Appendix 2-6 Financial Statements of Kupang Port

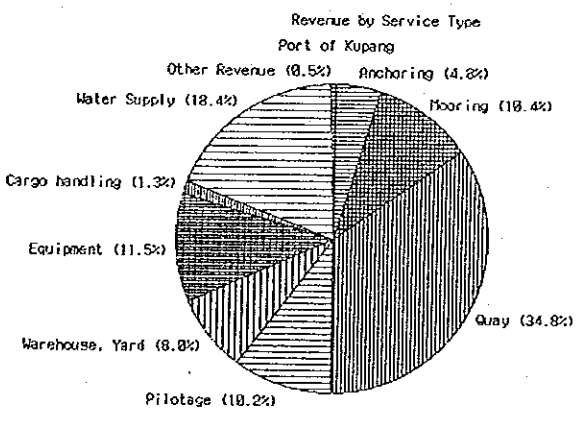
Unit: Rp Mn

<PROFIT AND LOSS STATEMENT>	1987	1988	1989	1990	1991
Operating Revenue	286	379	386	426	459
Operating Expenses	459	545	596	569	600
Personnel Expenses	117	111	116	141	171
Material Expenses	44	48	44	51	58
Maintenance Expenses	36	97	113	100	56
Depreciation Costs	159	205	240	191	181
Other Administration Costs	103	84	83	86	134
Net Operating Income	-173	-166	-210	-143	-141
Non Operating Revenue	18	8	7	11	10
Non Operating Expenses	3	11	41	117	-
Net Income Before Tax	-158	-169	-244	-249	-131
<BALANCE SHEET>					
Current Assets	55	60	85	29	52
Cash & Deposit	33	44	69	19	28
Other Current Assets	22	16	16	10	24
Fixed Assets	4,288	4,851	4,676	4,758	5,905
Depreciable Assets	4,840	5,641	5,704	6,025	7,353
Accumulated Depreciation	-552	-790	-1,028	-1,267	-1,448
Fixed Assets in Construction	-	-	-	-	2
Other Assets	38	37	-	-	-
Total Assets	4,381	4,948	4,761	4,787	5,959
Current Liabilities	27	16	71	35	36
Head Office Account etc.	4,354	4,932	4,690	4,752	5,923
<Financial Indicators>					
Operating Ratio	160.5%	143.8%	154.4%	133.6%	130.7%
Working Ratio	104.9%	89.7%	92.2%	88.7%	91.3%
Current Ratio	203.7%	375.0%	119.7%	82.9%	144.4%
Personnel Cost / Operating Expenses	25.5%	20.4%	19.5%	24.8%	28.5%
Number of Personnel	37	38	37	35	34
Personnel Cost per Person	3.16	2.92	3.14	4.03	5.03

(Profit and Loss Statements by Service Type)

-Kupang Port- Unit: Rp Mn

	Revenue	Cost	Profit/Loss
Anchoring	18	12	6
Mooring	39	34	5
Quay	130	55	75
Pilotage	38	12	26
Towing	1	47	-46
Warehouse	15	13	2
Open Yard	15	29	-14
Equipment	43	55	-12
Cargo handling	5	3	2
Water Supply	69	29	40
Lease	29	12	17
Harbour Permit	56	33	23
Other Revenue	1	-	1
Other Cost		266	-266
Total	459	600	-141



Source: Persero III

Appendix 5-1 Forecast of Cargo Volume

1. Volume of each commodity group is forecast according to its particular characteristics. The following outlines the methods employed for the forecasting of each commodity group.

Rice

2. Demand increase reflects population growth, per capita consumption growth and increased area harvested.

Demand forecast of harvested area is correlated to the annual correlation analysis. The calculation formula is shown below.

$$Y = 2692.214 \times Year - 5229819 \quad (R = 0.806)$$

Where,

Y : Harvested area (Ha)
Year : Target year
R : Correlation coefficient

3. In the target year the harvested area will cover 154,609 Ha. Yield of rice in 2000 will follow the forecast of Department of Agriculture in East Nusa Tenggara (2.91 ton/Ha). Production of rice is 450,000 tons.

4. During 1988 and 1990 consumption of rice in Indonesia was 168 kg/capita, and that of East Nusa Tenggara 89 kg/capita according to the Statistical Year Book of Indonesia 1992. Consumption of rice in East Nusa Tenggara will approach the average in Indonesia. Consumption will be 583,000 tons. (The coefficient 0.68 is used for transforming unhusked rice into rice.)

5. Balance production and consumption is 67,000 tons. This volume is a shortage, hence this amount will be unloaded from the other provinces.

Foodstuffs excluding rice

6. Demand forecast assumes the continuation of past trends. From 1984 to 1992 cargo flow remained steady year by year. In target year cargo of foodstuffs is selected past max. cargo volume, then in 2000 cargo demand will reach 10,000 tons. This cargo will only be unloading volume considering the past trends.

Fertilizer

7. Demand increase is commensurate with consumption growth of Indonesia. Between 1988 and 1989 consumption of fertilizer in Indonesia was 4 times greater than that of East Nusa tenggara. Until target year the difference between Indonesia and East Nusa Tenggara will persist. Consumption will be estimated 2 times.

Wood

8. Demand increase is commensurate with annual growth rate of construction sector GRDP. This method uses annual growth rate of GRDP of construction (8%),

and cargo demand elasticity for GRDP is calculated and set to be 1.15.

Asphalt

9. Demand increase is commensurate with annual growth rate of a construction sector GRDP. This forecast method is the same as Wood.

Cement and material

10. Production of cement at Kupang will be forecast by the consumption in West Nusa Tenggara province, East Nusa Tenggara province and East Timor province.

11. Cement consumption in target year is forecast based on the following single regression model. Assumed GRDP for each province in 2000 was applied to these models.

$Y = a \times X + b$

Where,

Y : Cement consumption
X : GRDP by province (Milli. RP at 1983 const. price)
a, b : Constants by each province

12. Results of cement consumption forecast are shown below.

Province	a	b	R	(ton) Consumption
W.N.T.	0.4310078	-228150.8	0.953	421,000
E.N.T.	0.3167755	-137068.3	0.954	287,000
E.Timor	0.4105642	-22235.89	0.873	86,000

R : Correlation coefficient

13. It is assumed that production share of Kupang in 2000 will be 20 % of cement consumption at W.N.T., 100 % of that at E.N.T. and 100 % of that at E.Timor. So total production of Kupang will be 456,000 tons.

14. Ratio of land transportation to sea transportation at Kupang in East Nusa Tenggara province is 60:40 on average between 1989 and 1992. Rate of sea transportation in 2000 is assumed the same as at present. Cement for the other two provinces is transported by sea only. In 2000 cement loading volume by sea transportation is 284,000 tons.

15. Volume of cement production material will be forecast to follow the production of Kupang. Clinker will not be unloaded in 2000 because the factory has sufficient product capacity. Coal is separated cement material and fuel of generator at factory according to past trends.

16. Forecast of fuel coal is based on the following single regression model.

$Y = 0.1036536 \times X - 869.948$ ($R = 0.754$)

Where,

Y : Consumption of fuel coal (ton)
X : Production of Cement (ton)
R : Correlation coefficient

In 2000 production of cement is 456,000 tons. So consumption of fuel coal is 46,000 tons.

17. Average rate of production material coal, gypson and iron sand is 10%, 5% and 1% from cement between 1985 and 1992. The production of these materials in the target year is shown below. Import share of gypson is based on past trends.

Coal	46,000 ton	(unloading)
Gypson	21,000 ton	(unloading 12,000 tons, import 9,000 tons)
Iron Sand	3,000 ton	(unloading)
Total	70,000 ton	

18. Summary of cement and material is shown below.

Year 2000			
Unloading	Fuel Coal	46,000	ton
	Material	61,000	ton
	Sub-total	107,000	ton
Loading	Cement	284,000	ton
Import	Gypson	9,000	ton
Total		401,000	ton

General cargo

19. Reflects annual growth rate of GRDP of East Nusa Tenggara. Annual growth method, which follows the GRDP, will be used cargo demand elasticity for GRDP was calculated and set to be 1.15.

Material for development plan

20. Increased inputs for a new development of an Industry area and Timor Gap project.

Industry are cover 400 ha. Unit of cargo is assumed 0.1 ton/m2. Until 2000 Industrial area will be assumed to open 10%. Unloading share is 100%, Loading share is 20%. Total cargo volume is assumed 48,000 ton/year.

Cargo of Timor Gap will be casing, pipe, cement, bentonite, fuel etc. Expected cargo is 10,000 ton/year from other area.

Appendix 6-1 Formula of Capacity of Transit Shed

$$C = (A \times K \times a \times w) / (D \times p)$$

Where
- C : Capacity of transit shed (Tons)
- A : Transit shed floor area (m2)
- D : Dwelling time (Days)
- p : Peak ratio
- K : Operating days (Days)
- a : Effective storage area ratio
- w : Volume of cargoes per unit area (Tons/m2)

Appendix 6-2 Formula of Capacity of Container yard

$$My = (A \times H \times e \times Dy \times a) / (S \times Ds \times p)$$

Where
- My : Capacity of Container yard (TEUs)
- A : Container yard area (m2)
- H : Average stacking height
- e : Working area factor
- Dy : Operating days (Days)
- a : Effective storage area ratio by handling system
- S : Storage area per TEUs (m2/TEU)
- Ds : Dwelling time (Days)
- p : Peak ratio

Appendix 6-3 Formula of Required Transit Shed Floor Area

$$A = (C \times D \times p) / (K \times a \times w)$$

Where
- A : Required transit shed floor area (m2)
- C : Annual cargo handling volume through transit shed (Tons)
- D : Dwelling days (Days)
- p : Peak ratio
- K : Operating days (Days)
- a : Effective storage area ratio
- w : Volume of cargoes per area (Tons/m2)

Appendix 6-4 Formula of Required Number of Ground Slots

$$Ns = (My \times Ds \times p) / (H \times Dy)$$

Where
- Ns : Required number of ground slots
- My : Container handling volume (TEUs)
- Ds : Dwelling time (Days)
- p : Peak ratio
- H : Average stacking height
- Dy : Operating days (days)

Appendix 6-5 Formula of a Design Traffic Volume

Design Traffic Volume (vehicles/hour)
= Annual handling cargo volume (freight tons/year) × a/W
× b/12 × r/30 × (1+g)/e × s

Where
- a : Share by vehicles
- b : Monthly variation
- r : Daily variation
- W : Truck real loadage
- e : Real load rate
- g : Related vehicle rate
- s : Hourly variation

1. Main labour cost

Labour	Cost(Rp/day)	Note
Common worker	4,000	unskilled
Carpentar	5,000	
Concrete worker	5,000	
Bar bender	5,000	
Rigger	5,000	
Fore man	5,500	
Heavy equipment driver	10,000	
Light equipment driver	5,000	
Driver for Trailor	7,000	
Driver	20,000	
Senior Crew	10,000	
Crew	5,000	

2. Major material Price

Material	unit	Price(Rp)	Note
Cement	ton	160,000	
Sand	m³	20,000	For concrete
Coarse aggregite	m³	26,000	
Heavy oil	ℓ	400	
Light oil	ℓ	450	
Gasolin	ℓ	700	
Steel product	t	1,200,000	H-shape,plate
Steel pipe pile	t	2,000,000	φ1016×16
Round Bar	t	800,000	
Stone 5～20kg	m³	7,000	
〃 20～50kg	m³	15,000	
〃 100kg	m³	30,000	

3. Hiring charge of main working boat/equiupment

Workingboat/Equipment		Price(Rp/day)	Note
Grab dreger	Baket 1.2m³	1,360,000	Rest Ratio 0.3
Piling Pontoon	D-40	5,530,000	〃 0.25
Floating crane	35t	1,055,000	〃 0.25
Tug-boat	120ps	380,000	〃 0.25
Pontoon	100t	215,000	〃 0.25
Truck crane	25t	890,000	〃 0.25
Crawler crane	40t	1,200,000	〃 0.25
Tractor shovel	0.8m³	520,000	〃 0.25
Buldozer	13t	760,000	〃 0.25

4. Import Material(CIF)

Import Material	Unit price	Quantity	unit	Amount	Import Tax
	₹Rp			₹Rp	※
Rubber fender V400×2000ℓ	19,908	56	〃	1,114,848	20%
Bitt 50t	6,992	14	〃	97,888	30%
Mobil Crane 50t	1,283,500	1	〃	1,283,500	10%
Fork lift 2t	53,300	1	〃	53,300	〃
〃 24t	651,750	1	〃	651,750	〃

※ Import Tax shows a prospective rate.

