III. Case Study on Development of Bojonegara Port

1. Review of Existing Plan

1.1. The Study for Development of the Greater Jakarta Metropolitan Ports in the Republic of Indonesia

114. The JICA Study 2003 proposed to develop a new container handling port in Bojonegara(Figure 1.1-1).

115. Basic functions of the Bojonegara new port are set as follows, based on the development target and their potentials: complementary gate-way port of Tanjung Priok and basic and strategic logistic infrastructure for regional development of Banten Province.

116. In order to fulfill the basic functions of Bojonegara port stated above, following project components are recommended to be implemented toward 2025:

- Development of new container terminal with related port facilities
- To provide good access to/from the port
- To enhance regional port-related industrial development
- To minimize the impact of port development on the surrounding environment

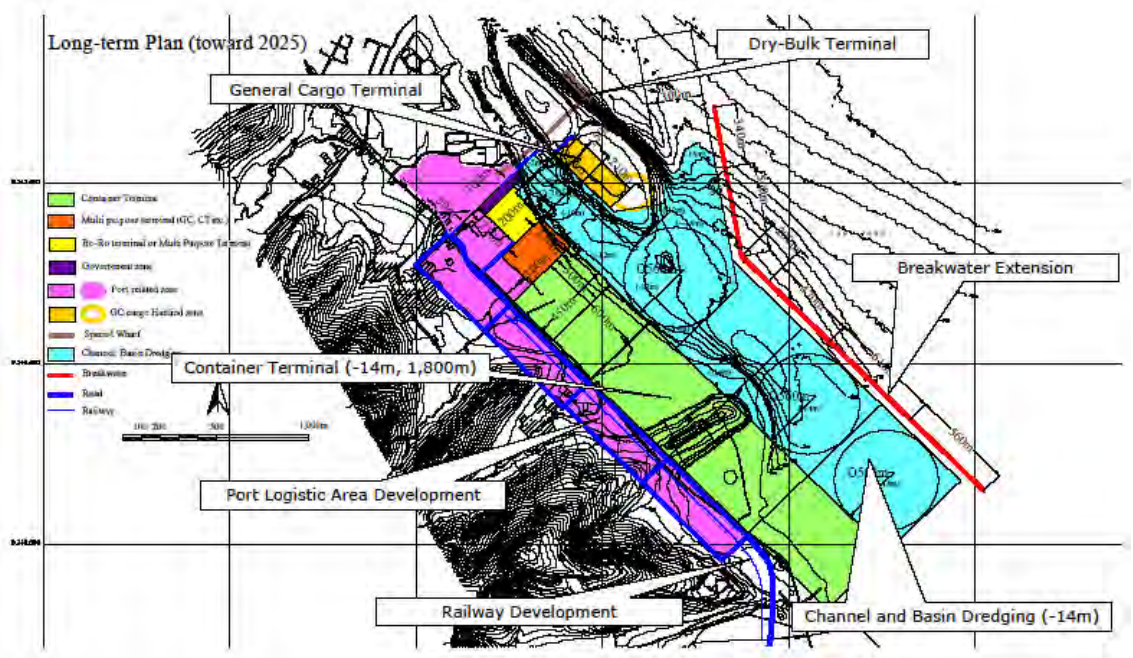


Figure 1.1-1 Long-term Plan of Bojonegara Port toward 2025

1.2. Master Plan and Current Condition of Bojonegara Port

A. Port

117. Minister of Transportation issued Regulation regarding Bojonegara Port Master Plan of Banten Province on 03 October 2005, which was in line with the outcome of The Study for Development of the Greater Jakarta Metropolitan Ports in the Republic of Indonesia shown in Figure1.1-1.

118. Above mentioned master plan was, however, slightly changed by IPC2, partly due to the newly arisen oil refinery project behind the proposed terminal area.

119. Based on this new master plan, IPC2 has already constructed 120m quay wall which is composed of a part multi-purpose terminal on the site originally proposed for container terminal as shown in Figure 1.2-1.

120. Development of a coal terminal at Bojonegara port is also proposed by the power and gas industries.

121. Development of Special Economic Zone (SEZ) has been proposed in Serang Regency, and Bojonegara port zone is one of the candidates.

