Appendix for Chapter 5

Appendix 5.2 Clarification of the Function of Major Ports

(1) Tg. Priok Port

Tg. Priok port is located in 106° 52' East longitude 06° 06' South Latitude facing to Jakarta Bay at north side of D.K.I Jakarta.

Tg. Priok port is the largest port in Indonesia and not only supporting the West Jawa economies as the main connection point of sea and land transportation but also national gate to/from all over Indonesia from/to the world. A 25% of all export cargo from Indonesia and a 50% of all import cargo to Indonesia are loaded/unloaded at Tg.Priok in 1995 and more than 50% of all container cargo in Indonesia are handled at the container terminal.

The western Part of Jawa Island is the main production center of consuming goods in Indonesia and Tg.Priok is the distribution center of these products with sea transport.

	Table A.5.2.	1 Profile of Tg. 1	Priok Port	
Name of port	Tg.Priok		Name of Province	West Jawa
	- 6		Population of Hinterland	48,319,000person
	Port working area	Land side	575 Ha	
Port Area		Seaside	424 Ha	
	Port Concerning ar	ea	На	
	Container	1,451,942 TEU	Js 13,808,297	7 Ton
	Conoral Cargo	Domestic	5,399,285	5 Ton
	General Cargo	International	5,621,682	2 Ton
Valuma of Congo	Drug Dully	Domestic	1,091,985	5 Ton
Volume of Cargo	Dry Bulk	International	4,364,642	2 Ton
In 1,995	Liquid Bulk	Domestic	7,130,914	4 Ton
		International	1,453,935	5 Ton
	Passenger	Foreign		2 persons
	rassengei	Domestic	820,005	5 Persons
	- Container		en en en esta	and a second
· . · · ·	PT S.I SINAR TIM		Twice a week (Si	Ç .
			5days a week (Sin	•
Shipping Service	PT S.I HUSUM		Twice a week (Si	•
And Size of	PT S.I LUMOSO E		Twice a week (Ja	
Calling Vessel		· .	Weekly (Jap-kao	v v .
	Hanjin JITRA BHU			a-mani-Sing-Jak)
	Hanjin CONTIJOI	K 1,599 TEUs	Weekly (Jap-Bus	-Kee-hong-Jak-Sura)
	- Pelni 6 routes			II Wester Denth
Port Facilities		Name of Berth	Length of Be	
			(m) 900.0	(m)
		Γ I (Basin Three)		
		ΓΙΙ (Basin Two) ΓΙΙΙ	510.0 450.0	
· · · · ·		1 111	430.0	0 1 14.0

 Cable A.5.2.1
 Profile of Tg. Priok Port

			ARA BASIN	650.0	5.0
		PERAH	U BASIN	995.0	5.0 - 6.0
		Basin Ot	ne (west out) 630.0	7.5
	General Cargo	Basin OI	ne (east in)	630.0	8.0
	General Cargo	Basin Tv	vo(west out)) 490.0	9.0-11.0
		Basin Tv	vo(east)	1,015.0	10.0
		1	1 Two & Three	150.0	12.0
		Basin Tl	ree(weat)	1,030.0	12.0
	Dry Bulk	Basin Or	ne (east out)	460.0	7.5
	Liquid Bulk	Basin Tw	o (south end)	145.0	4.0
· · ·	Ro-Ro	Basin Th	ree	175.0	· · · · ·
	Passenger		e (west out) One & Two	430.0 185.0	7.5
	Fuel and Oil	l		rth for four Tankers	L
Special Wharf	Petroleum Basin			THE FOL TOUR TAILKETS	s in renamma s
		angoing	.om depui	Domes	stic
· . ·	General Cargo(25.0	General Cargo(T/G	
	Bagged Cargo(36.0	Bagged Cargo(T/G	
1	Unitized Cargo		26.0	Unitized Cargo(T/C	
Productivities	Liquid Bulk (T/	· / /	20.0	Liquid Bulk (T/h)	J'II) 19.0
11000011100	Dry Bulk (T/h)	,	37.0	Dry Bulk (T/h)	33.0
	Container		57.0	Container	55.0
	CT (TEUs/C	'rane/h)	17.0	CT (TEUs/Cran	e/h)
	Conv (TEUs/C	-	3.0	Conv (TEUs/Cran	
A	the west end of	f the bre	akwater. Th	er and reached throu ne access channel is	
Access Channel and Maintenance	the breakwater The channel at used for normal Dredging of that of harbor w	heads wh the east of port traf the access vas less fr	ere total fai end of the b fic. ss channel v equently.	wide. But the width rway clearance is appreakwater is not main was performed every	is constricted at prox. 155m. intained and not y two years and
and	the breakwater The channel at used for normal Dredging of that of harbor w The toll roa Terminal I , morning and ev The port is	heads wh the east of port traf the access vas less fr ad, Jalan but still ening. served b . Contai	ere total fai end of the b fic. ss channel w equently. Yos Seod the port i y railway b ner railway	wide. But the width rway clearance is appreakwater is not main was performed every larso, leads directly s facing heavy transpranch connections dry port at Jl. Paso	is constricted at prox. 155m. intained and not y two years and y to Container ffic jam during to thr Tg.Priok

(2) Tg.Perak Port

Tg. Perak port is located in 112° 32' 22"East longitude 07° 11' 54"South Latitude facing to Madura Strait at north side of Surabaya Municipality in East Jawa province.

Tg. Perak port is the second largest port in Indonesia and has two important roles, one is to support the East Jawa economies especially for international industrial activities and the other is a distribution center for Eastern Indonesia. The cargo throughput from 1990 to 1995 increased 8.8% per year, while export- import increased 16.9% per year and 46% of all export-import cargo from/to East Jawa are through the port. The Port is located eastern end of Jawa Island which is very strategic position for the Eastern Indonesia as gate.

	r	Sibib Tronic of TE.			
Name of port	Tg.Perak		Name of Province	East Jawa	
runic or port	- Bit Or un			6,761,000person	
	Port working are	ea Landside	524.3 Ha	<u>- , ,</u>	
Port Area		Seaside	1,634.03 Ha		
	Port Concerning		1,634.03 Ha		
	Container	563,102 TEUs	5,677,514 To	n	
	General Cargo	Domestic	6,954,883 To		
	Solioi ai go	International	3,810,751 To		
Volume of Cargo	Dry Bulk	Domestic	1,417,686 To		
In 1,995		International	2,174,209 To		
	Liquid Bulk	Domestic	4,947,667 To		
		International	207,601 To		
	Passenger	Foreign Domestic	13,562 per		
	- Container	Domestic	1,030,911 Per	sons	
	- Container Advance KOTA S	ABAS 531 TEUs	Weekly (Sinp-Sura)		
	RCL GURUB	An example of the second se	3Times a Week (Si		
Shipping Service	Hanjin CONTL		Weekly(Jap-Bus-Kee-hong-Jak-Su)		
And Size of	Wan Hai WAN HA	-	Weekly(Jap-Kee-hong-Man-Jak-Su)		
Calling Vessel		AISTRIDE 1,100 TEUS	Weekly(kor-Kee-hong-Sin-Jak-Su)		
	COSCO PEACE		Weekly(PRC-hong-Sin-Jak-Su)		
	- Pelni 11 route	\$	•		
	- Pioneer shippin	g (home por) l route			
		Name of Berth	Length of Berth	Water Depth	
		· · · · · · · · · · · · · · · · · · ·	(m)	(m)	
	Container	TPK (multipurpose)	690.0	10.5	
		TPK	500.0	10.5	
	General Cargo	NORTH JAMRUD			
Port Facilities	na se	SOUTH JAMRUD	5,045.0	4.0-9.5	
	Dry Bulk	MIRAH, NILAM ets.			
			270.0		
I	Liquid Bulk		185.0		
	Small Ship	KALIMAS	2,270.0	3.0	

Table A.5.2.2 Profile of Tg.Perak Port

Special wharf	Fuel oil and gas (PERTA Grain and bran (PT.Boga Molasses (Molasses Bert Fertilizer (PT. Pupuk Pus	sari) E h) L	etty at northern end of Nila Dry bulk wharf at Nilam qua iquid bulk berh at Nilam qu Dry bulk berth at Nilam qua	uay
	Oceangoing General Cargo(T/G/h) Bagged Cargo(T/G/h)	27.0 0.0	Domestic General Cargo(T/G/h) Bagged Cargo(T/G/h) Unitized Cargo(T/G/h)	25.0 30.0 0.0
Productivities	Unitized Cargo(T/G/h) Liquid Bulk (T/h) Dry Bulk (T/h) Container	0.0 95.0 153.0	Liquid Bulk (T/h) Dry Bulk (T/h) Container	81.0 118.0
	CT (TEUs/Crane/h) Conv (TEUs/Crane/h)	17.0 10.0	CT (TEUs/Crane/h) Conv (TEUs/Crane/h)	0.0 0.0
Access Channel And Maintenance	9.5m depth and 100m w the channel, dredging ha part of the channel has m Restriction for calling s draft 9.5m. Sailing speec Eastern Channel : 45	idth at the ad been carr hore than 13 ship is may l is limited Km length	of the channel is 50Km. To 16Km distance from the en- ticd out every two years. R 3m depth and 200m width. 3m depth and 2	ntrance of temaining maximum nnel) Om depth,
Land Access To Port	south towards Surabay Malang Toll Road. Railway : From Ni	a City, bu lam wharf	oad from Jamrud quay po t not connected directly , Kalimas wharf and Int marshaling yard to hinterla	Surabaya- ernational
Port Master Plan	by ABD consulting serv Master Plan Concept and facilities developm port working area, new (1)soil condition (2)l (3)environmental impa	vice. was prepa ent plan ur developme and access	Tg.Perak was completed in red in 1996 including carg atil 2018. Due to the limit ent location was selected c including highway and sportation network (5)de	o forecast ed present onsidering d railway
	(1)Tg.Perak and Gresik ship calling (3)distribu	tion center for new d	epared considering following of integrated (2) increase in for Eastern Indonesia (4) r evelopment area (5) develo	ternational eclaim the

· · ·

(3) Tg. Emas Port

Tg. Emas port is located in 110° 25' East longitude 06° 57'South Latitude almost middle of the northern coast line of Jawa island and lies between two gate ports namely Tg.Priok and Tg.Perak in Jawa Island. The port is situated at about 485 km west of DKI Jakarta and at about 387 Km east of Surabaya city.

The port is situated at north side of Semarang, the capital city of Central Jawa province, and the role of the port is a distribution center of its hinterland, Central Jawa and Special District of Yogyakarta connecting with Jawa coast, Sumatra, Kalimantan Sulawesi and oversea countries by sea transportation.

The port area is alluvial lowland and drained by Semarang river, a small stream running though the city of Semarang, and by the east and West Banjir canals, each about 2Km from the port, emptying into the sea outside the port.

	1 abio 11.5.2.	5 FIOME OF I.g.E.				
Name of port	Tg.Emas		Name of Province	Central Jawa		
•			Population of Hinterland	29,653,000person		
	Port working area	Land side	838 Ha			
Port Area		Seaside	17,800 Ha			
	Port Concerning are	a	Ha			
	Container	103,846 TEU:	s 946,315 <i>′</i>	Гоп		
	General Cargo	Domestic	1,234,636			
Volume of Cargo In 1,995	General Cargo	International	1,792,202	Ton		
	Dry Bulk	Domestic 483,952 Ton				
		International 144,935 Ton				
	Liquid Bulk	Domestic 1,832,312 Ton				
		International 61,530 Ton				
	Passenger	Foreign		persons		
· .		Domestic 317,414 Persons				
	- Container	· · · ·	, *			
: 	Advance SEA HOU		Weekly (Sing-			
	PT S.I HUSUM	582 TEUs		(Sing-Jak-Sem)		
Shipping Service	Wan Hai 🛛 WAN HAI					
And Size of	Uniglory PERMAI		Weekly(Sing			
Calling Vessel	RCL HARIBI	IUM 540 TEUs	Weekly(Sing-J	lak-Sem)		
canng i voor	- Pelni 5 route					
· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	· .	· · ·		

Table A.5.2.3 Profile of Tg.Emas Port

		Nam	e of Berth	Length of Berth (m)	Wate	er Depth (m)
	Container	Contain	er Wharf	345.0		10.0
	General Cargo	Ocean V Domest	Wharf ic Wharf	605.0 170.0		9.0 4.5
Port Facilities	Dry Bulk					
	Liquid Bulk					
	Small Ship	Godowi	n 1-16 ·	1,697.0		3.0
	Passenger	Domest	ic Wharf	150.0	-	4.5
	Fetilizer (PT.)	DWIMA'	ΓΑΜΑ) Ι	L = 867.0 + 150.0	D = 6	.0
Special Wharf	Bunker Oil (PE PLTU	RTAMIN	NA) 2	jetties		
	Oce	angoing		Dome	stic	
	General Cargo(T/G/h)	33.0	General Cargo(T/C		19.0
	Bagged Cargo(34.0	Bagged Cargo(T/G	· · · ·	6.0
	Unitized Cargo		0.0	Unitized Cargo(T/	G/h)	0.0 71.0
Productivities	Liquid Bulk (T	-	0.0 26.0	Liquid Bulk (T/h) Dry Bulk (T/h)		129.0
	Dry Bulk (T/h) Container		20.0	Container		127.
	CT (TEUs/C	Trane/h)	0.0	CT (TEUs/Crar	ie/h)	0.0
	Conv (TEUs/		10.0	Conv (TEUs/Crat	· · ·	0.0
Access Channel And Maintenance	depth of -9.0m	LWL as j	planned. Ho	d in 1985 with wid wever the present de around $-7.2 \sim -8.0$	epth h	as became
Land Access						
To Port				Andreas (1997) - Andreas Andreas (1997) - Andreas (1997) Andreas (1997) - Andreas (1997)		
 	consulting serv	vice and r	eviewed in 1	ort was prepared in 1991.	n 198	÷.
Port Master Plan	port facilities 2018. The develop service such as calling as trun (4) good relati (5) port suppor	developn oment str producti k port (3 ionship to ting activ	nent volume ategy is as vity and effi) facilitate a o industrial vities.	ed in 1996 includin and implementation follows (1) improvinciency (2) increase in 11 kinds of port fun estate and boded z al estate(150Ha), P	on sch ve por interna ction zone in	edule unt t operatio ational shi and marin n port are

(4) Belawan Port

Belawan port is located in 98° 41' East longitude 03° 47' South Latitude at the north of the eastern coast of Sumatra island and between Belawan river and Deli river. The port basin at the mouth of Belawan river is connecting to Malacca Strait, one of the most important straits for East Asia Countries, through 12Km access channel.

The port is situated 27Km east of Medan, the capital city of North Sumatra Province, and is playing a vital role as a sea transport center for all economies activities in its hinterland, North Sumatra and southern part of Ache, connected to Jawa, Sumatra, Kalimantan Sulawesi and oversea countries especially for Malaysia and Singapore.

The main products in its hinterland are agriculture and forestry such as palm oil, rubber and rattan so on, and Medan Industrial Estate (MIE) is located 15Km from the port.

	I able A.5.2.	4 Profile of Bela	wan Poit	
Name of port	Belawan		Name of Province	North Sumatra
Name of port	Delawan		Population of Hinterland	11,115,000person
	Port working area	Landside	61,620 Ha	· · · · · · · · · · · · · · · · · · ·
Port Area	Ŭ	Seaside	10,643 Ha	
na an a	Port Concerning are	a	Ha	
	Container	191,058 TEU	s 1,771,749	Ton
	Comaral Corra	Domestic	1,913,863	Ton
	General Cargo	International	3,185,227	Ton
Malana Comm	Der Dulle	Domestic	2,191,326	Ton
Volume of Cargo	Dry Bulk	International	865,238	Ton
In 1,995	Liquid Bulk	Domestic	2,288,240	Ton
		International	1,499,149	Ton
	Daggongor	Foreign	121,552	Persons
	Passenger	Domestic	141,786	Persons
	- Container			
	Advance KOTA SU	IRIA 589 TEU		
	PT S.I SINAR M	ALAKA – TEUs	Weekly (Sing	-Bel-Penang)
Chinata - Comico	RCL THANA	320 TEUs	Weekly (Sing	-P.Kel-Bel)
Shipping Service	MEARSK Ocean Bril	liancy 545 TEUs	Weekly (P.Ke	l-Sin-Bel-Sin)
And Size of	MEARSK MCC Vav	tage 486 TEUs	Weekly (Sing-	P.Kel-Bel)
Calling Vessel	COSCO Tang He	1,152 TEUs	Weekly (Hong	g-Sing-Bel-Penang)
	- Pelni 1 route		· · · · · · · · ·	
	a secondaria da secondaria da			•
				· · · ·

Table A.5.2.4 Profile of Belawan Port

11		Nam	e of Berth	Length of Berth (m)	Wat	ter Depth (m)
	Container	GABIC	N C.T.	500.0 (Semi) 350.0		10.0 10.0
Port Facilities	General Cargo	Ujung I CITRA		1,255.0 625.0		7.0 7.0
1 ofter admitted	Dry Bulk	CITRA	BASE	150.0		6.0
	Liquid Bulk	Ujung l	 Baru	200.0		7.0
	Small Ship	LAME	BASE	1,554.0		
	Passenger	Ujung l	Baru	215.0	- -	9.0
	Cement (PT.SA	E) Jett	у			- .
Special Wharf	Fuel (PERTAM	IINA) Je	tty			
· · · · · · · · · · · · · · · · · · ·	IKD Berth			Dom	ontin	
	General Cargo(angoing	20.7	General Cargo(T/		I
	Bagged Cargo(25.7	Bagged Cargo(T/		
	Unitized Cargo	•	39.3	Unitized Cargo(T		
Productivities	Liquid Bulk (T		93.9	Liquid Bulk (T/h))	
· · ·	Dry Bulk (T/h)		39.8	Dry Bulk (T/h)		
	Container			Container		
	CT (TEUs/C		16.8	CT (TEUs/Cra	-	
· · ·	Conv (TEUs/		l	Conv (TEUs/Cra		<u> </u>
				Labuhan Deli. B		
Access Channel And				the port was relo maintained to be		
Maintenance				maintenance dred		
Mantenance				but 1,800,000 m^3 .	5	The recom
	A highway	is in ope	eration to se	erve as the access	to the	e port from
Land Access	Medan city wit	h distanc	e of 23Km.		1.1	
То	The railway	, mainly	utilized fo	r the liquid bulk	transp	ortation, is
Port		Ujung l	Baru Base,	and extension to	Gabi	on base is
	planning.					
				ort was prepared	in 198	3 by ADE
·	consulting serv					an formanat
		· .		ed in 1996 includi and implementation		-
	2018.	aevelopi	uent volume	and implementat	on sei	icuaic unti
		oment str	ategy is (1)	supporting the ec	onomi	cs in North
Port Mater Plan				age of geographica		
				ional ship calling		
	1 · · · · · · · · · · · · · · · · · · ·		•	cy (4) applying priv		
	Improving t	urning ba	asin access c	hannel and anchora	age are	a in port.
				road network, par		

(5) Banjarmasin Port

Banjarmasin port is located in 114° 34'48" East longitude 03° 20'18"South Latitude and along the riverside of Barito and Martapura at the southern part of South Kalimantan Province, about 20 mile from the sea.

The port is the main gate of sea transportation and playing a key role for economic activities of the province especially for transshipment of cargo. But as the port is located midstream of the river, the size of calling ship is restricted and waiting time is too long. The area of Banjarmasin city is composed of low and wet land. The most part of the urban area floods in the rainy season from Martapura river and other smaller rivers.

The public port consists of three terminals, Trisakti, Old and New Martapura and in the jurisdiction of the port there are many private industry jetties which are called as "out Ports" The private industry jetties, mostly producing plywood, are located along both banks of the Barito river. The coal handled in the port is mined in Klanis area in Central Kalimantan Province, about 280Km up to the Barito river and transported by barge into open sea where it

is transshipped at anchorage.

To cope with this siltation problem, local governmet planned to develop a new port at Batulicin located in Laut Straits about 270km southeast of Banjarmasin. Butulicin port is protected with Sebulu Island and Laut Island and there are 7m deep two channels from Makassar Strait.

Name of port	Banjarmasin		Name of Province	South Kalimantan
			Population of Hinterland	2,893,000 person
	Port working area	Land side	95 Ha	
Port Area		Seaside	115,000 Ha	
	Port Concerning are	a	Ha	
	Container	59,939 TEUs	670,564	Γon
	0 10	Domestic	3,130,275	
	General Cargo	International	1,474,432	
Values of Compo	Dry Bulk	Domestic	465,550	
Volume of Cargo In 1,995		International	5,510,303	
III 1,995	Liquid Bulk	Domestic	622,733	
		International	44,739	Ton
	Passenger	Foreign	-	
	rassenger	Domestic	283,092 I	Persons
	- Pelni 1route	· · · · ·		
Shipping Service				
And Size of				
Calling Vessel		•		
	· · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	

 Table A.5.2.5
 Profile of Banjarmasin Port

		Name of Berth	Length of Berth (m)	Water Depth (m)
	Container ·	New Trisakti	(Semi) 200.0	9.0
Davit Escilistica	General Cargo	Old Trisakti New Martapura	240.0 350.0	9.0 5.0
Port Facilities	Dry Bulk	Trisakti (Cement)	40.0	7.0
	Liquid Bulk			
	Small Ship	Old Martapura	428.0	4.0
	Passenger	Trisakti	70.0	9.0
Special Wharf	Out ports (many	y private industrial je	etties)	
	Oce	angoing	Dome	stic
	General Cargo(General Cargo(T/G	/h)
	Bagged Cargo(Bagged Cargo(T/G	
	Unitized Cargo	(T/G/h) 25.0	Unitized Cargo(T/C	G/h)
Productivities	Liquid Bulk (T/	/h)	Liquid Bulk (T/h)	
	Dry Bulk (T/h)		Dry Bulk (T/h)	
	Container		Container	
	CT (TEUs/C	Crane/h)	CT (TEUs/Cran	e/h)
	Conv (TEUs/C	Crane/h) 8.0	Conv (TEUs/Cran	ne/h)
Access Channel and Maintenance Land Access To	deep and has to		n port is 14km long lously, twice a year. 0,000 m3.	
Port				
Port master plan	consulting serv Master Plan port facilities of 2018. The develop container trans Kalimantan (2) recreation (3) of	ice and reviewed in Concept was prepar levelopment volume ment strategy is (1) port in South Kalin) improve Passenger listribution center ar atulicin port will be	ort was prepared in 1996. ed in 1996 including and implementation supporting national a mantan and southern Terminal function nd transshipment (4) developed to suppor	g cargo forecast, n schedule until and international part of Central for tourism and port supporting

(6) Balikpapan Port

Balikpapan port is located on cast coast of Kalimantan island about 115 km south of Samarinda, the capital city of East Kalimantan Province. The port is situated on the north coast of Balikpapan Bay. The bay is facing to Makassar Strait and has 5.4km wide at mouth of the bay and about 20km long.

Balikpapan is the largest city in East Kalimantan province and the main industries of the hinterland arc crude oil, mining, forestry, agriculture and fishery.

New international class airport opened I 1994 and the municipality of the city intends to develop more industries in this region. Kariangau area was selected as the site for new industrial estate development. The area is located about 12km northwest from the city center and facing the Balikupapan Bay. The total area of industrial estate is planned to be 4,500Ha and necessary infrastructures such as road, seaport and so on will be developed. The port working land area in the estate is more/less 200 Ha.