Appendix 8-2 Construction Cost of Local, Rakyat Berth in Kupang Port

(1) Local Berth

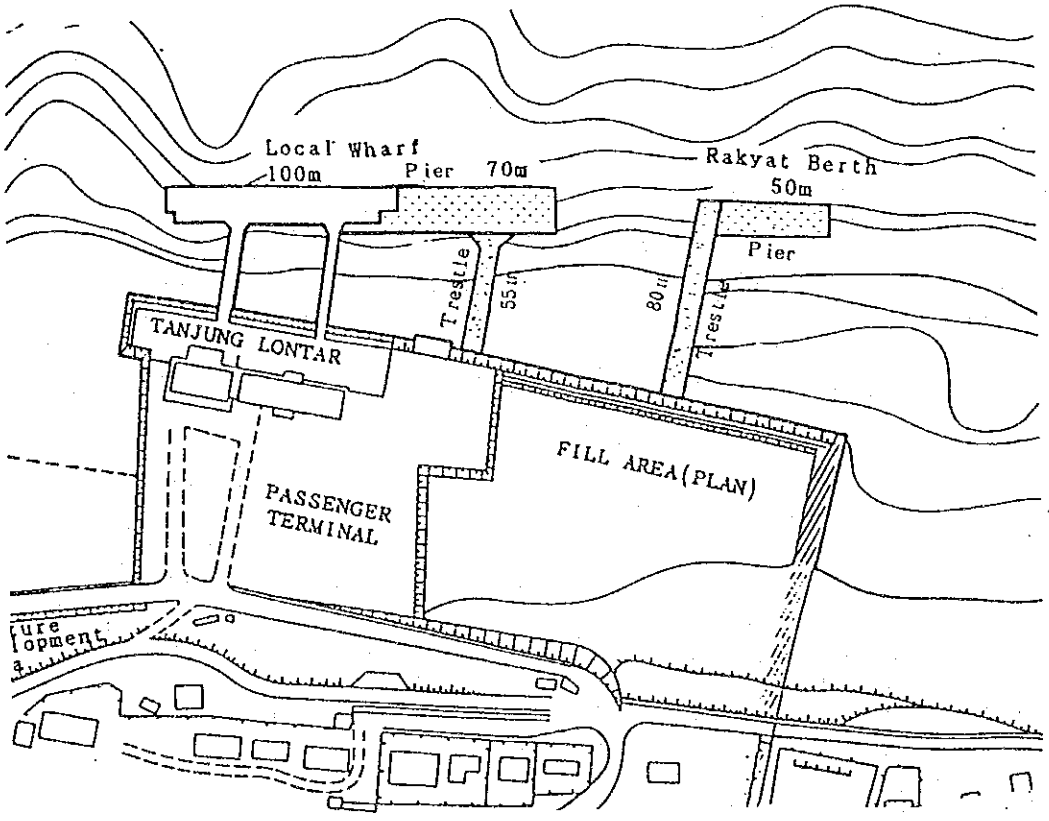
Unit:Million Rupia

I	Direct Cost	6,388.1
	I-1. Preparation	500.1
	I-2. Pier(70m)	4,050.5
	I-3. Trestle(55m)	1,837.6
II	Engineering	638.8
III	Contingency	702.7
IV	VAT	773.0
	Total	8,502.6

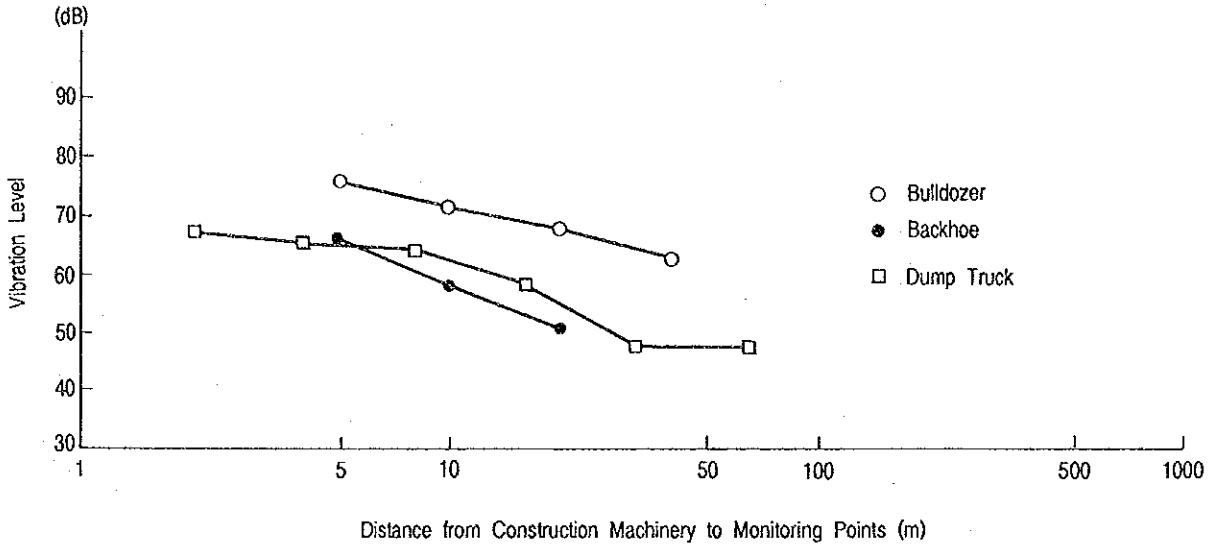
(2) Rakyat Berth

Unit:Million Rupia

I	Direct Cost	4,412.1
	I-1. Preparation	400.0
	I-2. Pier(50m)	1,588.0
	I-3. Trestle(80m)	2,424.1
II	Engineering	441.2
III	Contingency	485.3
IV	VAT	533.9
	Total	5,872.5

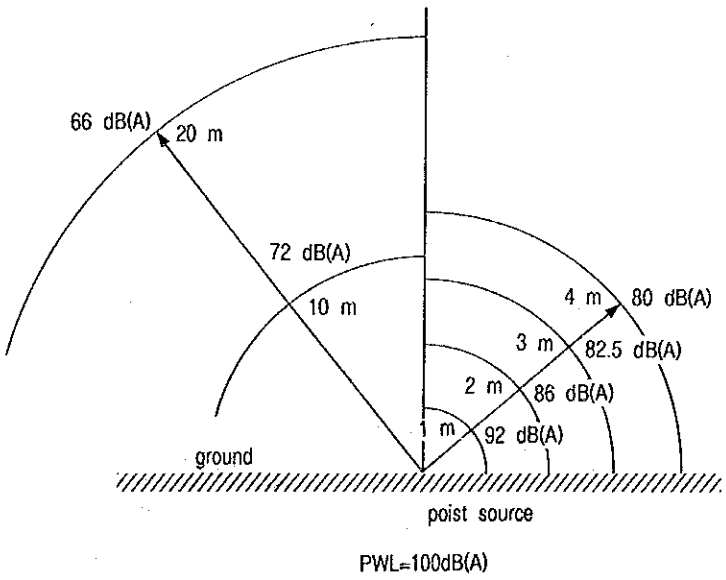


Appendix 9-1 Vibration Reduction by Distance from Source



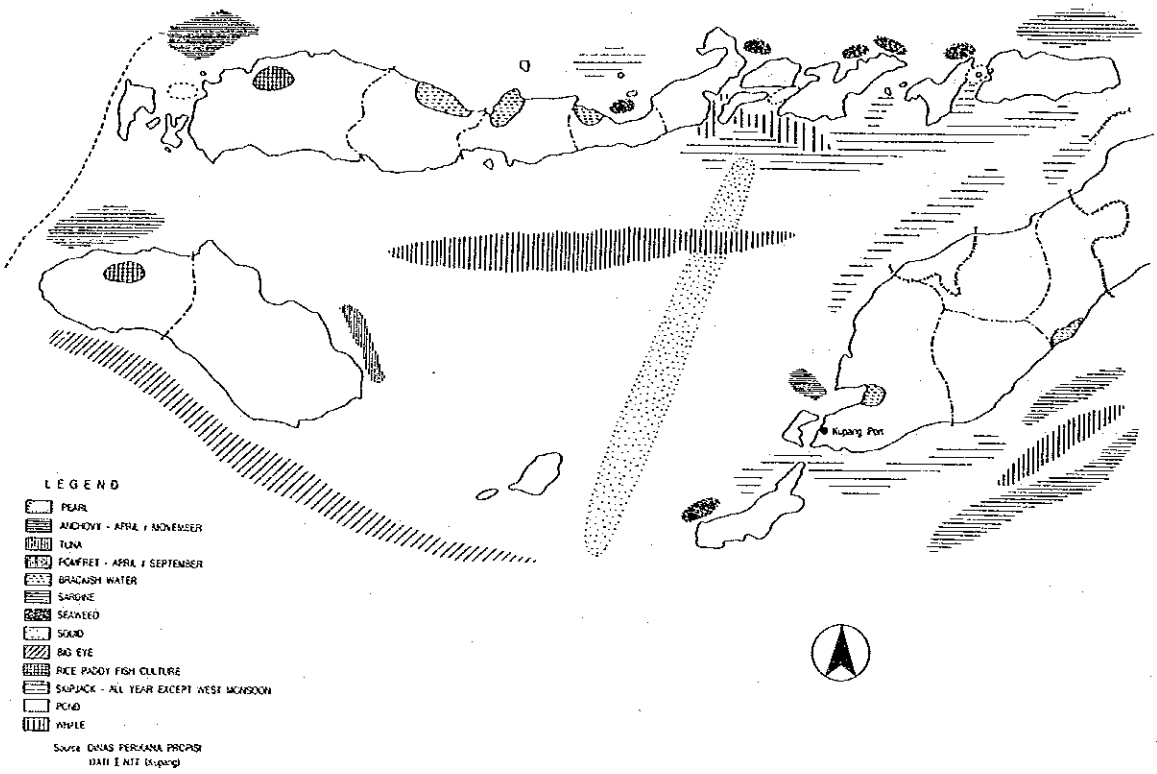
Source: Handbook of Countermeasures for Noise and Vibration

Appendix 9-2 Noise Reduction by Distance from Source

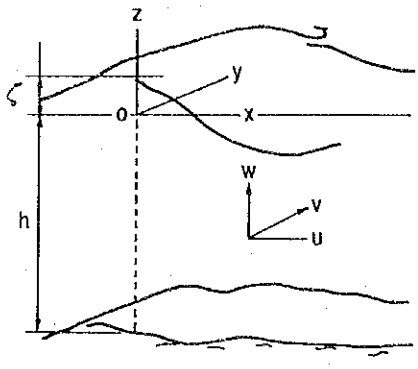


Source: Environmental Assessment Handbook for Port Development Projects

Appendix 9-3 Potential Fishing Areas in E.N.T. Province



Appendix 9-4 A Depth-Averaged Two-Dimensional Hydordynamic Model



coordinates

Depth-averaged two-dimensional hydrodynamic equations can be obtained by intergrating the original three-dimensional equations from the bed to the surface.

$$\frac{\partial M}{\partial t}+\frac{\partial MU}{\partial x}+\frac{\partial MV}{\partial y}=fN-gH\frac{\partial \zeta}{\partial x}+L\left(\frac{\partial^2 M}{\partial x^2}+\frac{\partial^2 M}{\partial y^2}\right)+\left(\nu\frac{\partial u}{\partial z}\right)_{z=\zeta}-\left(\nu\frac{\partial u}{\partial z}\right)_{z=-h} \quad \cdots\cdots (1)$$

$$\frac{\partial N}{\partial t}+\frac{\partial NU}{\partial x}+\frac{\partial NV}{\partial y}=-fM-gH\frac{\partial \zeta}{\partial y}+L\left(\frac{\partial^2 N}{\partial x^2}+\frac{\partial^2 N}{\partial y^2}\right)+\left(\nu\frac{\partial v}{\partial z}\right)_{z=\zeta}-\left(\nu\frac{\partial v}{\partial z}\right)_{z=-h} \quad \cdots\cdots (2)$$

$$\frac{\partial \zeta}{\partial t}=-\frac{\partial M}{\partial x}-\frac{\partial N}{\partial y} \quad \cdots\cdots (3)$$

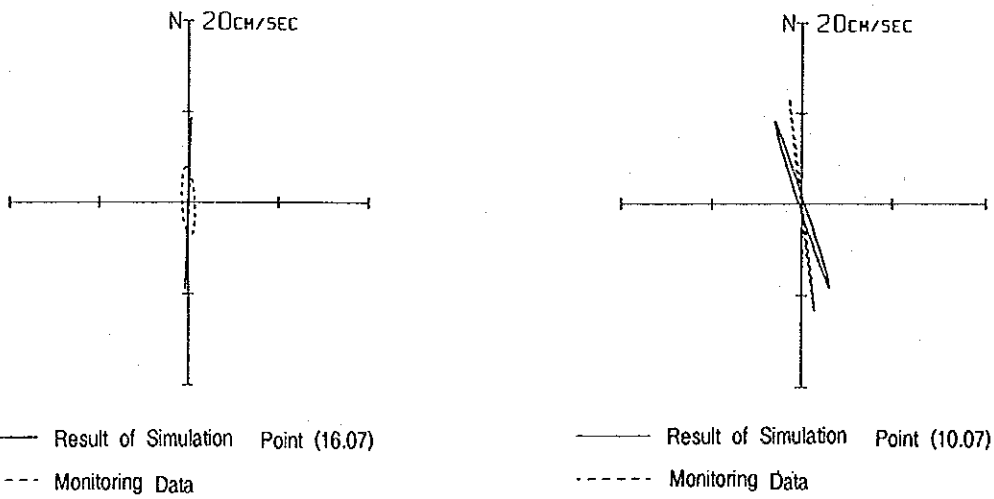
$$M=\int_{-h}^{\zeta} u\,dz,\quad N=\int_{-h}^{\zeta} v\,dz,\quad H=\zeta+h,\quad U=M/H,\quad V=N/H$$

The fourth and fifth terms in the right hand of (1), (2) represent surface and bottom stresses respevtively, and they are conventionally expressed in the forms as follows.