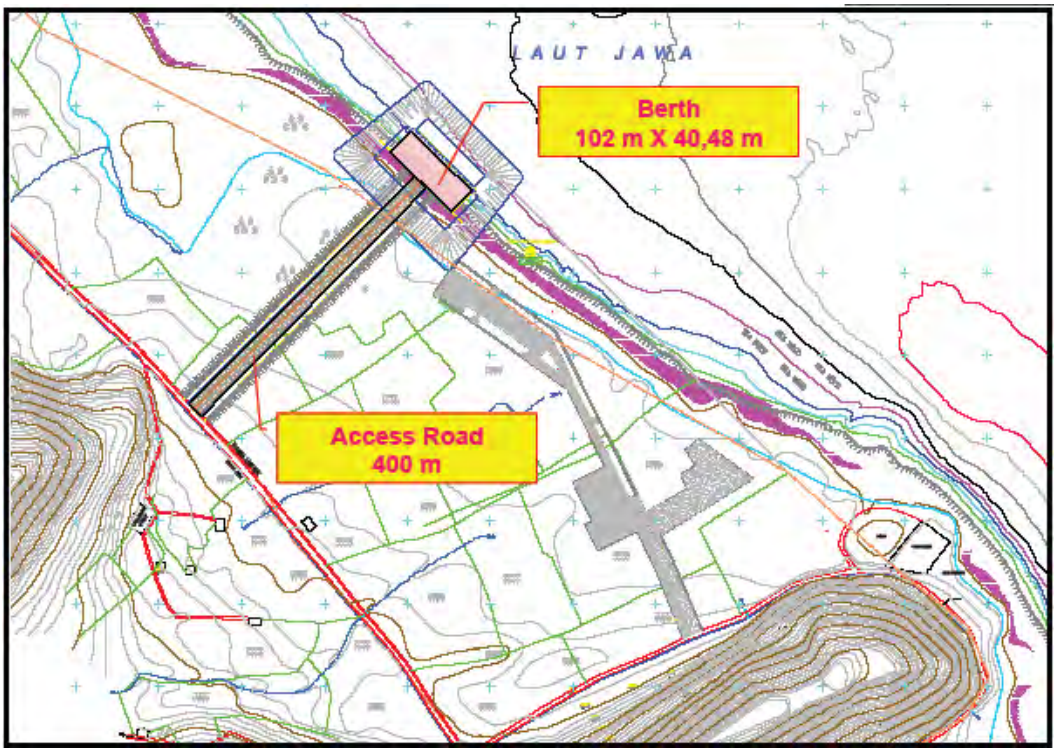


Figure 1.2-1 First Stage Section I Berth Development

B. Access Transport

122. The existing access road to the Bojonegara site from the Cilegon Timur junction of the Jakarta-Merak toll way is 15.4 km in length and 2-lane lightweight load asphalt paved. There is a bridge with steel member trusses whose slab and concrete foundation are heavily damaged. It seems that the bridge requires rehabilitation and reinforcement works.

123. According to the JICA Study 2003, the capacity per lane of the existing access road to Bojonegara port is estimated at 2,680 pcu/hr. The present access road has capacity for accommodating the present regional traffic volume. However, for accommodating the future traffic volume, the present road conditions will not be sufficient, and additional lanes on both sides of the road will be required.

124. Ministry decree was issued in August 2005 to develop the Toll road to Bojonegara to support the international port development.

125. DGH invited the tender for development of the access road by the toll way from private investors in 2005. However no investors submitted the tender proposal because the time of opening the port is not fixed, and distance by the toll way is short.

126. DGH suggested including the access road construction works by the toll way system as parts of the port project components. The construction works of the road and port would be implemented by the respective department of the Ministries.

2. Proposed Development Plan for Case Study

2.1. Estimated Throughput

127. Based on the result of forecast demand, the capacity of international container handling at Tg. Priok port will reach the limits at around 2012. Therefore, the overflow portion has to be coped with at Bojonegara new port.

128. Estimated figure in Table 2.1-1 is based on the assumption that Bojonegara port will be opened at year 2012, the same year assumed in the study in 2003.

Table 2.1-1 Revised Estimated Throughput

	Total	Tg. Priok			Bojonegara
		Sub-total	Internationa	Domestic	International
1991	736,370	736,370	717,563	18,807	
1992	866,717	866,717	841,640	25,077	
1993	1,054,152	1,054,152	1,012,690	41,462	
1994	1,270,094	1,270,094	1,193,115	76,979	
1995	1,630,320	1,630,320	1,479,721	150,599	
1996	1,606,797	1,606,797	1,466,356	140,441	
1997	1,908,716	1,908,716	1,721,876	186,840	
1998	1,897,961	1,897,961	1,754,636	143,325	
1999	2,118,224	2,118,224	1,909,267	208,957	
2000	2,313,272	2,313,272	2,076,181	237,091	
2001	2,248,802	2,248,802	2,049,884	198,918	
2002	2,568,926	2,568,926	2,212,017	356,909	
2003	2,758,809	2,758,809	2,310,017	448,792	
2004	3,187,055	3,187,055	2,621,087	565,968	
2005	3,330,395	3,330,395	2,706,776	623,619	
2006	3,370,729	3,370,729	2,735,774	634,955	
2007	3,691,918	3,691,918	2,925,990	765,928	
2008	3,984,290	3,984,290	3,146,732	837,558	
2009	4,303,470	4,303,470	3,373,038	930,432	
2010	4,658,438	4,658,438	3,612,490	1,045,948	
2011	5,034,702	5,034,702	3,866,308	1,168,394	
2012	5,433,542	5,387,187	4,089,000	1,298,187	46,355
2013	5,785,852	5,501,838	4,089,000	1,412,838	284,014
2014	6,155,777	5,622,221	4,089,000	1,533,221	533,556
2015	6,544,198	5,748,624	4,089,000	1,659,624	795,574
2016	6,952,040	5,881,346	4,089,000	1,792,346	1,070,694
2017	7,380,274	6,020,705	4,089,000	1,931,705	1,359,569
2018	7,829,920	6,167,032	4,089,000	2,078,032	1,662,889
2019	8,302,048	6,320,675	4,089,000	2,231,675	1,981,374
2020	8,797,783	6,482,000	4,089,000	2,393,000	2,315,783

129. Considering the rehabilitation plan of Pier III where the north end part will be used for international container and the situation that Bojonegara port will be difficult to open in year 2012, Tg. Priok port has to manage to handle about 5.43 million TEU with the facilities after expansion of KOJA and rehabilitated Pier III under possible condition that many of the vessels shall be forced to wait for berthing.