Name of port	Balikpapan		Name of Province	East kalimantan
			Population of Hinterland	2,314,000 person
	Port working area	Land side	8.5 Ha	
Port Area		Seaside	3,032 Ha	· · ·
	Port Concerning are	a	Ha	· · · ·
· · ·	Container	4,028 TEUs	37,441 Tor	1
	General Cargo	Domestic	2,186,935 Tor	1
	Ceneral Cargo	International	285,023 Tor	1
Volume of Cargo	Dry Bulk	Domestic	725,186 Tor	1
In 1,995		International	888,630 Tor	<u>1</u>
m 1,995	Liquid Bulk	Domestic	16,998,679 Tor	1
		International	20,939,156 Tor	1 .
	Passenger	Foreign	· · · · ·	
	1 assenger	Domestic	394,964 Per	rsons
ai' ' a '		an a		· · · · · · · · · · · · · · · · · · ·
Shipping Service			e set	
And Size of				
Calling Vessel			· · · · · ·	
		ang ang sang sang sang sang sang sang sa		

Table A.5.2.6 Profile of Balikpapan Port

	•	Nam	e of Berth	Length of Berth (m)	Wate	er Depth (m)	
	Container						
	General Cargo	Semaya	ng	329.0		7.0	
Port Facilities	Dry Bulk		· · · · · · · · · · · · · · · · · · ·				
	Liquid Bulk	······	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
	Small Ship	Kampu	ng Baru	102.0		4.0	
	Passenger	Semaya	ng	100.0		6.0	
Special Wharf	Crude Oil and p Crude Oil and p Crude Oil and p Coal (PT Derm LNG (Bontang) Plywoods (othe	oroducts (products (aga Perka	Penajam Te Pertamina T asa Pratama	rminal) Ferminal)	 		
······································		angoing	bortilisy	Dome	estic		
Productivities	General Cargo Bagged Cargo Unitized Cargo Liquid Bulk (T/ Dry Bulk (T/h) Container CT (TEUs/C Conv (TEUs/C	T/G/h) T/G/h) (T/G/h) /h) Crane/h)	15.0 25.0 24.3 121.7 0.0 0.0 0.0	General Cargo(T/C Bagged Cargo(T/C Unitized Cargo(T/C Liquid Bulk (T/h) Dry Bulk (T/h) Container CT (TEUs/Crat Conv (TEUs/Crat	3/h) 3/h) G/h) ne/h)	14.3 24.6 25.4 0.0 0.0 0.0	
Access Channel And Maintenance	bay.These rive estimated to be Island. The way at the mouth of To the south shoals less than	Balikpapan, Riko, Wain and Sumber river run into the Balikpapan bay.These rivers are relatively small and the sediment discharge is estimated to be relatively low compare to other rivers in Kalimantan Island. The water depth of Balikpapan river and Riko river is 10m LWS at the mouth of river and Wain and Sumber river is 4m. To the south of the entrance of Balikpapan Bay, there are extending shoals less than 5m deep but the 20 km long 13m or more depth access channel was developed and is maintained by Pertamina.					
Land Access To Port	The land are seriously conge		t is very lir	nited and access ro	oad to	the port is	
Port Mater Plan	1979 and revie Master Plar Passenger fore development s service becaus only for tradit	wed in 1 Concep cast and trategy i e of limi ional shi and conta	985 and 199 ot was prep facilities de s also show ted land are p and touris	apan port was establ 6 by ADB technical pared in 1997 inclu- velopment plan unt n as "Semayang or a and access road" sm" and "new port angau Industrial Est	l servic uding il 2013 ily for "Kam develo	ce. cargo and 8. The port passenger pung Baru opment for	

(7) Makassar (Ujung Pandang) Port

Makassar port is located at west coast of Ujung Pandang, the capital city of North Sulawesi Province. The port is situated on the northwest end of Sulawesi Island facing to Makassar Strait that is, potentially, an alternative channel of Malaka Strait for international shipping route. Ujung Pandang is the largest city in Eastern Indonesia and Makassar port is the gateway port for this area.

The main industries of the hinterland are agriculture and forestry. And Makassar Industrial Estate (KIMA) development started with provincial government support and the highway is constructing from airport to seaport, the industrial area located in between.

All of New Hatta Quay construction project will finish soon and container handling facilities will be installed in near future.

	Table A.	5.2.	7 Profile of Mak	assar Port	•	· · · ·	
Name of port	Makassar			Name of Province	S	outh Sulawesi	
Ĩ				Population of Hinterland	7,	558,000 person	
	Port working are	ea	Land side	50.78 Ha			
Port Area			Seaside	1,467.2 Ha			
	Port Concerning	z are	a	На			
	Container		111,542 TEU	s 948,188 '	Ton		
	General Cargo		Domestic	1,013,809	Ton		
	General Cargo		International	308,558	Ton		
Valuma of Conco	Dura Daally		Domestic	112,428	Ton		
Volume of Cargo In 1,995	Dry Bulk		International	329,861 Ton			
III 1,995	Liquid Bulk		Domestic	598,572 Ton			
and a second			International	56,706 Ton			
· ·	Passenger		Foreign	6,986	Perse	ons	
	rassenger		Domestic	813,829	Perso	ons	
Shipping Service	- Pelni 11ro						
And Size of	- Pioneer ship	pin	g (home port) 2r	oute			
Calling Vessel		· ·	· · · · · · · · · · · · · · · · · · ·				
			Name of Berth	Length of Be	rth	Water Depth	
				(m)		(m)	
	Container	Ha	atta Quay	(semi) 490).0	10.0	
	C	Se	okarno	1,000).0	8.0	
Dent Destlicher	General Cargo	Ha	atta	180).0	10.0	
Port Facilities	Dry Bulk	Se	okarno Quay	360).0	7.0	
	Liquid Bulk	:					
	Small Ship	Pa	otere	520).0	3.0	
	Passenger			180).0	8.0	

 Table A.5.2.7
 Profile of Makassar Port

	Occangoing		Domestic	-					
	General Cargo(T/G/h)	14.0	General Cargo(T/G/h)	14.0					
	Bagged Cargo(T/G/h)	28.0	Bagged Cargo(T/G/h)	27.0					
	Unitized Cargo(T/G/h)	26.0	Unitized Cargo(T/G/h)	26.0					
Productivities	Liquid Bulk (T/h)	113.0	Liquid Bulk (T/h)	116.0					
I Ioddoll I Idob	Dry Bulk (T/h)	133.0	Dry Bulk (T/h)	156.0					
	Container		Container	· ·					
	CT (TEUs/Crane/h)	0.0	CT (TEUs/Crane/h)	0.0					
	Conv (TEUs/Crane/h)	10.0	Conv (TEUs/Crane/h)	0.0					
Access Channel and Maintenance	At the present, the port is not affected by sedimentation hence no dredging work was carried out in these days. The main supply source of sedimentation of the port area is anticipated to be Jene Berang river and sand bar flushed out by river.								
Land Access To Port	The port entrance gate area was relocated with Hatta quay development and toll road to airport through industrial area is constructing. But it seems that there are some problems for container transportation in this area.								
Port Master Plan	1984 and reviewed in 19 Master Plan Concep Passenger forecast and development strategy development" "unloadi passenger terminal loc volume" For future expansion is located in front of th supply not only port wo Access road from p	992 by OEC at was prep facilities de is also s ng containe ation" and of the port ne port, will rking area b ort to hinte tor for futur	bared in 1997 including evelopment plan until 201 hown as "limited land er volume is dominant" "rapid growth of cont land area, Lae-Lae area I l be reclaimed 200Ha. The put also industrial and tour erland and electric power re development. Coordina	cargo and 8. The port 1 area for "review of ainer cargo sland which ne area will rism area. r and water					

A-5-14

(8) Panjang Port

Panjang port is situated in the Lampung bay area in southern tip of Sumatara Island. It is about 8 km from Teluk Betung. The port is well protected by a submerged coral reef with enough depth for international shipping and is one of the largest port in Southern Sumatra serving much of the southern portion of the Island.

Name of port	Panjang			Name of Province	La	mpung		
				Population of Hinterland	6,658,	000 person		
	Port working are	ea	Landside	105 Ha				
Port Area			Seaside	Ha		· ·		
· · · · · · · · · · · · · · · · · · ·	Port Concerning	·		На				
• • • •	Container	4	8,681 TEUs					
	General Cargo		Domestic 603,753 Ton					
			nternational	1,043,661T				
Volume of Cargo	Dry Bulk		Domestic	4,155,697T				
In 1,995			nternational	944,073 1				
	Liquid Bulk	1	Domestic	807,263 1				
			nternational	79,375 1	<u>`on</u>			
	Passenger	· • •	oreign	- 1				
			Domestic	987 Perso				
Shipping Service		R TIMU						
And Size of								
Calling Vessel	- Pelni 1 rout	ie	·		· · · · · · · · · · · · · · · · · · ·			
		Nam	e of Berth	Length of Be	rth Wa	ter Depth		
				(m)		(m)		
	Container	CT	· · · · · · · · · · · · · · · · · · ·	298.0	· · · · · ·	12.0		
		Wharf		172.0		8.5		
	General Cargo	Wharf B		210.0	·	5.5		
Port Facilities	Somoran Cango	Wharf		138.0		7.0		
		Wharf	D	487.0)	10.0		
	Dry Bulk		at a sur i sur					
	Liquid Bulk							
	Small Ship							
	Passenger							
	Oce	angoing		Do	mestic			
	General Cargo(T/G/h)	21.7	General Cargo(T/G/h)	20.7		
	Bagged Cargo(1	[/G/h)	24.6			23.4		
	Unitized Cargo((T/G/ h)	0.0	Unitized Cargo	(T/G/h)	0.0		
Productivities	Liquid Bulk (T/	h)	117.8	Liquid Bulk (T/	h)	74.3		
	Dry Bulk (T/h)		26.5	Dry Bulk (T/h)		64.9		
	Container	1997 - 1997		Container				
	CT (TEUs/C		0.0	CT (TEUs/C		0,0		
	Conv (TEUs/C		26.5	Conv (TEUs/C		0.0		
Access Channel	200m wide and	14m dee	ep channel ar	nd 5-12m deep in	iside har	bor		

 Table A.5.2.8
 Profile of Panjang Port

(9) Palembang Port

Palembang port is situated in the South Sumatara Province on Musi River. It is about 100 km from the mouth of River. The port is important river port as regional distribution center of river transportation.

	1 4010 1 110							
Name of port	Palembang			Name of Province	South	Sumatra		
				Population of Hinterland	7,208,0)00 person		
	Port working are	a	Landside	22,409 Ha				
Port Area	U		Seaside	1,120 Ha				
	Port Concerning	area	· · ·	Ha				
	Container		15,610 TEU	s 104,392 T	`on			
	Course Course		Domestic	2,001,115 T	`on			
	General Cargo		nternational	771,651 1	on			
V.L.	Dev Dealle		Domestic	1,460,326 T	`on			
Volume of Cargo	Dry Bulk		international	541,859 1	on			
In 1,995	Linut J Dulls		Domestic	5,343,785 1	on			
	Liquid Bulk		International	565,531 7	lon			
	Dessence		Foreign	19,389 F	Persons	· · ·		
	Passenger	Passenger Domestic			ersons			
Shipping Service And Size of Calling Vessel	- Container PT S.I TIWAI	T S.I TIWADIKA - TEUs Twice a week (Sing-Pal)						
		Nar	ne of Berth	Length of Be (m)	rth Wat	er Depth (m)		
	Container	Boom	Baru	265.0)	9.2		
	General Cargo	Boom	Baru	475.0)	7.0		
Port Facilities	Dry Bulk							
· · · · · · · · · · · · · · · · · · ·	Liquid Bulk							
	Small Ship	Boom	Baru	280.0	0	3.5		
	Passenger		· .					
· · · ·	Oce	angoing	Į	Do	mestic			
	General Cargo(18.0	General Cargo(T/G/h)	17.3		
	Bagged Cargo(27.5	Bagged Cargo(26.8		
1. A.	Unitized Cargo	•	1	Unitized Cargo		81.2		
Productivities	Liquid Bulk (T/	-	115.2	· · · · · · · · · · · · · · · · · · ·	•	176.7		
	Dry Bulk (T/h)		0.0	Dry Bulk (T/h)	· ·	46.0		
	Container			Container				
	CT (TEUs/C	lrane/h)	8.0	CT (TEUs/C	Crane/h)	0.0		
	Conv (TEUs/C	Crane/h)	Conv (TEUs/Crane/h) 0.0				
Access Channel	The main chan	nel is 1	00km long 1	20m wide and r	un from	the port to		
And		estuary with 8m design depth. From estuary, the channel continue						
Maintenance		seaward about 12 km to deep water. The outer channel is maintained						
	with dredging t	wice a	year, but vess	el is often waitin	ig high tic	de.		

Table A.5.2.9 Profile of Palembang Port

(10) Pontianak Port

Pontianak port is located at the west side of West Kalimantan Province and is river port on Kapuas River. The port is the biggest port in the province and the gate port from/to the area, mainly engaged in export. The new port facilities will be developed in western area from present position that means to reach to the estuary.

	1401071.5			TOTILE OF LO				
Name of port	Pontianak				Name of Province	West K	Kalimantan	
					Population of Hinterland	3,636,	000 person	
· · · ·	Port working are	ea]	Landside	17.32 Ha			
Port Area			S	Seaside	10,438 Ha			
	Port Concerning	g area		н 1	Ha			
	Container			26,367 TEU	266,142 Ton			
	Cananal Canaa		Domestic 778,816 Ton					
	General Cargo		International 925,101 Ton					
Volume of Congo	Dry Bulk		D	omestic	-			
Volume of Cargo In 1,995	DI y Bulk	24. 1	Ir	nternational	· _			
III 1,995	Liquid Bulk		D	omestic	618,021	Гon		
		international						
	Passenger			oreign	-			
· · · · · · · · · · · · · · · · · · ·			D	omestic	356,102 F	ersons		
Shipping Service	- Pelni 2route		· · .	· · ·				
And Size of	- Pioneer shippi	- Pioneer shipping (home port) 2 route						
Calling Vessel								
		· N	am	e of Berth	Length of Be	rth Wa	ter Depth	
				· · · · · · · · · · · · · · · · · · ·	(m)		<u>(m)</u>	
	Container	Wha	rf ()7	(semi) 100	.0	5.5	
	General Cargo	Wha	rf ()1 – 06	607	.0	5.5	
Port Facilities	Dry Bulk		-					
	Liquid Bulk	Nipa	h F	Kuning	140	.0	5.5	
	Small Ship			÷.				
	Passenger							
	Ocea	angoi	ng		Do	mestic		
	General Cargo(_	41.0	General Cargo(T/G/h)	25.0	
	Bagged Cargo(7	[/G/h])	19.0	Bagged Cargo(Г/G/h)	30.0	
	Unitized Cargo((T/G/I	h)		Unitized Cargo	(T/G/h)	9.0	
Productivities	Liquid Bulk (T/	h) 👘			Liquid Bulk (T	'h)		
	Dry Bulk (T/h)				Dry Bulk (T/h)			
	Container				Container			
	CT (TEUs/C				CT (TEUs/C	,		
	Conv (TEUs/C				Conv (TEUs/C			
Access Channel					Kapuas Kecil I			
and					eep at the estua	ry. 12kn	i length of	
Maintenance	channel needs d	reagi	ng	io maintain	me deptn.			
· · · · · · · · · · · · · · · · · · ·	L			·	•			

Table A.5.2.10 Profile of Pontianak Port

(11) Lhok Seumawe Port

Lhok Seumawe port is located in east coast of the Special Teritory of Aceh and 20 km from Lhok Seumawe city, the regency of North Ache. The function of the port is import and export of raw materials for industrial activities, especially gas and oil industry. Beside there is rapid growth of palm oil and agricultural products.

	1 aute A.J.2.1	1 1101	IC OF LINK	ooumane r ore					
Name of port	Lhok Seumaw	/e		Name of Province	A	ceh			
I value of port	Linex ocumun	• •		Population of Hinterland	3,848,0	00 person			
	Port working are	a L	andside	41.6 Ha	L				
Port Area			easide	10,496 Ha					
	Port Concerning	area	н 	Ha					
	Container		· · · · ·						
	General Cargo		omestic	106,084 To					
	General Cargo		ternational	<u>445,117 To</u>					
Volume of Cargo	Dry Bulk	i i i	omestic	336,421 To					
In 1,995			ternational	415,798 To					
III 1,225	Liquid Bulk		omestic	384,734 To					
			ternational	30,165,065 To	n				
	Passenger		oreign omestic						
	-		omestic	Length of Berth Water Dep		er Denth			
	Name of Berth			(m)	atii wat	(m)			
	Container								
				567.		9.5			
	General Cargo								
Port Facilities	Dry Bulk	· · · .		195.	0	4.5			
	Liquid Bulk								
	Small Ship								
	Passenger		· · ·	288.	0				
	Oce	angoing		D	omestic				
	General Cargo(25.0	General Cargo	(T/G/h)	27.0			
	Bagged Cargo(Γ/G/h)	27.7	Bagged Cargo(13.9			
	Unitized Cargo		37.2	Unitized Cargo		25.6			
Productivities	Liquid Bulk (T/	′h)	136.5	Liquid Bulk (T	· · ·	0.0			
	Dry Bulk (T/h)		39.5	Dry Bulk (T/h)		28.0			
	Container			Container					
	CT (TEUs/C			CT (TEUs/Crane/h)					
	Conv (TEUs/C			Conv (TEUs/		5 by IRPD			
	Master Plan for Lhok Seumawe port was prepared in 1985 by IBRD and reviewed in 1998 by IPC 1.								
Port master Plan				ared in 1996 i	ncluding	cargo and			
	passenger forecast and facilities development plan until 2018.								

Table A.5.2.11 Profile of Lhok Seumawe Port

(12) Dumai Port

Dumai port is located on the eastern coast of Riau province at the central part of Sumatra Island along the Malaka Strait, one of the most important shipping lane in the world. The port is situated about 60km south through the Rupat Strait from the Malaka Strait and is well sheltered from open sea by Rupat Island with sufficient water depth.

The port has been developed to export crude and refined oil from Minas oil field. But now the port is also playing an important role as nucleus port to handle agricultural and industrial products and associated economic activities in Riau and North Sumatra.

Name of port	Dumai		· · · ·	Name of Province	I	Riau		
т. .		••		Population of Hinterland	1,080,	000 person		
	Port working area	J	Land side	144.1 Ha				
Port Area			Seaside	6,800 Ha	· .			
	Port Concerning an		· · · · ·	Ha				
	Container		480 TEUs	3,830 T				
	General Cargo		omestic	293,251 T				
			ternational	<u>267,019 T</u>				
Volume of Cargo	Cargo Dry Bulk		omestic	34,437 T				
In 1,995			ternational	458,955 T				
	Liquid Bulk		omestic	16,567,470 T				
		· • • • • • • • • • • • • • • • • • • •	ternational	21,093,525 T				
	Passenger		oreign Iomestic	91,779 Persons 247,741 Persons				
Chinging Compiles	- Pelni 1 route		omestic	247,741 F	ersons			
Shipping Service And Size of	- Ferry from Malay							
Calling Vessel	- Telly holli Malaysia							
Cuming + 05301	Length of Berth Water Depth							
· · · · · · · · · · · · · · · · · · ·		Nam	e of Berth	(m)	(m)			
	Container							
	General Cargo		· · ·	. 893.0)	8.0		
Port Facilities	Dry Bulk							
	Liquid Bulk							
	Small Ship							
	Passenger			36.0) · · [3.5		
	Ocean	going		Do	mestic			
	General Cargo(T/C	<u></u> 3/h)	18.6	General Cargo(T/G/h)	85.0		
	Bagged Cargo(T/C		· · ·	Bagged Cargo(
	Unitized Cargo(T/	(T/G/h)		Unitized Cargo	• •			
Productivities	Liquid Bulk (T/h)		137.5	Liquid Bulk (T/	'h)			
	Dry Bulk (T/h)			Dry Bulk (T/h)				
	Container	нх		Container		2		
	CT (TEUs/Cran			CT (TEUs/C				
	Conv (TEUs/Cra	ne/h)		Conv (TEUs/C	_rane/n)	L]		

Table A.5.2.12Profile of Dumai Port

(13) Pekanbaru Port

Pekanbaru port is river port on Siak River about 160 km from the estuary and Pekanbaru is the capital city of Riau province. The role of the port is to support the regional economy of the city and industrial activities in the hinterland.

Due to the new bridge construction about 150m downstream of the port, new location, Perawang area will be developed for large vessel.

	Table A.5.	.2.1	3 I	Profile of Pe	ka	nbaru Port	1.1			
Name of port	Pekanbaru					Name of Province		R	iau	
					ľ	Population of Hinterland	2,	821.0	00	person
	Port working are	ea		Land side		66.5 Ha	<u> </u>			
Port Area			;	Seaside		1,670 Ha				
	Port Concerning	are	a			Ha				
	Container			9,308 TEUs	<u>s</u>	0 Tor	1			
	General Cargo		Domestic		,	848,040 Tor	1			· · ·
				nternational		1,082,706 Tor	1			
Volume of Cargo	Dry Bulk			omestic		43,265 Tor	1			
In 1,995				nternational						
	Liquid Bulk			Omestic		80,454 Tor		нц. н. М		
	-		International		3,851 Tor	1			÷	
	Passenger			oreign						
	B	Domestic				45,080 Per	• • • • • • • • • • • • • • • • • • • •	<u>s</u>		•
· · · ·		Name of Berth			Length of Ber	th	Wate	r D	epth	
						(m)			<u>(m</u>) ·
	Container			· · · ·						
	General Cargo				·	346.0	· .			5.0
Port Facilities	Dry Bulk				:			•		
·	Liquid Bulk					· · · · · · · · · · · · · · · · · · ·				
	Small Ship		1. J.	· .				• .		
	Passenger			· .						
	Ocea	ingo	oing			Doi	nest	tic		
	General Cargo(T			14.7	G	eneral Cargo(I	'/G/	h)		
	Bagged Cargo(T			· ·		agged Cargo(T				
T	Unitized Cargo(/h)		U	initized Cargo(T/G	/h)		
Productivities	Liquid Bulk (T/ł	n) –		31.4	L	iquid Bulk (T/ł	i)			
	Dry Bulk (T/h)	· .				ry Bulk (T/h)				
	Container	<u>.</u>			1 .	ontainer				
	CT (TEUs/Ci					CT (TEUs/Cr		· · ·		
Access Channel	Conv (TEUs/C		<u> </u>			Conv (TEUs/C			<u> </u>	
Access Channel and	The next basis	The access channel is more than 160 km long through Siak River. The port basin is about 60m.wide and 1.0-5.0m deep.								
Maintenance	The port dasin is	s ab	out c	um.wide an	id I	1.0-5.0m deep.				
mannenance										

Table A.5.2.13 Profile of Pekanbaru Port

(14) Jambi Port

Jambi port is located on the batanghari River about 160 km upsteam of the river mouth port of Muara Sabak. The port is an important river port serving as a collection point for cargo by small river craft. Talang Duku is situated 15km downstream from the port and is expected to replace Jambi port as primary port for surrounding area.

				· · · · · · · · · · · · · · · · · · ·	·				
	1			Name of	Ja	mbi			
Name of port	Jambi			Province					
	· · · · · · · · · · · · · · · · · · ·	· <u> </u>		Population of Hinterland	2,370,0	000 person			
	Port working are		Landside	Ha					
Port Area			easide	Ha					
	Port Concerning			Ha	· · · · · · · · · · · · · · · · · · ·				
	Container		7,186 TEUs	54,195 Ton					
	General Cargo		omestic	1,284,031 T					
			ternational	748,674 T					
Volume of Cargo	Dry Bulk		omestic	74,744 T					
In 1,995			ternational	54,151 T					
	Liquid Bulk		omestic	433,596 T					
			ternational	3,934 T	on	· · ·			
	Passenger		oreign	-	· · · ·	an an Araba			
	B		omestic	25,411 Persons Length of Berth Water Depth					
		Nam	e of Berth	Length of Be	rth Wat	•			
	<u>a</u>			(m)		(m)			
	Container		· · · · · · · · · · · · · · · · · · ·						
	General Cargo			344.0	0	7.0			
Port Facilities	Dry Bulk								
	Liquid Bulk								
	Small Ship	-							
	Passenger								
	Passenger								
		angoing	· · · · ·	Do	omestic				
	General Cargo(Γ/G/h)	34.6	General Cargo(T/G/h)	26.0			
a series a series a	Bagged Cargo([/G/h)	23.0	Bagged Cargo(T/G/h)	24.1			
	Unitized Cargo	(T/G/h)	0.0	Unitized Cargo	•	0.0			
Productivities	Liquid Bulk (T/	h)	0.0	Liquid Bulk (T		79.7 28.0			
	Dry Bulk (T/h)		0.0		Dry Bulk (T/h)				
	Container	er George George		Container					
	CT (TEUs/C		0.0	CT (TEUs/C	,	0.0			
	Conv (TEUs/C		6.0	Conv (TEUs/Crane/h) 0.0					
Access Channel		The navigation channel for Jambi port is composed two section : outer bar area about 20km long and river channel about 140km long.							
and	bar area about 2	Ukm lon	g and river	channel about 14	Ukm long	5, 1			
Maintenance	Dredging of o	uter bar a	irea is carrie	d out every two	year with	i 4m deep.			