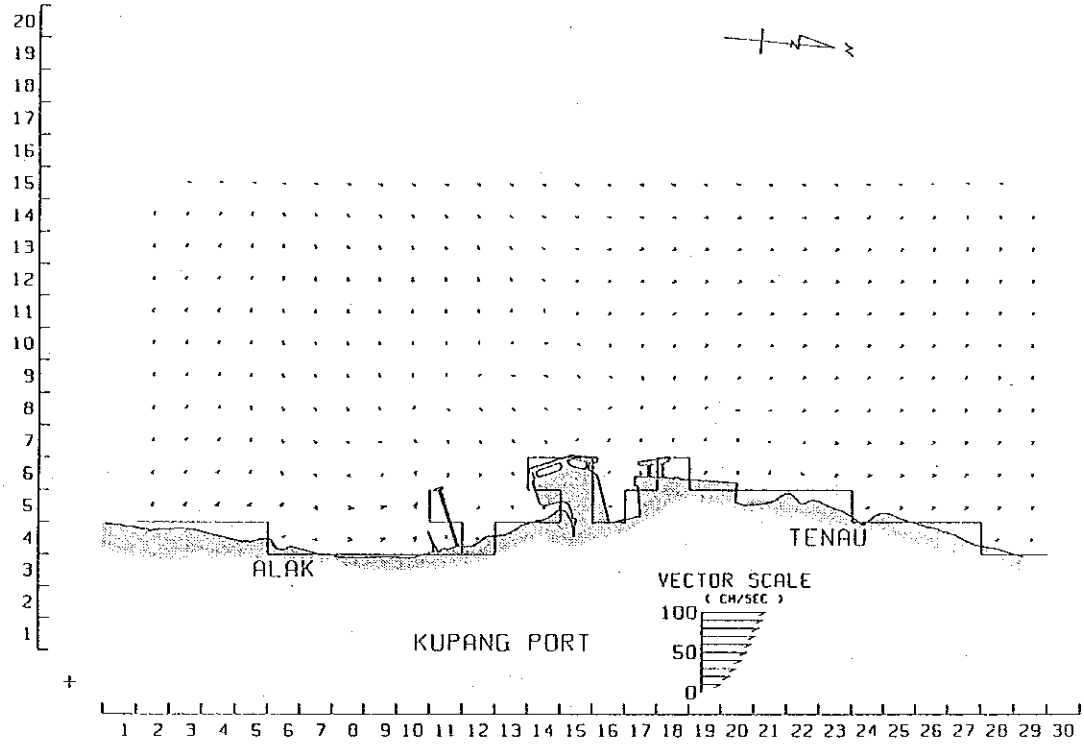
$$\left.\begin{aligned}
\left(\nu\frac{\partial u}{\partial z}\right)_{z=\zeta} &= \gamma_a^2 W_x \sqrt{W_x^2+W_x^2}\ \frac{\rho_a}{\rho}\\
\left(\nu\frac{\partial v}{\partial z}\right)_{z=\zeta} &= \gamma_a^2 W_y \sqrt{W_x^2+W_y^2}\ \frac{\rho_a}{\rho}\\
\left(\nu\frac{\partial u}{\partial z}\right)_{z=-h} &= \gamma^2 U \sqrt{U^2+V^2}\\
\left(\nu\frac{\partial v}{\partial z}\right)_{z=-h} &= \gamma^2 V \sqrt{U^2+V^2}
\end{aligned}\right\} \quad \cdots\cdots (4)$$

Where, γ_a^2 , γ^2 : Surface and bottom friction factor
W_x , W_y : Wind velocity components
ρ_a , ρ : Air and water density

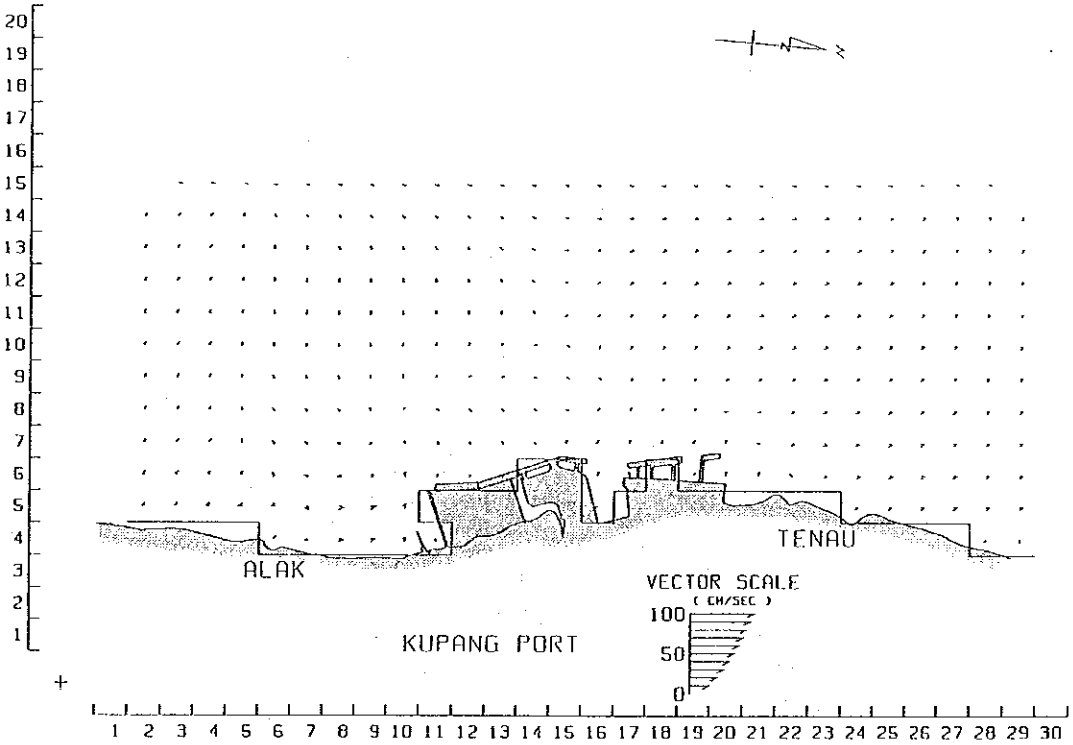
Appendix 9-5 Reappearance of Present Tidal Current by Tidal Current Ellipse



Appendix 9-6 Result of Simulation [Tidal Current Velocity: Case (Present)]



Appendix 9-7 Result of Simulation [Tidal Current Velocity: Case (Future)]

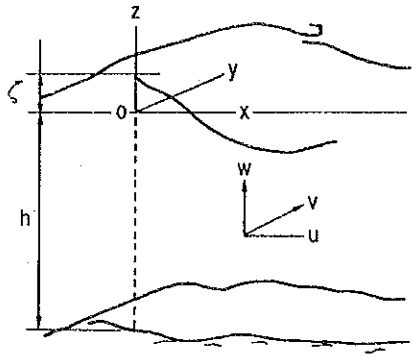


Appendix 9-8 Environmental Air Quality Standard in Indonesia

No.	Parameter	Measuring Time	Standards KEPMEN/1988
1	Sulfur dioxide (SO2)	24 hours	260 ug/m3 (0.10 ppm)
2	Carbon monoxide (CO)	8 hours	22,600 ug/m3 (20 ppm)
3	Nitrogen dioxide (NO2)	24 hours	92.5 ug/m3 (0.05 ppm)
4	Oxidant as Ozone (O3)	1 hours	200 ug/m3 (0.10 ppm)
5	Suspended particles (TSP)	24 hours	260 ug/m3
6	Lead (Pb)	24 hours	6.0 ug/m3
7	Hydrocarbons (HC)	3 hours	160 ug/m3 (0.24 ppm)
8	Hydrogen Sulphide (H2S)	30 Minutes	42 ug/m3 (0.03 ppm)
9	Ammonia (NH3)	24 hours	1,360 ug/m3 (2 ppm)

Source: Ministerial Decree No.02/MENKLH 1988

Appendix 9-9 A Depth-Averaged Two-Dimensional Diffusion Model for Passive Materials



coordinates

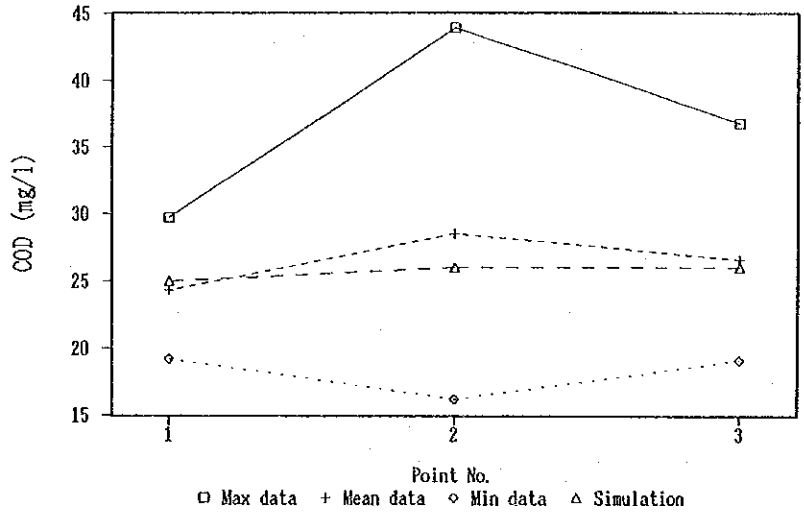
Diffusion model for passive materials can be obtained separately after the computation of current by a hydrodynamic model. The depth-averager two-dimensional mass conservation equation for passive materials can be obtained by vertical integration similar to a hydrodynamic model.

$$\frac{\partial S(h+\zeta)}{\partial t} = -\frac{\partial SM}{\partial x} - \frac{\partial SN}{\partial y} + \frac{\partial}{\partial x}\left\{K(h+\zeta)\frac{\partial S}{\partial x}\right\} + \frac{\partial}{\partial y}\left\{K(h+\zeta)\frac{\partial S}{\partial y}\right\} + Sa$$

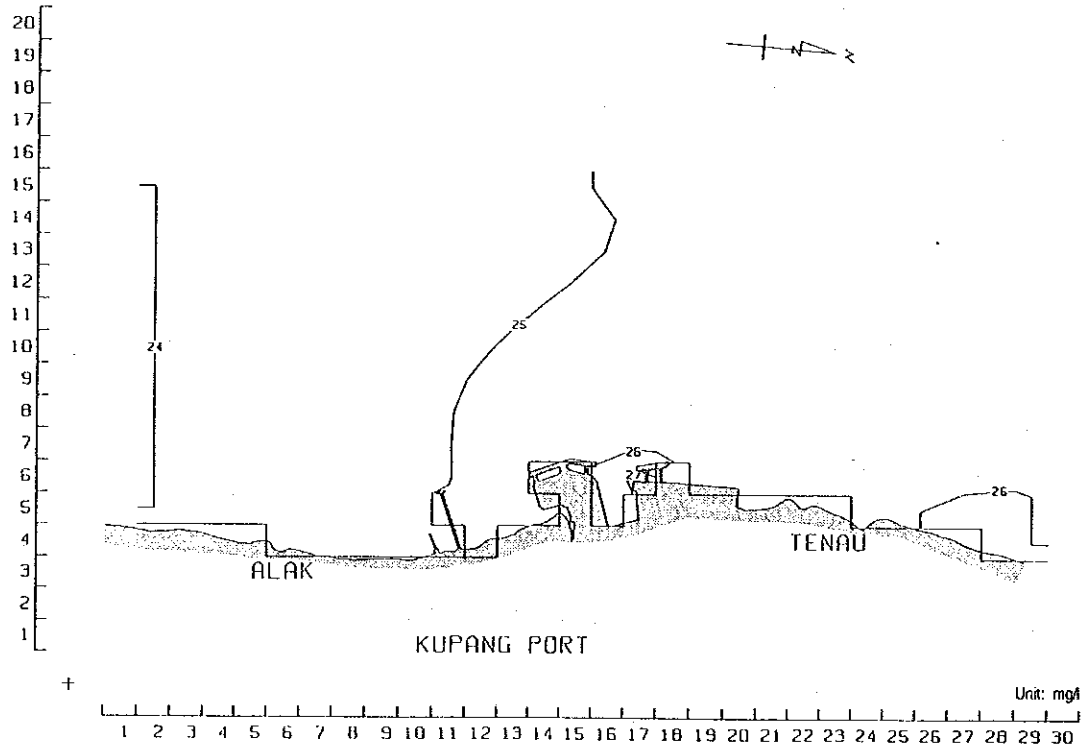
Where,
- S : Depth-averaged concentration for a material
- ζ : Elevation of water surface from the still water level positive upward
- h : Water depth from the still water level
- M, N : Volume transport of water per unit width per unit time in the x-, y- directions, respectively
  - $M = (h + \zeta)u$
  - $N = (h + \zeta)v$
- u, v : Depth-averaged velocity components
- K : Horizontal eddy diffusivity
- Sa : Imput load of the material

In this equation, it is assumed that no exchange of material through surface and bottom exists.