2.2. Case Study Facilities for Bojonegara Container Terminal

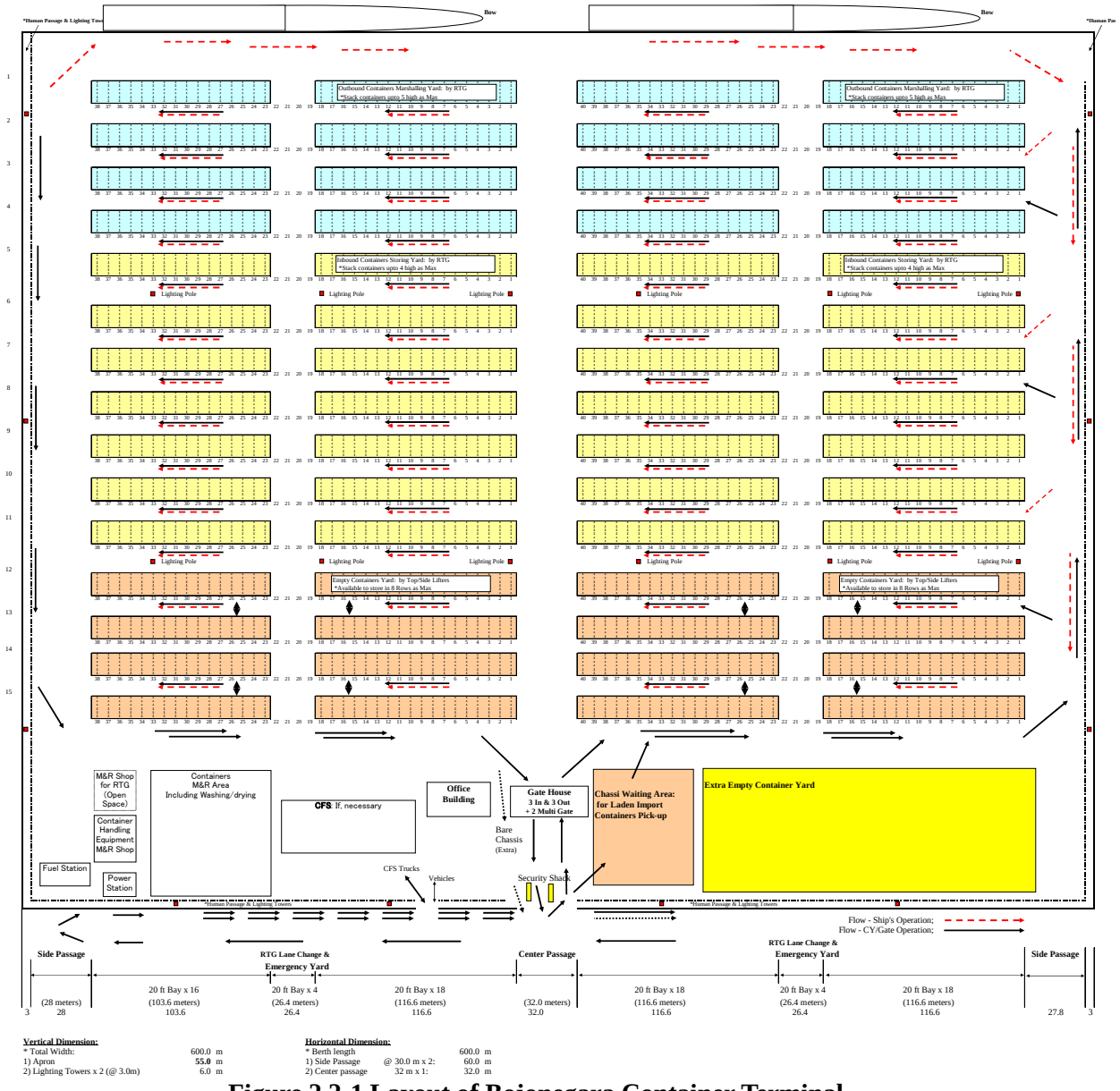
130. Assuming four to five years will be required to prepare the investment and construct the container terminal in Bojonegara port , container terminal will possibly be opened at around 2015 and estimated demand for terminal will be around 0.8 to 0.9 million TEU according to the new estimate shown in Table 2.1-1.

131. In order to cope with this situation, 2 berths of container terminals and 204m of the multipurpose terminal to be used for handling construction materials for oil refinery and necessary length of breakwater, channels and basins for these terminals as well as access road to the port is necessary to be constructed by around year 2015.

132. Bojonegara Port container terminal is planned to be used for the gateway terminal for Indonesia. Considering the recent trend of vessel type in this area, planned vessel is considered to be around 50,000DWT with LOE, 270m and full draft 12.7m (Necessary water depth is 14m).

133. Planned terminal of 2 berths (300mx600m each) with necessary equipment will be able to handle 0.7~0.9 million TEU according to the frequency of terminal calls by different vessel type and mixture rate of each box type of container.

134. Planned Layout is shown in Figure 2.2-1.



Vertical Dimension:

* Total Width:	600.0	m
1) Apron	55.0	m
2) Lighting Towers x 2 (@ 3.0m)	6.0	m

Horizontal Dimension:

* Berth length		600.0	m
1) Side Passage	@ 30.0 m x 2:	60.0	m
2) Center passage	32 m x 1:	32.0	m

Figure 2.2-1 Layout of Bojonegara Container Terminal

2.3. Case Study Facility of Access Road

135. It is important to mention that the development of the access road to the Bojonegara site shall be implemented at the same time with the port development program, since the port service will require proper land transport service. Both infrastructures shall be developed in a synchronized manne

136. For development plan up to 2015, the width of the existing road lane shall be widened to 3.5 m with 1.0m shoulders on both sides and divided with 2- way road. The existing pavement and shoulder shall be reinforced with overlay of asphalt pavement and base coarse foundation on the existing asphalt pavement.

137. The heavily damaged and worn out 7 bridges of the existing access road shall be replaced with a new structure for heavy loaded trucks and their foundation and pavement shall be reinforced.

2.4. Case Study Facility of Breakwater, Channel and Basin

138. Then the Study Team applied the same data as in the JICA Study 2003, but according to the layout change in the container terminal caused by the already constructed multipurpose terminal by IPC2, 1500m breakwater and channel with -14m depth are planned as shown in Figure 2.4-1.