Table A.5.2.14 Profile of Jambi Port

(15) Teluk Bayur Port

Teluk Bayur port is located in west coast of Sumatra Island and 7 km south of Padang, the capital city of West Sumatra Province. The port serves as the harbor for Padang and is main port for ocean-going vessel on west coast of Sumatra.

Additional facilities are also provided at the nearby river port at Muara Padang.

	Table A.5.2	2.15 Pr	ofile of Telu	ık Bayur Port			
Name of port	Teluk Bayur	- <u>-</u>	· · · · · ·	Name of Province	West	Sumatra	
F				Population of Hinterland	4,323,0	000 person	
	Port working are	ea I	Landside	12.4 Ha			
Port Area		S	easide	6,470 Ha			
	Port Concerning		· · · · · · · · · · · · · · · · · · ·	Ha			
	Container		1,912 TEUs	13,049 T	on	·	
	General Cargo		omestic	1,023,067 T			
			ternational	430,095 T		<u> </u>	
Volume of Cargo	Dry Bulk	1 .	omestic	954,279 T		-	
In 1,995			ternational	2,359,537 T			
,.	Liquid Bulk		omestic	2,057,941 T			
			iternational	<u>17,036 T</u>			
	Passenger		oreign	ersons			
			omestic	47,929 P	ersons		
Shipping Service and Size of	- Pioneer shippi	ng (nome	e port) 2 re	oute			
Calling Vessel			n situ				
Caning vesser				Length of Bei	th Wat	er Depth	
·		Nam	e of Berth	(m)		(m)	
	Container	New Ce	ment Pier	150.0) .	9.5	
		Cement	Pier	98.5	5	9.5	
	General Cargo	Concret		150.0		9.5	
Port Facilities		Berths		705.0		9.5	
	Dry Bulk	Coal Pi	er	248.0) .	9.5	
	Liquid Bulk						
	Small Ship	Muara l	Padang	335.0)	2.0	
	Passenger	:		-			
		angoing		Do	mestic		
	General Cargo(<u> </u>	18.0	General Cargo(16.0	
-	Bagged Cargo(29.7	Bagged Cargo(1		38.0	
	Unitized Cargo		32.8	Unitized Cargo		31.0	
Productivities	Liquid Bulk (T	/h)	225.6	Liquid Bulk (T/	h)	203.4	
	Dry Bulk (T/h)	÷ .	112.4	Dry Bulk (T/h)	•	30.1	
	Container			Container			
	CT (TEUs/C		0.0	CT (TEUs/C		0.0	
	Conv (TEUs/C	Crane/h)	6.4	Conv (TEUs/C	Crane/h)	6.0	

Table A.5.2.15Profile of Teluk Bayur Port

(16) Bengkulu Port

Bengkulu port is located on the west coast of southern Sumatra facing Indian Ocean about 18 km southeast of Bengkulu, the capital city of Bengkulu Province. The main function of the port is coal loading for export.

	140101113		FIGHIC OF DC					
Name of port	Bengkulu			Name of Province	Bei	ngkulu		
L	U			Population of Hinterland	1,409,	000 person		
	Port working are	ea	Land side	1,200 Ha				
Port Area			Seaside	На	•			
	Port Concerning	area		Ha				
······································	Container	<u>, </u>			-			
			Domestic	80,665 To	n			
	General Cargo		International 82,470 Ton					
			Domestic	44,365 To				
Volume of Cargo	Dry Bulk		International	1,140,753 To				
In 1,995			Domestic	130,212 To				
. *	Liquid Bulk		International	-				
			Foreign					
	Passenger		Domestic	3,214 Pe	rsons			
Shipping Service	- Pioneer shipping			route		•		
and Size of	· · · · · · · · · · · · · · · · · · ·				:			
Calling Vessel					· 			
e			<u> </u>	Length of Be	rth Wa	ter Depth		
		Nar	ne of Berth	(m)	·	(m)		
	Container							
	General Cargo		· · · · · · · · · · · · · · · · · · ·	150.0)	9.0		
Port Facilities	Dry Bulk		······································	125.0)	9.0		
	Liquid Bulk			· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		
	Small Ship			100.0)	5.0		
	Passenger							
	Ocea	angoing	ς	Do	mestic			
	General Cargo(13.0	General Cargo(T/G/h)	4.0		
	Bagged Cargo(1		2.0	Bagged Cargo(Г/G/h)	17.0		
	Unitized Cargo(-		Unitized Cargo	(T/G/h)			
Productivities	Liquid Bulk (T/	h) -		Liquid Bulk (T/	′h)	61.0		
	Dry Bulk (T/h)	· .	224.0	Dry Bulk (T/h)		129.0		
	Container			Container				
	CT (TEUs/C	rane/h)		CT (TEUs/C	CT (TEUs/Crane/h)			
· · · · · · · · · · · · · · · · · · ·	Conv (TEUs/C	Crane/h)	1	Conv (TEUs/C	Crane/h)			
	The harbor a	irea wa	s former lag	goon and conver	ted to a	harbor by		
Access Channel	cutting 1600m	long	and 90m	wide channel	through	the spit.		
Access Channel	1		is carried ou	it every year to l	ceep the	12m depth		
	of entrance char	nnel.	· .					

Table A.5.2.16 Profile of Bengkulu Port

(17) Pangkal Balam Port

Pangkal Balam port is located in Bangka Island in the eastern part of South Sumatra Province to support the economic activities in the region. There are other 4 small commercial port is located in the same Island.

	Table A.5.2.17	I IUI	ne or i angr	ai Balam Port		
Name of port	Pangkal Balam	<u> </u>		Name of Province	South	Sumatra
•				Population of Hinterland		
	Port working area	I	andside	4,875 Ha		
Port Area		S	easide	Ha		
	Port Concerning an	ea		На		
	Container			<u> </u>		
	General Cargo		omestic	1,431,865 Ton		
			ternational	33,964 Ton	<u>1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 </u>	
Volume of Cargo	Dry Bulk		omestic ternational			
In 1,995	Liquid Bulk	D	omestic	76,408 Ton		
		In	ternational	1,598 Ton	·	
	Passenger	1 .	Foreign -			
		D	omestic	24,350 Per	sons	
Shipping Service						
and Size of						
Calling Vessel	·			T and the set D as	41. 117.	ter Depth
		Nam	e of Berth	Length of Be (m)		
	Container	н. 1				
	General Cargo			654.0)	5.0
Port Facilities	Dry Bulk		· · ·			
	Liquid Bulk		· · · · ·		÷	
	Small Ship					
	Passenger	· · · · ·				· · ·
······································	Ocean	going		Do	omestic	
	General Cargo(T/		0.0	General Cargo(18.0 16.0
· · · · · ·	Bagged Cargo(T/C		34.0		Bagged Cargo(T/G/h)	
	Unitized Cargo(T		0.0	Unitized Cargo		0.0
Productivities	Liquid Bulk (T/h)		0.0	Liquid Bulk (T	/h)	52.0
	Dry Bulk (T/h)		0.0	Dry Bulk (T/h)		19.0
	Container	no/h)	0.0	Container CT (TEUs/Crane/h)		0.0
	CT (TEUs/Cra Conv (TEUs/Cra		0.0	Conv (TEUs/C		0.0 0.0
1			<u> </u>	E COUNCIEUSA	stane/11)	<u> </u>

 Table A.5.2.17
 Profile of Pangkal Balam Port

(18) Cirebon Port

Cirebon port is located about 250 km east of Jakarta in eastern part of West Jawa Province and situated on the west side of a wide open bay, Teluk Cirebon.

The port is currently a regional port service in its immediate vicinity with commercial.

	Table A.	5.2.18	Profile of C	irebon Port		
Name of port	Cirebon			Name of Province	Wes	st Jawa
-					5,030,0	000 person
	Port working arc	a	Land side	31.2 Ha		
Port Area	t e s		Seaside	11.0 Ha		
	Port Concerning	area	<u></u>	Ha		
	Container		181 TEUs	879 Ton		· · · · · · · · · · · · · · · · · · ·
	010		Domestic	694,715 Ton		
	General Cargo		International	86,844 Ton		
Valuma of Conco	Dry Bulk		Domestic	625,098 Ton		
Volume of Cargo In 1,995	DIY DUIK		International			
III 1,995	Liquid Bulk		Domestic	201,964 Ton		
			International	15,648 Ton		
	Passenger		Foreign	. . .		
	rassenger		Domestic	322,297 Pers		
		Nat	ne of Berth	Length of Ber	th Wat	er Depth
				(m)		(m)
	Container				-	
		Muara	Jati 1	275.0	,	7.0
		Muara	Jati 2	248.0)	5.5
	General Cargo	Muara	ı Jati 3	80.0		7.0
Port Facilities		Pelita		111.0		4.0
	Dry Bulk					
	Liquid Bulk	Lingg	ar Jati	131.0)	5.0
	Small Ship			655.0)	3.0
	Passenger		· .			
	Oce	angoing	3	Do	mestic	
	General Cargo(Γ/G/h)	21.0	General Cargo("	Γ/G/h)	16.0
	Bagged Cargo(7	[/G/h)	35.0	Bagged Cargo(3	ſ/G/h)	36.0
	Unitized Cargo((T/G/h)		Unitized Cargo(: 0.0
Productivities	Liquid Bulk (T/	h)	154.0	Liquid Bulk (T/	h) .	115.0
	Dry Bulk (T/h)		0.0	Dry Bulk (T/h)	•	181.0
en e	Container			Container	· · · ·	
	CT (TEUs/C			CT (TEUs/C		0.0
· · · · ·	Conv (TEUs/C			Conv (TEUs/C		0.0
				is subject to acc		
Access Channel				The Losari bar l		
and				er delta, is a crit		
Maintenance			-	due to 75m wi		7.0m deep
· · · · · ·	channel. Maintenance dredging is carried out twice a year.					

Table A.5.2.18 Profile of Cirebon Port

(19) Meneng Port

Meneng port is located eastern end of Jawa Island and facing to Bali Strait.

	Table A.5.2.	19	Profile of M	leneng Port		
,,,,,,, _			. · · ·	Name of	Eas	t Jawa
Name of port	Meneng			Province		
				Population of Hinterland	4,839,0	000 person
	Port working area		Landside	Ha		
Port Area		•	easide	Ha		
	Port Concerning are	ea		На		
	Container	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		-		, <u>, , ,</u> ,
	General Cargo		omestic	223,492 Ton	. * 1	
			iternational	266,493 Ton	· · · · · · · · · · · · · · · · · · ·	
Volume of Cargo	Dry Bulk		omestic	432,940 Ton		
In 1,995			ternational	- 755,324 Ton	· · · · ·	
	Liquid Bulk	1 1	iternational	6,496 Ton		· .
		<u></u>	oreign	0,490 100		
en e	Passenger		omestic	-	· · ·	
Shipping Service			omesue	-		
and Size of				an a		1. A.
Calling Vessel						
Cuning (05501			· · · · · · · · · · · · · · · · · · ·	Length of Ber	rth Wa	ter Depth
		Name of Berth		(m)		(m)
	Container					· · · ·
	General Cargo			388.0)	
Port Facilities	Dry Bulk				· · · ·	·
· · ·	Liquid Bulk					
			and the second s		····	2.0
	Small Ship			573.0		3.0
	Passenger		1			
	Oceang			Do	mestic	
· · · · ·	General Cargo(T/C		18.0			18.0
	Bagged Cargo(T/G		22.0	Bagged Cargo(22.0
	Unitized Cargo(T/	3/h)	0.0	Unitized Cargo		0.0
Productivities	Liquid Bulk (T/h)		60.0	Liquid Bulk (T/	h)	200.0
	Dry Bulk (T/h)		0.0	Dry Bulk (T/h)		0.0
• •	Container	- // \		Container	<u>к</u> и х	
	CT (TEUs/Cran		0.0	CT (TEUs/C		0.0
	Conv (TEUs/Crat	ie/n)	0.0	Conv (TEUs/C	_rane/n)	0.0

 Table A,5.2.19
 Profile of Meneng Port

(20) Benoa Port

Benoa port is located in northern part of Bali Island and situated between Badung Peninsula, the most popular tourism area and Denpasar, the capital city of Bali province.

	Table A.	5.2.20	Profile of E	senoa Port		
				Name of	I	Bali
Name of port	Benoa			Province	0.0000	00
		 	1 1	Population of Hinterland)00 person
	Port working are		Landside	19.7 Ha		
Port Area			easide	227.8 Ha	÷.,	
	Port Concerning		·	Ha		
	Container			-		
	General Cargo		omestic	137,982 Ton		
			ternational	38,983 Ton		
Volume of Cargo	Dry Bulk	- I	omestic	-		
In 1,995			iternational	- 7(0,000/75		
	Liquid Bulk	1	omestic	768,886 Ton		
			iternational	-		
	Passenger		oreign omestic			
	-		omestic	254,653 Pers	ons	
Shipping Service	- Pelni 3 rout	e	· ·			· · · · ·
and Size of			i.			
Calling Vessel				Length of Be	rth Wat	er Depth
		Nam	e of Berth	(m)		(m)
	Cautainan	· · · · · · · · · · · · · · · · · · ·				
	Container				-	· · · · · · · · · · · · · · · · · · ·
	General Cargo	:		186.0		6.0
Port Facilities	Dry Bulk			30.0)	5.0
	Liquid Bulk					
	Small Ship			150.0) ·	3.0
1 M.	Passenger	· .	· · · ·	290.)	9.0
	Oce	angoing		Do	mestic	
	General Cargo("	Г/G/h)	17.0	General Cargo(T/G/h)	8.0
	Bagged Cargo(7	[/G/h)	0.0	Bagged Cargo(19.0
	Unitized Cargo		0.0	· . ·		0.0
Productivities	Liquid Bulk (T/	h)	0.0	Liquid Bulk (T	h)	0.0
	Dry Bulk (T/h)		0.0	Dry Bulk (T/h)		0.0
	Container	· . ·		Container		
	CT (TEUs/C	*	0.0	CT (TEUs/C		0.0
	Conv (TEUs/C		0.0	Conv (TEUs/C		0.0
				prepared in 1986	b by DIP	IBKD and
	reviewed in 199			and in 1004 !-	- مثلورا م	
Port Master Plan				ared in 1996 it		
				velopment plan		
				ve the function		
	\perp tourisin, and co	mainer n	anuting such	h as multipurpos	., NO-NO	anu C1'5.

(21) Lember Port

Lembar is located in the southwest of Lombok Island, and 25Km south of Mataran city, the capital city of West Nusa Tunggra Province. The port is situated on the north bank of a small bay which is a part of Labuan Tring Bay and has very calm sea condition.

There is a ferry terminal about 400m to the east from the main berth, and Ro/Ro type ferry is in service between Lembar and Padangbai in Bali Island.

	1 able A.S	.4.41	Profile of Le	andar i on		· · · · · · · · · · · · · · · · · · ·
				Name of		t Nusa
Name of port	Lembar			Province		ggara
				Population of Hinterland	2,284,0	00 person
	Port working are	a I	andside	156.5 Ha		
Port Area		S	easide	481 Ha	•	ĺ
	Port Concerning	area	n de la composition	Ha	· · · · · · · · · · · · · · · · · · ·	
	Container		· · · · ·			
	General Cargo		omestic	424,170 Ton		
	General Cargo		ternational			
Volume of Cargo	Dry Bulk		omestic	~		
In 1,995			ternational	-		
111,795	Liquid Bulk		omestic	· • · · ·		
			ternational			
	Passenger		oreign	12,242 Pers		
			omestic	171,040 Pers	ons	
Shipping Service	- Pelni 2 rout	е .				
And Size of						
Calling Vessel			· · · · · · · · · · · · · · · · · · ·	· · ·	····	
		Nam	e of Berth	Length of Be	rth Wat	er Depth
				(m)		(m) (m)
	Container					
	General Cargo			218.	0	7.0
Port Facilities	Dry Bulk					
	Liquid Bulk					· · ·
	Small Ship			200.	0	3.0
	Passenger	· · ·		120.	0	· · ·
		angoing		·····	omestic	
	General Cargo(9.0	General Cargo		20.0
·	Bagged Cargo(]		19.0	Bagged Cargo		30.0
	Unitized Cargo			Unitized Cargo		0.0
Productivities	Liquid Bulk (T/	h)		Liquid Bulk (T		0.0
	Dry Bulk (T/h)			Dry Bulk (T/h))	0.0
	Container			Container		
	CT (TEUs/C			CT (TEUs/		0.0
	Conv (TEUs/C	Crane/h)	<u> </u>	Conv (TEUs/	Crane/h)	0.0

Table A.5.2.21 Profile of Lembar Port

(22) Bima Port

Bima port is located on the easthern end of Sumbawa Island in West Nusa Tunggara Province.

and the second	Table A.5	2.22 Profile of I	Bina Fon	· · · · · · · · · · · · · · · · · · ·	
			Name of		Nusa
Name of port	Bima	Province		ggara	
			Population of Hinterland	653,00	00 person
	Port working area		37.6 Ha		
Port Area		Seaside	4,529 Ha		
	Port Concerning a	rea	Ha	v	· · ·
	Container		<u> </u>		
	General Cargo	Domestic	154,488 Ton		
· · ·	General Cargo	International			
Volume of Cargo	Dry Bulk	Domestic	- '		
In 1,995		International			· · · · · · · · · · · · · · · · · · ·
111 1,995	Liquid Bulk	Domestic	· - · ·		• •
		International	· _ ·		
	Passenger	Foreign	-		
and the second		Domestic	42,440 Perso	ns -	
Shipping Service	- Pelni 2 route				
And Size of					
Calling Vessel					· · · · · · · · · · · · · · · · · · ·
		Name of Berth	Length of Ber	th Wate	r Depth
			(m)		(m)
	Container	· · · · · · · · · · · · · · · · · · ·			
	General Cargo		140.0		6.0
Port Facilities	Dry Bulk				
	Liquid Bulk				
	Small Ship		100.0		4.0
	Passenger	· · ·			
	Ocean	igoing	Doi	mestic	
and the second	General Cargo(T/		General Cargo(7	[/G/h]	11.0
	Bagged Cargo(T/		Bagged Cargo(T	'/G/h)	11.0
	Unitized Cargo(T		Unitized Cargo(T/G/h)	
Productivities	Liquid Bulk (T/h)		Liquid Bulk (T/I	h)	•
	Dry Bulk (T/h)		Dry Bulk (T/h)	· ·	
	Container		Container		
	CT (TEUs/Cra	ane/h)	CT (TEUs/C		
	Conv (TEUs/Cra	ane/h)	Conv (TEUs/C	rane/h)	

Table A.5.2.22Profile of Bima Port

(23) Kupang Port

Kupang port is situated near the west end of the Timor Island and at the south end of Eastern Indonesia Region. Kupang city is the economic and political center in East Nusa Tenggara Province and has initiated trade with the northern Australia.

The port faces Semau Strait and is generally well protected by Semau Island with deep sea access channel. The islands around Kupang regency are connected by several ferry services to support the local economic activities.

-	Table A.:	5.2.2	23 - 1	Profile	e of K	upang Port		
Name of port	Kupang					Name of Province	Tui	t Nusa nggara
Port Area	Port working are		S	Landsi easide		Population of Hinterland 42.7 Ha 32 Ha Ha	,5,577,	000 person
	Port Concerning	· · · ·	a			па	1	
	Container (TEU General Cargo (omest		280,557 Ton 30,635 Ton		
Volume of Cargo	Dry Bulk (t)		D	omest	ic	50,680 Ton 16,547 Ton		
In 1,995	Liquid Bulk (t)		D	omest iternat	ic	280,349 Ton -		· · · · ·
	Passenger (t)			oreign omest		778 Pers 114,019 Pers	· ·	
Shipping Service	- Pelni 4 rou - Pioneer shippi		home	e port)	<u>4 r</u>	oute	· · · · · · · · · · · · · · · · · · ·	
]	Name	e of B	erth	Length of Be (m)	rth Wa	ter Depth (m)
	Container							
	General Cargo	Interisland Wharf		223.0)	8.0		
Port Facilities	Dry Bulk		· · · · · · · · · · · · · · · · · · ·					
	Liquid Bulk						*	
	Small Ship	Lo	cal W	harf		100.0	0	6.0
	Passenger							
Special Wharf	Fishery Jetty Fuel and Oil (Pl	ERT	'AMI	INA).	Jetty		n Ngarin	
	Oce	ango	oing			Do	mestic	
	General Cargo(14.0 16.0	General Cargo(13.0
	Bagged Cargo(Unitized Cargo)		-		45.0			18.0 0.0
Productivities	Liquid Bulk (T/	•	<i>,</i> , 11 <i>j</i>	· .	0.0	Liquid Bulk (T		0.0
· · · · · · · · · · · · · · · · · · ·	Dry Bulk (T/h)				0.0	· · ·	· .	38.0
	Container					Container	۰.	
	CT (TEUs/C				0.0	CT (TEUs/C		0.0
	Conv (TEUs/C	Cran	e/h)	1	0.0	Conv (TEUs/	Crane/h)	0.0

 Table A.5.2.23
 Profile of Kupang Port

(24) Ende Port

Ende port is located on the southern coast of Flores Island. The location of the port is very important for relation between Nusa Tunggara islands with ferry networks.

	Table A	.5.2.24	Profile of	Ende Port		5 - F
				Name of		st Nusa
Name of port	Ende			Province		nggara
				Population of Hinterland	1,498,	000 person
	Port working are	ea	Landside	7.2 Ha		1 A.
Port Area			Seaside	483 Ha		
	Port Concerning	g area	· · · · · · · · · · · · · · · · · · ·	Ha	•••• •	
	Container			-		
	General Cargo		Domestic International	44,969 Ton -	-	
Volume of Cargo	Dry Bulk	1.	Domestic	-		
In 1,995	<i></i>		International			· · · · · · · · · · · · · · · · · · ·
	Liquid Bulk		Domestic	16,678 Ton		
		;	International			а ^{н 1}
	Passenger		Foreign	Persor		
<u>a</u>		<u> </u>	Domestic	79,192 Person	15	
Shipping Service						
And Size of Calling Vessel						
Cannig Vesser		······································	····	Length of Ber	th Wa	ter Depth
		Na	me of Berth	(m)		(m)
	Container					
	General Cargo	Conve	entional	175.0		6.0
Port Facilities	Dry Bulk					· · ·
	Liquid Bulk		· · · · ·			
	Small Ship		· · · · · · · · · · · · · · · · · · ·			
	Passenger					
	Ocea	angoin	<u>g</u>	Dor	nestic	
	General Cargo(Γ/G/h)		General Cargo(T	:/G/h)	48.0
	Bagged Cargo(7	[/G/h)		Bagged Cargo(T	'/G/h)	16.0
	Unitized Cargo(Unitized Cargo(
Productivities	Liquid Bulk (T/	h)		Liquid Bulk (T/h	1)	
	Dry Bulk (T/h)	5		Dry Bulk (T/h)		i an
	Container			Container		· · .
	CT (TEUs/C			CT (TEUs/Cr		
	Conv (TEUs/C	rane/h)	Conv (TEUs/C	rane/h)	

Table	A.5.2.24	Profile c	f Ende Port
I GUIC	1 1.0.1.4.14		n Lindo i Ort

(25) Dilli Port

Dilli port is located on the north coast of Timor Island and Dilli is the capital city of East Timor Province. The main function of the port is a provincial distribution center connecting the southeast end and the center of Indonesia.

The port is a natural port protected by rocky islands with very good sea condition. The port basin depth is 25m and around 13m at quayside.