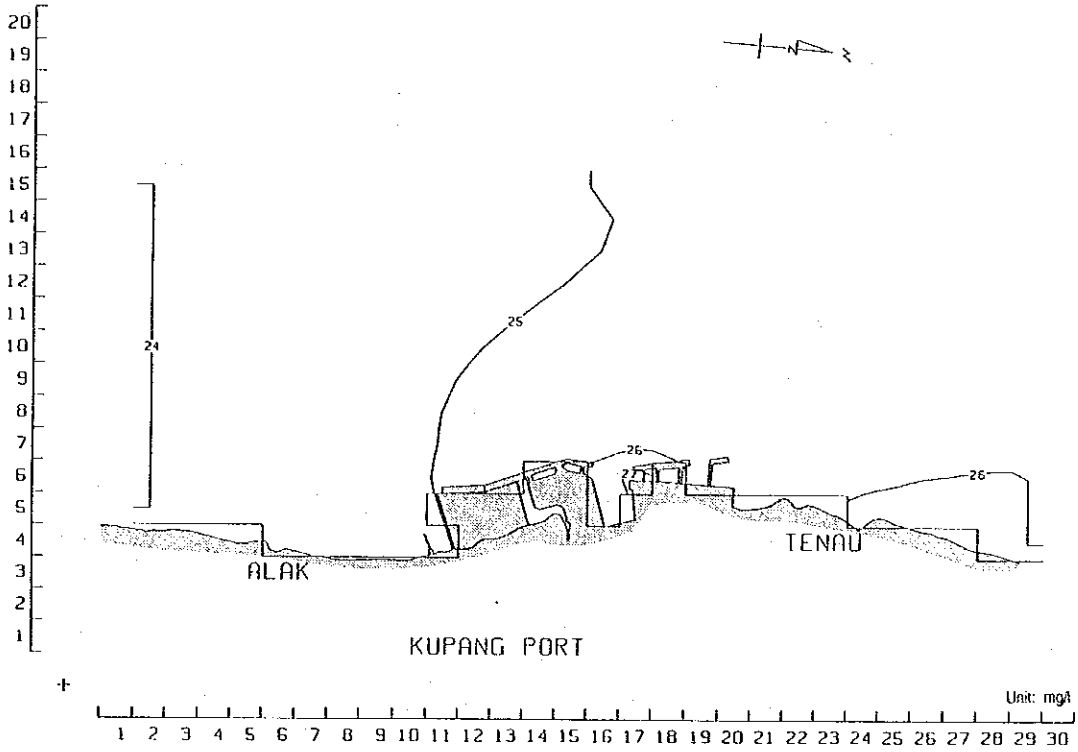
Appendix 9-10 Reappearance of Present COD Concentration (Kupang Port)



Appendix 9-11 Result of Simulation [COD: Case (Present)]



Appendix 9-12 Result of Simulation [COD: Case (Future)]

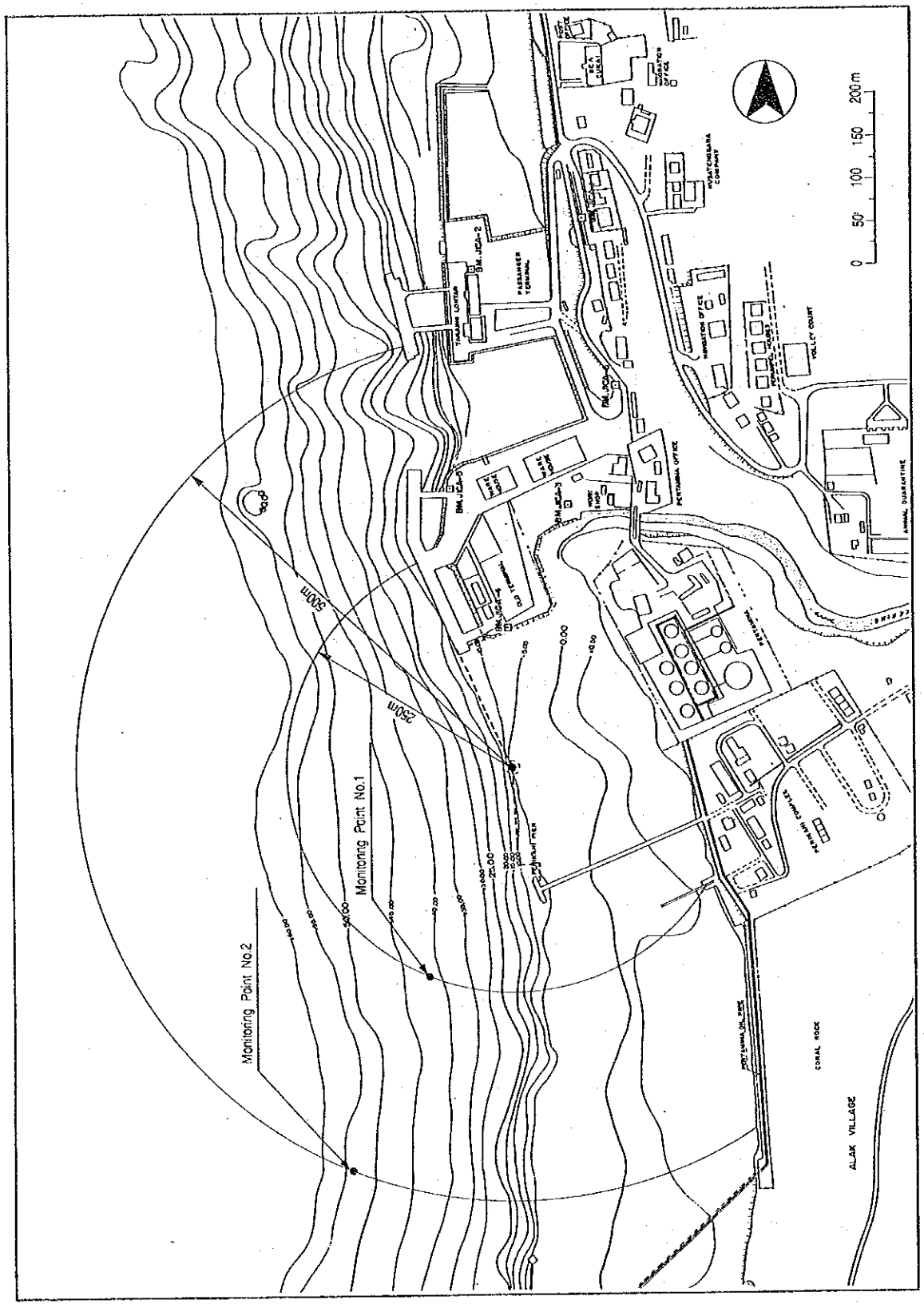


Appendix 9-13 Environmental Water Quality Standards In Indonesia

Purpose/Place	SS (mg/l)	pH	DO (mg/l)	COD (mg/l)	BOD (mg/l)	Oil (mg/l)	Coliform bacteria (MPN/100ml)
Coastal water							
Bathing	≦23	6.0-9.0	≧5	≦40	≦20	≦3	≦1,000
Aquaculture	≦80	6.0-9.0	≧4	≦80	≦45	≦5	≦1,000
Marine park	≦80	6.0-9.0	≧4	≦80	≦45	≦5	≦1,000
Industry	≦200	6.0-9.0	-	≦40	≦20	≦2	≦1,000

Note: Major quality parameter is shown in above Table.
Source: Ministerial Decree No. 02/MENKLH 1988

Appendix 9-14 Draft Monitoring Plan of Water Quality during Construction Period (Kupang Port)



Appendix 11-1 Construction Cost at market Price per Year (Port of Kupang)

Unit : Million Rp

Cement Berth		1997			1998			1999			Construction Cost		
		L/P	F/P	Total	L/P	F/P	Total	L/P	F/P	Total	L/P	F/P	Total
1	Mobilization			0	675		675			0	675	0	675
2-1	Revetment			0	972		972			0	972	0	972
2-2	Reclamation			0	458		458			0	458	0	458
3-1	Main Pier			0	6,838		6,838			0	6,838	0	6,838
3-2	Trestle Pier			0	465		465			0	465	0	465
3-3	Yard			0			0	303		303	303	0	303
3-4	Misecellaneous			0			0	1,421	411	1,833	1,421	411	1,833
3-5	Road			0			0	3,592		3,592	3,592	0	3,592
4	Equipment			0			0	1,146		1,146	1,146	0	1,146
5	Engineering	227	530	757	114	265	378	114	265	378	454	1,060	1,514
6	Contingency	23	27	49	952	13	965	658	34	691	1,632	74	1,706
7	Tax	81		81	1,075		1,075	794		794	1,950	0	1,950
	Total	330	556	887	11,550	278	11,828	8,027	710	8,737	19,907	1,544	21,451

Unit : Million Rp

Heavy Cargo Berth		1997			1998			1999			Construction Cost		
		L/P	F/P	Total	L/P	F/P	Total	L/P	F/P	Total	L/P	F/P	Total
1	Mobilization			0	675		675			0	675	0	675
2-1	Revetment			0	291		291			0	291	0	291
2-2	Reclamation			0	687		687			0	687	0	687
3-1	Main Pier			0	5,092		5,092			0	5,092	0	5,092
3-2	Container Yard			0			0	480		480	480	0	480
3-3	Misecellaneous			0			0	1,192	411	1,604	1,192	411	1,604
3-4	Road			0			0	2,020		2,020	2,020	0	2,020
4	Equipment			0			0	1,384	1,989	3,373	1,384	1,989	3,373
5	Engineering	163	380	542	81	190	271	81	190	271	326	759	1,085
6	Contingency	16	19	35	683	10	692	516	130	645	1,215	158	1,373
7	Tax	58		58	771		771	839		839	1,668	0	1,668
	Total	237	399	636	8,279	199	8,479	6,513	2,719	9,232	15,029	3,317	18,346

Ground Total	567	955	1,522	19,829	477	20,306	14,540	3,429	17,969	34,936	4,862	39,798

Appendix 11-2 Maintenance Cost (Port of Kupang)

Unit : 1,000 Rp

		Market Price	Economic P.	Market Price	Economic P.
	F/P	L/P	L/P	Total	Total
Cement Berth					
1 Main Pier		6,838,366	6,159,284	6,838,366	6,159,284
2 Trestle Pier		465,127	410,328	465,127	410,328
3 Yard		303,050	273,464	303,050	273,464
4 Miscellaneous	411,320	1,421,193	1,276,063	1,832,513	1,687,383
5 Road		3,591,939	3,220,259	3,591,939	3,220,259
Sub Total	411,320	12,619,675	11,339,398	13,030,995	11,750,718
Equipment		1,145,500	1,035,532	1,145,500	1,035,532
Heavy Cargo Berth					
1 Main Pier		5,091,728	4,586,682	5,091,728	4,586,682
2 Container Yard		479,612	432,806	479,612	432,806
3 Miscellaneous	411,320	1,192,203	1,068,103	1,603,523	1,479,423
4 Road		2,020,465	1,811,395	2,020,465	1,811,395
Sub Total	411,320	8,784,008	7,898,986	9,195,328	8,310,306
Equipment	1,988,550	1,384,126	1,251,250	3,372,676	3,239,800

	Construction Cost		Maintenance	Maintenance Cost	
	Market Price	Economic P.	%	Market Price	Economic P.
Direct Cost	22,226,323	20,061,024	1	222,263	200,610
Handling Eqipment	4,518,176	4,275,332	5	225,909	213,767
Total				448,172	414,377

Appendix 11-3 Saving in Ship Wating Costs

2000 Year

With Case

Ship Type	DWT	Ship Cargo ton & Box	Ship Cost Per Day Yen'000	Number of Ship	Average Wating Day	Wating Cost Yen'000
G.Cargo	1,000	230,000	339	329	3.4	379,205
Cement	5,000	227,000	624	46	9.1	261,206
Coal	5,000	92,000	624	19	13.4	158,870
Solid	2,500	24,000	546	10	8.9	48,594
Container	2,500	3,760	546	57	3.5	108,927
G.Cargo	2,500	52,000	485	30	8.3	120,765
Total						1,077,568

Without Case

Ship Type	DWT	Ship Cargo ton & Box	Ship Cost Per Day Yen'000	Number of Ship	Average Wating Day	Wating Cost Yen'000
G.Cargo	1,000	230,000	339	329	5.6	624,574
Cement	5,000	227,000	624	46	11.6	332,966
Coal	5,000	92,000	624	19	16.7	197,995
Solid	2,500	24,000	546	10	12.0	65,520
Container	2,500	3,760	546	57	9.5	295,659
G.Cargo	2,500	52,000	485	30	12.9	187,695
Total						1,704,409

Saving in Wating Cos = 626,841 ,000 yen
= 12,380,110 ,000 Rp

Benefit (90%) = 11,142,099 ,000 Rp

2001 Year

With Case

Ship Type	DWT	Ship Cargo ton & Box	Ship Cost Per Day Yen'000	Number of Ship	Average Wating Day	Wating Cost Yen'000
G.Cargo	1,000	233,000	339	333	3.4	383,816
Cement	5,000	227,000	624	46	11.4	327,226
Coal	5,000	92,000	624	19	16.4	194,438
Solid	2,500	24,000	546	10	12.6	68,796
Container	2,500	6,400	546	97	5.1	270,106
G.Cargo	2,500	61,000	485	35	9.6	162,960
Total						1,407,342