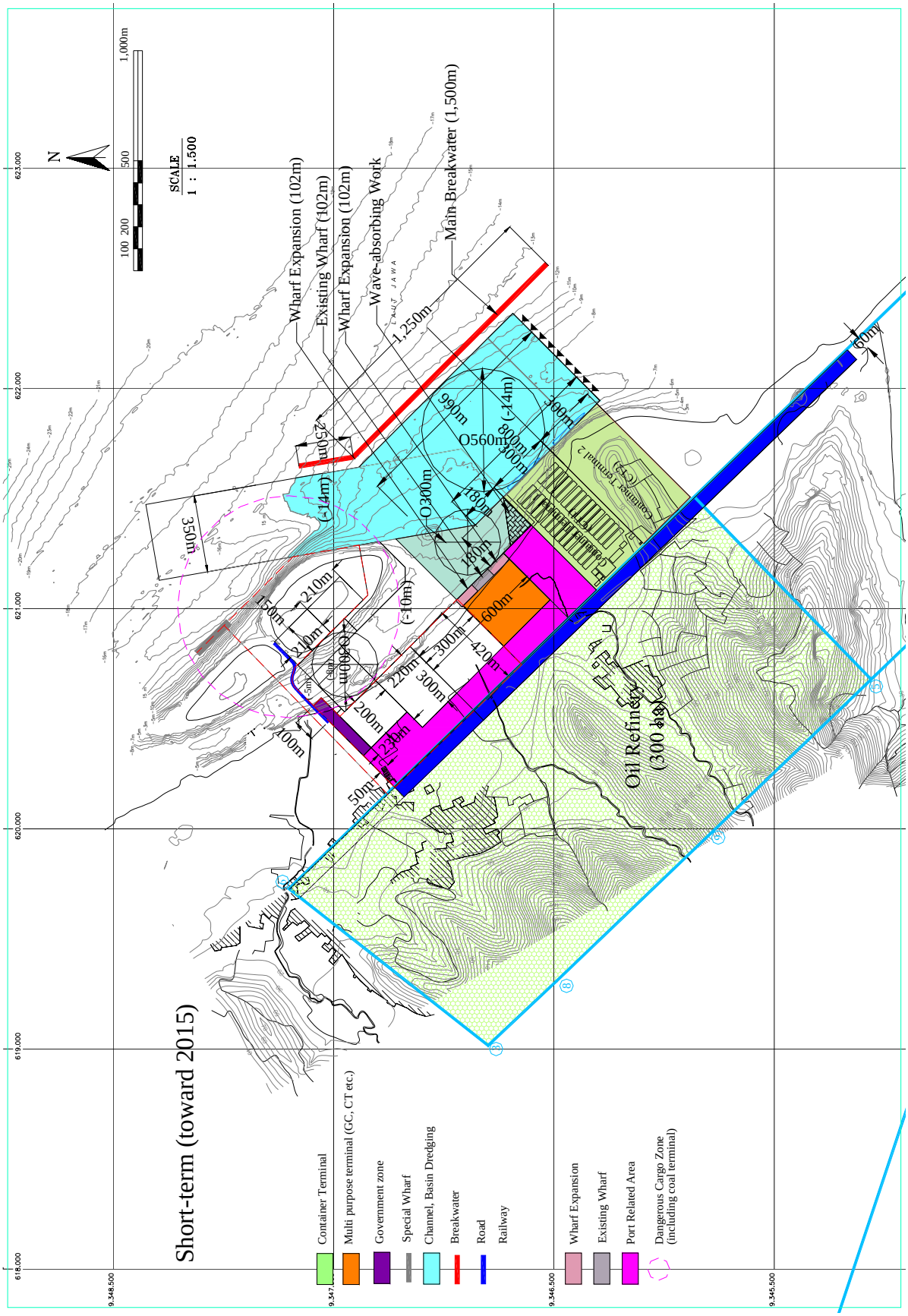


Figure 2.4-1 Proposed Development Plan

3. Cost Estimate of Case Study Facilities

139. Project cost for the development of Bojonegara new port and construction of port access road is estimated in Table 3.1-1and Table 3.1-2.

Table 3.1-1 Project Cost Estimate of Bonjonegara Port Development(2015; 1/2)

