allocation has been shifted to Eastern Indonesia.

9. In fact, DGSC shifted the weight of budget allocation for the port facilities from Central and Western Indonesia to Eastern Indonesia in recent years.

10. Restructuring of sea communication system in 1988 resulted in general improvement and modernization to the sector. Deregulation of shipping industry as a whole in Indonesia has stimulated private sectors and generally accelerated competition in the service.

14. Modernization in shipping has promoted use of containers. Containerization is rapidly increasing in international trade. Some local general cargoes have also started to become containerized.

15. Ferry services as an extension of the road network are increasing as part of the growth of connecting highway network. Long distance ferry or roll-on roll-off service will supplement some inter-island cargo movement.

16. The new open port policy in stead of the four gateway ports system together with new custom clearance system has increased the number of ports for foreign trade.

#### Problems of Sea Transportation and Modernization

20. Continuity with the previous classification of shipping lines and categories has been lost. Many private shipping companies no longer provide precise operation data for statistical purposes. DGSC has no means to enforce statistic compilation because most lines are no longer subject to licensing for shipping routes.

21. While the government tries to promote Eastern Indonesia by shifting weight of budget allocation from the West, the total budget for the transport sector was reduced in the new five years plan. This is due to introduction of the PERSERO system in the port management of the major ports and due to deregulation of shipping business which are expected to contribute sufficient revenue by expansion of activities.

22. Investment by private sectors for ports and shipping business and revenue to PERSERO, however, are not yet effectively increasing in Eastern Indonesia. This is because the area still lacks sufficient infrastructures. PERSERO is not able to furnish the needs of facilities by its own resources and most other private sectors have not yet reached the stage where they enjoy profits from the vast and undeveloped areas of Eastern Indonesia.

27. Even though containers, both international and domestic, have been gradually introduced in Eastern Indonesia in recent years, reception facilities are inadequate at most of ports. Most of the quay structures are not strong enough to receive heavy weight cargo and suitable mechanical equipment is not available.

28. According to present practice of DGSC budget allocation, construction budget for berth extension will not be made available until berth occupancy rate exceeds 70% in the port. Cargo handling equipment will not be acquired unless sufficient revenue from the equipment is expected.

29. This budget allocation principle is quite understandable under present tight budget circumstance. However, quite frequently, potential traders and investors lose interest in conducting business because of the poor facilities at the ports.

30. Jurisdiction of ferry terminal belongs to DGLT. This arrangement has, occasionally, caused insufficient planning coordination on terminal location. Traffic handled by ferry is not consistently recorded in the shipping statistics.

31. Aids to navigation are far from sufficient in Eastern Indonesia where the number of islands and reefs are greater than in the Western area. Number of supporting vessels for aids to navigation are also insufficient in the area.

32. Search and rescue facilities are also inadequate in the area. Besides insufficient number and size of search and rescue vessels, communication facilities for this purpose also need reinforcement.

33. Statistics relating to the marine transportation have long been neglected. Statistics for cargo and passengers, for example, are incomplete or inconsistent. Many other data and information also require improvement in compilation or reporting system. Establishment or upgrading of data base for registered ships, marine accidents, seafarers etc., are urgently needed as essential tools for effective execution of DGSC mission.

#### Master Plan

56. Improvement and expansion of port facilities in the project area is very important for efficient shipping operation. At the same time efficient ports will promote industrial development in the vicinity of the ports. Although most resource oriented industries will be located in adjacent areas of special ports, industrialization also affects activities of neighboring public ports.

57. Public ports in Eastern Indonesia are divided into two categories, namely over middle class port and small ports. The over middle class ports should strengthen functions as intra-regional distribution centers. At the same time some of the major commercial ports should carry gateway functions to regions in the domestic sea transportation as well as in

international trade.

58. The small ports, on the other hand, are required to achieve equal distribution of development benefits. To secure connections between remote islands and the main island, necessary port facilities shall be provided at least on the inhabited islands in such a way that vessels of the requisite scale can safely enter and leave. Priority of small port development should be given to the Perintis ship calling ports.

59. Introduction of modernized marine transport technology including containerization and Ro-Ro systems will contribute to improvement of overall transportation efficiency but require capital investment at the ports.