	1 4010 1	1,3,2.23	Prome or i			
				Name of	East	Timor
Name of port	Dilli			Province	· · · · ·	
		· · · ·	T 1 1 1	Population of Hinterland	· · · · · · · · · · · · · · · · · · ·	
~ · · ·	Port working are		Landside Seaside	5.8 Ha 20 Ha		
Port Area	D. (C					
	Port Concerning	area	• • • • •	На		
	Container		Domestic	 199,401 Ton		
· .	General Cargo		nternational	21,151 Ton		e esta de la
			Domestic	21,151 100		· · · · · · · · · · · · · · · · · · ·
Volume of Cargo	Dry Bulk		nternational			
In 1,995		فسعده الجار	Domestic	55,822 Ton		
	Liquid Bulk		nternational			· · · · · ·
·			Foreign	· · · · · · · · · · · · · · · · · · ·		······································
	Passenger		Domestic	111,123 Perso	ns	
Shipping Service	- Pelni 3 rout		Jointostie			
And Size of	- Pioneer shippi		oute			
Calling Vessel	r toneer sinppi		Juit			
8			<u> </u>	Length of Ber	th Wa	ter Depth
· ·		Nan	ne of Berth	(m)		(m)
	Container		······································			
	General Cargo	Conve	ntional	240.0		6.0
Port Facilities	Dry Bulk		· · · · · · · · · · · · · · · · · · ·			
	Liquid Bulk	· ·				· · · ·
	Small Ship					· · · ·
	Passenger				•	
	Oce	angoing		Do	mestic	
. ÷	General Cargo(1.0	General Cargo("	Γ/G/ h)	26.0
	Bagged Cargo(1.0	Bagged Cargo(]		27.0
	Unitized Cargo	(T/G/h)	0.0	Unitized Cargo(T/G/h)	0.0
Productivities	Liquid Bulk (T/	′h)	0.0	Liquid Bulk (T/	h)	0.0
	Dry Bulk (T/h)		0.0	Dry Bulk (T/h)		0.0
	Container			Container	: 	
	CT (TEUs/C		0.0	CT (TEUs/C		0.0
	Conv (TEUs/	Crane/h)	0.0	Conv (TEUs/C	lrane/h)	0.0

Table A.5.2.25 Profile of Dilli Port

(26) Sampit Port

Sampit port is located on the middle of Central Kalimantan Province about 115km west of Palangkaraya, the capital city of the province. The port is river port on Mentaya River about 72km upstream from the mouth.

The forestry cargo is handled by private wharf, and public berth is used for consumer goods by local shipping and Rakyat.

1	Table A.	3.2.20	Profile of S	ampit Port	
Name of port	Sampit	Sampit			Central Kalimantan
· · · · · · · · · ·	I			Population of Hinterland	1,627,000 persor
	Port working are	a I	Land side	5.6 Ha	
Port Area		5	Seaside	93,687 Ha	н 1
	Port Concerning	area	· · · ·	Ha	
	Container		4,957 TEU		
	General Cargo		omestic	917,759 T 67,887 T	
Volume of Cargo	Dry Bulk		omestic nternational		
In 1,995	· · · · · · · · · · · · · · · · · · ·		Omestic	50,939 T	on
	Liquid Bulk	Iı	nternational		
	Dessenger	F	oreign		
	Passenger	<u> </u>	Oomestic	136,828 P	ersons
Shipping service	- Pelni 4 rout	e			
		Nam	c of Berth	Length of Be (m)	rth Water Depth (m)
	Container				
	General Cargo	•	· · · · · · · · · · · · · · · · · · ·	416.0) 6.0
Port Facilities	Dry Bulk		· · · · · · · · · · · · · · · · · · ·		
	Liquid Bulk				
	Small Ship				
	Passenger				
	Oce	angoing			omestic
	General Cargo(Г/G/h)		General Cargo(
	Bagged Cargo(]			Bagged Cargo(
	Unitized Cargo((T/G/h)		Unitized Cargo	
Productivities	Liquid Bulk (T/	h)		Liquid Bulk (T	′h)
	Dry Bulk (T/h)			Dry Bulk (T/h)	
	Container			Container	
	CT (TEUs/C			CT (TEUs/C	· ·
	Conv (TEUs/C		<u> </u>	Conv (TEUs/	
Access Channel		entral K	Calimantan p	province. 72km l	ong from mouth c
And	the river.				
Maintenance					

Table A.5.2.26 Profile of Sampit Port

(27) Samarinda Port

Samarinda Municipality is located on the east coast of Kalimantan Island and 115km north of Balikpapan. The port is river port and situated on the bank of Mahakam river about 66 km from the Muara Pegah outer basin. The role of the port is a distribution center for hinterland with river transportation.

	Table A.S.	2.21 P	tome of Sal	narinda Port	· · ·	
Newser	Comercia I-			Name of Province	East K	alimantan
Name of port	Samarinda	•	Population of Hinterland	1	Area as apan Port	
	Port working are	ea 1	Land side	4.4 Ha		
Port Area	0		Seaside	11,032 Ha		
	Port Concerning	area		Ha		
	Container		1,467 TEUs	13,077 To	n	
	0 10	Ľ	omestic	1,516,981 To	n .	
	General Cargo	II	nternational	1,383,474 To	n	· · ·
	ם מ		omestic	457,449 To	n	
Volume of Cargo	Dry Bulk	h	nternational	2,909,845 To		
In 1,995	лпр и	E	Oomestic	89,418 To	n	·
	Liquid Bulk	I	nternational	3,621 To	n	
	Danage	F	oreign	_		
	Passenger	Γ	Oomestic	143,964 Per	sons	
Shipping Service	- Pelni 2 rou	te		· · · · · · · · · · · · · · · · · · ·	1	
And Size of		1997 - 19				
Calling Vessel					·	
		Nam	e of Berth	Length of Be	rth Wa	ter Depth
				(m)		(m)
	Container		н 1910 г. – А		•	
	General Cargo	Sungai	Mahakan	827.	0	7.0
Port Facilities	Dry Bulk		н 		F	
	Liquid Bulk					·
· ·	Small Ship	Sungai	Mahakan	50.	50.0	
	Passenger					
	Oce	angoing	· · · ·	D	omestic	
	General Cargo(T/G/h)	0.0	General Cargo	T/G/h)	0.0
	Bagged Cargo(Г/G/h)	16.0	Bagged Cargo(T/G/h)	18.0
	Unitized Cargo	(T/G/h)	19.0	Unitized Cargo	(T/G/h)	19.0
Productivities	Liquid Bulk (T/	′h)	0.0	Liquid Bulk (T	/h)	0.0
· .	Dry Bulk (T/h)		0.0	Dry Bulk (T/h)	·	0.0
	Container			Container		
	CT (TEUs/C		0.0	CT (TEUs/C		0.0
	Conv (TEUs/C		0.0	Conv (TEUs/	<u> </u>	0.0
Access Channel				cess channel id s		
And		ance dr	edging has	been carried ou	t to secu	are the 5m
Maintenance	water depth.					

Table A.5.2.27 Profile of Samarinda Port

(28) Tarakan Port

Tarakan port is located in 117° 06'00" East longitude 03° 03'South Latitude on the northern part of East Kalimantan Province. The location of the port is very strategic for relation between Kalimantan and Malaysia, the northern part of Borneo Island.

	Table A.5.	2.28 ł	Profile of Ta	rakan Pon			
Name of port	Tarakan			Name of Province	East K	alimantan	
i unio or port				Population of Hinterland	264,	000 person	
Port Area	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		Landside	4.38 Ha			
			easide	11,032 Ha			
	Port Concerning area			Ha			
	Container						
	General Cargo		omestic	220,072 Ton			
			ternational	217,540 Ton			
Volume of Cargo In 1,995	Dry Bulk		omestic	3,042 Ton			
			ternational		63,726 Ton		
	Liquid Bulk		omestic				
			ternational	7,098 Ton			
	Passenger		oreign	-			
			omestic	175,285 Perso	ns	· · · · · · · · · · · · · · · · · · ·	
Shipping Service	- Pelni 4 route						
And Size of							
Calling Vessel	<u> </u>			Length of Bc	rth Wa	ter Depth	
Port Facilities	No. 19 p. 1. N		e of Berth	(m) (m)		- I	
	Container						
	General Cargo			250.0	$\overline{\mathbf{n}}$	7.0	
		<u></u>		250.			
	Dry Bulk						
	Liquid Bulk		· · ·				
	Small Ship						
	Passenger						
	Oceangoing			Domestic			
					ieneral Cargo(T/G/h) 13.		
			25.0			18.0	
	· · ·	ized Cargo(T/G/h) 0.0		Summer Sector		16.0	
Productivities				Liquid Bulk (T/h)		0.0	
			0.0	Dry Bulk (T/h)		0.0	
	Container			Container			
	CT (TEUs/Crane/h)		0.0	· ·	<i>'</i>		
	Conv (TEUs/Crane/h) 0.0			Conv (TEUs/	crane/h)	0.0	

 Table A.5.2.28
 Profile of Tarakan Port

(29) Kendari Port

Kendari port is located on the northern shore at mouth of Kendari Bay. Kendari is capital city of Southeast Sulawesi Province and the function of port is a distribution/collection center of the province. There are a lot of small islands in this province and the port is strategic position to support the life of these islands.

The port comprises two separate facilities, one is main port which is used for oceangoing and inter-island vessel and the other is wooden jetty for local ships. Kendari Bay is narrow bay opening to the east and the port is sheltered from the open sea.

	Table A.5.2		onie of Kei	luarron					
Name of port	Kendari			Name of	Sout	neast			
			4 	Province	Sula	wesi			
				Population of Hinterland	1,587,00	0 person			
Port Area	I OIC WOLLING LAVE		ndside	22.1 Ha					
			aside	7,201 Ha					
	Port Concerning area			Ha					
Volume of Cargo In 1,995	Container			_					
	General Cargo	Do	mestic	240,718 Ton					
		Int	ernational	5,045 Ton					
	D D-11-		mestic	-					
	Dry Bulk		ernational						
	Liquid Bulk		mestic	63,028 Ton					
			ernational	-					
	Delegangan		reign						
	Passenger	Domestic		343,543 Pers	ons	· · ·			
······································	- Pelni 1 route								
Shipping Service	- Pioneer shipping (home port) 1 route								
· · ·				T (L CD	ut Wat	ar Donth			
	Name of Berth		Length of Be						
				(m)		(111)			
	Container	· · · · · · · · · · · · · · · · · · ·			<u> </u>				
-	General Cargo			331	.0	6.0			
Port Facilities	Dry Bulk								
	Liquid Bulk								
	Small Ship			80	0.0	3.0			
	Passenger								
· · · · ·	Oceangoing		Domestic						
Productivities	General Cargo(T/G/h)		0.0	General Cargo(T/G/h)		11.1			
	Bagged Cargo(T/G/h)		18.0	Bagged Cargo(T/G/h)		24.4			
	Unitized Cargo(T/G/h)		0.0	Unitized Carg	Initized Cargo(T/G/h)				
	Liquid Bulk (T/h)		0.0	Liquid Bulk (T/h)		0.0			
	Dry Bulk (T/h)		0.0	Dry Bulk (T/h)		0.0			
1	Container			Container		0.0			
				CT (TEUs					
	Conv (TEUs/Crane/h)		0.0	Conv (TEUs	/Crane/h)	0.0			

Table A.5.2.29 Profile of Kendari Port

(30) Pantoloan Port

Pantoloan port is located along the coast of Palu Bay in Central Sulawesi Province. The port is connected to Palu, the capital city, with 21km long road and the function of the port is a distribution/collection center of the province.

The port comprises public port facilities located at two separate place, Pantoloan and Donggala which located on the opposite side of Palu Bay. Main port at Pantoloan is mainly used for oceangoing and inter-island vessel and wooden T-shaped jetty for local ships.

Table A.5.2.30 Profile of Pantoloan Port						
Name of port	Pantoloan			Name of Province	Central	Sulawesi
				Population of Hinterland	664,0	000 person
	Port working are	ea 🔡	Landside	11.1 Ha		
Port Area	•		Seaside	681.9 Ha		
	Port Concerning	g area		Ha		
	Container			-	· .	
	General Cargo		Oomestic	364,283 Ton		
			nternational	72,478 Ton		
Volume of Cargo	Dry Bulk		Oomestic	783,942 Ton		
In 1,995		International		-		
	Liquid Bulk		Oomestic	108,790 Ton		
an a			nternational	· · · · · · · · · · · · · · · · · · ·		
	Passenger		oreign	- 167,402 Person		
		Doinestic			ns	··-···
Shipping Service	- Pelni 3 route					
				Length of Be	rth Wat	er Depth
	Name of Berth			(m) (m)		^
	Container					
	General Cargo	Pantolo	an	250.0	5 C	7.0
Port Facilities	Dry Bulk					
	Liquid Bulk			·····		
	Small Ship	Dongg		80.0	0	3.0
	Passenger	201186			-	
	Fuel and Oil (P)		INIA) Lotty		L	
Special Wharf						
	Privately owned wharves			Dr	mestic	
		Oceangoing General Cargo(T/G/h) 11.0			T/G/h)	12.0
			19.0	Bagged Cargo(25.0
	Unitized Cargo(T/G/h) 24			00 0	-	0.0
Productivities	Liquid Bulk (T/h)					
	Dry Bulk (T/h)			Dry Bulk (T/h)	-	0.0 0.0
	Container		0.0	Container		
	CT (TEUs/C	Crane/h)	0.0	CT (TEUs/C	Crane/h)	0.0
	Conv (TEUs/	Crane/h)	0.0	Conv (TEUs/	Crane/h)	0.0

Table A.5.2.30 Profile of Pantoloan Port

(31) Bitung Port

Bitung Port is located at the northern end of North Sulawesi Province and at the rim of Pacific region where economic activities have been more intensified. The port is not only the principal port of the province but also an important base of sea transportation linking the northern part of East Indonesia (Sulawesi, Maluku and West Irian Jaya).

	Table A.	5.2.31	Profile of B	itung Port				
Name of port	Bitung			Name of Province	North	h Sulawesi		
rumo or port	2			Population of Hinterland	2,649,0	000 person		
	Port working are	a L	and side	38.8 Ha				
Port Area			easide	3,217 Ha				
	Port Concerning	area		На				
	Container (TEU)		4,559 TEU	s 163,839 T	163,839 Ton			
	Q) D	omestic	718,407 T	on			
	General Cargo (t) In	ternational	166,535 T	on			
	David Durile (4)	D	omestic	1,609 T	on			
Volume of Cargo	Dry Bulk (t)	In	International 59,113 Ton					
In 1,995	Liquid Dulk (i)	D	omestic	258,374 T	on			
· · ·	Liquid Bulk (t)	Ir	ternational	108,756 T	on			
	Deccenger (t)	F	oreign	1,578 Persons				
	Passenger (t)		omestic	232,768 Persons				
Shipping Service	- Pelni 6 rou	ite -	Pioneer shi	oping (home po				
	Name of Berth			Length of Be	rth Wat	er Depth		
1		144111		(m)		(m)		
	Container							
	General Cargo	Sungai	Mahakan	827.0	0	7.0		
Port Facilities	Dry Bulk		-		: .			
	Liquid Bulk	id Bulk				· · ·		
· · · ·	Small Ship	Sungai	Mahakan	50.	0	6.0		
	Passenger		· ·					
	Ocea	angoing		Do	omestic			
	General Cargo(ſ/G/h)	15.0	General Cargo(14.0		
	Bagged Cargo(7	ſ/G/h)	25.0	Bagged Cargo(23.0		
	Unitized Cargo(27.0	Unitized Cargo	•	25.0		
Productivities	Liquid Bulk (T/	h)	119.0	Liquid Bulk (T	,	167.0		
	Dry Bulk (T/h)		128.0	Dry Bulk (T/h)		0.0		
· · · ·	Container			Container	-	0.0		
	CT (TEUs/C		0.0	CT (TEUs/C				
	Conv (TEUs/Crane/h) 0.0 Conv (TEUs/Crane/h)					0.0		
	The Master I	The Master Plan for Bitung port was established by IBRD in 1984 and reviewed in 1994 by JICA technical service.						
	and reviewed in	(1994 b) Concor	/ HCA lecili	ared in 1996 in	noluding	cargo and		
				velopment plan				
Port Master Plan				vn as "network				
	international tra	nschinm	ent" "indue	trial processing a	zone deve	elopment in		
	nort area and	sunnorti	ng Manado	-Bitung industri	al area"	"Passenger		
· · ·	service for tour	ism and	recreation"	'improve Ro-Ro	ship serv	vice"		
L	100 101 tour.	JALL MILL						

Table A.5.2.31 Profile of Bitung Port

(32) Ternate Port

Ternate port is located on eastern side of Ternate Island neighboring to eastern side of Halmahera Island. Ternate port is the main port as distribution/collection center of cargo in northern part of Maluku Province. The port also serves as a major transfer point of passengers with PELNI service and local ferry service.

The port comprises public port facilities located at two separate place, Ternate and Bastiong. Main port at Ternate is mainly used for oceangoing and inter-island vessel and wooden T-shaped jetty for sailing ships at Bastiong.

Name of port	Ternate			Name of Province	М	laluku	
			· · ·	Population of Hinterland	801,	000 person	
	Port working ar		Landside	На			
Port Area			Seaside	Ha			
	Port Concerning	g area	<u> </u>	На			
	Container	· · ·					
	General Cargo		Domestic nternational	194,992 Ton 22,594 Ton			
Valuma of Congo	Day Duille	I	Domestic	-			
Volume of Cargo In 1,995	Dry Bulk	I	nternational	5,750 Ton			
III 1,995	Liquid Bulk	Domestic		10,097 Ton			
		I	nternational	6,178 Ton	- 		
· · ·	Passenger	I	Poreign	**	·		
	<u> </u>		Domestic	757,240 Per	757,240 Persons		
Shipping Service	- Pelni 3 rou		en e				
	- Pioneer shippi	ng (hom	e port) 3 r				
	Name of Berth			Length of Be	rth Wa	ter Depth	
				(m)		(m)	
	Container			$(1,1) = \frac{1}{2} \left(\frac{1}{2} - \frac{1}{2} \right) \left(\frac{1}{2} - \frac{1}{2} \right) \left(\frac{1}{2} - \frac{1}{2} \right)$:		
:	General Cargo	Main P	ort	248	.0	9.0	
Port Facilities	Ochicial Cargo	Bastior	ng	30	.0	8.0	
i on i acimics	Dry Bulk		· · ·				
	Liquid Bulk					· · ·	
	Small Ship			50	.0	5.0	
	Passenger						
Special Wharf	Fuel and Oil (P	ERTAM	INA) Jetty a	t Jambula			
		angoing		Do	mestic	· .	
	General Cargo(T/G/h)	13.0	General Cargo(T/G/h)	11.0	
	Bagged Cargo(T/G/h) 14.0			Bagged Cargo(Γ/G/h)	22.0	
	Unitized Cargo(T/G/h)			Unitized Cargo		22.0	
Productivities	Liquid Bulk (T/	h)		Liquid Bulk (T/	'h)		
	Dry Bulk (T/h)			Dry Bulk (T/h)			
	Container			Container			
	CT (TEUs/C	,	1	CT (TEUs/C			
	Conv (TEUs/C	.rane/h)	L	Conv (TEUs/C	Crane/h)	• •	

Table A.5.2.32 Profile of Ternate Port

(33) Ambon Port

Ambon port is situated at the eastern side of Ambon Bay. Ambon is the capital city of Maluku Province. As about 90% of the province area are covered by sea, sea transport plays an essential role to support economic activities and livelihood in the province.

	Table A.:	5.2.33	Profile of Ai	mbon Pori		
				Name of M		ıluku
Name of port Ambon				Province		
		·		Population of Hinterland	the second second second	00 person
·	Port working are		and side	14.9 Ha		
Port Area			easide	239,040 Ha		
	Port Concerning			Ha		
	Container		3,734 TEUs	18,440 To		
	General Cargo		omestic	197,140 Ton		
			ternational	31,029 To	n	
Volume of Cargo	Dry Bulk		omestic	e de la Terrera de		
In 1,995			ternational	- 41,422 To	<u></u>	· · · · · · · · · · · · · · · · · · ·
, ,	Liquid Bulk		omestic	41,422 To 35 To		•
			ternational	55 10		
			oreign	337,827 Pe	areone	· ·
Shipping Service	- Pelni 5 route			557,02710	// 30/13	
And Size of			e port) 4 ro	nute		
Calling Vessel	- Pioneer shipping (home port) 4 route					
Culling (00501				Length of Be	rth Wat	er Depth
		Nam	e of Berth	(m)	· · ·	(m)
	Container					
	General Cargo	Yos So	edarso	617.	0 .	7.0
Port Facilities	Dry Bulk		· · · · ·	· · · · · · · · · · · · · · · · · · ·		
	Liquid Bulk				-	
	Small Ship	Slamet	Riyadi	100.	0	4.0
	Passenger				·	
		Oceangoing			omestic	
	General Cargo(14.0	General Cargo	(T/G/h)	18.0
	Bagged Cargo(24.0	Bagged Cargo		14.0
	Unitized Cargo	-	24.0	Unitized Cargo	o(T/G/h)	0.0
Productivities	Liquid Bulk (T	• • •	128.0	Liquid Bulk (T		0.0
	Dry Bulk (T/h)		0.0	Dry Bulk (T/h)).	0.0
	Container		e de la travel	Container		0.0
	CT (TEUs/C	,	0.0			
	Conv (TEUs/	Crane/h)	0.0	Conv (TEUs/	Crane/h)	0.0

Table A.5.2.33	Profile of Ambon Port
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(34) Sorong Port

Sorong port is the main deepwater port in western part of Irian Jaya Province and is located at the head of bird-shaped part of the main island. As the port is a good transfer point of cargo and passenger to the coast of Irian Jaya Province, the important role of the port is a distribution center for these area.

The port area is well protected by many islands located southwest from the port.

Table A.5.2.34Profile of Sorong Port

Name of portSorongName of ProvinceIrian JayaPort AreaPort working areaLand side Seaside20.3 Ha 207,570 Ha625,000 personPort AreaPort Concerning areaHa20.3 Ha Seaside207,570 HaPort Concerning areaHa1414Port Concerning areaHa171,238 TonContainer34 TEUs676 TonGeneral CargoDomestic International537,048 Ton 171,238 TonDry BulkDomestic International13,004 Ton 6,938 TonLiquid BulkDomestic International131,822 Ton 64 TonPassengerForeign Domestic240,106 PersonsShipping Service- Pelni4 routeValueName of BerthLength of Berth (m)ContainerInternational Domestic280.07.0
Port AreaPort working areaLand side20.3 HaPort AreaPort working areaLand side20.3 HaPort Concerning area207,570 HaPort Concerning areaHaContainer34 TEUsGeneral CargoDomesticIn 1,995Dry BulkLiquid BulkDomesticPassengerForeignPassengerPorteinShipping Service- Pelni4 route- Pioneer shipping (home port)A routeName of Berth(m)(m)(m)(m)
Port AreaPort working areaLand side Seaside20.3 Ha 207,570 HaPort Concerning areaHaPort Concerning areaHaContainer34 TEUsGeneral CargoDomesticIn 1,995Dry BulkLiquid BulkDomesticIn 1,995Foreign DomesticShipping Service- Pelni4 routePioneer shipping (home port)A routeName of Berth(m)Container
Port AreaSeaside207,570 HaPort Concerning areaHaPort Concerning areaHaContainer34 TEUs676 TonGeneral CargoDomestic537,048 TonIn 1,995Dry BulkDomestic13,004 TonLiquid BulkDomestic131,822 TonLiquid BulkDomestic131,822 TonPassengerForeign-Domestic240,106 PersonsShipping Service- Pelni4 routeName of BerthLength of BerthWater Depth(m)(m)(m)
Container34 TEUs676 TonGeneral CargoDomestic537,048 TonInternational171,238 TonDry BulkDomestic13,004 TonIn 1,995Dry BulkDomesticLiquid BulkDomestic131,822 TonInternational64 TonPassengerForeignDomestic240,106 PersonsShipping Service- Pelni4 routePioneer shipping (home port)A routeName of BerthContainer(m)
Volume of CargoDomestic537,048 Ton InternationalIn 1,995Dry BulkDomestic13,004 Ton InternationalLiquid BulkDomestic131,822 Ton International64 TonPassengerForeign Domestic-PassengerPoneer shipping (home port)4 routeShipping Service- Pelni4 route- Pioneer shipping (home port)4 routeContainerName of BerthLength of Berth (m)Water Depth
Volume of Cargo In 1,995International171,238 TonVolume of Cargo In 1,995Dry BulkDomestic13,004 Ton InternationalLiquid BulkDomestic131,822 Ton International64 TonPassengerForeign
Volume of Cargo In 1,995Dry BulkDomestic13,004 Ton 1,004 Ton InternationalLiquid BulkDomestic131,822 Ton International131,822 Ton 64 TonPassengerPassengerForeign Domestic- 240,106 PersonsShipping Service- Pelni4 route- Pioneer shipping (home port)4 routeName of BerthLength of Berth (m)Water Depth (m)(m)
Volume of Cargo In 1,995Dry BulkInternational6,938 TonLiquid BulkDomestic131,822 Ton International64 TonPassengerForeign Domestic-PassengerPomestic240,106 PersonsShipping Service- Pelni4 route- Pioneer shipping (home port)A routeName of BerthLength of Berth (m)Water Depth (m)
In 1,995 International 0,958 100 Liquid Bulk Domestic 131,822 Ton International 64 Ton Passenger Foreign Domestic 240,106 Persons Shipping Service - Pelni Value Pioneer shipping (home port) Value Name of Berth Container (m)
Liquid Bulk Domestic 131,822 10ft International 64 Ton Passenger Foreign Domestic 240,106 Persons Shipping Service - Pelni 4 route - Pioneer shipping (home port) Vame of Berth Length of Berth Container (m)
International 04 100 Passenger Foreign Domestic 240,106 Persons Shipping Service - Pelni 4 route Name of Berth Length of Berth Water Depth Container Immediational 04 100
Passenger Domestic 240,106 Persons Shipping Service - Pelni 4 route - Pioneer shipping (home port) 4 route Name of Berth Length of Berth Water Depth Container
Shipping Service - Pelni 4 route - Pioneer shipping (home port) 4 route Name of Berth Length of Berth Water Depth Container
Name of Berth Length of Berth Water Depth Container (m) (m)
Name of Berth (m) (m) Container
Container
General Cargo 7.0
Port Facilities Dry Bulk
Liquid Bulk
Small Ship
Passenger
Oceangoing Domestic
General Cargo(T/G/h) 13.40 General Cargo(T/G/h) 0.0
Bagged Cargo(T/G/h)28.90Bagged Cargo(T/G/h)26.1
Unitized Cargo(T/G/h) 23.2 Unitized Cargo(T/G/h) 0.0
ProductivitiesLiquid Bulk (T/h)0.0Liquid Bulk (T/h)0.0
Dry Bulk (T/h) 0.0 Dry Bulk (T/h) 0.0
Container Container
CT (TEUs/Crane/h)0.0CT (TEUs/Crane/h)0.0Conv (TEUs/Crane/h)0.0Conv (TEUs/Crane/h)0.0
Master Plan for Sorong port was established in 1985, not reviewed.
Master Dian Concept was prepared in 1006 including cargo and
Master Plan Concept was prepared in 1996 including cargo and Passenger forecast and facilities development plan until 2018 Main
Passenger forecast and facilities development plan until 2018. Main
Passenger forecast and facilities development plan until 2018. Main

(35) Biak Port

Biak port is located on the southern coast of the Biak Island at northern part of Irian Jaya Province. Biak region has been designated as one of the prioritized Integrated Economic Development Area (KAPET).