Description	Unit	Quantity	Local Portion (1,000 Rupiah)		Foreign Portion (1,000 Rupiah)		Remarks
			Unit Price	Amount	Unit Price	Amount	
1. General				52,251,550		85,992,815	Total **5 %** of the Direct Construction Cost.
(1) Mobilization / Demobilization	l.s.	1		20,900,620		34,397,126	2.0 % of DC
(2) Temporary Work Yard	l.s.	1		15,675,465		25,797,844	1.5 % of DC
(3) Benchmark and Preparation Works	l.s.	1		10,450,310		17,198,563	1.0 % of DC
(4) Testing Laboratory	l.s.	1		4,180,124		6,879,425	0.4 % of DC
(5) Submittals	l.s.	1		1,045,031		1,719,856	0.1 % of DC
2. Breakwater	m	1,500	111,681	167,521,986	87,282	130,923,725	Design depth in average: -12 m; 615,500 m^3
3. Channel and Basin				38,571,394		209,467,694	After deducting the contract volume (2.4 million m^3) of dredging executed by IPC2
Dredging							
Alluvium Component	m^3	2,550,000	7.5	19,212,300	48.5	123,763,325	85 %; Grab Dredging; 5.1 USD/m^3
Weathered Rock Component	m^3	300,000	14.5	4,359,093	85.7	25,704,369	10 %; Grab Dredging; 9.2 USD/m^3
Hard Rock Component	m^3	150,000	100	15,000,000	400	60,000,000	5 %; Grab Dredging after Blasting
4. Container Terminals (CT1 and CT2)				589,204,621		324,031,790	
(1) Quay Wall Construction (-14 m)	m	600	171,588	102,953,009	141,196	84,717,844	Caisson; L: 20 m x W: 13.5 m x D: 15.5 m
(2) Onland Excavation	m^3	2,500,000	59	148,320,152	32	79,440,776	Tanjung Awuran, and road 60 m
(3) Revetment (West and East ends)	m	300	41,806	12,541,841	41,745	12,523,587	Gravity Type (Concrete Block; Shoreline ~-8 m)
(4) Reclamation (+3.5 m)	m^3	575,000	242	139,149,214	48	27,674,038	
(5) Stacking Yard Pavement	m^2	152,000	540	82,080,000	360	54,720,000	15 lanes x 23.5 m x (16 Bays + 17 Bays)
(6) Passage Pavement	m^2	178,000	360	64,080,000	240	42,720,000	
(7) Utility Facilities	l.s.	1		40,080,406		22,235,547	10 % of above construction cost of terminal
5. Container Handling Equipment and Computer System				113,300,000		993,300,000	
(1) Quay Gantry Crane	unit	6	8,800,000	52,800,000	79,200,000	475,200,000	8.0 million USD/unit
(2) Rubber-tired Gantry Crane	unit	20	2,090,000	41,800,000	18,810,000	376,200,000	1.9 million USD/unit
(3) Side Lifter	unit	8	440,000	3,520,000	3,960,000	31,680,000	0.4 million USD/unit; empty container handling
(4) Tractor and Yard Chassis	set	33	220,000	7,260,000	1,980,000	65,340,000	0.2 million USD/unit
(5) Terminal Management Sysytem	l.s.	1	4,400,000	4,400,000	39,600,000	39,600,000	4 million USD/set
(6) PCs and Office Fittings	l.s.	1	3,520,000	3,520,000	5,280,000	5,280,000	0.8 million USD/set

Table 3.1-2 Project Cost Estimate of Bonjonegara Port Development(2015; 2/2)

Description	Unit	Quantity	Local Portion (1,000 Rupiah)		Foreign Portion (1,000 Rupiah)		Remarks
			Unit Price	Amount	Unit Price	Amount	
6. Terminal Buildings				31,020,000		7,755,000	
(1) Office Building	m^2	3,500	4,400	15,400,000	1,100	3,850,000	500 USD/m^2
(2) Maintenance and Repair Shop	m^2	2,800	3,080	8,624,000	770	2,156,000	Equipment: 2,300 m^2; container: 500 m^2
(3) Terminal Gate	m^2	2,700	1,760	4,752,000	440	1,188,000	200 USD/m^2
(4) Fuel Station	m^2	420	3,960	1,663,200	990	415,800	450 USD/m^2
(5) Miscellaneous	m^2	440	1,320	580,800	330	145,200	Garage for motor biles, workers' huts, etc.
7. Logistics Area				105,412,991		54,378,082	
(1) Revetment (-10 m)	m	180	69,677	12,541,841	69,575	12,523,587	Gravity Type (Concrete Block)
(2) Reclamation (+3.5 m)	m^3	151,200	242	36,590,193	48	7,277,069	Average elevation = +1.5 m
(3) Wave-absorbing Work	m^3	40,000	119	4,761,958	195	7,809,965	Rubble-stone Work;
(4) Yard Pavement	m^2	75,600	360	27,216,000	240	18,144,000	A: 180 m x 420 m
(5) Container Freight Station	m^2	6,400	2,300	14,720,000	575	3,680,000	250 USD/m^2
(6) Utility Facilities	l.s.	1		9,582,999		4,943,462	10 % of above construction cost
Direct Construction Cost (DC) of Port	l.s.	1		**1,045,030,993**		**1,719,856,292**	**Total (2 ~ 7)**
8. Port Access Road				64,165,500		132,217,313	14.5 km from Cilegon to Bojonegara
(1) General	l.s.	1		3,055,500		6,296,063	Mobilization, temporary works, site clearance
(2) National Road At-grade	m	14,500	2,700	39,150,000	6,300	91,350,000	RoW = 38 m, 2 Lanes
(3) Bridges	m^2	705	10,000	7,050,000	15,000	10,575,000	5 River bridges; JICA Study (2003)
(4) Underpass and Box-culvert	Nos	20	600,000	12,000,000	900,000	18,000,000	
(5)Utility Facilities	l.s.	1		2,910,000		5,996,250	5 % of above Construction Cost
Land Acquisition and Compensation	m^2	350,000	250	**87,500,000**			14.5 km from Cilegon to Bojonegara
Total Project Cost (TC)				**1,248,948,042**		**1,938,066,419**	**Total (1 ~ 8)**
9. Project Related Expenses (PE)				49,957,922		77,522,657	
(1) Administration Cost	l.s.	1		12,489,480		19,380,664	1 % of TC
(2) Engineering Fee	l.s.	1		37,468,441		58,141,993	3 % of TC
10. Grand Total Cost (TC +PE)				**1,298,905,964**		**2,015,589,076**	**3,314,495,040**
VAT (10 %)				129,890,596		201,558,908	**331,449,504**

4. Implementation Plan

A. Preliminary Implementation Schedule

140. Preliminary implementation schedule of the Bojonegara port development and disbursement schedule are presented in Table 4.1-1 and Table 4.1-2. It is assumed that around three years will be required for the financing process, selection of engineering consultants and contractors etc., and that another three years will be required for the construction of port facilities. Development of the super-structure of the container terminal by the private sector could be started in the beginning of the 6th year.