#### Recommendation

63. Regarding port sub-sector development program, the following is recommended;

(a) In order to stimulate economic development in Eastern Indonesia, ports should be regarded as a basic social infrastructure, and be improved so as to help lower the marine transportation cost.

(b) Feasibility studies should be carried out for the over middle class ports prior to the implementation of the projects in order to take into consideration the local condition in detail.

(c) Development priority of the small class ports should be given to the Perintis ship calling ports, and the basic port facilities should be provided at least on the inhabited islands or remote islands.

(d) The latest information about the noncommercial ports should be compiled into a data base.

(e) To achieve the economic development and public welfare in Eastern Indonesia, national budget for port development should be significantly expanded.

64. In order to upgrade maritime safety, following measures are recommended.

(a) Training must be implemented to provide the ATN personnel with not only fundamental expertise knowledge on maritime safety but also the maintenance and repair policy.

(b) From a short-term viewpoint, a Maritime Training Center (MSTC) is proposed in order to train both newly recruited and active personnel swiftly.

C.10.12 "The Study on the Master Plan of Container Cargo Handling Port, Dry Port and Connection Railways in the Republic of INDONESIA (7. 1995 JICA )

\*Page 76 of Final Report Vol. I Summary

125. The master plan should be reviewed and revised periodically taking the changes in the socio-economic conditions in Indonesia and worldwide into consideration.

126. Based on the results of the master plan study, feasibility studies for short-term development plan should be urgently implemented on the following ports ;

i) Tg. Priok including Bojonegara

ii) Tg. Emas

127. The government is planning an implementing several port development projects. These projects should be closely coordinated with the development of related facilities such as highways, railways and urban utilities, in order to achieve effective and efficient port operation.

128. Taking into consideration the public role of ports as a main pillar of socioeconomic development, the privatization into a port development field should be carefully introduced to ensure stable, continuous port operations.

130. The establishment of comprehensive database for all national port activities including container traffic is urgently needed as an essential tool for the effective supervision, planning and operation of ports by all the parties and organizations concerned.

C.10.13 "Technical Assistance Services for a Ports Development Strategy Study for the Southern Sumatra and West Java Region (7. 1996 WB)"

\* Page ES-13 - 19 of Final Report

#### 7. Investment Plan and Privatization

: A partial privatization of new investments will not enable IPC-II to sustain all projects. Only a complete privatization of all container transshipment facilities at Tg. Priok and Banten will enable IPC-II to finance all of its common user container investment( breakwaters, harbor dredging, etc. ) and sustain other investments related to land banking and transshipment facilities at general cargo ports without resorting to debt.

: To shift port investment strategies recognizing the economies of IPC-II, changing its mission to a landlord organization, providing common user infrastructure and services, and allowing specialized competitive service to be provided by others.

#### 8. Evaluation of Environmental Impacts and Roads Traffic

: Development of new ports in Tg. Api-Api and others are expected to have the most



significant ecological( wetland and mangrove forest habitat ), social and economical impacts. These adverse impacts can not be minimized, however, compensation for the reduction of habitat could be accomplished by preserving similar habitat at alternate site.

: In any event, a reduction in traffic congestion at the port area will require aggressive action on the part of the city administration to reduce non-port-based general traffic.

#### 9. Planning for an Effective Institutional and Regulatory Framework

: The properly organized planning process should provide continuous capability to monitor, update and implement strategic and master planning of individual ports and the port system.

: The planning process should induce privatization, while maintaining the framework of strategic planning for port development to preserve the public and national interests.

##### 9.1 Legal/Institutional Issues

: The necessary regulations to accompany Shipping Law 21/1992 have not been established. Furthermore, the draft government regulations to that Law should be revised to clarify the issues of private sector participation in port affairs.

: The role of DGSC should be to regulate and enforce policies and guidelines for port development, operation and private sector participation in port affairs, while all commercial and managerial aspects of ports should be handled by IPC.

: It is proposed that the actual composition of the IPC-II Board of Directors be changed to include also port users, instead of only government representatives.