	Table A.	5.2.35	Profile of B	lak Port			
Name of port	Biak	,,,,		Name of Province	Irian	Jaya	
Name of port	Diuk			Population of Hinterland	584,0	00 person	
	Port working area	a L	and side	12.7 Ha			
Port Area	1 011 11 011110		easide	12,900 Ha			
1 on thew	Port Concerning	area		11,100 Ha			
	Container		38 TEUs	1,059 Ton			
	Q	Do	omestic	256,522 Ton			
	General Cargo	In	ernational	54,931 Ton			
V I f Cargo	Dev Pulk	1	omestic	1,322 Ton			
Volume of Cargo In 1,995	Dry Bulk		ternational	516 Ton			
III 1,995	Liquid Bulk		omestic	114,348 Ton			
			ternational				
	Passenger	1	oreign	- 1 (0 002 Demo			
			omestic	160,293 Perso	ons		
Shipping Service	- Pelni 2 rou		(• * •			
Subbrug service	- Pioneer shippir	ig (nome	port) 2roi	Length of Be	rth Wat	er Depth	
	Name of Berth			(m)	1111 1140	(m)	
				(III)		(11)	
	Container						
	General Cargo	-		267.	0	7.0	
Port Facilities	Dry Bulk	Dry Bulk					
	Liquid Bulk		t sit				
	Small Ship						
	Passenger		· . · ·				
	Oce	angoing		D	omestic		
	General Cargo(18.0	General Cargo	(T/G/h)	16.0	
	Bagged Cargo(Г/G/h)	0.0	Bagged Cargo	• •	15.0	
	Unitized Cargo	(T/G/h)	0.0		Unitized Cargo(T/G/h)		
Productivities	Liquid Bulk (T/	h)	1	•	Liquid Bulk (T/h)		
		Dry Bulk (T/h)		Dry Bulk (T/h) Container)	0.0	
		Container			<u>а</u>		
	CT (TEUs/Crane/h) 0.0			CT (TEUs/		0.0	
	Conv (TEUs/C	Conv (TEUs/Crane/h)0.0Conv (TEUs/Crane/h)0.1Master Plan for Biak port was established in 1986 and not reviewed.					
	Master Plan	for Blak	port was est	ablished in 1980	and not i	evieweu.	
	Master Plan	Master Plan Concept was prepared in 1996 including cargo and					
	passenger fore	passenger forecast and facilities development plan until 2018. Main development strategy is (1) supporting the development of Irian Jaya					
Port master Plan	development si	nategy 1	s (1) suppor	s but also busit	priorite of	commercial	
	function such	as bar	nk trade (office and ent	ertainmer	nt will be	
	accommodated		m, nado v				
	acconniouaicu	•					

Table A.5.2.35 Profile of Biak Port

(36) Jayapura Port

Jayapura port is located on the northern coast of Irian Jaya and near the border of Papua New Guinea. The port is situated at the inner most corner of Jayapura Bay. The hinterland of the port is Jayapura, the capital city of Irian Jaya Province, and near area.

Land transportation development is very important factor for future port activities.

	I able A	5.2.30	Prome of Ja	iyapura Port		
Name of port	Jayapura	7 -		Name of Province	Iria	n Jaya
				Population of Hinterland	732,0)00 person
	Port working ar	ea l	Land side	4.7 Ha		
Port Area		S	Seaside	688 Ha		· .
	Port Concerning	g area		Ha		÷
	Container		518 TEUs	1,986 Ton		
	General Cargo		omestic	332,693 Ton		
	Ocheral Cargo	International				
Volume of Cargo	Dry Bulk	⁻ D	omestic	4,000 Ton		
In 1,995	DIYBUK		nternational	-	e di tang	
III 1,995	Liquid Bulk		omestic	77,367 Ton		
			iternational	· · · · · · · · · · · · · · · · · · ·		
	Passenger		oreign	1,761 Person		
· · ·			omestic	212,238 Person	s	· · ·
Shipping Service	- Pelni 4 roi	•		1.1		
and Size of	- Pioneer shippi	ng (hom	e port) 2rc	oute		
Calling Vessel				· · · · · · · · · · · · · · · · · · ·	· · ·	
	Name of Berth		Length of Berth	h Wat	er Depth	
				(m)		(m)
	Container		e y fier Station			
	General Cargo			270.0		7.0
Port Facilities	Dry Bulk	7				
	Liquid Bulk					
	Small Ship	APO	·	33.0		4.0
	Passenger					
	Oce	angoing	······	Dom	estic	
				General Cargo(T/	'G/h)	0.0
				Bagged Cargo(T/		21.0
				Unitized Cargo(T	· · ·	27.0
Productivities				Liquid Bulk (T/h)		0.0
	Dry Bulk (T/h) 0.0			Dry Bulk (T/h)		0.0
	Container		·	Container	1. j. t. j.	
	CT (TEUs/C		0.0	CT (TEUs/Cra		0.0
	C1(TEUs/Crane/h)0.0Conv (TEUs/Crane/h)0.0			Conv (TEUs/Cra	ane/h)	0.0

Table A.5.2.36Profile of Jayapura Port

Appendix 5.3 Strategy for Port System

Appendix 5.3.1 Required Container Volume for International Container Service

1. Container Volume in Dominant Services

(1) The Volume of International Container from/to Indonesia

The origin and destination of container cargo are not given in the statistic data processed by IPC and DGSC. It is, therefore, impossible to distinguish between international and domestic container. In order to understand the significance of the dominant container service, the preliminary volume of international container from/to Indonesia could be estimated following assumption.

- a) Export/Import containers are only handled in the international container ports where international line calls.
- b) All loaded containers handled in Indonesian ports are exported/imported through international container ports.
- c) The containers, handled in the domestic port where no international line calls, are regarded as domestic.
- d) A domestic container for export is shipped at a domestic port to an international container port in Indonesia and is transshipped as an international container.
- e) A container, imported at an international container port, is transshipped to a domestic port as a domestic container.
- f) No container is transported from one domestic port to other domestic port.
- g) No container is transported from one international container port to the other international container port.

The container ports called by international container service in Indonesia are Tg.Priok, Tg.Perak, Belawan, Tg.Emas, Panjang and Palembang. The total volume of container handled in these international container ports in 1995 was 988,196TEUs for export and 973,837TEUs for import. The total volume of container handled in the domestic ports was 74,484TEUs for loading and 95,001TEUs for unloading. The volume of domestic containers handled in international container ports is reduced from the volume handled in international container ports.

The assumed total volume of international container in 1995 is 893,195TEUs for export, 899,353TEUs for import, 1,792,548TEUs in total.

(2) Container Volume in Dominant Services.

Container trade between several countries in 1995 is shown in Table A.5.3.1.1.

	· .								(Unit 1	,000TE	Us)
To From	Japan	Taiwan	Hong Kong	PHILI PPINE	Thai Land	SINGA PORE	MALA YSIA	Indone sia	Korca	VIET NAM	P.R. China	North America
Japan		204	264	- 60	162	156	109	96	181	17		728
Taiwan	174		528	68	56	60	55	57	56	15		599
Hong Kong	216	120		23	24	68	. 36	42	42	22		625
PHILI PPINES	42	12	14		4	7	3	3	6	1		90
Thai Land	168	55	54	12		44	12	10	12	4		227
SINGA PORE	78	48	66	30	54		52	54	10	13		83
MALAY SIA	103	51	77	5	8	660		13	18	6		164
INDO NESIA	126	36	42	15	10	16	17		43	3		158
Korea	234	68	244	30	31	47	192	64		15		300
Vietnam	18	13	12	0	2	24	2	3	7			10
P.R. China												1,025
North America	1,118	452	473	109	120	123	81	150	448	. 9	277	

 Table
 A.5.3.1.1
 Container Trade Volume in 1995

1.0000000101...)

/T T.....

Note : The value for Vietnam is in 1996

Source : International Transportation Handbook 1997; Ocean Commerce and Journal of Commerce

For Europe trade there is not any accurate data of the container volume. The volume between Indonesia and Europe is assumed based on following data.

- a) The relationship between Indonesia and Europe in economy is very similar to that of between Indonesia and North America. But the former historical relation is deeper than the later.
- b) The total weight and value of trade and distance by sea between Indonesia and those areas are as follows.

		Weight of Trade (Thousand Ton)	Value of Trade (Million US\$)	distance by sea (Mile)
Europe	Export	9,233	7,201	8,600
	Import	7,194	9,323	
North America	Export	8,168	6,796	7,350
	Import	6,727	5,659	
Japan	Export	57,473	12,288	3,250
	Import	2,962	9,216	

c) Total volume of Transpacific service is 7,800,000TEUs and Europe/East-Asia service is 5,600,000TEUs in 1996, that is, Europe/East-Asia service is about 70% of Transpacific service. (See Table 3.5.1 in Main Report)

For export it seems that no significant difference between the trade to Europe and that to North America. For import, value per weight of trade from Europe is 1.5 times large than that of North America. These values imply that more valuable cargo is imported from European countries. But for Japan there is enormous difference between the ratios and it may be understood that raw materials are exported and industrial products are imported.

The volume and share of container cargo transported in Europe/East-Asia service at present is assumed to be about 70% of Transpacific service. (See Table A.5.3.1.2)

	۰. ۱.	· · · · · · · · · · · · · · · · · · ·	(Unit TEUs)
	Export	Import	Total
Total volume of international	900,000	900,000	1,800,000
container From / to Indonesia	(50%)	(50%)	(100%)
Tranancaifia	160,000	150,000	310,000
Transpacific	(8.9%)	(8.3%)	(17.3%)
Europa/East Asia	115,000	105,000	220,000
Europe/East-Asia	(6.4%)	(5.8%)	(12.2%)
Intro Asis (including Ispan)	330,000	300,000	630,000
Intra-Asia (including Japan)	(18.3%)	(16.7%)	(35.0%)
	120,000	100,000	220,000
Japan	(6.7%)	(5.6%)	(12.2%)
Other	295,000	345,000	640,000
Others	(16.4%)	(19.2%)	(35.6%)

Table A.5.3.1.2 Assumed Container Volume in Dominant Service

Source : Prepared by the Study Team

Considering the future prosperity of each area, the share of Inter Intra-Asia will gain and that of Transpacific and Europe will lose.

2. Required Container Volume for International Service

2.1 Shipping Cost and Delivery Time

(1) Transpacific Service (Mother Port Type)

1) Shipping Pattern

T.1 T

Required condition for direct call is made clear comparing the following two itineraries, in terms of cost and time.

<u>innerary i</u>	(weekly service, 55day	s voyage with 4 (0,0001 EUs) mother vessels)
	Feeder Service	Mother Vessel Route
	(2 DOOTELD	(6.000TEU)

(Westels service 26 down wave as with 4 (COOOTELLS) as

	(2,0001E0) :	(0,0001E0)		
	Jakarta	taa into oo oo dii intoin	Singapore	\Leftrightarrow	Seattle	
	(1.0)	1.5day	(2.0days)	15.5days	(1.0days)	•
Itinerary 2	(Week	ly service,	42days voyage	e with 6 (1,500	TEUs) direct s	ervice
	Jakarta		\Leftrightarrow		Seattle	
•	(1.0day)	-	18days		(1.0days)	

2) Shipping Cost

The summary of shipping cost, port due and terminal fee for these itineraries see Table A.5.3.1.3.

For this examination, it has been assumed that visiting container service operates at 80% of capacity and the cost of repositioning of empty containers and that of container boxes charge have not been considered, but these are very important factor to determine a market price. The feeder service system could collect the cargo and reposition empty containers more effectively than direct service, because it is easy for feeder service system to change the service pattern.

Itinerary 1	Seattle – Jakarta	(7,593miles)	
Itinerary 2-2	Seattle – Jakarta	(7,351miles)	537US\$

3) Delivery Time

According to the itinerary the mother vessel calls once a week, but as described in 1.6.4 the container cargo is rather time-conscious. If there is any trouble with mother vessel, the cargo has to stay for a week in terminal. Therefore, at least mother vessel with similar itinerary should call twice a week or more. And under such condition the maximum difference of delivery time is two days compare to daily feeder service.

4) Required Container Volume

In accordance with above-mentioned two factors, cost and time, the minimum required volume of container to/from North America per year to receive transpacific direct service is at least 250,000TEUs in one port, that is 1,200TEUs/Service (80% of 1,500TEUs capacity container ship) and 104 Services/year (2 times a week)

The volume of Transpacific Service is 310,000TEUs at present and the volume will increase in future. The share of the service is 17% in 1995, and if the same share keeps in future, the port handling more than 1,500,000TEUs (=1,200TEUs \times 2 (loading and unloading) \times 104 / 0.17) of loaded international container could be the candidate for the Service.

(2) Europe / East-Asia Service (Mother Port Type)

1) Shipping Pattern

Required condition for direct call is made clear comparing the following two itineraries, in terms of cost and time.

Itinerary 3	(Weekl	ly service, 1	35days trip wi	th 5 (8,000TI	EUs) mother vessels)
		Feeder	Mc	other Vessel F	loute
. 1	· · · · (2,000TEU)		(8,000TEU)	an a
	Jakarta		Singapore	⇔	Rotterdam
	(1.0day)	1.5day	(2days)	15.5days	(1.0days)
Itinerary 4	(Week	ly service,	42days voyage	e with 7 (2,00	OTEUs) direct service
	Jakarta		\Leftrightarrow		Rotterdam
·	(1.5day)	e a ser e	18days	÷.,	(1.5days)

2) Shipping Cost

The summary of shipping cost, port due and terminal fee for these itineraries see Table A.5.3.1.4.

For this examination, it has been assumed that visiting container service operates at 80% of capacity and the cost of repositioning of empty containers and container boxes charge have not been considered, but these are very important factor to determine a market price. The feeder service system could collect the cargo and reposition empty containers more effectively than direct service, because it is easy for feeder service system to change the service pattern.

Itinerary 3	Rotterdam – Jakarta	(8,883miles)	
Itinerary 4	Rotterdam – Jakarta	(8,585miles)	524US\$

3) Delivery Time

Please see same part of Transpacific Service.

4) Required Container Volume

In accordance with above-mentioned two factors, cost and time, the minimum required volume of container to/from Europe per year to receive Europe/East-Asia direct service is at least 326,000TEUs in one port, that is 1,600TEUs/Service (80% of 2,000TEUs capacity container ship) multiplies 104 Services/year (2 times a week)

The share of the Europe/East-Asia service is assumed to be 12% in 1995, and if the same share keeps in future, the port handling more than 3,000,000TEUs (=1,600TEUs \times 2(loading and unloading) \times 104 / 0.12) of loaded international container could be the candidate for the Service.

(3) Europe / East-Asia Service (Transshipment Port Type)

1) Shipping Pattern

Required condition for direct call to Bitung Port is, which is selected as a representative port in Eastern part of Indonesia estimated comparing the following two Transportation patter from Bitung and Sorong to Europe, in terms of cost and time. In this estimation Sorong Port is selected as an example of feeder ports to simplify the calculation of feeder service cost.

Itinerary 5-1 (Weekly service, 35days trip with 5 (6,000TEUs) mother vessels

calli	ng Jakarta)			
	Feeder	Mc	ther Vessel F	Route
(2,000	and 1,000TEU	J) (6	,000TEU)	
Bitung		Jakarta	¦ ⇔, i	Rotterdam
(1.0day)	3.5days	(2.0days)	15.5days	(1.0day)
Sorong		Jakarta	\Leftrightarrow	Rotterdam
(1.0day)	4.0days	(2.0days)	15.5days	(1.0days)

Itinerary 5-2 (Weekly service, 42days voyage with 7 (3,000TEUs) direct service

calling Bitung)			
Bitung	⇔		Rotterdam
(1.5day)	18days		(1.5days)
Sorong	Bitung	\Leftrightarrow	Rotterdam
(1.0da) 1.5 days	(2.5days)	18days	(1.5days)

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2) Shipping Cost

The summary of shipping cost, port due and terminal fee for these itineraries see Table A.5.3.1.5.

For this examination, it has been assumed that visiting container service operates at 80% of capacity and the cost of repositioning of empty containers and container boxes charge have not been considered, but these are very important factor to determine a market price. The feeder service system could collect the cargo and reposition empty containers more effectively than direct service, because it is easy for feeder service system to change the service pattern.

Itinerary 5-1	Rotterdam – Jakarta – Bitung	(10,160miles)	
Itinerary 5-2	Rotterdam – Jakarta – Sorong	(10,204miles)	580US\$
Itinerary 5-3	Rotterdam – Bitung	(9,840miles)	
Itinerary 5-4	Rotterdam – Bitung – Sorong	(10,325miles)	627US\$

It is assumed that the share of container cargo from/to Bitung Port is 40% in neighboring, the average cost of shipping from/to Bitung and Sorong (include other port under similar condition) through Jakarta is 573US\$ and 576US\$ through Bitung.

3) Delivery Time

Please see same part of Transpacific Service.

4) Required Container Volume

In accordance with above-mentioned two factors, cost and time, the minimum required volume of container to/from Europe per year to receive Europe/East-Asia direct service at Bitung is at least 500,000TEUs. That is 2,400TEUs/Service (80% of 3,000TEUs capacity container ship) multiplies 104 Services/year (2 times a week)

The share of the Europe/East-Asia service is assumed to be 12% in 1995, and if the same share keeps in future. The port, situating in Easter part of Indonesia, handling more than 4,200,000TEUs (=2,400TEUs \times 2(loading and unloading) \times 104 / 0.12) of loaded international container could be the candidate for the Service.

The container volume in Sabang Port, which is selected as representative port in the area facing Malacca Strait, is also estimated by similarly method. According to the result, the minimum required volume of container to/from Europe per year to receive Europe/East-Asia direct service calling is at least 420,000TEUs. That is 2,000TEUs/Service (80% of 2,500TEUs capacity container ship) multiplies 104 Services/year (2 times a week)

the port in the area facing Malacca Strait handling more than 3,500,000TEUs (=2,000TEUs \times 2(loading and unloading) \times 104 / 0.12) of loaded international container could be the candidate for the Service.

(4) Intra Intra-Asia Service

1) Shipping Pattern

The itineraries of typical Intra-Asia service (calling Japan and ASEAN countries) and assumed example of Singapore feeder service are as follows.

<u>Itinerary 6-1</u> (Weekly service, 28days trip with 4 (1,500TEUs) Direct Call) Japan--Keelung--Hongkong-Manila--Surabaya--Jakarta--Kaosiung--Hongkong--Japan (Total length of the round is 8,473miles)

Itinerary 6-2 (Weekly service, 21days round with 3 (1,500TEUs) Direct Call)

Japan—Hongkong—Singapore—Port Kelang—Singapore—Japan

(Total length of the round is 6,539miles)

Itinerary 6-3 (Weekly service, 14days trip with 2 (3,000TEUs) mother vessels)

	Feeder		Mother vessel		
Jakarta		Singapore	\Leftrightarrow	Tokyo	
,	1.5day	(1days)	5.5days	(1days)	

2) Shipping Cost

For this examination, it has been assumed that visiting container service operates at 80% of capacity and the cost of repositioning of empty containers and container boxes charge have not been considered. The costs per TEU from Japan are as follows. (See Table A.5.3.1.6, A.5.3.1.7 and A.5.3.1.8) The service cost per TEU for each itinerary is calculated including ship charge, port dues and terminal charge.

Itinerary 6–1	Tokyo – Jakarta	(3,250miles)	269 US\$ (1.00)
Itinerary 6–2	Tokyo – Port Kela	ang(3,121miles)	202 US\$ (0.75)
Itinerary 6–3	Tokyo – Jakarta	(3,250miles)	302 US\$ (1.12)

The reasons for the cost difference between Itinerary 6-1 and 6-2 is round period (21days for Itinerary 6-1 and 28days for 6-2) and between Itinerary 6-2 and 6-3 is transshipment cost in Singapore.

If 3,000TEUs capacity container ships (vessel speed increase from 17.0knots of 1,000TEU ship to 23.0knots of 3,000TEU ship) would be put on Itinerary 6–1, 21days service could be realized. (See Table A.5.3.1.9 Itinerary 6-4) And if service route pass through Makassar Strait (distance between Manila and Surabaya through western side of Kalimantan Island is 1726 miles while Through Makassar Strait is 1537 miles), the port facing the Strait, for example Makassar Port and Balikppan Port, could be a candidate for direct call port (See Table A.5.3.1.10). If 2,000TEUs capacity container ships (vessel speed is 20 knots) would be put on Itinerary 6–2, the port facing Malacca Strait, for example Belawan port, could be a candidate of direct call port. (See Table A.5.3.1.11)

For feeder service, 6,000TEUs mother ships will be allocated. (See Table A.5.3.1.12)

<u>Itinerary 6-4</u> (Weekly service, 21days trip with 3 (3,000TEUs) Direct Call) Japan--Keelung--Hongkong-Manila--Surabaya--Jakarta--Kaosiung---Hongkong---Japan (Total length of the round is 8,453miles)

Itinerary 6-5 (Weekly service, 21days round with 3 (2,000TEUs) Direct Call) Japan—Hongkong—Singapore—Port Kelang—Belawan—Singapore—Japan (Total length of the round is 6,846miles)

Itinerary 6-6 (Weekly service, 14days trip with 2 (6,000TEUs) mother vessels)

	Feeder		Mother vessel	
Jakarta		Singapore	\Leftrightarrow	Tokyo
	1.5day	(1days)	5.5days	(1days)

The costs per TEU from Japan are as follows.

Itinerary 6–4	Tokyo – Jakarta	(3,250miles)	177 US\$ (1.00)
Itinerary 6-5	Tokyo – Belawan	(3,290miles)	175 US\$ (0.99)
Itinerary 5-6	Tokyo – Jakarta	(3,250miles)	252 US\$ (1.42)

The container transportation in Indonesia will be competitive if direct service with more than 2,000TEUs capacity ships call the port in eastern part of Sumatra Island and more than 3,000TEUs capacity ships call the port in northern part of Jawa Island.

If the international sea-lane in Makassar Strait were prepared for container ship with more than 23knots speed, the port facing the Strait would be a candidate for direct call.

3) Delivery Time

Please see the same part of Transpacific Service.