B. Public and Private Partnership

141. Investment scheme of the Bojonegara new port development by Public-Private Partnership (PPP) as a base case is conceived as follows; development and construction of the infrastructure of the port shall be borne by the public sector side, while the super-structure of the port and port operation shall be borne by the private sector side.

142. Another possible PPP schemes for the project are; (a) breakwater, channels and basins to be used commonly by vessels using all terminals in the port are provided by the public sector and terminal facilities and equipment are provided by the private sector on BOT system, and (b) all the facilities including breakwater, channels and basins and terminals are provided by the private sector under so called master concession.

Table 4.1-1 Bonjonegara Port Construction Schedule and Disbursement(toward 2015; 1/2)

Description	Unit	Quantity	Public Investment (1,000 Rupiah)	Private Investment (1,000 Rupiah)	2009	2010	2011	2012	2013	2014	2015	2016
0. Administrative Procedures												
(1) Public Sector		Feasibility Study										
		Loan Agreement										
		Procurement of Consultants										
		Survey and Detailed Design for Port Construction										
		Selection of Contractor (Port Construction)										
		Construction of Port and Procurement										
		Selection of Terminal Operator										
(2) Private Sector		Detailed Design of Terminal Facilities						28,282,684	14,141,342	14,141,342	37,710,246	
		Selection of Contractor (Terminal)								21,984,375	21,984,375	
		Development of Container Terminal							119,378,285	89,533,713	89,533,713	
		Procurement of Cargo Equipment										
1. General (Indirect Cost)			94,275,614						62,009,772	86,813,681	99,215,635	
				43,968,750								
2. Breakwater	m	1,500	298,445,712						37,534,170	75,068,341	75,068,341	
3. Channel and Basin									91,104,371	68,328,278	68,328,278	
Dredging	m^3	3,000,000	248,039,088						8,271,591	8,522,245	8,271,591	
4. Container Terminals (CT1 and CT2)									41,705,813	83,411,626	41,705,813	
(1) Quay Wall Construction (-14 m)	m	600	187,670,852							68,400,000	68,400,000	
(2) Onland Excavation	m^3	2,500,000	227,760,928							53,400,000	53,400,000	
(3) Revetment (West and East ends)	m	300	25,065,427							31,157,977	31,157,977	
(4) Reclamation (+3.5 m)	m^3	575,000	166,823,251									
(5) Stacking Yard Pavement	m^2	152,000		136,800,000								
(6) Passage Pavement	m^2	178,000		106,800,000								
(7) Utility Facilities	l.s.	1	62,315,953									

Table 4.1-2 Bonjonegara Port Construction Schedule and Disbursement(toward 2015; 2/2)

Description	Unit	Quantity	Public Investment (1,000 Rupiah)	Private Investment (1,000 Rupiah)	2009	2010	2011	2012	2013	2014	2015	2016
5. Container Handling Equipment / Computer System												
(1) Quay Gantry Crane	unit	6	528,000,000						105,600,000	211,200,000	211,200,000	
(2) Rubber-tired Gantry Crane	unit	20		418,000,000						229,900,000	188,100,000	
(3) Side Lifter	unit	8		35,200,000						22,000,000	13,200,000	
(4) Tractor and Yard Chassis	set	33		72,600,000						44,000,000	28,600,000	
(5) Terminal Management Sysytem	l.s.	1		44,000,000						44,000,000		
(6) PCs and Office Fittings	l.s.	1		8,800,000						8,800,000		
6. Terminal Buildings				38,775,000						38,775,000		
7. Logistics Area												
(1) Revetment (-10 m)	m	180	25,065,427							10,026,171	15,039,256	
(2) Reclamation (+3.5 m)	m^3	151,200	43,867,262								43,867,262	
(3) Wave-absorbing Work	m^3	40,000	12,571,923								12,571,923	
(4) Yard Pavement	m^2	75,600	45,360,000								45,360,000	
(5) Container Freight Station	m^2	6,400		18,400,000							18,400,000	
(6) Utility Facilities	l.s.	1	14,526,461								14,526,461	
Direct Construction Cost (DC) of Port	l.s.	1	1,885,512,285	879,375,000								
10. Port Access Road			196,382,813						117,829,688	78,553,125		
Land Acquisition and Compensation	m^2	350,000	87,500,000					87,500,000				
11. Project Related Expenses (PE)												
(1) Administration Cost	l.s.	1	31,870,145				7,967,536	4,780,522	6,374,029	6,374,029	6,374,029	
(2) Engineering Fee	l.s.	1	95,610,434				23,902,608	14,341,565	19,122,087	19,122,087	19,122,087	
12. Grand Total Cost (TC +PE)			2,391,151,290	923,343,750								
VAT (10 %)			239,115,129	92,334,375								

5. Possible PPP Schemes and Financial Analysis

5.1. Premises on the Project

A. Initial Investment Costs

143. Initial investment costs are estimated in Table 5.1-1.

Table 5.1-1 Initial Investment Costs (Public + Private)

	Item	Approx. Q'ty		Total Cost '000 US$
	Construction Cost for Bojonegara Port			263,921
	1. General Cost	1	l.s.	12,568
	2. Breakwater	1,500	m	27,131
	3. Channel and Basin	3,000,000	m3	22,549
	4. Container Terminal			83,021
	5. Container Handling Equipment and Computer System			100,600
	6. Terminal Building	1	l.s.	3,525
	7. Port Related Area			14,526
	8. Port Access Road	15	km	-
	9. Land Aqusition / Compensation	25	ha	-
	11. Price Escalation			5,278
	Total Construction Cost			269,199
	13. Tender & Selecting Operator Assistance and Supervisio			7,918
	Total Construction Cost & Consulting Services			277,117
	14. Interest During Construction (IDC)			348
	BJN Total Direct Project Cost-1			277,465
	10. Physical Contingency			27,747
	BJN Total Direct Project Cost	1.15645		305,212
	15. Local Cost (Adiministration Cost + VAT)			30,785
	BJN Total Project Cost			335,997

Notes. 1US$=100Yen, 1US$=11,000Rp

B. Management and Operation Costs

144. Manning of the port authority and terminal operator are scheduled and management and operation costs of them are estimated.