##### 9.2 Revision of Planning/Investment Process

: DGSC should be responsible for updating the SPD( Strategic Development Plans ) for each of four IPC and NPSP( National Port System Plan ) at least every 5 years. These plans should be reviewed and commented upon by BAPPENAS, and by the ministries of Finance and of Trade and Industry to ensure coordination with national development plans and objectives.

: IPC-II should prepare and update master plans for ports under its jurisdictions at least 5 years. All port master plans must be within the framework of NPSP. The master planning process will include review and comments by city/provincial governments, port users and Ministry of Public Works to ensure coordination of port master plan with city/provincial government master plan, users' needs, and access road development plans.

: Once effective privatization and competition mechanisms are established among ports, terminals, and port operators at IPC-II, all cargo handling tariffs should be determined by private suppliers of services without government interference.

: Other port charges are expected to be determined by terms of conventional lease or operational contracts. The other port charges should be issued by IPC-II, and reviewed by the MOC and the MOF.

### 9.3 Port Privatization Schemes

: The privatization schemes proposed for IPC-II vary in scope from limited provision of only operating/stevedoring services to comprehensive investment in both infrastructure and superstructure and long term operation( 20 - 25 years) of ports and terminals on BOT basis. To foster competition among potential private investors and providers of port services, it is recommended that awarding of contracts be based on full transparency and open competitive bidding.

: The recommended privatization schemes include,

- a) Full terminalization
- b) Partial terminalization
- c) Operating agreement
- d) Licensing agreement

C.10.14 "Balikpaan and Banjarmasin and Gresik Ports Development Projects(11. 1996 ADB)"

\* Page 3-30 - 3-34 of Final Report Appendix Vol. I

### 3.7 Problems in Present Port Organization/Management

#### 1. Lack of implementation regulations and rules related to Shipping Law 21/1992

: To promote private sector participation into port activities, more practical regulations or decrees by MOC or DGSC are necessary, especially for attracting foreign investment.

: The government has to prepare the necessary guidelines for contracting and bidding, and related documentation.

#### 2. Clarification of roles for MOC, DGSC, PTPI and Branch Office for port development

: Each State Port Corporation is preparing masterplans for commercial ports under their jurisdiction. Private companies under special permit of MOC prepare their own plans. MOC branch office may prepare their masterplans for non-commercial ports. The role, relationship,

and responsibilities within related entities are not clear and the government should prepare procedures and flexible guidelines for longer term nationwide port planning and short term implementation programmes.

: Such procedures and guidelines should include the opinions from concerned parties, MOC representatives, provincial government representatives, port operators and port users, etc..

### 3. The present port organization/management relationship in public ports

: It is unclear who has responsible for productivity improvements but PTPI should play a key role. The port berth allocation, port operation, storage planning, and port control should be done by PTPI but until recently, they found it difficult to assert their authority.

### 4. TKBM Management System

: The labor force do not regard the stevedoring companies(PBM) as their employers and, therefore, they do not have any royalty to PBM. They, therefore, look to ADPEL because of ADPEL's responsibilities defined in Decree AL62/1/1-87. PBM therefore, find it difficult to effectively manage the labor force.

: Workers should also be motivated to work harder and more effectively by higher pay and shorter working hours.

### 5. Excess numbers of PBM

: Under PakNov 21/88 the PBM were given opportunities to develop their business but there are many 'paper' companies( without any stevedoring equipment ) being non active entities.

6. Further there is not enough cargo handling equipment or trained labor. Therefore, it is important to establish education/training institutions for them in each port region. Cargo handling at conventional terminals is also carried out with insufficient cargo handling equipment.

## 3.8 Recommendations

### 1) Establishing Government Regulations for the implementation of Shipping Law 21/1992

: The lack of implementing regulations causes some confusion in practical management and operation. And the lack of guidelines for private participation in ports causes delay in the development of port area and causes low productivity in ports.

: The first step should be to draw up guidelines like ‘ Ministry Instructions ‘ for private sector participation in port activities, and second step would be to establish related regulations in the ports, and third step would be to establish a Privatization Law that includes all aspects of private sector participation.

2. Enlarging the size of domestic enterprise for private sector participation in ports

: It would be a necessary step for small business units like shipping companies, agents, freight forwarders, stevedoring companies, to merge with each other to strengthen their capital structure and professional skills. Companies involved in port activities should be encouraged to merge and formulate long term growth strategies, under further government deregulation, which will create positive incentives and encourage them to merge.