4) Required Container Volume

For the port situated at northern side of Jawa Island or facing Makassar Strait, the required annual volume of container for receive Intra-Asia service is at least 156,000TEUs, which satisfy 50% of annual total slot of Intra-Asia direct call service with twice a week 3,000TEUs capacity ship (annual total slot is 312,00TEUs ; 3,000TEUs/ship and 104 services/year). The share of Intra-Asia is 35% at present and the share will gain in future. It is understood that if a port situated at northern side of Jawa Island or facing Makassar Strait will handle more than 450,000TEUs loaded international container per year, the port have a

potential to receive Intra-Asia service.

For the port situated at eastern side of Sumatra Island, the required annual volume of container for Intra-Asia service is at least 104,000TEUs, which satisfy 50% of annual total slot of Intra-Asia direct call service with twice a week 2,000TEUs capacity ship (annual total slot is 208,00TEUs ; 2,000TEUs/ship and 104 services/year). If a port situated at eastern side of Sumatra Island will handle more than 300,000TEUs loaded international container per year, the port have a potential to receive Intra-Asia service.

2.2 From The Viewpoint of Financial Condition of Container Terminal

The container terminal construction and operation should be profitable and financially viable. Several kinds of procedure, such as profit/loss table, a balance sheet, cash flow, financial internal of return (FIRR) and some indices (Rate of Return on Net Fixed Assets, Operating Ratio, Working Ratio) are used to examine financial condition and loan repayment of the project.

At this stage this condition is applied to clarify the candidate for development, therefore, a simple condition, that is annual expenditure is less than annual revenue at full operation year, is used to seek the required volume of container per year at the terminal.

The standard container terminal facilities and its installation cost and annual expenditure are shown Table 5.3.1.14 and 5.3.1.15, respectively. But the expenditure includes no income tax. The assumed revenue per 10,000TEUs is shown Table 5.3.1.16 as 1,162,100 US\$, that is, average revenue per 1TEU is about 116US\$.

a) Total Expenditure			
Operation Expenditure		US\$	2,452,000
Depreciation Cost		US\$	1,244,000
Interest on Initial Investment	<u></u>	US\$	3,660,000
	Subtotal	US\$	7,356,000
Income Tax	30%	of Annu	al Revenue
b) Operation Revenue			

Average Revenue for Container US\$116 per TEUs

The required condition is

(Operation Revenue per TEU) × Container Handling Volume > Total Expenditure.

Required container handling volume is about 100,000TEUs for Feeder container terminal with single berth.

3. Summary of Required Container Volume In International Container Port

Based on estimation in this Section, the required container volume in one port as candidate for dominant service is summarized as follows.

For Transpacific Service :

Loaded international container more than 1,500,000TEUs in Jawa Area For Europe/East-Asia Service :

Mother Port Type in Jawa Area

Loaded international container more than 3,000,000TEUs

Transshipment Port Type in Facing Malacca Strait

Loaded international container more than 3,500,000TEUs

Transshipment Port Type in Easter part of Indonesia

Loaded international container more than 4,200,000TEUs

For Intra-Asia Service

In Jawa and facing Makassar Strait area

Loaded international container more than 450,000TEUs

In eastern side of Sumatra

Loaded international container more than 300,000TEUs

And in case of Feeder Container Terminal in existing port area,

The required container volume handled in a terminal is 100,000TEUs.

Table A.5.3.1.3 Shipping Cost and Port Dues in Transpacific Service

Itinerary 1		Service							1
			V 1		01.7	ai .	n in i	au :	Container
	Distance	Size of	Volume of	Port Due	Ship	Ship	Port Due +	Ship	Handling
Name of port	(mile)	Vessel	Container	(US\$)	Operation	Charge	Ship	Charge	Charge
	((TEU)	(TEU)		Days	(per day)	Charge	(per TEU)	(per TEU)
Scattle				30,000	2.0	37,000	104,000	21.7	120
l	7,062	6,000	4,800	50,000	13.5	57,000	769,500	160.3	120
· +	7,002	0,000	4,000	10.000	2.0				(0)
Singapore			. [12,000		37,000	86,000	17.9	60
Singapore			1.00	8,000	1.0	20,000	28,000	17.5	60
ţ	533	2,000	1,600		1.5	25,000	37,500	23.4	
Jakarta				4,300	1.0	20,000	24,300	15.2	62
Subtotal					21.0	196,000	1,049,300	256.0	302
Total		-						(US\$/TEU)	558
Itinerary 2-1	TransPacific	Service			:				
		0:0	37.3		01.1	ot.!	Dent Dara d	ot.:	Container
	Distance	Size of	Volume of	Port Due	Ship	Ship	Port Due +	Ship	Handling
Name of port	(mile)	Vessel	Container	(US\$)	Operation	Charge	Ship	Charge	Charge
		(TEU)	(TEU)	(000)	Days	(per day)	Charge	(per TEU)	(per TEU)
Seattle		·····		18,000	1.5	20,000	48,000	30.0	120
Juli	7,351	2,000	1,600	16,000	15.5	25,000	387,500	242.2	120
÷	1,551	2,000	1,000	1 200					
Jakarta				4,300	1.5	20,000	34,300	21.4	62
Subtotal	· .				18.5	65,000	469,800	293.6	182
Total								(US\$/TEU)	476
Itinerary 2-2	TransPacific	Service					· · · · · · · · · · · · · · · · · · ·		·
· ·		Size of	Volume of		Ship	Ship	Port Due +	Ship	Container
Name of port	Distance	Vessel	Container	Port Due	Operation	Charge	Ship	Charge	Handling
Name of port	(mile)			(US\$)	-		-		Charge
	· ·	(TEU)	(TEU)		Days	(per day)	Charge	(per TEU)	(per TEU)
Seattle			1.1	15,000	1.5	16,000	39,000	32.5	120
1	7,351	1,500	1,200		18.0	20,000	360,343	300.3	
Jakarta	: 1			3,000	1.5	16,000	27,000	22.5	62
Subtotal		·			21.0	52,000	426,343	355.3	182
Total	L					- 2,000		(US\$/TEU)	537
	pared by the Stu	to Tana				· · ·		(000,100)	
source . riej	area by me ara	uy ream							
					and the second second				
Table A	53115	hinning	Cost and	Port Due	e in Foru	ne/Fast-	Acia Saru	ico(Diroc	+ Call)
	5.3.1.4 S				s in Eoru	pe/East-2	Asia Serv	ice(Direc	t Call)
Table A. Itinerary 3			Cost and e (Direct cal		s in Eoru	pe/East-2	Asia Serv	ice(Direc	
		-Asia Servic	e (Direct cal		i	-	T.		t Call) Container
Itinerary 3	Europe/East	-Asia Servic Size of	e (Direct cal Volume of		Ship	Ship	Port Due +	Ship	
	Europe/East	-Asia Servic Size of Vessel	e (Direct cal Volume of Container)	Ship Operation	Ship Charge	Port Due + Ship	Ship Charge	Container Handling
Itinerary 3	Europe/East Distance	-Asia Servic Size of	e (Direct cal Volume of) Port Due	Ship	Ship	Port Due +	Ship	Container Handling Charge
Itinerary 3	Europe/East Distance	-Asia Servic Size of Vessel	e (Direct cal Volume of Container) Port Due (US\$)	Ship Operation	Ship Charge (per day)	Port Due + Ship Charge	Ship Charge (per TEU)	Container Handling
Itinerary 3 Name of port	Europe/East Distance (mile)	-Asia Servic Size of Vessel (TEU)	e (Direct cal Volume of Container (TEU)) Port Due	Ship Operation Days 1.0	Ship Charge (per day) 43,000	Port Due + Ship Charge 123,000	Ship Charge (per TEU) 19.2	Container Handling Charge (per TEU)
Itinerary 3 Name of port Rotterdam	Europe/East Distance	-Asia Servic Size of Vessel	e (Direct cal Volume of Container) Port Due (US\$) 80,000	Ship Operation Days 1.0 15.5	Ship Charge (per day) 43,000 70,000	Port Due + Ship Charge 123,000 1,085,000	Ship Charge (per TEU) 19.2 169.5	Container Handling Charge (per TEU) 120
Itinerary 3 Name of port Rotterdam	Europe/East Distance (mile)	-Asia Servic Size of Vessel (TEU)	e (Direct cal Volume of Container (TEU)	Port Due (US\$) 80,000 14,000	Ship Operation Days 1.0 15.5 1.0	Ship Charge (per day) 43,000 70,000 43,000	Port Due + Ship Charge 123,000 1,085,000 57,000	Ship Charge (per TEU) 19.2 169.5 8.9	Container Handling Charge (per TEU) 120 60
Itinerary 3 Name of port Rotterdam	Europe/East Distance (mile) 8,350	-Asia Servic Size of Vessel (TEU) 8,000	e (Direct cal Volume of Container (TEU) 6,400) Port Due (US\$) 80,000	Ship Operation Days 1.0 15.5 1.0 1.0	Ship Charge (per day) 43,000 70,000 43,000 20,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000	Ship Charge (per TEU) 19.2 169.5 8.9 17.5	Container Handling Charge (per TEU) 120
Itinerary 3 Name of port Rotterdam J Singapore Singapore	Europe/East Distance (mile)	-Asia Servic Size of Vessel (TEU) 8,000	e (Direct cal Volume of Container (TEU) 6,400) Port Due (US\$) 80,000 14,000 8,000	Ship Operation Days 1.0 15.5 1.0 1.0 1.0 1.5	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4	Container Handling Charge (per TEU) 120 60 60
Itinerary 3 Name of port Rotterdam J Singapore Singapore Jakarta	Europe/East Distance (mile) 8,350	-Asia Servic Size of Vessel (TEU) 8,000	e (Direct cal Volume of Container (TEU) 6,400	Port Due (US\$) 80,000 14,000	Ship Operation Days 1.0 15.5 1.0 1.0 1.5 1.0	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2	Container Handling Charge (per TEU) 120 60 60 60
Itinerary 3 Name of port Rotterdam ↓ Singapore Singapore ↓ Jakarta Subtotal	Europe/East Distance (mile) 8,350	-Asia Servic Size of Vessel (TEU) 8,000	e (Direct cal Volume of Container (TEU) 6,400) Port Due (US\$) 80,000 14,000 8,000	Ship Operation Days 1.0 15.5 1.0 1.0 1.0 1.5	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8	Container Handling Charge (per TEU) 120 60 60 60 62 302
Itinerary 3 Name of port Rotterdam J Singapore Singapore J Jakarta Subtotal Total	Europe/East Distance (mile) 8,350 533	-Asia Servic Size of Vessel (TEU) 8,000 2,000	e (Direct cal Volume of Container (TEU) 6,400 1600) Port Due (US\$) 80,000 14,000 8,000 4,300	Ship Operation Days 1.0 15.5 1.0 1.0 1.5 1.0	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2	Container Handling Charge (per TEU) 120 60 60 60
Itinerary 3 Name of port Rotterdam ↓ Singapore Singapore ↓ Jakarta Subtotal	Europe/East Distance (mile) 8,350 533	-Asia Servic Size of Vessel (TEU) 8,000 2,000	e (Direct cal Volume of Container (TEU) 6,400) Port Due (US\$) 80,000 14,000 8,000 4,300	Ship Operation Days 1.0 15.5 1.0 1.0 1.5 1.0	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8	Container Handling Charge (per TEU) 120 60 60 60 62 302 556
Itinerary 3 Name of port Rotterdam J Singapore Singapore J Jakarta Subtotal Total	Europe/East Distance (mile) 8,350 533 Europe/East	-Asia Servic Size of Vessel (TEU) 8,000 2,000	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal) Port Due (US\$) 80,000 14,000 8,000 4,300	Ship Operation Days 1.0 15.5 1.0 1.5 1.0 21.0	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU)	Container Handling Charge (per TEU) 120 60 60 60 62 302 556 Container
Itinerary 3 Name of port Rotterdam J Singapore J Jakarta Subtotal Total Itinerary 4-1	Europe/East Distance (mile) 8,350 533 Europe/East Distance	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of) Port Due (US\$) 80,000 14,000 8,000 4,300 1) Port Due	Ship Operation Days 1.0 15.5 1.0 1.5 1.0 21.0 Ship	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 Ship	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship	Container Handling Charge (per TEU) 120 60 60 60 62 302 556 Container Handling
Itinerary 3 Name of port Rotterdam I Singapore Singapore Jakarta Subtotal Total	Europe/East Distance (mile) 8,350 533 Europe/East	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container) Port Due (US\$) 80,000 14,000 8,000 4,300	Ship Operation Days 1.0 15.5 1.0 1.0 21.0 Ship Operation	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 Ship Charge	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 Port Due + Ship	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge	Container Handling Charge (per TEU) 120 60 60 60 62 302 556 Container
Itinerary 3 Name of port Rotterdam J Singapore J Jakarta Subtotal Total Itinerary 4-1	Europe/East Distance (mile) 8,350 533 Europe/East Distance	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of) Port Due (US\$) 80,000 14,000 8,000 4,300 1) Port Due	Ship Operation Days 1.0 15.5 1.0 1.5 1.0 21.0 Ship	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 Ship	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship	Container Handling Charge (per TEU) 120 60 60 60 62 302 556 Container Handling
Itinerary 3 Name of port Rotterdam J Singapore J Jakarta Subtotal Total Itinerary 4-1	Europe/East Distance (mile) 8,350 533 Europe/East Distance	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container) Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 1) Port Due (US\$)	Ship Operation Days 1.0 15.5 1.0 1.0 21.0 Ship Operation	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 Ship Charge (per day)	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 Port Due + Ship	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge	Container Handling Charge (per TEU) 120 60 60 60 60 62 302 556 Container Handling Charge
Itinerary 3 Name of port Rotterdam ↓ Singapore ↓ Jakarta Subtotal Total Itinerary 4-1 Name of port	Europe/East Distance (mile) 8,350 533 Europe/East Distance (mile)	-Asia Servic Size of Vessel (TEU) 8,000 2,000 2,000 -Asia Servic Size of Vessel (TEU)	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU)) Port Due (US\$) 80,000 14,000 8,000 4,300 1) Port Due	Ship Operation Days 1.0 15.5 1.0 1.5 1.0 21.0 21.0 Ship Operation Days 1.5	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 Ship Charge (per day) 20,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 Port Due + Ship Charge 63,000	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4	Container Handling Charge (per TEU) 120 60 60 60 62 302 556 Container Handling Charge (per TEU)
Itinerary 3 Name of port Rotterdam ↓ Singapore Singapore ↓ Jakarta Subtotal Total Itinerary 4-1 Name of port Rotterdam ↓	Europe/East Distance (mile) 8,350 533 Europe/East Distance	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU)	 Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 4,300 9 Port Due (US\$) 33,000 	Ship Operation Days 1.0 15.5 1.0 1.0 1.5 1.0 21.0 21.0 Ship Operation Days 1.5 18.0	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 Ship Charge (per day) 20,000 25,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 Port Due + Ship Charge 63,000 450,000	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3	Container Handling Charge (per TEU) 120 60 60 60 62 302 556 Container Handling Charge (per TEU) 120
Itinerary 3 Name of port Rotterdam ↓ Singapore ↓ Jakarta Subtotal Total Itinerary 4-1 Name of port Rotterdam ↓ Jakarta	Europe/East Distance (mile) 8,350 533 Europe/East Distance (mile)	-Asia Servic Size of Vessel (TEU) 8,000 2,000 2,000 -Asia Servic Size of Vessel (TEU)	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU)) Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 1) Port Due (US\$)	Ship Operation Days 1.0 15.5 1.0 1.0 1.5 1.0 21.0 Ship Operation Days 1.5 18.0 1.5	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 Ship Charge (per day) 20,000 25,000 25,000 20,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 Port Due + Ship Charge 63,000 450,000 34,300	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3 21.4	Container Handling Charge (per TEU) 120 60 60 62 302 556 Container Handling Charge (per TEU) 120 62
Itinerary 3 Name of port Rotterdam J Singapore Jakarta Subtotal Total Itinerary 4-1 Name of port Rotterdam Jakarta Subtotal	Europe/East Distance (mile) 8,350 533 Europe/East Distance (mile)	-Asia Servic Size of Vessel (TEU) 8,000 2,000 2,000 -Asia Servic Size of Vessel (TEU)	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU)	 Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 4,300 9 Port Due (US\$) 33,000 	Ship Operation Days 1.0 15.5 1.0 1.0 1.5 1.0 21.0 21.0 Ship Operation Days 1.5 18.0	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 Ship Charge (per day) 20,000 25,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 Port Due + Ship Charge 63,000 450,000	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3 21.4 342.1	Container Handling Charge (per TEU) 120 60 60 62 302 556 Container Handling Charge (per TEU) 120 62 182
Itinerary 3 Name of port Rotterdam ↓ Singapore ↓ Jakarta Subtotal Total Itinerary 4-1 Name of port Rotterdam ↓ Jakarta Subtotal Total	Europe/East Distance (mile) 8,350 533 Europe/East Distance (mile) 8,585	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel (TEU) 2,000	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU) 1,600	 Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 1) Port Due (US\$) 33,000 4,300 	Ship Operation Days 1.0 15.5 1.0 1.0 1.5 1.0 21.0 Ship Operation Days 1.5 18.0 1.5	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 Ship Charge (per day) 20,000 25,000 25,000 20,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 Port Due + Ship Charge 63,000 450,000 34,300	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3 21.4	Container Handling Charge (per TEU) 120 60 60 62 302 556 Container Handling Charge (per TEU) 120 62
Itinerary 3 Name of port Rotterdam J Singapore Jakarta Subtotal Total Itinerary 4-1 Name of port Rotterdam Jakarta Subtotal	Europe/East Distance (mile) 8,350 533 Europe/East Distance (mile) 8,585	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel (TEU) 2,000	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU)	 Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 1) Port Due (US\$) 33,000 4,300 	Ship Operation Days 1.0 15.5 1.0 1.0 1.5 1.0 21.0 Ship Operation Days 1.5 18.0 1.5	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 Ship Charge (per day) 20,000 25,000 25,000 20,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 Port Due + Ship Charge 63,000 450,000 34,300	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3 21.4 342.1	Container Handling Charge (per TEU) 120 60 60 62 302 556 Container Handling Charge (per TEU) 120 62 182 524
Itinerary 3 Name of port Rotterdam ↓ Singapore ↓ Jakarta Subtotal Total Itinerary 4-1 Name of port Rotterdam ↓ Jakarta Subtotal Total	Europe/East Distance (mile) 8,350 533 Europe/East Europe/East	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel (TEU) 2,000	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU) 1,600	 Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 0 33,000 4,300 	Ship Operation Days 1.0 15.5 1.0 1.0 21.0 21.0 Ship Operation Days 1.5 18.0 1.5 21.0	Ship Charge (per day) 43,000 70,000 43,000 25,000 25,000 221,000 221,000 221,000 20,000 25,000 20,000 65,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 Port Due + Ship Charge 63,000 450,000 34,300	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3 21.4 342.1 (US\$/TEU)	Container Handling Charge (per TEU) 120 60 60 62 302 556 Container Handling Charge (per TEU) 120 62 182 524 Container
Itinerary 3 Name of port Rotterdam J Singapore J Jakarta Subtotal Total Itinerary 4-1 Name of port Rotterdam J Jakarta Subtotal Total Itinerary 4-1	Europe/East Distance (mile) 8,350 533 Europe/East Distance (mile) 8,585 Europe/East	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel (TEU) 2,000 -Asia Servic Size of	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU) 1,600	 Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 0 33,000 4,300 1) Port Due (US\$) 33,000 4,300 	Ship Operation Days 1.0 15.5 1.0 1.0 21.0 21.0 Ship Operation Days 1.5 18.0 1.5 21.0 Ship	Ship Charge (per day) 43,000 70,000 43,000 25,000 25,000 221,000 221,000 221,000 20,000 25,000 25,000 20,000 65,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 Port Due + Ship Charge 63,000 450,000 34,300 547,300	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3 21.4 342.1 (US\$/TEU)	Container Handling Charge (per TEU) 120 60 60 62 302 556 Container Handling Charge (per TEU) 120 62 182 524 Container Handling
Itinerary 3 Name of port Rotterdam ↓ Singapore ↓ Jakarta Subtotal Total Itinerary 4-1 Name of port Rotterdam ↓ Jakarta Subtotal Total	Europe/East Distance (mile) 8,350 533 Europe/East Distance (mile) 8,585 Europe/East	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel (TEU) 2,000 -Asia Servic Size of Vessel	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU) 1,600 e (Direct cal Volume of Container	 Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 0 33,000 4,300 	Ship Operation Days 1.0 15.5 1.0 1.0 21.0 Ship Operation Days 1.5 1.0 21.0 Ship Operation 1.5 18.0 1.5 21.0 Ship Operation	Ship Charge (per day) 43,000 70,000 43,000 25,000 20,000 221,000 221,000 221,000 221,000 221,000 25,000 25,000 25,000 25,000 25,000 25,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 1,354,800 Port Due + Ship Charge 63,000 450,000 34,300 547,300	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3 21.4 342.1 (US\$/TEU) Ship Charge	Container Handling Charge (per TEU) 120 60 60 62 302 556 Container Handling Charge (per TEU) 120 62 182 524 Container
Itinerary 3 Name of port Rotterdam J Singapore J Jakarta Subtotal Total Itinerary 4-1 Name of port Rotterdam J Jakarta Subtotal Total Itinerary 4-1	Europe/East Distance (mile) 8,350 533 Europe/East Distance (mile) 8,585 Europe/East	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel (TEU) 2,000 -Asia Servic Size of	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU) 1,600	 Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 0 33,000 4,300 1) Port Due (US\$) 33,000 4,300 	Ship Operation Days 1.0 15.5 1.0 1.0 21.0 21.0 Ship Operation Days 1.5 18.0 1.5 21.0 Ship	Ship Charge (per day) 43,000 70,000 43,000 25,000 25,000 221,000 221,000 221,000 20,000 25,000 25,000 20,000 65,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 Port Due + Ship Charge 63,000 450,000 34,300 547,300	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3 21.4 342.1 (US\$/TEU) Ship Charge (per TEU)	Container Handling Charge (per TEU) 120 60 60 62 302 556 Container Handling Charge (per TEU) 120 62 182 524 Container Handling
Itinerary 3 Name of port Rotterdam J Singapore J Jakarta Subtotal Total Itinerary 4-1 Name of port Rotterdam J Jakarta Subtotal Total Itinerary 4-1	Europe/East Distance (mile) 8,350 533 Europe/East Distance (mile) 8,585 Europe/East	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel (TEU) 2,000 -Asia Servic Size of Vessel	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU) 1,600 e (Direct cal Volume of Container	 Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 0 33,000 4,300 1) Port Due (US\$) 33,000 4,300 	Ship Operation Days 1.0 15.5 1.0 1.0 21.0 Ship Operation Days 1.5 1.0 21.0 Ship Operation 1.5 18.0 1.5 21.0 Ship Operation	Ship Charge (per day) 43,000 70,000 43,000 25,000 20,000 221,000 221,000 221,000 221,000 221,000 25,000 25,000 25,000 25,000 25,000 25,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 1,354,800 Port Due + Ship Charge 63,000 450,000 34,300 547,300	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3 21.4 342.1 (US\$/TEU) Ship Charge	Container Handling Charge (per TEU) 120 60 60 62 302 556 Container Handling Charge (per TEU) 120 62 182 524 Container Handling Charge
Itinerary 3 Name of port Rotterdam ↓ Singapore ↓ Jakarta Subtotal Total Itinerary 4-1 Name of port ↓ Jakarta Subtotal Total Itinerary 4-1 Name of port	Europe/East Distance (mile) 8,350 533 Europe/East Distance (mile) 8,585 Europe/East Distance (mile)	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel (TEU) 2,000 Asia Servic Size of Vessel (TEU)	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU) 1,600 e (Direct cal Volume of Container (TEU)	 Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 0 9 Port Due (US\$) 33,000 4,300 1) Port Due (US\$) 	Ship Operation Days 1.0 15.5 1.0 1.0 1.5 1.0 21.0 21.0 Ship Operation 1.5 18.0 1.5 21.0 Ship Operation Days 1.5 18.0 1.5 18.0 1.5 18.0 1.5 1.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 221,000 221,000 20,000 25,000 20,000 65,000 Ship Charge (per day) Ship Charge (per day) 16,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 Port Due + Ship Charge 63,000 450,000 34,300 547,300 Port Due + Ship Charge 41,000	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3 21.4 342.1 (US\$/TEU) Ship Charge (per TEU)	Container Handling Charge (per TEU) 120 60 60 62 302 556 Container Handling Charge (per TEU) 120 62 182 524 Container Handling Charge (per TEU)
Itinerary 3 Name of port Rotterdam ↓ Singapore ↓ Jakarta Subtotal Total Itinerary 4-1 Name of port ↓ Jakarta Subtotal Total Itinerary 4-1 Name of port Name of port	Europe/East Distance (mile) 8,350 533 Europe/East Distance (mile) 8,585 Europe/East	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel (TEU) 2,000 Asia Servic Size of Vessel (TEU)	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU) 1,600 e (Direct cal Volume of Container (TEU)	 Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 4,300 9 9 Ort Due (US\$) 33,000 4,300 1) Port Due (US\$) 25,000 	Ship Operation Days 1.0 15.5 1.0 1.5 1.0 1.5 1.0 21.0 Ship Operation Days 1.5 18.0 1.5 21.0 Ship Operation Days 1.0 21.0	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 221,000 221,000 20,000 25,000 20,000 65,000 Ship Charge (per day) 20,000 25,000 20,000	Port Due + Ship Charge 123,000 1,085,000 57,000 28,000 37,500 24,300 1,354,800 Port Due + Ship Charge 63,000 450,000 34,300 547,300 Port Due + Ship Charge 41,000 420,000	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3 21.4 342.1 (US\$/TEU) Ship Charge (per TEU) Ship Charge (per TEU) 34.2 350.0	Container Handling Charge (per TEU) 120 60 60 62 302 556 Container Handling Charge (per TEU) 120 62 182 524 Container Handling Charge (per TEU) 120 62 182 524
Itinerary 3 Name of port Rotterdam ↓ Singapore ↓ Jakarta Subtotal Total Itinerary 4-1 Name of port ↓ Jakarta Subtotal Total Itinerary 4-1 Name of port Rotterdam ↓ Jakarta	Europe/East Distance (mile) 8,350 533 Europe/East Distance (mile) 8,585 Europe/East Distance (mile)	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel (TEU) 2,000 Asia Servic Size of Vessel (TEU)	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU) 1,600 e (Direct cal Volume of Container (TEU)	 Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 0 9 Port Due (US\$) 33,000 4,300 1) Port Due (US\$) 	Ship Operation Days 1.0 15.5 1.0 1.5 1.0 1.5 1.0 21.0 Ship Operation Days 1.5 18.0 1.5 18.0 1.5 21.0 Ship Operation Days 1.0 21.0	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 221,000 20,000 25,000 20,000 65,000 Ship Charge (per day) 20,000 65,000 16,000 16,000	Port Due + Ship Charge 123,000 1,085,000 37,500 28,000 37,500 24,300 1,354,800 Port Due + Ship Charge 63,000 450,000 34,300 547,300 Port Due + Ship Charge 41,000 420,000 19,000	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3 21.4 342.1 (US\$/TEU) Ship Charge (per TEU) Ship Charge (per TEU) 34.2 350.0 15.8	Container Handling Charge (per TEU) 120 60 60 62 302 556 Container Handling Charge (per TEU) 120 62 182 524 Container Handling Charge (per TEU) 120 62 182 524
Itinerary 3 Name of port Rotterdam J Singapore Singapore Jakarta Subtotal Total Itinerary 4-1 Name of port Jakarta Subtotal Total Itinerary 4-1 Name of port Rotterdam	Europe/East Distance (mile) 8,350 533 Europe/East Distance (mile) 8,585 Europe/East Distance (mile)	-Asia Servic Size of Vessel (TEU) 8,000 2,000 -Asia Servic Size of Vessel (TEU) 2,000 Asia Servic Size of Vessel (TEU)	e (Direct cal Volume of Container (TEU) 6,400 1600 e (Direct cal Volume of Container (TEU) 1,600 e (Direct cal Volume of Container (TEU)	 Port Due (US\$) 80,000 14,000 8,000 4,300 4,300 4,300 9 9 Ort Due (US\$) 33,000 4,300 1) Port Due (US\$) 25,000 	Ship Operation Days 1.0 15.5 1.0 1.5 1.0 1.5 1.0 21.0 Ship Operation Days 1.5 18.0 1.5 21.0 Ship Operation Days 1.0 21.0	Ship Charge (per day) 43,000 70,000 43,000 20,000 25,000 20,000 221,000 221,000 221,000 20,000 25,000 20,000 65,000 Ship Charge (per day) 20,000 25,000 20,000	Port Due + Ship Charge 123,000 1,085,000 37,500 28,000 37,500 24,300 1,354,800 Port Due + Ship Charge 63,000 450,000 34,300 547,300 Port Due + Ship Charge 41,000 420,000 19,000	Ship Charge (per TEU) 19.2 169.5 8.9 17.5 23.4 15.2 253.8 (US\$/TEU) Ship Charge (per TEU) 39.4 281.3 21.4 342.1 (US\$/TEU) Ship Charge (per TEU) Ship Charge (per TEU) 34.2 350.0 15.8	Container Handling Charge (per TEU) 120 60 60 62 302 556 Container Handling Charge (per TEU) 120 62 182 524 Container Handling Charge (per TEU) 120 62 182 524