Without Case

Ship Type	DWT	Ship Cargo ton & Box	Ship Cost Per Day Yen'000	Number of Ship	Average Wating Day	Wating Cost Yen'000
G.Cargo	1,000	230,000	339	329	5.6	624,574
Cement	5,000	227,000	624	46	11.6	332,966
Coal	5,000	92,000	624	19	16.7	197,995
Solid	2,500	24,000	546	10	12.0	65,520
Container	2,500	3,760	546	57	9.5	295,659
G.Cargo	2,500	52,000	485	30	12.9	187,695
Total						1,704,409

Saving in Wating Cos = 297,067 ,000 yen
= 5,867,077 ,000 Rp

Benefit (90%) = 5,280,369 ,000 Rp

Appendix 11-4 Conversion of Construction Cost to Economic Price

(Port of Kupang)

Unit : Million Rp

Ceaent Berth

Facilties		Construction Costs (Market Price)	Foreign Portion (Market Price)	Local Portion			Total Market Price	Economic Price	Local CF	Transfer Item	Construction Costs (Economic Price)
				Non- Traded Goods	Skilled Labour	Unskilled Labour					
	Conversion Factor		1.000	0.904	0.895	0.485					
1 Reclamation	1) Mobil. & Preparation	67	0	64	1	2	67	59	89.2%		59
	2) Revetment	972	0	955	6	11	972	874	90.0%		874
	3) Reclamation	458	0	456	1	1	458	414	90.3%		414
	4) Physical Contingency	159	5	148	5	1	154	139	90.0%		144
	5) Engineering Service	150	105		45		46	40	89.5%		145
	6) Equipment	0					0	0			0
	7) Tax	181					0	0		181	0
	Total Construction Cost	1,987	110	1,623	58	16	1,696	1,526	90.0%	181	1,636
2 Ceaent Berth	1) Mobil. & Preparation	608	0	582	5	21	608	541	89.2%		541
	2) Main Pier	6,838	0	6,735	51	53	6,838	6,159	90.1%		6,159
	3) Trestle Pier	465	0	412	25	24	465	410	88.5%		410
	4) Yard	303	0	301	1	1	303	273	90.0%		273
	5) Miscellaneous	1,833	411	1,386	14	20	1,421	1,276	89.9%		1,687
	6) Road	3,592	0	3,503	25	64	3,592	3,220	89.8%		3,220
	7) Physical Contingency	1,547	68	1,407	53	18	1,478	1,328	89.9%		1,397
	8) Engineering Service	1,364	955		409		409	366	89.5%		1,321
	9) Equipment	1,146	0	1,146			1,146	1,036	90.4%		1,036
	10) Tax	1,770								1,770	0
	Total Construction Cost	19,465	1,434	15,477	584	201	16,261	14,610	89.9%	1,770	16,045
	Ground Total	21,451	1,544	17,099	641	216	17,957	16,137	89.9%	1,950	17,681

Heavy Cargo Berth

Facilties		Construction Costs (Market Price)	Foreign Portion (Market Price)	Local Portion			Total Market Price	Economic Price	Local CF	Transfer Item	Construction Costs (Economic Price)
				Non- Traded Goods	Skilled Labour	Unskilled Labour					
	Conversion Factor		1.000	0.904	0.895	0.485					
1	1) Mobil. & Preparation	65	0	62	1	2	65	58	89.2%		58
	2) Revetment	290	0	285	2	3	290	261	90.0%		261
	3) Reclamation	687	0	684	1	2	687	621	90.3%		621
	4) Physical Contingency	111	4	103	3	1	107	97	90.1%		100
	5) Engineering Service	104	73		31		31	28	89.5%		101
	6) Equipment	0					0	0			0
	7) Tax	126								126	0
	Total Construction Cost	1,384	77	1,135	38	8	1,181	1,064	90.1%	126	1,141
2 Heavy Cargo B	1) Mobil. & Preparation	610	0	584	5	21	610	543	89.2%		543
	2) Main Pier	5,092	0	5,015	39	38	5,092	4,587	90.1%		4,587
	3) Container Yard	480	0	476	2	2	480	433	90.3%		433
	4) Miscellaneous	1,804	411	1,155	14	23	1,192	1,068	89.7%		1,479
	5) Road	2,020	0	1,971	14	36	2,020	1,811	89.8%		1,811
	6) Physical Contingency	1,262	154	1,059	37	12	1,107	996	90.0%		1,150
	7) Engineering Service	981	686		294		294	263	89.5%		950
	8) Equipment	3,373	1,989	1,384			1,384	1,251	90.4%		3,240
	9) Tax	1,542					0	0		1,542	0
	Total Construction Cost	16,962	3,241	11,844	405	131	12,180	10,952	90.0%	1,542	14,192
	Ground Total	18,346	3,317	12,779	443	139	13,361	12,016	90.0%	1,668	15,333
Total		39,797	4,862	29,878	1,084	355	31,318	28,153	90.0%	3,618	33,014

Appendix 11-5 Construction Cost at Economic Price per Year
(Port of Kupang)

Unit : Million Rp

Cement Berth		1997			1998			1999			Construction Cost		
		L/P	F/P	Total	L/P	F/P	Total	L/P	F/P	Total	L/P	F/P	Total
1	Mobilization	0	0	0	601	0	601	0	0	0	601	0	601
2-1	Revetment	0	0	0	874	0	874	0	0	0	874	0	874
2-2	Reclamation	0	0	0	414	0	414	0	0	0	414	0	414
3-1	Main Pier	0	0	0	6,160	0	6,160	0	0	0	6,160	0	6,160
3-2	Trestle Pier	0	0	0	410	0	410	0	0	0	410	0	410
3-3	Yard	0	0	0	0	0	0	273	0	273	273	0	273
3-4	Misecellaneous	0	0	0	0	0	0	1,276	411	1,687	1,276	411	1,687
3-5	Road	0	0	0	0	0	0	3,221	0	3,221	3,221	0	3,221
4	Equipment	0	0	0	0	0	0	1,035	0	1,035	1,035	0	1,035
5	Engineering	203	530	733	102	265	366	102	265	366	406	1,060	1,466
6	Contingency	20	27	47	856	13	869	591	34	625	1,467	74	1,541
7	Tax	0	0	0	0	0	0	0	0	0	0	0	0
	Total	224	556	780	9,415	278	9,693	6,498	710	7,208	16,137	1,544	17,681

Unit : Million Rp

Heavy Cargo Berth		1,997			1,998			1,999			Construction Cost		
		L/P	F/P	Total	L/P	F/P	Total	L/P	F/P	Total	L/P	F/P	Total
1	Mobilization	0	0	0	601	0	601	0	0	0	601	0	601
2-1	Revetment	0	0	0	261	0	261	0	0	0	261	0	261
2-2	Reclamation	0	0	0	621	0	621	0	0	0	621	0	621
3-1	Main Pier	0	0	0	4,586	0	4,586	0	0	0	4,586	0	4,586
3-2	Container Yard	0	0	0	0	0	0	432	0	432	432	0	432
3-3	Misecellaneous	0	0	0	0	0	0	1,068	411	1,479	1,068	411	1,479
3-4	Road	0	0	0	0	0	0	1,812	0	1,812	1,812	0	1,812
4	Equipment	0	0	0	0	0	0	1,251	1,989	3,240	1,251	1,989	3,240
5	Engineering	146	380	525	73	190	263	73	190	263	291	759	1,051
6	Contingency	15	19	34	614	10	624	464	130	594	1,093	158	1,251
7	Tax	0	0	0	0	0	0	0	0	0	0	0	0
	Total	160	399	559	6,756	199	6,955	5,100	2,719	7,819	12,016	3,317	15,333

Ground Total	384	955	1,339	16,171	477	16,648	11,598	3,429	15,027	28,153	4,862	33,014

Appendix 11-6 Cost/Benefit Analysis (Port of Kupang)

Unit : Million Rp

	Year	Cost					Benefit		Benefit - Cost	Net Present Value (NPV)		
		Construction	Maintenance	Replacement Investment	Residual Value	Total	Savings in Waiting Cost	Total		Benefit	Cost	Benefit - Cost
1	1997	1,339				1,339		0	-1,339	0	1,339	-1,339
2	1998	16,648				16,648		0	-16,648	0	14,435	-14,435
3	1999	15,027				15,027		0	-15,027	0	11,298	-11,298
4	2000		414			414	11,142	11,142	10,728	7,264	270	6,994
5	2001		414			414	5,280	5,280	4,866	2,985	234	2,750
6	2002		414			414	5,280	5,280	4,866	2,588	203	2,385
7	2003		414			414	5,280	5,280	4,866	2,244	176	2,068
8	2004		414			414	5,280	5,280	4,866	1,946	153	1,793
9	2005		414			414	5,280	5,280	4,866	1,687	132	1,555
10	2006		414			414	5,280	5,280	4,866	1,463	115	1,348
11	2007		414			414	5,280	5,280	4,866	1,269	100	1,169
12	2008		414			414	5,280	5,280	4,866	1,100	86	1,014
13	2009		414	864		1,278	5,280	5,280	4,002	954	231	723
14	2010		414			414	5,280	5,280	4,866	827	65	762
15	2011		414			414	5,280	5,280	4,866	717	56	661
16	2012		414			414	5,280	5,280	4,866	622	49	573
17	2013		414			414	5,280	5,280	4,866	539	42	497
18	2014		414			414	5,280	5,280	4,866	468	37	431
19	2015		414			414	5,280	5,280	4,866	405	32	374
20	2016		414			414	5,280	5,280	4,866	352	28	324
21	2017		414			414	5,280	5,280	4,866	305	24	281
22	2018		414			414	5,280	5,280	4,866	264	21	244
23	2019		414	2,437		2,851	5,280	5,280	2,429	229	124	105
24	2020		414			414	5,280	5,280	4,866	199	16	183
25	2021		414			414	5,280	5,280	4,866	172	14	159
26	2022		414			414	5,280	5,280	4,866	149	12	138
27	2023		414			414	5,280	5,280	4,866	130	10	119
28	2024		414	2,485		2,900	5,280	5,280	2,380	112	62	51
29	2025		414			414	5,280	5,280	4,866	97	8	90
30	2026		414			414	5,280	5,280	4,866	84	7	78
31	2027		414			414	5,280	5,280	4,866	73	6	67
32	2028		414			414	5,280	5,280	4,866	63	5	59
33	2029		414		-2,775	-2,360	5,280	5,280	7,640	55	-25	80
	Total	33,014	12,431	5,786	-2,775	48,457	164,262	164,262	115,805	29,363	29,363	-0

EIRR= 0.15327

Appendix 12-1 Operating Revenues (Port of Kupang)

(Heavy Cargo Berth) Unit:Rp Mn

(Container)		2000	2001	2002	2003	2004	2005
Cargo Volume	Ton	22,000	37,000	53,000	72,000	93,000	115,000
Export(Stuff)	TEU	130	150	160	170	180	190
Import(Stuff)		70	70	80	90	90	100
Import(Empty)		60	80	80	80	90	90
Loading(Stuff)		240	430	630	870	1,150	1,440
Loading(Empty)		1,510	2,620	3,760	5,170	6,700	8,360
Unloading(Stuff)		1,750	3,050	4,390	6,040	7,850	9,800
Total		3,760	6,400	9,100	12,420	16,060	19,980
Stuff		2,190	3,700	5,260	7,170	9,270	11,530
Empty		1,570	2,700	3,840	5,250	6,790	8,450
Ship Size (M type)	DWT	2,500	2,500	2,500	2,500	2,500	2,500
	GT	2,500	2,500	2,500	2,500	2,500	2,500
Cargo Volume per Ship	TEU	44	44	44	44	44	44
Productivity	BOX/H	10	10	10	10	10	10
Cargo Handling Hour		8.8	8.8	8.8	8.8	8.8	8.8
Mooring Hour		15	15	15	15	15	15
Number of Overseas Ships		3	3	4	4	4	4
Number of Domestic Ships		40	69	100	137	178	223
Anchorage Fee	Overseas	523	604	644	684	724	765
Piloting Fee	Overseas	418	483	515	547	579	612
Towing Fee	Overseas	934	1,077	1,149	1,221	1,293	1,365
Mooring Fee	Overseas	392	453	483	513	543	573
Anchorage Fee	Domestic	2,983	5,199	7,483	10,295	13,381	16,705
Piloting Fee	Domestic	3,174	5,532	7,962	10,954	14,237	17,774
Towing Fee	Domestic	7,159	12,477	17,959	24,709	32,114	40,091
Mooring Fee	Domestic	1,864	3,249	4,677	6,435	8,363	10,440
		0	0	0	0	0	0
Container Handling Fee		0	0	0	0	0	0
FCL Cargo	@74500	122,366	206,738	293,903	400,624	517,961	644,239
LCL Cargo	@120000	65,700	111,000	157,800	215,100	278,100	345,900
Empty	FCL*90%	105,269	181,035	257,472	352,013	455,270	566,573
		0	0	0	0	0	0
Stacking Fee		0	0	0	0	0	0
Container(Stuff) 7day		13,140	22,200	31,560	43,020	55,620	69,180
Container(Empty) 10day		18,840	32,400	46,080	63,000	81,480	101,400
CFS		493	833	1,184	1,613	2,086	2,594
		0	0	0	0	0	0
Others		1,752	2,960	4,208	5,736	7,416	9,224
		0	0	0	0	0	0
Total		345,007	586,238	833,078	1,136,464	1,469,166	1,827,433