C. Tariff and Duties

145. Tariff and duties are set taking the current level into consideration.

D. Estimated Scale of Business

146. Maximum capacity of the terminal (2 berths) is presumed as 900,000 TEU/year, considering the scale of the terminal and estimated vessel type and productivity of the terminal is also presumed.

5.2. Possible PPP schemes for development and operation of Bojonegara Container Terminal

147. The most popular form of PPP for the development and operation of container terminal is that basic infrastructure of the port including breakwater, channel and terminal infrastructure is provided by the port authority while superstructure of the terminal is provided by the terminal operator.

148. In some case of small scale port or the port where break water is not required such as river port, all the facilities and equipment are provided by the private sector and management and operation of the port is entrusted to the private sector under the so called master concession scheme.

149. In case of master concession, it often leads to monopolistic operation of the port by the concessionaire and it is technically difficult to oversee such an monopolistic behavior and hence it is not a desirable scheme.

150. In the case of master concession, public sector holds more than 51% share of the company for development and management of the port forming the joint venture company with potential concessionaire to practically control the management of the company.

151. Partial concession scheme is often seen in the case of container terminal development, and it includes BOT and joint development by the public sector and private sector.

152. Considering the characteristics mentioned above, following three cases are evaluated for the selection of PPP scheme in the green field port development of Bojonegara.

(i) Case-1: (partial concession/ joint development)

- Port authority provides the fundamental infrastructure (breakwater, channels and basins, quay wall and reclamation of the terminal with gantry cranes and access road)
- Terminal operator (concessionaire) provides the superstructure of the terminal and other equipment for the operation of the container terminal including RTGs
- PPP scheme applied is the concession to develop, manage and operate the container terminal which the port authority concede the concessionaire the rights to develop the superstructure and commercial operation of the terminal.

（Duration of the concession period should be decided based on the financial assessment under relevant concession conditions such as initial investment, reinvestment for renewal of equipment and facilities, maintenance obligation and concession fee etc. A 25~30 year period or more is common. Therefore, duration of the concession period of this case study is set at 30 years.）

(ii) Case-2: (partial concession /BOT)

- Port authority provides only fundamental infrastructure (breakwater, channel and basin, access road etc.)
- Concessionaire provides all the terminal facilities and equipment for the operation of the container terminal.
- PPP scheme applied is the BOT for the development, management and operation of the container terminal

(iii) Case-3: (master concession)

- Port authority give the authorization to develop, manage and operate the container port

including breakwater, channel and basins and access road to the concessionaire

- Concessionaire invests on whole project under the scheme of master concession

5.3. Financial Conditions of the Port Authority and the Concessionaire

153. For the purpose of financial analysis, financial conditions of the port authority and the concessionaire are set as shown in Table 5.3-1Table 5.3-1.

Discount rates of all cases are set as follows;

Port Authority: 1.44% (calculated from the interest rate of an international financial organization (0.1%) and market interest rates (15.0%) of Indonesia for local cost portion (shared 9% of total loan). However, the discount rate of case-3 is 0.0% because there is no initial investment.)

Terminal Operator: 10.5% (calculated from market interest rates (15.0%) of Indonesia and debt-equity ratio (70:30))

（One of the criteria for evaluating the financial viability of a project is that the FIRR which is one of the financial indicators should exceed the discount rate.）

Table 5.3-1 Financial Conditions of Port Authority and Terminal Operator

Case-1	Port Authority	Terminal Operator (Concessionaire)
1. Cost Allocation	Invest on infrastructure (breakwater, channel & basins, quay wall & Gantry Crane, land reclamation)	Superstructure and equipment
2. Financial Resource	International financial organization and bank (local portion)	bank (70%) and own equity (30%=$32mill)
3. Tax	non taxable	20% income tax
4. Maintenance	infrastructure & maintenance dredging	superstructure & other equipment
5. Depreciation	Infrastructure and Gantry Cranes	Superstructure and equipment
6. Concession fees	Fixed fee for terminal facilities equivalent to repayment of loan + lease fee for GCs +land & water rent +variable fee in terms of 5% revenue share	
7. Renewal cost for equipment	GCs by bank loan	other equipment by bank loan
Case-2	**Port Authority**	**Terminal Operator (Concessionaire)**
1. Cost Allocation	Investment on breakwater and channels	Investment on other infrastructure, superstructure and equipment
2. Financial Resource	International financing organization and bank loan (local portion)	bank (70%) and own equity (30%=$81mill)
3. Tax	non taxable	20% income tax
4. Maintenance	breakwater, channel	other infrastructure & superstructure
5. Depreciation	breakwater, channel	other infrastructure & superstructure
6. Concession fees	variable fee of 5% revenue share+land & water rent	
7. Renewal cost for equipment	not applicable	equipment by bank loan
Case-3	**Port Authority**	**Terminal Operator (Concessionaire)**
1. Cost Allocation	non initial investment	investment on all facilities and
2. Financial Resource	not applicable	bank (70%) and own equity (30%=$101mill)
3. Tax	non taxable	20% income tax
4. Maintenance	not applicable	maintenance of all the facilities and equipment
5. Depreciation	not applicable	Depreciation of all the facilities and equipment
6. Concession fees	Land and water rent + variable fee of 5% revenue share	
7. Renewal cost for equipment	not applicable	equipment by bank loan

5.4. Evaluation of PPP Scheme

A. Table of Financial Indicators and Financial Statements for the concession evaluation

154. In case-2 and case-3, in addition to the table of the financial indicators, the financial statements are attached to show that the cash flow of the terminal operating company will remain in red for a long time.