Source : Prepared by the Study Team

	Europe/East	-Asia Servic	e (Transship	ment)	Tanssnipi	·	······································		
				~ <u> </u>	et .		n		Container
Name of port	Distance	Size of	Volume of	Port Due	Ship	Ship	Port Due +	Ship	Handling
ivanie of port	(mile)	Vessel	Container	(US\$)	Operation	Charge	Ship	Charge	Charge
		(TEU)	(TEU)		Days	(per day)	Charge	(per TEU)	(per TEU)
Rotterdam			· · · · · · · · · · · · · · · · · · ·	65,000	1.0	37,000	102,000	21.3	120
↓ .	8,585	6,000	4,800		15.5	57,000	883,500	184.1	120
Jakarta		· · ·		8,000	1.0	37,000	45,000	1	40
Jakarta				4,300	1.0	20,000	24,300	1	40
	1,575	2,000	1600		3.5	25,000	87,500		
Bitung				4,300	1.0	20,000		15.2	62
Subtotal				·	23.0	196,000	1,166,600	299.8	262
Total			······································				· · · · · · · · · · · · · · · · · · ·	(US\$/TEU)	562
Itinerary 5-2	Europe/East	-Asia Servic	e (Transship	ment)				(4.14, 120)	
		Size of	Volume of		c).:	et 1			Container
Name of port	Distance	Vessel		Port Due	Ship	Ship	Port Due +	Ship	Handling
rivance or port	(mile)		Container	(US\$)	Operation	Charge	Ship	Charge	Charge
		(TEU)	(TEU)		Days	(per day)	Charge	(per TEU)	(per TEU)
Rotterdam				65,000	1.0	37,000	102,000	21.3	120
↓ ·	8,585	6,000	4,800		15.5	57,000		184.1	
Jakarta				8,000	- 1.0	37,000	45,000	9.4	40
Jakarta				1,400	1.0	11,000	12,400	15.5	40
. ↓	1,619	1,000	800		4.0	14,500	58,000	72.5	
Sorong		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	$= 1.15 \pm 0.01$	1,400	1.0	11,000	12,400	15.5	62
Subtotal			1.		23.5	167,500	1,113,300	318.2	262
Total	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -						· · · · · · · · · · · · · · · · · · ·		
					· · · ·	· · · ·	:	(US\$/TEU)	580
· · ·							:	(US\$/TEU)	580
Itincrary 5-3	Europe/East	-Asia Servic	e (Direct Cal	l)			: 	(US\$/TEU)	580
Itincrary 5-3					Ship	Ship	Port Due +		580 Container
	Distance	Size of	Volume of	Port Due	Ship	Ship	Port Due +	Ship	
Itincrary 5-3	Distance	Size of Vessel	Volume of Container		Operation	Charge	Ship	Ship Charge	Container Handling
Name of port	Distance	Size of	Volume of	Port Due (US\$)	Operation Days	Charge (per day)	Ship Charge	Ship	Container
	Distance (mile)	Size of Vossel (TEU)	Volume of Container (TEU)	Port Due	Operation Days 1.5	Charge (per day) 27,000	Ship Charge 85,500	Ship Charge	Container Handling Charge
Name of port Rotterdam ↓	Distance	Size of Vessel	Volume of Container	Port Due (US\$) 45,000	Operation Days 1.5 18.0	Charge (per day) 27,000 35,000	Ship Charge 85,500 630,000	Ship Charge (per TEU) 35.6 262.5	Container Handling Charge (per TEU)
Name of port Rotterdam ↓ Bitung	Distance (mile)	Size of Vossel (TEU)	Volume of Container (TEU)	Port Due (US\$)	Operation Days 1.5 18.0 1.5	Charge (per day) 27,000 35,000 27,000	Ship Charge 85,500 630,000 45,900	Ship Charge (per TEU) 35.6	Container Handling Charge (per TEU)
Name of port Rotterdam J Bitung Subtotal	Distance (mile)	Size of Vossel (TEU)	Volume of Container (TEU)	Port Due (US\$) 45,000	Operation Days 1.5 18.0	Charge (per day) 27,000 35,000	Ship Charge 85,500 630,000	Ship Charge (per TEU) 35.6 262.5 19.1 317.3	Container Handling Charge (per TEU) 120 62 182
Name of port Rotterdam J Bitung Subtotal Total	Distance (mile) 9,840	Size of Vessel (TEU) 3,000	Volume of Container (TEU) 2,400	Port Due (US\$) 45,000 5,400	Operation Days 1.5 18.0 1.5	Charge (per day) 27,000 35,000 27,000	Ship Charge 85,500 630,000 45,900	Ship Charge (per TEU) 35.6 262.5 19.1	Container Handling Charge (per TEU) 120 62
Name of port Rotterdam J Bitung Subtotal	Distance (mile) 9,840	Size of Vessel (TEU) 3,000	Volume of Container (TEU) 2,400	Port Due (US\$) 45,000 5,400	Operation Days 1.5 18.0 1.5	Charge (per day) 27,000 35,000 27,000	Ship Charge 85,500 630,000 45,900	Ship Charge (per TEU) 35.6 262.5 19.1 317.3	Container Handling Charge (per TEU) 120 62 182 499
Name of port Rotterdam J Bitung Subtotal Total	Distance (mile) 9,840 Europe/East	Size of Vessel (TEU) 3,000	Volume of Container (TEU) 2,400 e (Transship	Port Due (US\$) 45,000 5,400 ment)	Operation Days 1.5 18.0 1.5 21.0	Charge (per day) 27,000 35,000 27,000 89,000	Ship Charge 85,500 630,000 45,900 761,400	Ship Charge (per TEU) 35.6 262.5 19.1 317.3 (US\$/TEU)	Container Handling Charge (per TEU) 120 62 182 499 Container
Name of port Rotterdam J Bitung Subtotal Total	Distance (mile) 9,840 Europe/East	Size of Vessel (TEU) 3,000	Volume of Container (TEU) 2,400 e (Transship Volume of	Port Due (US\$) 45,000 5,400 ment) Port Due	Operation Days 1.5 18.0 1.5 21.0 Ship	Charge (per day) 27,000 35,000 27,000 89,000 Ship	Ship Charge 85,500 630,000 45,900 761,400 Port Due +	Ship Charge (per TEU) 35.6 262.5 19.1 317.3 (US\$/TEU) Ship	Container Handling Charge (per TEU) 120 62 182 499 Container Handling
Name of port Rotterdam ↓ Bitung Subtotal Total Itinerary 5-4	Distance (mile) 9,840 Europe/East	Size of Vessel (TEU) 3,000 -Asia Servic Size of Vessel	Volume of Container (TEU) 2,400 e (Transship Volume of Container	Port Due (US\$) 45,000 5,400 ment)	Operation Days 1.5 18.0 1.5 21.0 Ship Operation	Charge (per day) 27,000 35,000 27,000 89,000 Ship Charge	Ship Charge 85,500 630,000 45,900 761,400 Port Due + Ship	Ship Charge (per TEU) 35.6 262.5 19.1 317.3 (US\$/TEU) Ship Charge	Container Handling Charge (per TEU) 120 62 182 499 Container
Name of port Rotterdam J Bitung Subtotal Total Itinerary 5-4 Name of port	Distance (mile) 9,840 Europe/East	Size of Vessel (TEU) 3,000 -Asia Servic Size of	Volume of Container (TEU) 2,400 e (Transship Volume of	Port Due (US\$) 45,000 5,400 ment) Port Due (US\$)	Operation Days 1.5 18.0 1.5 21.0 Ship Operation Days	Charge (per day) 27,000 35,000 27,000 89,000 89,000 Ship Charge (per day)	Ship Charge 85,500 630,000 45,900 761,400 Port Due + Ship Charge	Ship Charge (per TEU) 35.6 262.5 19.1 317.3 (US\$/TEU) Ship Charge (per TEU)	Container Handling Charge (per TEU) 120 62 182 499 Container Handling Charge (per TEU)
Name of port Rotterdam J Bitung Subtotal Total Itinerary 5-4 Name of port Rotterdam	Distance (mile) 9,840 Europe/East Distance (mile)	Size of Vessel (TEU) 3,000 -Asia Servic Size of Vessel (TEU)	Volume of Container (TEU) 2,400 e (Transship) Volume of Container (TEU)	Port Due (US\$) 45,000 5,400 ment) Port Due	Operation Days 1.5 18.0 1.5 21.0 Ship Operation Days 1.5	Charge (per day) 27,000 35,000 27,000 89,000 Ship Charge (per day) 27,000	Ship Charge 85,500 630,000 45,900 761,400 Port Due + Ship Charge 60,500	Ship Charge (per TEU) 35.6 262.5 19.1 317.3 (US\$/TEU) Ship Charge (per TEU) 25.2	Container Handling Charge (per TEU) 120 62 182 499 Container Handling Charge (per TEU) 120
Name of port Rotterdam J Bitung Subtotal Total Itinerary 5-4 Name of port Rotterdam	Distance (mile) 9,840 Europe/East	Size of Vessel (TEU) 3,000 -Asia Servic Size of Vessel	Volume of Container (TEU) 2,400 e (Transship) Volume of Container (TEU)	Port Due (US\$) 45,000 5,400 ment) Port Due (US\$) 20,000	Operation Days 1.5 18.0 1.5 21.0 Ship Operation Days 1.5 18.0	Charge (per day) 27,000 35,000 27,000 89,000 Ship Charge (per day) 27,000 35,000	Ship Charge 85,500 630,000 45,900 761,400 Port Due + Ship Charge 60,500 630,000	Ship Charge (per TEU) 35.6 262.5 19.1 317.3 (US\$/TEU) Ship Charge (per TEU) 25.2 262.5	Container Handling Charge (per TEU) 120 62 182 499 Container Handling Charge (per TEU) 120
Name of port Rotterdam J Bitung Subtotal Total Itinerary 5-4 Name of port Rotterdam J Bitung	Distance (mile) 9,840 Europe/East Distance (mile)	Size of Vessel (TEU) 3,000 -Asia Servic Size of Vessel (TEU)	Volume of Container (TEU) 2,400 e (Transship) Volume of Container (TEU)	Port Due (US\$) 45,000 5,400 ment) Port Due (US\$) 20,000 5,400	Operation Days 1.5 18.0 1.5 21.0 Ship Operation Days 1.5 18.0 1.5	Charge (per day) 27,000 35,000 27,000 89,000 Ship Charge (per day) 27,000 35,000 27,000	Ship Charge 85,500 630,000 45,900 761,400 Port Due + Ship Charge 60,500 630,000 45,900	Ship Charge (per TEU) 35.6 262.5 19.1 317.3 (US\$/TEU) Ship Charge (per TEU) 25.2 262.5 19.1	Container Handling Charge (per TEU) 120 62 182 499 Container Handling Charge (per TEU) 120
Name of port Rotterdam J Bitung Subtotal Total Itinerary 5-4 Name of port Rotterdam	Distance (mile) 9,840 Europe/East Distance (mile) 9,840	Size of Vessel (TEU) 3,000 -Asia Servic Size of Vessel (TEU) 3,000	Volume of Container (TEU) 2,400 e (Transship) Volume of Container (TEU) 2,400	Port Due (US\$) 45,000 5,400 ment) Port Due (US\$) 20,000	Operation Days 1.5 18.0 1.5 21.0 Ship Operation Days 1.5 18.0 1.5 18.0 1.5 1.0	Charge (per day) 27,000 35,000 27,000 89,000 Ship Charge (per day) 27,000 35,000 27,000 11,000	Ship Charge 85,500 630,000 45,900 761,400 Port Due + Ship Charge 60,500 630,000 45,900 12,400	Ship Charge (per TEU) 35.6 262.5 19.1 317.3 (US\$/TEU) Ship Charge (per TEU) 25.2 262.5 19.1 15.5	Container Handling Charge (per TEU) 120 62 182 499 Container Handling Charge (per TEU) 120
Name of port Rotterdam J Bitung Subtotal Total Itinerary 5-4 Name of port Rotterdam J Bitung Bitung J	Distance (mile) 9,840 Europe/East Distance (mile)	Size of Vessel (TEU) 3,000 -Asia Servic Size of Vessel (TEU)	Volume of Container (TEU) 2,400 e (Transship) Volume of Container (TEU)	Port Due (US\$) 45,000 5,400 ment) Port Due (US\$) 20,000 5,400 1,400	Operation Days 1.5 18.0 1.5 21.0 Ship Operation Days 1.5 18.0 1.5 1.0 1.5	Charge (per day) 27,000 35,000 27,000 89,000 Ship Charge (per day) 27,000 35,000 27,000 11,000 14,500	Ship Charge 85,500 630,000 45,900 761,400 Port Due + Ship Charge 60,500 630,000 45,900 12,400 21,750	Ship Charge (per TEU) 35.6 262.5 19.1 317.3 (US\$/TEU) Ship Charge (per TEU) 25.2 262.5 19.1 15.5 27.2	Container Handling Charge (per TEU) 120 62 182 499 Container Handling Charge (per TEU) 120 40 40
Name of port Rotterdam J Bitung Subtotal Total Itinerary 5-4 Name of port Rotterdam J Bitung Bitung J Sorong	Distance (mile) 9,840 Europe/East Distance (mile) 9,840	Size of Vessel (TEU) 3,000 -Asia Servic Size of Vessel (TEU) 3,000	Volume of Container (TEU) 2,400 e (Transship) Volume of Container (TEU) 2,400	Port Due (US\$) 45,000 5,400 ment) Port Due (US\$) 20,000 5,400	Operation Days 1.5 18.0 1.5 21.0 Ship Operation Days 1.5 18.0 1.5 1.0 1.5 1.0 1.5 1.0	Charge (per day) 27,000 35,000 27,000 89,000 Ship Charge (per day) 27,000 35,000 27,000 11,000 14,500 11,000	Ship Charge 85,500 630,000 45,900 761,400 Port Due + Ship Charge 60,500 630,000 45,900 12,400 21,750 12,400	Ship Charge (per TEU) 35.6 262.5 19.1 317.3 (US\$/TEU) Ship Charge (per TEU) 25.2 262.5 19.1 15.5 27.2 15.5	Container Handling Charge (per TEU) 120 62 182 499 Container Handling Charge (per TEU) 120 40 40
Name of port Rotterdam J Bitung Subtotal Total Itinerary 5-4 Name of port Rotterdam J Bitung Bitung J	Distance (mile) 9,840 Europe/East Distance (mile) 9,840	Size of Vessel (TEU) 3,000 -Asia Servic Size of Vessel (TEU) 3,000	Volume of Container (TEU) 2,400 e (Transship) Volume of Container (TEU) 2,400	Port Due (US\$) 45,000 5,400 ment) Port Due (US\$) 20,000 5,400 1,400	Operation Days 1.5 18.0 1.5 21.0 Ship Operation Days 1.5 18.0 1.5 1.0 1.5	Charge (per day) 27,000 35,000 27,000 89,000 Ship Charge (per day) 27,000 35,000 27,000 11,000 14,500	Ship Charge 85,500 630,000 45,900 761,400 Port Due + Ship Charge 60,500 630,000 45,900 12,400 21,750 12,400	Ship Charge (per TEU) 35.6 262.5 19.1 317.3 (US\$/TEU) Ship Charge (per TEU) 25.2 262.5 19.1 15.5 27.2	Container Handling Charge (per TEU) 120 62 182 499 Container Handling Charge (per TEU) 120 40 40

Table A.5.3.1.5 Shipping Cost and Port Dues in Europe/East-Asia Service (Transshipment Type)

Source : Prepared by the Study Team

Itinerar	y 6-1							
Name of	Distance	Size of	Loaded	Port Duc	Ship	Ship	Ship	· ·
port	(miles)	Vessel	Volume	(US\$)	Operation	Charge	Charge	
	(mines)	(TEU)	(TEU)		Days	(per day)		
Tokyo				15,000	0.5	16,000	8000	
↓ ↓	20	1,500	1,200		0.05	20,000	1042	
Yokohama				15,000		16,000	8000	1. The second
Ļ	360				0.94	20,000	18750	
Osaka				15,000		16,000	8000	
Ļ	20				0.05	20,000	1042	
Kobe				15,000	0.5	16,000	8000	
· ↓	926				2.41	20,000	48229	
Keelung				8,000	0.5	16,000	8000	
↓ Ī	. 475				1.24	20,000	24740	
Hongkong				8,000	0.5	16,000	8000	
Į Į́_	633				1.65	20,000	32969	
Manila				8,000	0.5	16,000	8000	
	1726	1			4.49	20,000	89896	1.1
Surabaya	· .		·	8,000	0.5	16,000	8000	
ļ	389		· ·		1.01	20,000	20260	
Jakarta				8,000	0.5	16,000	8000	
. L	1963				5.11	20,000	102240	
Kaohsiung	and and a second se			8,000	0.5	16,000	8000	4. A
	342				0.89	20,000	17813	
Hongkong				8,000	0.5	16,000	8000	
	1619				4.22	20,000	84323	1 A A
Tokyo		{ . ·	ļ ·		0.5			
					and the second	and g	and the second	
Total	8,473		· ·	116,000	27.57		529,302	645,302
	* <u>************************************</u>		Cost pe	TEU Fron	1 Tokyo To	Jakarta	(US\$)	269

Table A.5.3.1.6 Shipping Cost and Port Dues in Intra Asia Service (1)

Source: Prepared by the Study Team

Itinerar			<u></u>		-			Itinerary 6-2										
Name of port	Distance (miles)	Size of Vessel (TEU)	Loaded Volume (TEU)	Port Due (US\$)	Ship Operation Days	Ship Charge (per day)	Ship Charge											
Tokyo	· · · ·	`		15,000		16,000	8,000											
Ļ	20	1,500	1,200		0.0	20,000	980											
Yokohama				15,000	0,5	16,000	8,000											
1	360				0.9	20,000	17,647	ан. 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 -										
Osaka				15,000	0.5	16,000	8,000											
Ļ	20				0.0	20,000	980											
Kobe				15,000	0.5	16,000	8,000											
1	1387				3.4	20,000	67,990											
Hongkong				8,000	0.5	16,000	8,000											
Ţ	1425				3.5	20,000	69,853	· ·										
Singapore		11 A.A.		8,000	0.5	16,000	8,000											
\downarrow	206				0.5	20,000	10,098											
Port				8,000	0.5	16,000	8,000											
ļ	206				0.5	20,000	10,098											
Singapore				8,000	1.0	16,000	16,000											
Ļ	2915				7.1	20,000	142,892											
Tokyo					0.5		an ^{an} anns a'											
			1.1.1 B															
Total	6,539			92,000	20.53		392,539	484,539										
· · ·			per TEU F	rom Tokyo	To Port Ke	lang	(US\$)	202										

Table A.5.3.1.7 Shipping Cost and Port Dues in Intra Asia Service (2)