Unit:Rp

(Industrial Base Materials)		2000	2001	2002	2003	2004	2005
Cargo Volume	Ton	43,200	51,600	59,400	65,800	70,800	75,000
Unloading		36,000	43,000	49,500	54,800	59,000	62,500
Loading		7,200	8,600	9,900	11,000	11,800	12,500
Ship Size	DWT	2,500	2,500	2,500	2,500	2,500	2,500
	GT	2,000	2,000	2,000	2,000	2,000	2,000
Cargo Volume per ship		1,750	1,750	1,750	1,750	1,750	1,750
Productivity	T/H	25.2	25.2	25.2	25.2	25.2	25.2
Handling Hour	H	83	83	83	83	83	83
Mooring Hour	H	143	143	143	143	143	143
Number of Ships		21	25	28	31	34	36
Anchorage Fee	@30/GRT	1,234	1,474	1,697	1,879	2,023	2,143
Piloting Fee		1,473	1,759	2,025	2,242	2,414	2,557
Towing Fee		3,703	4,423	5,091	5,637	6,069	6,429
Mooring Fee	@25/GRT/24h	6,122	7,313	8,418	9,325	10,034	10,629
		0	0	0	0	0	0
Wharf Fee	@450/T	19,440	23,220	26,730	29,610	31,860	33,750
Stacking Fee	@50/T	2,160	2,580	2,970	3,290	3,540	3,750
Mobil Crane	@45000/H	77,143	92,143	106,071	117,500	126,429	133,929
Fork Lift	@14400/H	24,686	29,486	33,943	37,600	40,457	42,857
Port Entrance		3,456	4,128	4,752	5,264	5,664	6,000
		0	0	0	0	0	0
Total		139,417	166,526	191,698	212,347	228,489	242,044

Unit:Rp Mn

(Timor Gap)		2000	2001	2002	2003	2004	2005
Cargo Volume	Ton	19,000	18,500	18,100	17,600	17,100	16,700
Unloading		9,000	8,500	8,100	7,600	7,100	6,700
Loading		10,000	10,000	10,000	10,000	10,000	10,000
Ship Size	DWT	2,500	2,500	2,500	2,500	2,500	2,500
	GT	2,000	2,000	2,000	2,000	2,000	2,000
Handling Hour	H	12	12	12	12	12	12
Mooring Hour	H	120	120	120	120	120	120
Number of Ships		52	52	52	52	52	52
Anchorage Fee	@30/GRT	3,129	3,129	3,129	3,129	3,129	3,129
Piloting Fee		3,733	3,733	3,733	3,733	3,733	3,733
Towing Fee		9,386	9,386	9,386	9,386	9,386	9,386
Mooring Fee	@25/GRT/24h	13,036	13,036	13,036	13,036	13,036	13,036
		0	0	0	0	0	0
Wharf Fee	@450/T	8,550	8,325	8,145	7,920	7,695	7,515
Mobil Crane	@45000/H	28,157	28,157	28,157	28,157	28,157	28,157
Fork Lift	@14400/H	9,010	9,010	9,010	9,010	9,010	9,010
		0	0	0	0	0	0
Land Lease	@1000M2/y	14,000	14,000	14,000	14,000	14,000	14,000
	14000m2	0	0	0	0	0	0
Total		89,001	88,776	88,596	88,371	88,146	87,966
		0	0	0	0	0	0
Grand Total		573,425	841,540	1,113,372	1,437,182	1,785,801	2,157,442

(Kupang Cement Berth)

Unit:Rp

		2000			
		Cement	Coal	Other M.	Total
Cargo Volume	Ton	227,000	92,000	24,000	
Ship Size	DWT	5,000	5,000	2,500	
	GT	3,400	3,400	2,000	
Number of Ships		45	18	10	
Productivity	Ton/Day	2,275	800	800	
Mooring hour	Day	2	6	3	
Anchorage Fee		4,631	1,877	576	7,084
Piloting Fee		4,367	1,770	924	7,061
Towing Fee		8,172	3,312	1,728	13,212
Mooring Fee		8,481	9,775	1,500	19,756
		0	0	0	0
Wharf Cargo Fee		102,150	41,400	10,800	154,350
Warehouse Fee	@90/day	7,020	0	0	7,020
Others		18,160	7,360	1,920	27,440
		0	0	0	0
Total		152,982	65,494	17,448	235,923

Project Cost of Kupang Port

(Cement Berth)

Unit: Rp Mn.

	Cost	Local P	Foreign P	Initial investment costs by facilities: Direct Cost	Mobilization	Engineering	P.Contigency	VAT	Total	Maintenance Cost	Depriciation Period	Depriciation Per Year
Construction Cost	15,136	14,725	411	14,461	675	1,514	1,591	1,824	20,065	181		443
Mobilization	675	675	0	0	0	0	0	0	0	0		0
Reclamation	1,430	1,430	0	1,430	67	150	159	181	1,987	0		0
Pier	6,838	6,427	411	6,838	319	716	742	862	9,477	95	50	190
Pier Miscellaneous	1,613	1,613	0	1,613	75	169	180	204	2,240	22	50	45
Trestle Pier	465	465	0	465	22	49	52	59	646	6	30	22
Yard	122	122	0	122	6	13	14	15	169	2	40	4
Shed	181	181	0	181	8	19	20	23	251	3	40	6
Other Building	220	220	0	220	10	23	25	28	306	3	30	10
Road	3,592	3,592	0	3,592	168	376	400	454	4,990	50	30	166
	0	0	0	0	0	0	0	0	0	0		0
Craft	1,146	1,146	0	1,146	0	0	115	126	1,386	69		55
Craft	1,146	1,146	0	1,146	0	0	115	126	1,386	69	25	55
	0	0	0	0	0	0	0	0	0	0		0
Enginnering and Sup.	1,514	454	1,060	0	0	0	0	0	0	0		0
	0	0	0	0	0	0	0	0	0	0		0
Physical Contigency	1,706	1,632	74	0	0	0	0	0	0	0		0
	0	0	0	0	0	0	0	0	0	0		0
VAT	1,950	1,950	0	0	0	0	0	0	0	0		0
	0	0	0	0	0	0	0	0	0	0		0
Total	21,451	19,907	1,544	15,607	675	1,514	1,706	1,950	21,451	250		498

(Heavy Cargo Berth)

Unit: Rp Mn.

	Cost	Local P	Foreign P	Initial investment costs by facilities: Direct Cost	Mobilization	Engineering	P.Contigency	VAT	Total	Maintenance Cost	Depriciation Period	Depriciation Per Year
Construction Cost	10,848	10,437	411	10,173	675	1,085	1,135	1,307	14,374	130		306
Mobilization	675	675	0	0	0	0	0	0	0	0		0
Reclamation	978	978	0	978	65	104	111	126	1,384	0		0
Pier	5,092	5,092	0	5,092	338	543	578	655	7,206	72	50	144
Pier Miscellaneous	1,369	957	411	1,369	91	146	135	174	1,914	19	50	38
Yard	480	480	0	480	32	51	54	62	679	7	40	17
Attached Office	235	235	0	235	16	25	27	30	333	3	30	11
Road	2,020	2,020	0	2,020	134	215	229	260	2,859	29	30	95
	0	0	0	0	0	0	0	0	0	0		0
Equipment and Craft	3,373	1,384	1,989	3,373	0	0	238	361	3,972	199		231
Mobil Crane	1,438	154	1,284	1,438	0	0	80	152	1,669	83	20	83
Other Machine	790	85	705	790	0	0	44	83	917	46	10	92
Craft	1,146	1,146	0	1,146	0	0	115	126	1,386	69	25	55
	0	0	0	0	0	0	0	0	0	0		0
Enginnering and Sup.	1,085	325	759	0	0	0	0	0	0	0		0
	0	0	0	0	0	0	0	0	0	0		0
Physical Contigency	1,373	1,215	158	0	0	0	0	0	0	0		0
	0	0	0	0	0	0	0	0	0	0		0
VAT	1,668	1,668	0	0	0	0	0	0	0	0		0
	0	0	0	0	0	0	0	0	0	0		0
Total	18,346	15,029	3,317	13,546	675	1,085	1,373	1,668	18,346	328		536

	Cost	Local P	Foreign P	Initial investment costs by facilities: Direct Cost	Mobilization	Engineering	P.Contigency	VAT	Total	Maintenance Cost	Depriciation Period	Depriciation Per Year
Grand Total	39,797	34,936	4,862	29,152	1,350	2,598	3,079	3,618	39,797	579		1,035

Caluculation of FIRR (Port of Kupang)

Case A

Result of Caluculation	
Original Case	-2.3%
Sensitivity Analysi	-3.5%
Sensitivity Analysi	-3.4%
Sensitivity Analysi	-4.6%

Foreign F. PERSERO
Domestic F. PERSERO

Personnel Cost
Number: 13
Unit Cost:6.2 Rp Mn.

Unit: Rp Mn

	Year	Revenues			Cost			Revenue-Cost	Net Present Value			Expense				
		Operating Revenues	Subsidy (G. Fund)	Total	Investment	Expense	Total		Revenues	Cost	Difference	Personnel Cost	Mainte. Cost	Other E. Cost	Domestic F. Cost	Total
	1997	0	0	0	1,522	0	1,522	-1,522	0	1,522	-1,522	0	0	0	0	0
	1998	0	0	0	20,306	34	20,341	-20,341	0	20,829	-20,829	0	0	0	34	34
	1999	0	0	0	17,969	491	18,460	-18,460	0	19,357	-19,357	0	0	0	491	491
1	2000	809	0	809	0	1,659	1,659	-850	869	1,782	-913	81	579	105	895	1,659
2	2001	1,077	0	1,077	0	1,636	1,636	-559	1,185	1,799	-614	81	579	105	872	1,636
3	2002	1,349	0	1,349	0	1,613	1,613	-264	1,519	1,816	-297	81	579	105	849	1,613
4	2003	1,673	0	1,673	0	1,590	1,590	84	1,929	1,833	96	81	579	105	826	1,590
5	2004	2,022	0	2,022	0	1,566	1,566	455	2,387	1,849	538	81	579	105	802	1,566
6	2005	2,393	0	2,393	0	1,543	1,543	850	2,893	1,865	1,028	81	579	105	779	1,543
7	2006	2,393	0	2,393	0	1,520	1,520	874	2,963	1,881	1,081	81	579	105	756	1,520
8	2007	2,393	0	2,393	0	1,496	1,496	897	3,034	1,897	1,137	81	579	105	732	1,496
9	2008	2,393	0	2,393	0	1,473	1,473	920	3,107	1,912	1,194	81	579	105	709	1,473
10	2009	2,393	0	2,393	917	1,450	2,367	27	3,181	3,146	36	81	579	105	686	1,450
11	2010	2,393	0	2,393	0	1,427	1,427	967	3,258	1,942	1,316	81	579	105	663	1,427
12	2011	2,393	0	2,393	0	1,403	1,403	990	3,336	1,956	1,380	81	579	105	639	1,403
13	2012	2,393	0	2,393	0	1,380	1,380	1,013	3,416	1,970	1,446	81	579	105	616	1,380
14	2013	2,393	0	2,393	0	1,357	1,357	1,037	3,498	1,983	1,515	81	579	105	593	1,357
15	2014	2,393	0	2,393	0	1,333	1,333	1,060	3,582	1,996	1,586	81	579	105	570	1,333
16	2015	2,393	0	2,393	0	1,310	1,310	1,083	3,668	2,008	1,660	81	579	105	546	1,310
17	2016	2,393	0	2,393	0	1,287	1,287	1,106	3,756	2,019	1,736	81	579	105	523	1,287
18	2017	2,393	0	2,393	0	1,264	1,264	1,130	3,846	2,030	1,815	81	579	105	500	1,264
19	2018	2,393	0	2,393	0	1,240	1,240	1,153	3,938	2,041	1,897	81	579	105	476	1,240
20	2019	2,393	0	2,393	2,586	1,217	3,803	-1,409	4,033	6,407	-2,374	81	579	105	453	1,217
21	2020	2,393	0	2,393	0	1,194	1,194	1,200	4,129	2,060	2,070	81	579	105	430	1,194
22	2021	2,393	0	2,393	0	1,171	1,171	1,223	4,228	2,068	2,160	81	579	105	407	1,171
23	2022	2,393	0	2,393	0	1,147	1,147	1,246	4,330	2,075	2,254	81	579	105	383	1,147
24	2023	2,393	0	2,393	0	1,124	1,124	1,269	4,434	2,082	2,352	81	579	105	360	1,124
25	2024	2,393	0	2,393	2,772	1,101	3,873	-1,479	4,540	7,347	-2,806	81	579	105	337	1,101
26	2025	2,393	0	2,393	0	1,077	1,077	1,316	4,649	2,093	2,556	81	579	105	313	1,077
27	2026	2,393	0	2,393	0	1,054	1,054	1,339	4,761	2,097	2,664	81	579	105	290	1,054
28	2027	2,393	0	2,393	0	1,031	1,031	1,363	4,875	2,100	2,775	81	579	105	267	1,031
29	2028	2,393	0	2,393	0	1,008	1,008	1,386	4,992	2,102	2,890	81	579	105	244	1,008
30	2029	2,393	0	2,393	-3,052	984	-2,068	4,461	5,112	-4,416	9,528	81	579	105	220	984
	Total	66,765	0	66,765	43,020	40,181	83,200	-16,435	105,444	105,444	-0	2,418	17,357	3,143	17,262	40,181

Caluculation of FIRR (Port of Kupang)

Case B

Foreign F. PERSERO
Domestic F. DIP

Result of Caluculation	
Original Case	0.9%
Sensitivity Analysi	-0.1%
Sensitivity Analysi	0.0%
Sensitivity Analysi	-1.0%

Personnel Cost
Number: 13
Unit Cost6.2 Rp Mn.