3) Decentralization and Local Autonomy

: The central government should promote the acceleration of the development of local autonomy. Currently, for example, central government has, almost exclusively, the power to set tariffs.

4) Clarifying the respective roles of DGSC, ADPEL, PTPI and the branch ports and Reorganization

: Some of their functions and roles were found to overlap. At present government efforts, based on the implementation regulations, are still not fully clarified or adjusted to requirements or the latest circumstances.

: The overlapping activities and functions, in this respect, in divisions of DGSC and ADPEL, should be consolidated. The combined units should be able to independently, and systematically, discharge their responsibilities.

5) Adoption of “ One Roof System in Service for Ships and Loading and Unloading” in Other Ports

: The MOC Instruction( No.IM-7/AL-3011/PHB-95 ) has been on trial in Port of Tg. Priok since last September. After critical evaluation, this system should be positively adopted by other ports.

6) Labor Management in Port - Closer Relationship between PBM and TKBM

: Loading and unloading workers are supplied to the Stevedoring Company(PBM) from the labor pool system(TKBM) and are managed by ADPEL according to AL62/1/1-87. According to the MOC Instruction(No. IM-7/AL-3011/PHB-95), PBM in the Port of Jakarta

should have a closer relationship with TKBM and should organize the workers, who are allocated there permanently by the Port Administrator, in order to achieve productivity targets, even though the system has only been on trial since last September.

: The Ministry Instruction also requires PBM to ;

- a) increase the effective work hour and work productivity
- b) increase the skill of loading and unloading workers
- c) increase the income of loading and unloading workers
- d) increase the safety of loading and unloading
- e) supply good quality mechanical equipment for use by the loading and unloading workers etc.

This system shall be applied to other ports.

#### C.10.15 Detailed information of Container Terminal Operators in Hong Kong

Four private companies currently operate the terminals at Kwai Chung Container Port in the Port of Hong Kong. They are Hongkong International Terminals Limited(HIT), Modern Terminals Limited(MTL), sea-Land Orient Terminals(SLOT), and the joint venture of HIT and China Ocean Shipping Company(COSCO) named CHT. Table A.3.1 shows summary of the Port of Hong Kong.

##### (1) Hongkong International Terminals(HIT)

HIT, with ten berths available at Terminals 4, 6 and 7, is the world's largest privately owned container operator. In a joint venture with COSCO, COSCO-HIT Terminals(Hong Kong) Ltd., HIT also has access to the two berths of Terminal 8(East) on Stonecutters Island. More than 450 ships a month are handled at HIT during its 24 hour a day, seven days a week operation. HIT handled over 4 million TEU in 1995.

A Yard Planning Computer System handles the container, cargo and yard planning operations and associated documentation. The Ship Planning Systems(SHIPS) enables two computer screens to link a profile of the vessel together with the yard stacks of containers to be loaded. The Information Exchange System(IES), a comprehensive data-based managing system, has been installed and shipping lines have direct access to selected data on the system. Container yard operations are supervised from the control tower where operators' man groups of modular consoles which are each provided with a trunk radio system, a computer terminal, a closed circuit television and an internal telephone.

The Container Freight Station is now located in the Hongkong International Distribution Centre which is built over Terminal 4. Table 10.4.4 shows HIT's Container terminal facilities and equipment. See Appendix A.3.4.2 for details of the terminal.

## (2) Modern Terminal Limited(MTL)

Modern Terminals Limited (MTL) is a private company whose shareholders are involved in a broad range of international business activities. MTL owns and operates Terminals 1, 2, 5 and two berths at Terminal 8 (West). Table 10.4.5 shows MTL's container handling facilities and equipment. MTL's throughput for 1996 totalled 2,031,797 TEUs (20-foot equivalent units). By region, trade with North America accounted for 38%, intra-Asia 15%, Europe 39.8%, with the rest comprising the Mediterranean, the Middle East, Australia and Africa.

Beginning in the year 2000, MTL will be offering customers a new facility at Terminal 9 (South) with 1,200 metres of quayside frontage and location capacity of 1.85 million TEUs.