Source: Prepared by the Study Team

Itinerary	والمتحادث والمتحري والمتحاد		inpping C	obt and i	010 2 400				1
itilici ai y	<u></u>	T	i		<u> </u>	1			Container
Name of	Distance	Size of	Volume of	Port Due	Ship	Ship	Port Due	Ship [Handling
Calling		Vessel	Container		Operation	Charge	+ Ship	Charge	Charge
port	(miles)	(TEU)	(TEU)	(US\$)	Days	(per day)	Charge	(per TEU)	-
				25.000	1.5	27,000	40,500	27.3	(per TEU)
Tokyo	0.015	2 000	2 400	25,000				i (1
↓	2,915	3,000	2,400	10.000	5.5	35,000	192,500	80.2	
Singapore				10,000	1.5	27,000	40,500	21.0	60
Singapore				7,000	0.5	16,000	8,000	12.5	60
Ļ	533	1,500	1,200		1.5	20,000	30,000	25.0	
Jakarta				3,000	1.0	16,000	16,000	15.8	
Subtotal					·			181.9	120
			Cost per T	EU From	Fokyo To J	akarta		(US\$)	302
Itinerary	/ 6-3(2)							·	·.
Name of		Size of	Volume of		Ship	Ship	Port Due	Ship	Container
	Distance			Port Due	Operation	Charge	+ Ship	Charge	Handling
Calling	(miles)	Vessel	Container	(US\$)	-				Charge
port		(TEU)	(TEU)	, ,	Days	(per day)	Charge	(per TEU)	(per TEU)
Tokyo	· · · · ·			25,000	1.5	27,000	40,500	27.3	
I I	2,915	3,000	2,400		5,5	35,000	192,500	80.2	
Singapore				10,000	1.5	27,000	40,500	21.0	60
Singapore	1		÷.	7,000	0.5	16,000	8,000	12.5	60
Ĩ,	375	1,500	1,200		1.0	20,000	20,000	16.7	
Belawan				3,000				1	
Subtotal				<u>_</u>		· ·		173.5	120
	<u>.</u>		Cost per T	EU From	Fokyo To B	elawan	· · · · · · · · · · · · · · · · · · ·	(US\$)	294
Itinerar	y 6-3(3)								
	<u> </u>	e:	V-1		Ship	Chin	Port Due	Ship	Container
Name of	Distance	Size of	Volume of	Port Due	-	Ship	1	1 ^	Handling
Calling	(miles)	Vessel	Container	(US\$)	Operation	-	+ Ship	Charge	Charge
port		(TEU)	(TEU)		Days	(per day)	Charge	(per TEU)	(per TEU)
Tokyo	1			25,000	1.5	27,000	40,500	27.3	
	2,915	3,000	2,400		5.5			80.2	
Singapore				10,000				1	
Singapore		· ·		7,000					
	766	1,500	1,200		2.0	· ·			
Surabaya	1		.,	3,000	1				
Subtotal						1		190.2	the second s
		.	Cost per T	EU From	Tokyo To S	urabava		(US\$)	310
Itinera	ry 6-3(4)	· · ·			<u></u>	<u>.</u>		<u>/</u> /	
	T		l					C1	Container
Name of	Distance	Size of	Volume of	1 Port I me	Ship	Ship	Port Due		Handling
Calling	(miles)	Vessel	Container	(US\$)	Operation		+ Ship	Charge	Charge
port	(mics)	(TEU)	(TEU)	(034)	Days	(per day)) Charge	(per TEU)	(per TEU)
Tokyo		1	<u> </u>	25,000	1.5	5 27,000	40,500	27.3	
	2,915	3,000	2,400		5.5	· ·			the second se
• •	· ·		2,70	10,000			1		L .
Sincore		1		1 10,000	ղ հ.	יייטע <i>ג'י</i> א וי			
Singapor					<u>م</u>		ער פ אר	<u>ן זי</u> ן אַר	<u></u>
Singapor Singapor	e	1 500	1.10	7,000					
Singapor ↓	e 1,050) 1,500) 1,20	7,000	3.0	20,000	60,00	50.0	
Singapor ↓ Makassa	e 1,050 r) 1,50() 1,20	7,000	3.0	20,000	60,00	50.0 50.0)
Singapor ↓	e 1,050 r) 1,500		7,000 3,000	3.0	20,000 0 16,000	60,00	50.0)

Table A.5.3.1.8 Shipping Cost and Port Dues in Intra Asia Service (3)

Source : Prepared by the Study Team

Itinerar	Itinerary 6-4									
Name of	Distance	Size of Vessel	Loaded Volume	Port Duc	Ship Operation	Ship Charge	Ship			
port	(miles)	(TEU)	(TEU)	(US\$)	Days	(per day)	Charge			
Tokyo				25,000		27,000	13,500			
Ļ	360	3,000	2,400		0.68	35,000	23,864			
Osaka				25,000	0.5	27,000	13,500			
↓	20				0.04	35,000	1,326			
Kobe				25,000	0.5	27,000	13,500			
Ļ	926				1.75	35,000	61,383			
Keelung				18,000	0.5	27,000	13,500	1		
Ļ	475				0.90	35,000	31,487			
Hongkong		1 A.		10,000	0.5	27,000	13,500	· · ·		
↓ ↓	633				1.20	35,000	- 41,960			
Manila	· .			10,000	0,5	27,000	13,500			
\downarrow \downarrow	1726				3.27	35,000	114,413			
Surabaya				10,000	0.5	27,000	13,500			
↓ I	389				0.74	35,000	25,786			
Jakarta				10,000	0.5	27,000	13,500			
l ↓	1963				3.72	35,000	130,123			
Kaohsiung				10,000	0.5	27,000	13,500			
↓	342				0,65	35,000	22,670			
Hongkong				. 10,000	0.5	27,000	13,500			
· ↓	1619				3.07	35,000	107,320			
Tokyo					0.5	· · ·		8 N.		
Subtotal	8,453			153,000	21.01		695,331	848,331		
	Cost per TEU From Tokyo To Jakarta (US\$) 177									
0	. Draparad h	.1								

Table A.5.3.1.9	Shipping	Cost and	Port	Dues in	Intra	Asia	Service (4)
1	Smppmg			12000 111	1110100	1 1010	1001 1100 1	• 1

Source: Prepared by the Study Team

Table A.5.3.1.10 Shipping Cost and Port Dues in Intra Asia Service (5)

Itinerary 6-	4(Revise)		11 0	· · ·				}
Name of port	Distance (miles)	Size of Vessel (TEU)	Loaded Volume (TEU)	Port Due (US\$)	Ship Operation Days	Ship Charge (per day)	Ship Charge	
Tokyo	·	1		25,000	0,5	27,000	13,500	
↓ ·	360	3,000	2,400		0.68	35,000	23,864	
Kobe				25,000	0.5	27,000	13,500	
1.	926	100 A			1.75	35,000	61,383	
Kcelung				18,000	0.5	27,000	13,500	
1	475				0,90	35,000	31,487	
Hongkong				10,000	0.5	27,000	13,500	
↓	633			4 A.	1.20	35,000	41,960	
Manila				10,000	0.5	27,000	13,500	
↓ ↓	1,257	÷.,			2,38	35,000	83,324	
Makassar				10,000	0.5	27,000	13,500	
Ļ	455				0.86	35,000	30,161	
Surabaya		÷ .		10,000	0.5	27,000	13,500	
Ļ	389				0.74	35,000	25,786	
Jakarta				10,000	0.5	27,000	13,500	
\downarrow	1963				3.72	35,000	130,123	
Kaohsiung				10,000	0,5	27,000	13,500	
• ↓• Ī	342				0.65	35,000	22,670	
Hongkong				10,000	0,5	27,000	13,500	
i . ↓	1619				3.07	35,000	107,320	
Tokyo					0.5	e e e		
Subtotal	8,419			138,000	20.95		693,078	831,078
			Cost per	TEU From	Tokyo To J	lakarta	(US\$)	173

Source: Prepared by the Study Team

			pping c		OIT DUCS I			<u>`````````````````````````````````````</u>
Itinerar	<u>y 6-5</u>	~~~~	·	· · · · · · · · · · · · · · · · · · ·	<u> </u>			
Name of	Distance	Size of	Loaded	Port Duc	Ship	Ship	Ship	
	(miles)	Vessel	Volume	(US\$)	Operation	Charge	Charge	
port	(unics)	(TEU)	(TEU)	(000)	Days	(per day)	-	
Tokyo			1. A. 1.	20,000	1.0	20,000	20000	
·↓	360	2,000	1,600		0.75	25,000	18750	
Osaka				20,000	1.0	20,000	20000	
Ļ	1387				2.89	25,000	72240	
Hongkong		: ·		8,500	0.5	20,000	10000	
Ţ	1425			A	2.97	25,000	74219	
Singapore				8,500	1.0	20,000	20000	
J.	206				0.43	25,000	10729	
Port Kelang				8,500	0,5	20,000	10000	
1	178			,	0.37	25,000	9271	
Belawan				8,500	0.5	20,000	10000	
1	375				0.78		19531	
Singapore				8,500	1	20,000	30000	
	2915			.,	6.07		151823	
Tokyo					1		· · ·	
Subtotal	6,846		1 .	82,500	20.26		476,563	559,063
	<u> </u>	1	Cost per	A	Tokyo To	k	(US\$)	175

Table A.5.3.1.11 Shipping Cost and Port Dues in Intra Asia Service (6)

Source: Prepared by the Study Team

 Table A.5.3.1.13
 Data for Shipping Cost Calculation

$\begin{array}{c c c c c c c c c c c c c c c c c c c $		1 () () () () () () () () () (
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Vessel		DRT	•	Rate	Consumptio n
2,000 Gearless 32,000 20 20,000 5,000 3,000 Gearless 45,000 23 27,000 8,000 4,500 Gearless 55,000 23 31,000 15,000 6,000 Gearless 75,000 23 37,000 20,000 6,000 Gearless 75,000 23 37,000 20,000 Size of Vessel (TEU) Port Due and Others (US\$) Container Terminal Cost (US\$) Cost (US\$) 500 4,000 1,100 - Loading/Unloading 1,000 6,000 1,400 - 62 2,000 8,000 4,300 - 62 3,000 10,000 5,400 20,000 Transshipment 4,500 11,000 7,000 26,000 60 40	500	Geared	8,000	15	8,500	2,000
3,000 Gearless 45,000 23 27,000 8,000 4,500 Gearless 55,000 23 31,000 15,000 6,000 Gearless 75,000 23 37,000 20,000 Size of Vessel (TEU) Port Due and Others (US\$) Container Terminal Cost (US\$) Cost (US\$) 1,000 4,000 1,100 - Loading/Unloading 1,000 6,000 1,400 - 62 2,000 8,000 4,300 - 62 3,000 10,000 5,400 20,000 Transshipment 4,500 11,000 7,000 26,000 60 40	1,000	Gearless	9,500	17	11,000	3,500
4,500 Gearless 55,000 23 31,000 15,000 6,000 Gearless 75,000 23 37,000 20,000 Size of Vessel (TEU) Port Due and Others (US\$) Container Terminal Cost (US\$) Cost (US\$) 500 4,000 1,100 Loading/Unloading 1,000 6,000 1,400 - 2,000 8,000 4,300 - 62 3,000 10,000 5,400 20,000 Transshipment 4,500 11,000 7,000 26,000 60 40	2,000	Gearless	32,000	20	20,000	5,000
6,000 Gearless 75,000 23 37,000 20,000 Size of Vessel Port Due and Others (US\$) Container Terminal Cost (US\$) Cost (US\$) (TEU) Singapore Indonesia Seattle Singapore Indonesia 500 4,000 1,100 - Loading/Unloading 1,000 6,000 1,400 - 62 2,000 8,000 4,300 - 62 3,000 10,000 5,400 20,000 Transshipment 4,500 11,000 7,000 26,000 60 40	3,000	Gearless	45,000	23	27,000	8,000
Size of Vessel (TEU) Port Due and Others (US\$) Container Terminal Cost (US\$) Singapore Indonesia Seattle Singapore Indonesia 500 4,000 1,100 - Loading/Unloading 1,000 6,000 1,400 - 62 2,000 8,000 5,400 20,000 Transshipment 4,500 11,000 7,000 26,000 60 40	4,500	Gearless	55,000	23	31,000	15,000
Vessel (TEU) Port Due and Others (US\$) Cost (US\$) 500 4,000 1,100 - Loading/Unloading 1,000 6,000 1,400 - 62 2,000 8,000 4,300 - 62 3,000 10,000 5,400 20,000 Transshipment 4,500 11,000 7,000 26,000 60 40	6,000	Gearless	75,000	- 23 -	37,000	20,000
500 4,000 1,100 - Loading/Unloading 1,000 6,000 1,400 - 62 2,000 8,000 4,300 - 62 3,000 10,000 5,400 20,000 Transshipment 4,500 11,000 7,000 26,000 60 40		Port Du	e and Othe	rs (US\$)		
1,000 6,000 1,400 - 62 2,000 8,000 4,300 - 62 3,000 10,000 5,400 20,000 Transshipment 4,500 11,000 7,000 26,000 60 40	(TEU)	Singapore	Indonesia	Seattle	Singapore	Indonesia
2,000 8,000 4,300 - 62 3,000 10,000 5,400 20,000 Transshipment 4,500 11,000 7,000 26,000 60 40	500	4,000	1,100		Loading/	Unloading
2,000 8,000 4,300 - 3,000 10,000 5,400 20,000 Transshipment 4,500 11,000 7,000 26,000 60 40	1,000	6,000	1,400	· -		60
4,500 11,000 7,000 26,000 60 40	2,000	8,000	4,300	·		02
	3,000	10,000	5,400	20,000	Transs	hipment
6,000 12,000 8,000 30,000 40	4,500	11,000	7,000	26,000	60	40
	6,000	12,000	8,000	30,000		40

Itinerary			11 0			s in inua			1
Innerary	<u>0-0(1)</u>			r			<u>-</u>		Container
Name of	Distant	Size of	Volume of	Port Due	Ship	Ship	Port Due	Ship	Handling
Calling	Distance	Vessel	Container	1	Operation	Charge	+ Ship	Charge	- 1
port	(miles)	(TEU)	(TEU)	(US\$)	Days	(per day)	Charge	(per TEU)	Charge
		(/		20.000			-		(per TEU)
Tokyo	0.015	· · · ·	1.000	30,000	1.0	35,000	35,000	13.5	
	2,915	6,000	4,800	10.000	5.5	55,000	303,646	63.3	(0)
Singapore				12,000	1.0	35,000	35,000	9.8	60
Singapore				8,500	0.5	20,000	10,000	11.6	60
	533	2,000	1,600		1.2	25,000	30,845	19.3	1. A. A.
Jakarta				4,000	1.0	20,000	20,000	15.0	100
Subtotal				·				132.4	120
			Cost per T	EU From	Fokyo To J	akarta		(US\$)	252
Itinerary	<u>/ 6-6(2)</u>							·	
Name of		Size of	Volume of		Ship	Ship	Port Duc	Ship	Container
Calling	Distance	Vessel	Container	Port Due	Operation	Charge	+ Ship	Charge	Handling
port	(miles)	(TEU)	(TEU)	(US\$)	Days	(per day)	Charge	(per TEU)	Charge
		(110)	(150)				_		(per TEU)
Tokyo				30,000	1.0	· · ·	35,000	13.5	
	2,915	6,000	4,800		5.5	55,000	303,646	63.3	
Singapore				12,000	1.0				· 60
Singapore				8,500	0.5				60
	375	2000	1600		0.9				
Belawan		· · · · · · · · · · · · · · · · · · ·		4,000	1.0	20,000	20,000		100
Subtotal						L		126.7	120
			Cost per T	EU From	Tokyo To B	elawan		(US\$)	247
Itinerary	<u>y 6-6(3)</u>	······	1	· ·		I	r	1	Cantainan
Name of		Size of	Volume of		Ship	Ship	Port Due	Ship	Container
Calling	Distance	Vessel	Container	Port Due	Operation	Charge	+ Ship	Charge	Handling
port	(miles)	(TEU)	(TEU)	(US\$)	Days	(per day)	· -	(per TEU)	Charge
		()	<u> </u>	20.000					(per IEU)
Tokyo	0.015	< 000	1 000	30,000	1.0		1 1		
	2,915	- 6,000	4,800		5.5	1 '			
Singapore			1	12,000		1 1			
Singapore	- BCC	2 0 0 0	1.000	8,500					
	766	2,000	1,600		1.8				
Surabaya				4,000	1.0	20,000	20,000	13.0	
Subtotal		<u> </u>					L	(US\$)	261
		and the second second	Cost per 1	EU From	°okyo To S	urabaya		(03\$)	201
r. '	((IN								Cantainan
Itinerar	y 6-6(4)		T	1	1			1	
Itinerar Name of		Size of	Volume of		Ship	Ship	Port Due	Ship	Container
Name of	Distance	Size of Vessel	Volume of Container	Port Due		, °	Port Due + Ship	Ship Charge	Handling
Name of Calling		Vessel	Container	Port Due (US\$)	Operation	Charge	+ Ship	-	Handling Charge
Name of Calling port	Distance		1	(US\$)	Operation Days	Charge (per day)	+ Ship Charge	Charge (per TEU)	Handling Charge (per TEU)
Name of Calling	Distance (miles)	Vessel (TEU)	Container (TEU)	(US\$)	Operation Days 1.0	Charge (per day) 35,000	+ Ship Charge 35,000	Charge (per TEU) 13.5	Handling Charge (per TEU)
Name of Calling port Tokyo	Distance (miles) 2,915	Vessel (TEU)	Container (TEU)	(US\$)	Operation Days 1.0 5.5	Charge (per day) 35,000 55,000	+ Ship Charge 35,000 303,640	Charge (per TEU) 13.5 63.3	Handling Charge (per TEU)
Name of Calling port Tokyo J Singapore	Distance (miles) 2,915	Vessel (TEU)	Container (TEU)	(US\$) 30,000 12,000	Operation Days 1.0 5.5 1.0	Charge (per day) 35,000 55,000 35,000	+ Ship Charge 35,000 303,640 35,000	Charge (per TEU) 13.5 63.3 9.8	Handling Charge (per TEU) 60
Name of Calling port Tokyo	Distance (miles) 2,915	Vessel (TEU) 6,000	Container (TEU) 4,800	(US\$) 30,000 12,000 8,500	Operation Days 1.0 5.5 1.0 0.5	Charge (per day) 35,000 55,000 35,000 20,000	+ Ship Charge 35,000 303,640 35,000 10,000	Charge (per TEU) 13.5 63.3 9.8 11.6	Handling Charge (per TEU) 60 60
Name of Calling port Tokyo ↓ Singapore Singapore	Distance (miles) 2,915 1,050	Vessel (TEU) 6,000	Container (TEU) 4,800	12,000 8,500	Operation Days 1.0 5.5 1.0 0.5 2.4	Charge (per day) 35,000 55,000 35,000 20,000 25,000	+ Ship Charge 35,000 303,640 35,000 10,000 60,764	Charge (per TEU) 13.5 63.3 9.8 11.6 38.0	Handling Charge (per TEU) 60 60
Name of Calling port Tokyo ↓ Singapore Singapore ↓ Makassar	Distance (miles) 2,915 1,050	Vessel (TEU) 6,000	Container (TEU) 4,800	(US\$) 30,000 12,000 8,500	Operation Days 1.0 5.5 1.0 0.5 2.4	Charge (per day) 35,000 55,000 35,000 20,000 25,000	+ Ship Charge 35,000 303,640 35,000 10,000 60,764	Charge (per TEU) 13.5 63.3 9.8 11.6 38.0 15.0	Handling Charge (per TEU) 60 60
Name of Calling port Tokyo ↓ Singapore Singapore	Distance (miles) 2,915 1,050	Vessel (TEU) 6,000	Container (TEU) 4,800 1,600	Port Due (US\$) 30,000 12,000 8,500 4,000	Operation Days 1.0 5.5 1.0 0.5 2.4	Charge (per day) 35,000 55,000 35,000 20,000 25,000 20,000	+ Ship Charge 35,000 303,640 35,000 10,000 60,764	Charge (per TEU) 13.5 63.3 9.8 11.6 38.0	Handling Charge (per TEU) 60 60

Table A.5.3.1.12 Shipping Cost and Port Dues in Intra Asia Service (7)

Source : Prepared by the Study Team

				(Unit US\$)
Facilities	Dimension	Unit Price	Installation Cost	Remarks
Berth Length Depth	280 m 12 m	\$ 35,000	\$ 9,800,000	
Slop Protection	10,000 m ²	\$ 50	\$ 500,000	
Terminal Area				· · · · · · · · · · · · ·
Marshalling Yard	43,000 m ²	\$ 40	\$ 1,720,000	
CFS	3,500 m ²	\$ 200	\$ 700,000	
Dredging	500,000 m ³	\$3	\$ 1,500,000	
Reclamation	65,000 m ²	\$ 50	\$ 3,250,000	· · ·
Infrastr	acture Subtotal		\$ 18,210,000	
Equipment				···· /····
Quay Crane	2 Units	\$ 3,500,000	\$ 7,000,000	
Transfer Crane	8 Units	\$ 800,000	\$ 6,400,000	
Side Lifter	2 Units	\$ 450,000	\$ 900,000	· .
Tractor Head	12 Units	\$ 70,000	\$ 840,000	
Chassis	24 Units	\$ 20,000	\$ 480,000	
Forklift	3 Units	\$ 20,000	\$ 60,000	
Equip	ment Subtotal		\$ 15,680,000	
Management			· · · · · · · · · · · · · · · · · · ·	
Office	500m ²	\$ 450	\$ 225,000	
Gate	5 Units	\$ 205,000	\$ 1,025,000	· .
Computer System	L.S	\$ 200,000	\$ 200,000	•
Utilities	LS	\$ 800,000	\$ 800,000	
Manage	ement Subtotal		\$ 2,250,000	
Related Facilities				
Access Road Electric Sur	oply Water Supply			1. T. T.
Fuel Supply Pilotage			\$ 460,000	
(Grand Total		\$ 36,600,000	

Table A.5.3.1.14 Installation Cost of Feeder Container Terminal

Source : Prepared by Study Team

Table A.5.3.1.15 Summary of Annual Expenditure

				(Unit US\$)
Items	Number	Unit Price	Expenditure	Remarks
Personnel Expense				
Executives	5 perso	n \$10,000	\$ 50,000	
Officials	50 perso	n \$4,000	\$ 200,000	· ·
Workers	150 perso	m \$2,000	\$ 300,000	
Subtotal	205 perso	n	\$ 550,000	
Administration And Others	130% of Persor	unel Expense	\$ 800,000	
	Infrastructure			
Maintenance Cost	1% of Cor	istruction Cost	\$ 182,000	
municipatice cost	Superstructure			
· · · · · · · · · · · · · · · · · · ·		allation Cost	\$ 920,000	
Operation Expenditure Subtotal			\$ 2,452,000	
Depreciation of Superstructur		$(x_{1}, y_{2}, y_{1}, y_{2}, y_{2},$		
	,000,000 15years	90%	\$ 420,000	
	,400,000 12 years	90%	\$ 480,000	
·	900,000 10years	90%	\$ 81,000	
	840,000 10years	90%	\$ 75,000	
	480,000 10 years	90%	\$ 43,000	
Forklift \$	60,000 10years	90%	\$ 5,000	
	225,000 20 years	90%	\$ 10,000	
	,025,000 20years	90%	\$ 46,000	
	800,000 15years	90%	\$ 48,000	
Computer System \$	200,000 Syears	90%	\$ 36,000	and the second
	preciation Subtotal		\$ 1,244,000	
Interest on Initial Investment 10%			\$ 3,660,000	· · · ·
Income Tax	30% of Rev	enue		1
Grand Total			\$ 7,356,000	

Source : Prepared by Study Team

			(Unit US\$)	
Co	ntainer Charge and	d Box Share		
Loading / Unloading				
	20 Feet Con	tainer (70%)	40 Feet Container (30%)	
FCL Container	40%	\$ 62	\$ 93	
LCL Container	20% \$	\$ 104	\$ 156	
Transhipment	20%	\$ 40	\$ 60	
Empty Container	20%	\$ 62	\$ 93	
Stacking Charge				
	20 Feet Con	tainer (70%)	40 Feet Container (30%)	
Full Container		\$6	\$ 12	
Empty Container		\$ 3	\$6	
CFS Service (Export 50%,	Import 50%)	· ·		
		tainer (70%)	40 Feet Container (30%)	
LCL Container		250	\$ 400	
·	Revenue per 10,0	000TEUs		
Handling charge		·	Subtotal	
FCL Container	\$133,500	\$ 85,80		
LCL Container	\$112,000	\$ 72,00		
Transhipment	\$ 86,000	\$ 55,40		
Empty Container	\$ 66,800	\$ 42,90	\$654,400	
Stacking Charge				
Full Container	\$ 25,900	\$ 22,10		
Empty Container	\$ 3,200	\$ 2,80	\$ 54,000	
CFS Service		·	· · · · · · · · · · · · · · · · · · ·	
LCL Container	\$ 269,200	\$ 184,50	00 \$453,700	
	0 17	□_ 1	£1.1CO.100	
	Grand 7	lotal	\$1,162,100	

Table A.5.3.1.16 Summary of Revenue Per 10,000TEUs