Unit: Rp Mn.

	Year	Revenues			Cost			Revenue-Cost	Net Present Value			Expense			
		Operating Revenues	Subsidy (G. Fund)	Total	Investment	Expense	Total		Revenues	Cost	Difference	Personnel Cost	Mainte. Cost	Other E. Cost	Total
	1997	0	0	0	1,522	0	1,522	-1,522	0	1,522	-1,522	0	0	0	0
	1998	0	0	0	20,306	0	20,306	-20,306	0	20,123	-20,123	0	0	0	0
	1999	0	0	0	17,969	0	17,969	-17,969	0	17,647	-17,647	0	0	0	0
1	2000	809	199	1,008	0	764	764	244	981	743	238	81	579	105	764
2	2001	1,077	199	1,276	0	764	764	512	1,231	737	494	81	579	105	764
3	2002	1,349	199	1,548	0	764	764	784	1,480	730	750	81	579	105	764
4	2003	1,673	199	1,872	0	764	764	1,108	1,773	724	1,050	81	579	105	764
5	2004	2,022	199	2,221	0	764	764	1,457	2,084	717	1,367	81	579	105	764
6	2005	2,393	199	2,592	0	764	764	1,828	2,411	711	1,701	81	579	105	764
7	2006	2,393	199	2,592	0	764	764	1,828	2,390	704	1,685	81	579	105	764
8	2007	2,393	199	2,592	0	764	764	1,828	2,368	698	1,670	81	579	105	764
9	2008	2,393	199	2,592	0	764	764	1,828	2,347	692	1,655	81	579	105	764
10	2009	2,393	199	2,592	917	764	1,681	912	2,325	1,508	818	81	579	105	764
11	2010	2,393	199	2,592	0	764	764	1,828	2,305	679	1,625	81	579	105	764
12	2011	2,393	199	2,592	0	764	764	1,828	2,284	673	1,611	81	579	105	764
13	2012	2,393	199	2,592	0	764	764	1,828	2,263	667	1,596	81	579	105	764
14	2013	2,393	199	2,592	0	764	764	1,828	2,243	661	1,582	81	579	105	764
15	2014	2,393	199	2,592	0	764	764	1,828	2,223	655	1,568	81	579	105	764
16	2015	2,393	199	2,592	0	764	764	1,828	2,203	649	1,553	81	579	105	764
17	2016	2,393	199	2,592	0	764	764	1,828	2,183	643	1,539	81	579	105	764
18	2017	2,393	199	2,592	0	764	764	1,828	2,163	637	1,526	81	579	105	764
19	2018	2,393	199	2,592	0	764	764	1,828	2,144	632	1,512	81	579	105	764
20	2019	2,393	199	2,592	2,586	764	3,349	-757	2,124	2,745	-620	81	579	105	764
21	2020	2,393	199	2,592	0	764	764	1,828	2,105	620	1,485	81	579	105	764
22	2021	2,393	199	2,592	0	764	764	1,828	2,086	615	1,471	81	579	105	764
23	2022	2,393	199	2,592	0	764	764	1,828	2,067	609	1,458	81	579	105	764
24	2023	2,393	199	2,592	0	764	764	1,828	2,049	604	1,445	81	579	105	764
25	2024	2,393	199	2,592	2,772	764	3,536	-944	2,030	2,769	-739	81	579	105	764
26	2025	2,393	199	2,592	0	764	764	1,828	2,012	593	1,419	81	579	105	764
27	2026	2,393	199	2,592	0	764	764	1,828	1,994	588	1,406	81	579	105	764
28	2027	2,393	199	2,592	0	764	764	1,828	1,976	582	1,394	81	579	105	764
29	2028	2,393	199	2,592	0	764	764	1,828	1,958	577	1,381	81	579	105	764
30	2029	2,393	199	2,592	-3,052	764	-2,288	4,880	1,940	-1,713	3,653	81	579	105	764
	Total	66,765	5,970	72,735	43,020	22,919	65,938	6,796	61,740	61,740	-0	2,418	17,357	3,143	22,919

Case C

Foreign F. GOI
Domestic F. PERSERO

Result of Caluculation

Original Case	3.6%
Sensitivity Analysis	2.6%
Sensitivity Analysis	2.7%
Sensitivity Analysis	1.6%

Personnel Cost
Number: 13
Unit Cost: 6.2 Rp Mn.

Unit: Rp Mn.

	Year	Revenues			Cost			Revenue-Cost	Net Present Value			Expense					Subsidy (Funds from GOI)		
		Operating Revenues	Subsidy (G. Fund)	Total	Investment	Expense	Total		Revenues	Cost	Difference	Personnel Cost	Mainte. Cost	Other E. Cost	Domestic F. Cost	Total	P. Repay.	Interest	Total
	1997	0	0	0	1,522	0	1,522	-1,522	0	1,522	-1,522	0	0	0	0	0	0	0	0
	1998	0	34	34	20,306	34	20,341	-20,307	32	19,627	-19,594	0	0	0	34	34	0	34	34
	1999	0	482	482	17,969	491	18,460	-17,978	449	17,187	-16,738	0	0	0	491	491	0	482	482
1	2000	809	880	1,689	0	1,659	1,659	29	1,517	1,491	26	81	579	105	895	1,659	0	880	880
2	2001	1,077	880	1,957	0	1,636	1,636	321	1,696	1,418	278	81	579	105	872	1,636	0	880	880
3	2002	1,349	880	2,229	0	1,613	1,613	616	1,864	1,349	515	81	579	105	849	1,613	0	880	880
4	2003	1,673	880	2,553	0	1,590	1,590	963	2,060	1,283	777	81	579	105	826	1,590	0	880	880
5	2004	2,022	880	2,901	0	1,566	1,566	1,335	2,259	1,220	1,040	81	579	105	802	1,566	0	880	880
6	2005	2,393	880	3,273	0	1,543	1,543	1,730	2,459	1,159	1,300	81	579	105	779	1,543	0	880	880
7	2006	2,393	880	3,273	0	1,519	1,519	1,754	2,373	1,101	1,272	81	579	105	755	1,519	0	880	880
8	2007	2,393	880	3,273	0	1,496	1,496	1,776	2,289	1,047	1,243	81	579	105	732	1,496	0	880	880
9	2008	2,393	944	3,338	0	1,473	1,473	1,864	2,253	994	1,258	81	579	105	709	1,473	65	880	944
10	2009	2,393	1,806	4,199	917	1,450	2,367	1,832	2,735	1,541	1,193	81	579	105	686	1,450	928	878	1,806
11	2010	2,393	2,545	4,938	0	1,427	1,427	3,512	3,103	896	2,207	81	579	105	663	1,427	1,691	854	2,545
12	2011	2,393	2,501	4,894	0	1,403	1,403	3,491	2,958	851	2,117	81	579	105	639	1,403	1,691	810	2,501
13	2012	2,393	2,457	4,851	0	1,380	1,380	3,470	2,838	807	2,030	81	579	105	616	1,380	1,691	766	2,457
14	2013	2,393	2,413	4,807	0	1,357	1,357	3,450	2,713	766	1,948	81	579	105	593	1,357	1,691	722	2,413
15	2014	2,393	2,369	4,763	0	1,333	1,333	3,429	2,594	726	1,868	81	579	105	570	1,333	1,691	678	2,369
16	2015	2,393	2,325	4,719	0	1,310	1,310	3,408	2,480	689	1,791	81	579	105	546	1,310	1,691	634	2,325
17	2016	2,393	2,281	4,675	0	1,287	1,287	3,388	2,371	653	1,718	81	579	105	523	1,287	1,691	590	2,281
18	2017	2,393	2,237	4,631	0	1,264	1,264	3,367	2,266	618	1,648	81	579	105	500	1,264	1,691	546	2,237
19	2018	2,393	2,193	4,587	0	1,240	1,240	3,346	2,166	586	1,580	81	579	105	476	1,240	1,691	502	2,193
20	2019	2,393	2,149	4,543	2,586	1,217	3,803	740	2,070	1,732	337	81	579	105	453	1,217	1,691	458	2,149
21	2020	2,393	2,105	4,499	0	1,194	1,194	3,305	1,978	525	1,453	81	579	105	430	1,194	1,691	414	2,105
22	2021	2,393	2,061	4,455	0	1,171	1,171	3,284	1,890	496	1,393	81	579	105	407	1,171	1,691	370	2,061
23	2022	2,393	2,017	4,411	0	1,147	1,147	3,264	1,805	470	1,336	81	579	105	383	1,147	1,691	326	2,017
24	2023	2,393	1,973	4,367	0	1,124	1,124	3,243	1,724	444	1,281	81	579	105	360	1,124	1,691	282	1,973
25	2024	2,393	1,929	4,323	2,772	1,101	3,873	450	1,647	1,476	171	81	579	105	337	1,101	1,691	238	1,929
26	2025	2,393	1,885	4,279	0	1,077	1,077	3,201	1,573	396	1,177	81	579	105	313	1,077	1,691	194	1,885
27	2026	2,393	1,841	4,235	0	1,054	1,054	3,181	1,502	374	1,128	81	579	105	290	1,054	1,691	150	1,841
28	2027	2,393	1,798	4,191	0	1,031	1,031	3,160	1,435	353	1,082	81	579	105	267	1,031	1,691	106	1,798
29	2028	2,393	1,689	4,082	0	1,008	1,008	3,075	1,348	333	1,016	81	579	105	244	1,008	1,627	62	1,689
30	2029	2,393	784	3,177	-3,052	984	-2,068	5,245	1,012	-659	1,671	81	579	105	220	984	764	20	784
	Total	66,765	51,858	118,623	43,020	40,180	83,200	35,424	63,471	63,471	0	2,418	17,357	3,143	17,261	40,180	33,828	18,030	51,858

Caluculation of FIRR (Port of Kupang)

Case D

Foreign F. GOI
Domestic F. GOI(DIP)

Result of Caluculation	
Original Case	5.9%
Sensitivity Analys	4.9%
Sensitivity Analys	5.0%
Sensitivity Analys	4.0%