MTL has invested heavily in information technology. A Gatehouse Automation project, incorporating tractor identification, voice appointment and booking information, was commissioned in May 1994. RTG Auto-steering, Radio Data Transmission, and Synchronised Planning and Real-time Control systems are also used to enhance operational efficiency and customer service. Detailed cargo information is exchanged with shipping lines through Electronic Data Interchange technology.

A new computer application - Customer Information Services System (CIS) was implemented in mid-August 1996. The system enables shipping companies to retrieve on-line real-time information of MTL operations such as container information and vessel berthing schedules.

On average , more than 5,500 containers are loaded and unloaded at MTL every day. Nineteen quay side gantry cranes perform the primary job of moving the containers on and off the more than 2,000 vessels that call in at MTL every year. Some of these cranes can lift up to 40 tonners, extend 45.6 metres and move as many as 40 containers an hour. See Appendix A.3.4.2 for details of the terminal.

## (3) Sea-Land Orient Terminals Limited(SLOT)

Sea-Land Orient Terminals(SLOT) operates Berth No.3 at Kwai Chung and is positioned mid-way between the other two operators, HIT and MTL. SLOT handles about 20 vessels per week and throughput in 1995 was 880,334 TEU.

An in-house developed, Yard Inventory Control System, is used for container grounding and pick-up activities and is connected with the Gate and Vessel Stowage System, which facilitates pre-stacking of containers. Container yard operations are monitored through a Closed Circuit TV System at decentralised yard workstations. Vessel Stowage functions are performed using Advanced Stowage Planning which allows the planning of vessel loading sequences based upon the container's yard position.

The Gate System facilitates an average of 2,800 in-and-out transactions in a 24 hour period. A tractor Identity Card System is in use and Electronic Data Interchange of information with

liner clients ensures efficient gate operations.

Container Freight Station operations for Terminal 3 take place in the Asia Terminal Centre, where there are 94 receiving and loading bays in operation. See Appendix A.3.4.2 for details of the terminal.

#### (4) COSCO-HIT Terminal(Hong Kong) Ltd.

COSCO-HIT Terminals(Hong Kong) Ltd. (CHT) is a 50/50 joint venture between China Ocean Shipping(Group) Company(COSCO) and Hongkong International Terminals Ltd.(HIT). The terminal is situated on the northern corner of Stonecutters Island and is joined to the Kwai Chung Container Port by a land bridge. It has a designed handling capacity of 900,000 TEU per annum. CHT commenced operations in January 1994 and became fully operational in July 1994. In 1995 it handled over 1 million TEU.

CHT operates a real time yard computer system and an up-to-date ship planning system. These systems ensure fast and efficient container movement. The entry and exit gates use bar code scanners, closed-circuit TV and direct computer links to provide fast and efficient tractor turnaround. See Appendix A.3.4.2 for details of the terminal.

### C.10.16 Detailed information of Container Terminals of PSA

#### (1)Tanjong Pagar Terminal

Tanjong Pagar Terminal works 24 hours a day, seven days a week for vessels. The terminal has computer systems.

Computer systems:

Hardware: IBM 3081 G32, NAS 9060.

Software: in-house Functions: invoicing, container inventory, stowage planning, yard allocation, CFS operations. See Appendix A.4.4.2 for details of the terminal.

#### (2)Pasir Panjang Terminal

Pasir Panjang Terminal is being built. Phase I of the development, operation is start with four berths by 1998.

Future plans: The terminal is due to be expanded and developed in four phases over 30 years. Phase 1, due for completion in 1998, involves reclaiming 129ha and the construction of eight container berths with a total length of 2,730m. Phase 2 will offer 18 berths and is due for completion in 2009. On completion the terminal will have 50 container berths, total length 17,000m. See Appendix A.3.4.2 for details of the terminal.

#### (3)Keppel Terminal

See Appendix A.3.4.2 for details of the terminal.

**(4)Brani Terminal**

The terminal has computer systems.

**Computer systems:**

**Functions: ship and yard planning, stowage planning, berth allocation, mobile radio data transmission, container number recognition. See Appendix A.4.4.2 for details of the terminal.**