Personnel Cost
Number: 13
Unit Cost: 6.2 Rp Mn

Unit: Rp Mn

	Year	Revenues			Cost			Revenue-Cost	Net Present Value			Expense				Subsidy (Funds from GOI)				
		Operating Revenues	Subsidy (G. Fund)	Total	Investment	Expense	Total		Revenues	Cost	Difference	Personnel Cost	Mainte. Cost	Other E. Cost	Total		Foreign Funds		Local Funds	Total
																P. Repay.	Interest	Total		
	1997	0	0	0	1,522	0	1,522	-1,522	0	1,522	-1,280	0	0	0	0	0	0	0	0	0
	1998	0	34	34	20,306	0	20,306	-20,273	32	19,168	-16,095	0	0	0	0	0	34	34	0	34
	1999	0	482	482	17,969	0	17,969	-17,487	430	16,011	-13,105	0	0	0	0	0	482	482	0	482
1	2000	809	1,079	1,888	0	764	764	1,124	1,588	643	795	81	579	105	764	0	880	880	199	1,079
2	2001	1,077	1,079	2,156	0	764	764	1,392	1,712	607	930	81	579	105	764	0	880	880	199	1,079
3	2002	1,349	1,079	2,428	0	764	764	1,664	1,819	573	1,049	81	579	105	764	0	880	880	199	1,079
4	2003	1,673	1,079	2,752	0	764	764	1,988	1,946	540	1,183	81	579	105	764	0	880	880	199	1,079
5	2004	2,022	1,079	3,100	0	764	764	2,336	2,070	510	1,312	81	579	105	764	0	880	880	199	1,079
6	2005	2,393	1,079	3,472	0	764	764	2,708	2,188	482	1,436	81	579	105	764	0	880	880	199	1,079
7	2006	2,393	1,079	3,472	0	764	764	2,708	2,066	455	1,355	81	579	105	764	0	880	880	199	1,079
8	2007	2,393	1,079	3,472	0	764	764	2,708	1,950	429	1,279	81	579	105	764	0	880	880	199	1,079
9	2008	2,393	1,143	3,537	0	764	764	2,773	1,875	405	1,236	81	579	105	764	65	880	944	199	1,143
10	2009	2,393	2,005	4,398	917	764	1,681	2,717	2,201	841	1,144	81	579	105	764	928	878	1,806	199	2,005
11	2010	2,393	2,744	5,137	0	764	764	4,374	2,427	361	1,738	81	579	105	764	1,691	854	2,545	199	2,744
12	2011	2,393	2,700	5,093	0	764	764	4,330	2,271	341	1,624	81	579	105	764	1,691	810	2,501	199	2,700
13	2012	2,393	2,656	5,050	0	764	764	4,286	2,125	322	1,517	81	579	105	764	1,691	766	2,457	199	2,656
14	2013	2,393	2,612	5,006	0	764	764	4,242	1,989	304	1,417	81	579	105	764	1,691	722	2,413	199	2,612
15	2014	2,393	2,568	4,962	0	764	764	4,198	1,861	286	1,324	81	579	105	764	1,691	678	2,369	199	2,568
16	2015	2,393	2,524	4,918	0	764	764	4,154	1,741	270	1,237	81	579	105	764	1,691	634	2,325	199	2,524
17	2016	2,393	2,480	4,874	0	764	764	4,110	1,628	255	1,155	81	579	105	764	1,691	590	2,281	199	2,480
18	2017	2,393	2,436	4,830	0	764	764	4,066	1,523	241	1,079	81	579	105	764	1,691	546	2,237	199	2,436
19	2018	2,393	2,392	4,786	0	764	764	4,022	1,425	227	1,007	81	579	105	764	1,691	502	2,193	199	2,392
20	2019	2,393	2,348	4,742	2,586	764	3,349	1,392	1,333	941	329	81	579	105	764	1,691	458	2,149	199	2,348
21	2020	2,393	2,304	4,698	0	764	764	3,934	1,246	203	878	81	579	105	764	1,691	414	2,105	199	2,304
22	2021	2,393	2,260	4,654	0	764	764	3,890	1,165	191	819	81	579	105	764	1,691	370	2,061	199	2,260
23	2022	2,393	2,215	4,610	0	764	764	3,846	1,090	181	765	81	579	105	764	1,691	326	2,017	199	2,215
24	2023	2,393	2,172	4,566	0	764	764	3,802	1,019	170	713	81	579	105	764	1,691	282	1,973	199	2,172
25	2024	2,393	2,128	4,522	2,772	764	3,536	986	952	745	175	81	579	105	764	1,691	238	1,929	199	2,128
26	2025	2,393	2,084	4,478	0	764	764	3,714	890	152	621	81	579	105	764	1,691	194	1,885	199	2,084
27	2026	2,393	2,040	4,434	0	764	764	3,670	832	143	579	81	579	105	764	1,691	150	1,841	199	2,040
28	2027	2,393	1,997	4,390	0	764	764	3,626	778	135	540	81	579	105	764	1,691	106	1,798	199	1,997
29	2028	2,393	1,888	4,281	0	764	764	3,517	716	128	495	81	579	105	764	1,627	62	1,689	199	1,888
30	2029	2,393	983	3,376	-3,052	764	-2,288	5,664	533	-361	752	81	579	105	764	764	20	784	199	983
	Total	66,765	57,828	124,593	43,020	22,919	65,938	58,654	47,419	47,419	0	2,418	17,357	3,143	22,919	33,828	18,030	51,858	5,970	57,828

Appendix 12-4 Financial Statement for Short-term Project (Port of Kupang)

Case D

PROFIT AND LOSS STATEMENT (UNIT: Million Rp.)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Operating Revenue	0	0	0	809	1,077	1,349	1,673	2,022	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393	2,393
Operating Expenses	0	0	0	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799	1,799
Personnel	0	0	0	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
Maintenance and repair	0	0	0	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579
Other expenditure	0	0	0	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
Depreciation costs	0	0	0	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035
Net Operating Income	0	0	0	-989	-721	-449	-126	223	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595
Non-operating Revenues	0	0	0	0	7	55	151	307	486	688	900	1,121	1,351	1,454	1,699	1,955	2,222	2,501	2,792	3,096	3,413	3,744	4,089	4,062	4,422	4,797	5,189	5,598	5,609	6,036	6,482	6,948	7,434
Interest on deposit	0	0	0	0	7	55	151	307	486	688	900	1,121	1,351	1,454	1,699	1,955	2,222	2,501	2,792	3,096	3,413	3,744	4,089	4,062	4,422	4,797	5,189	5,598	5,609	6,036	6,482	6,948	7,434
Non-operating Expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest on long-term loans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest on short-term loans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Income Before Tax	0	0	0	-989	-714	-394	25	530	1,080	1,283	1,495	1,715	1,946	2,049	2,294	2,550	2,817	3,096	3,387	3,690	4,007	4,339	4,684	4,657	5,016	5,392	5,784	6,193	6,204	6,631	7,077	7,543	8,029
Income Tax	0	0	0	0	0	0	9	186	378	449	523	600	681	717	803	892	986	1,083	1,185	1,292	1,403	1,518	1,639	1,630	1,756	1,887	2,024	2,167	2,171	2,321	2,477	2,640	2,810
Net Income After Tax	0	0	0	-989	-714	-394	16	345	702	834	971	1,115	1,265	1,332	1,491	1,657	1,831	2,012	2,201	2,399	2,605	2,820	3,045	3,027	3,261	3,505	3,759	4,025	4,032	4,310	4,600	4,903	5,219
(Contribution To the Government)	0	0	0	0	0	0	9	190	386	459	534	613	696	732	820	912	1,007	1,107	1,211	1,319	1,433	1,551	1,675	1,665	1,793	1,928	2,068	2,214	2,218	2,371	2,530	2,697	2,870
Net Income After Contribution	0	0	0	-989	-714	-394	7	155	316	375	437	502	569	599	671	746	824	905	991	1,079	1,172	1,269	1,370	1,362	1,467	1,577	1,692	1,811	1,815	1,940	2,070	2,206	2,348
Retained Earnings	0	0	0	-989	-1,704	-2,098	-2,091	-1,936	-1,620	-1,244	-807	-305	264	863	1,534	2,280	3,104	4,009	5,000	6,079	7,251	8,520	9,890	11,253	12,720	14,297	15,989	17,800	19,615	21,554	23,624	25,830	28,179

CASH FLOW STATEMENT (Unit: Million Rp.)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Cash Beginning	0	0	0	0	45	366	1,006	2,048	3,238	4,588	5,998	7,470	9,007	9,694	11,328	13,033	14,814	16,672	18,612	20,638	22,752	24,959	27,262	27,081	29,478	31,980	34,592	37,318	37,392	40,241	43,216	46,320	49,561
Cash Inflow (excluding G. Funds)	0	0	0	45	320	640	1,060	1,565	2,115	2,318	2,529	2,750	2,980	3,083	3,329	3,584	3,851	4,130	4,421	4,725	5,042	5,373	5,719	5,692	6,051	6,426	6,818	7,227	7,238	7,666	8,112	8,577	9,064
Net operating income	0	0	0	-989	-721	-449	-126	223	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595
Depreciation costs	0	0	0	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035
Long-term loans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest on deposits	0	0	0	0	7	55	151	307	486	688	900	1,121	1,351	1,454	1,699	1,955	2,222	2,501	2,792	3,096	3,413	3,744	4,089	4,062	4,422	4,797	5,189	5,598	5,609	6,036	6,482	6,948	7,434
Cash Outflow (excluding G. Funds)	0	0	0	0	0	0	18	375	764	908	1,087	1,214	2,293	1,450	1,623	1,804	1,993	2,190	2,396	2,611	2,835	3,070	5,899	3,295	3,549	3,815	4,092	7,153	4,389	4,691	5,007	5,337	5,680
Investment	0	0	0	0	0	0	0	0	0	0	0	0	917	0	0	0	0	0	0	0	0	0	2,586	0	0	0	0	2,772	0	0	0	0	0
Repayment for long-term loans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest on long-term loans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Income Tax	0	0	0	0	0	0	9	186	378	449	523	600	681	717	803	892	986	1,083	1,185	1,292	1,403	1,518	1,639	1,630	1,756	1,887	2,024	2,167	2,171	2,321	2,477	2,640	2,810
(Contribution to the Government)	0	0	0	0	0	0	9	190	386	459	534	613	696	732	820	912	1,007	1,107	1,211	1,319	1,433	1,551	1,675	1,665	1,793	1,928	2,068	2,214	2,218	2,371	2,530	2,697	2,870
Interest on short-term loans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash Inflow - Cash Outflow	0	0	0	45	320	640	1,042	1,190	1,351	1,410	1,472	1,536	687	1,634	1,706	1,780	1,859	1,940	2,025	2,114	2,207	2,304	-181	2,397	2,502	2,612	2,726	74	2,849	2,974	3,105	3,241	3,383
Cash Ending	0	0	0	45	366	1,006	2,048	3,238	4,588	5,998	7,470	9,007	9,694	11,328	13,033	14,814	16,672	18,612	20,638	22,752	24,959	27,262	27,081	29,478	31,980	34,592	37,318	37,392	40,241	43,216	46,320	49,561	52,944
Cash excess	0	0	0	45	366	1,006	2,048	3,238	4,588	5,998	7,470	9,007	9,694	11,328	13,033	14,814	16,672	18,612	20,638	22,752	24,959	27,262	27,081	29,478	31,980	34,592	37,318	37,392	40,241	43,216	46,320	49,561	52,944
Cash shortage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

BALANCE SHEET (UNIT: Million Rp.)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
(Assets)																																	
Current Assets	0	0	0	45	366	1,006	2,048	3,238	4,588	5,998	7,470	9,007	9,694	11,328	13,033	14,814	16,672	18,612	20,638	22,752	24,959	27,262	27,081	29,478	31,980	34,592	37,318	37,392	40,241	43,216	46,320	49,561	52,944
Cash & Deposit	0	0	0	45	366	1,006	2,048	3,238	4,588	5,998	7,470	9,007	9,694	11,328	13,033	14,814	16,672	18,612	20,638	22,752	24,959	27,262	27,081	29,478	31,980	34,592	37,318	37,392	40,241	43,216	46,320	49,561	52,944
Fixed Assets	1,522	21,828	39,797	38,763	37,728	36,693	35,659	34,624	33,589	32,555	31,520	30,485	30,368	29,333	28,298	27,264	26,229	25,194	24,160	23,125	22,090	21,056	22,606	21,572	20,537	19,503	18,468	20,205	19,171	18,136	17,101	16,067	15,032
Construction costs	1,522	21,828	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	40,714	40,714	40,714	40,714	40,714	40,714	40,714	40,714	40,714	40,714	43,300	43,300	43,300	43,300	43,300	46,072	46,072	46,072	46,072	46,072	46,072
Accumulated depreciation	0	0	0	1,035	2,069	3,104	4,139	5,173	6,208	7,243	8,277	9,312	10,347	11,381	12,416	13,451	14,485	15,520	16,555	17,589	18,624	19,659	20,693	21,728	22,762	23,797	24,832	25,866	26,901	27,936	28,970	30,005	31,040
Net fixed assets	1,522	21,828	39,797	38,763	37,728	36,693	35,659	34,624	33,589	32,555	31,520	30,485	30,368	29,333	28,298	27,264	26,229	25,194	24,160	23,125	22,090	21,056	22,606	21,572	20,537	19,503	18,468	20,205	19,171	18,136	17,101	16,067	15,032
Total Assets	1,522	21,828	39,797	38,808	38,094	37,699	37,707	37,862	38,178	38,553	38,990	39,492	40,061	40,660	41,331	42,077	42,901	43,807	44,797	45,877	47,049	48,318	49,688	51,050	52,517	54,094	55,786	57,597	59,412	61,352	63,422	65,628	67,976
(Liabilities and capital)																																	
Liabilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Current Liabilities (cross subsidy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed Liabilities (Long-term loan)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Capital	1,522	21,828	39,797	38,808	38,094	37,699	37,707	37,862	38,178	38,553	38,990	39,492	40,061	40,660	41,331	42,077	42,901	43,807	44,797	45,877	47,049	48,318	49,688	51,050	52,517	54,094	55,786	57,597	59,412	61,352	63,422	65,628	67,976
Investment In Kind By Gov. Funds	1,522	21,828	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797	39,797
Net Income After Tax and Cont.	0	0	0	-989	-714	-394	7	155	316	375	437	502	569	599	671	746	824	905	991	1,079	1,172	1,269	1,370	1,362	1,467	1,577	1,692	1,811	1,815	1,940	2,070	2,206	2,348
Retained Earnings	0	0	0	-989	-1,704	-2,098	-2,091	-1,936	-1,620	-1,244	-807	-305	264	863	1,534	2,280	3,104	4,009	5,000	6,079	7,251	8,520	9,890	11,253	12,720	14,297	15,989	17,800	19,615	21,554	23,624	25,830	28,179
Total Liabilities and capital	1,522	21,828	39,797	38,808	38,094	37,699	37,707	37,862	38,178	38,553	38,990	39,492	40,061	40,660	41,331	42,077	42,901	43,807	44,797	45,877	47,049	48,318	49,688	51,050	52,517	54,094	55,786	57,597	59,412	61,352	63,422	65,628	67,976

FINANCIAL INDICATORS

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Working Ratio (%)				94.4%	70.9%	56.6%	45.7%	37.8%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%
Operating Ratio (%)				222.2%	168.9%	133.3%	107.5%	89.0%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%	75.1%
Rate of Return on Net Fixed Assets				-2.6%	-1.9%	-1.2%	-0.4%	0.6%	1.8%	1.8%	1.9%	2.0%	2.0%	2.0%	2.1%	2.2%	2.3%	2.4%	2.5%	2.6%	2.7%	2.8%	2.6%	2.8%	2.9%	3.0%	3.2%	2.9%	3.1%	3.3%	3.5%	3.7%	4.0%