B. Result of Evaluation

155. Bojonegara Port Development Project was once tendered under the master concession scheme and resulted with no bidder.

156. In the case-3, it is assumed that debt/equity ratio of the concessionaire is 70/30 and hence for the case of master concession, concessionaire will require paid up share capital of more than $100 million which is such a huge amount to make concessionaire to hesitate to participate (see Table5.4-5~Table5.4-7).

157. In the case-1 where the key infrastructure is provided by the port authority financed by international financing body with fairly favorable condition, estimated financial statements both for the port authority and the concessionaire show reasonably sound throughout the concession term and it is said that this is the reasonable partnership between public and private (see Table 5.4-1).

158. In the case-2 where fundamental infrastructure is provided by the port authority and terminal is provided by the concessionaire on BOT system, financial indicators show that financial conditions both for the port authority and the concessionaire seem to be sound (see Table 5.4-2).

159. Cash flow statement shows, however, rather severe condition for initial 6 years for the concessionaire recording more than $10 million/year shortage (see Table 5.4-4).

160. It is, however, considered to overcome the situation by other possible countermeasures such as giving tax holidays for the initial stage of operation or decreasing the concession fee by the port authority.

161. Considering the results of case studies, it can be said that for the green field port which requires huge amount of initial investment for fundamental infrastructure like breakwater and channel, master concession is not suitable for PPP scheme, and either BOT for only terminal or joint development scheme is desirable.

Table 5.4-1 Result of Financial Analysis (Case-1): Bojonegara Port

Year of No.4-6 Q. Crane added	2016
Year of No.7 Q. Crane added	3000

OUTPUTS

Concession Fee	1st Prd	2nd Prd	3rd Prd
Fixed	4,628	4,628	4,628
Variable	3,065	3,173	3,119

		1000$
	RTG Lease for 15 years	0
	GT Crane lease for 25 years	2,380

TOC

					2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
PROFITABILITY (Net Operating Income/ Net Fixed Assets)		Financial Indicators																			
	Rate of Return on Net Fixed Assets (Criterion: over %)			8.00%	0.00%	0.00%	0.00%	0.00%	30.92%	34.50%	35.39%	36.35%	37.08%	38.06%	39.27%	40.59%	37.33%	38.97%	40.22%	42.18%	44.01%
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)				0.07	0.07	0.07	0.07	0.42	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.43	0.43	0.43	0.43	0.44
	Working Ratio (Criterion: under 0.5- 0.6)				0.07	0.07	0.07	0.07	0.37	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)				0.00	0.00	0.00	0.00	2.16	2.42	2.60	2.81	3.06	3.33	3.67	4.13	78.74	16.72	17.63	18.66	19.71
		concessionn fee rate (fixed)			0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
		concession fee rate (variable)			0%	0%	0%	0%	0%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
		total concession fee/revenue			5%	5%	5%	5%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)	81.53%																		

					2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
PROFITABILITY (Net Operating Income/ Net Fixed Assets)		Financial Indicators																			
	Rate of Return on Net Fixed Assets (Criterion: over %)			8.00%	46.43%	49.18%	32.18%	30.85%	32.24%	33.75%	35.41%	36.51%	38.46%	40.63%	43%	40.72%	43%	45.66%	48.76%	51.79%	55.81%	67.09%
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)				0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.34
	Working Ratio (Criterion: under 0.5- 0.6)				0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.33
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)				19.50	20.74	23.13	3.93	3.45	3.66	4.30	4.57	4.73	5.08	5.52	5.99	4.95	12.13	18.93	20.12	19.99	22.71
FINANCIAL INTERNAL RATE OF RETURN			28.6%																		
		concessionn fee rate (fixed)			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
		concession fee rate (variable)			5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
		total concession fee/revenue			17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	13%
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)	81.53%																		
	Retained Earnings Total		764,587	($1,000)																	

PA

					2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
PROFITABILITY (Net Operating Income/ Net Fixed Assets)		Financial Indicators																			
	Rate of Return on Net Fixed Assets (Criterion: over %)			1.59%	0.00%	0.00%	0.00%	0.00%	4.10%	4.86%	4.99%	5.13%	5.28%	4.79%	5.60%	5.78%	5.97%	6.17%	5.63%	6.63%	6.88%
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)				0.00	0.00	0.00	0.00	0.46	0.38	0.38	0.38	0.38	0.46	0.38	0.38	0.38	0.38	0.46	0.38	0.38
	Working Ratio (Criterion: under 0.5- 0.6)				0.00	0.00	0.00	0.00	0.11	0.03	0.03	0.03	0.03	0.11	0.03	0.03	0.03	0.03	0.11	0.03	0.03
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)				0.00	0.00	0.00	0.00	4.29	4.84	4.99	5.15	5.32	1.53	1.68	1.70	1.71	1.73	1.62	1.77	1.79

					2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
PROFITABILITY (Net Operating Income/ Net Fixed Assets)		Financial Indicators																			
	Rate of Return on Net Fixed Assets (Criterion: over %)			1.59%	7.15%	7.45%	6.85%	8.14%	8.54%	8.98%	9.46%	8.80%	10.60%	11.29%	12.06%	12.96%	6.85%	8.14%	8.54%	8.98%	9.46%	0.00%
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)				0.38	0.38	0.46	0.38	0.38	0.38	0.38	0.46	0.38	0.38	0.38	0.38	0.46	0.38	0.38	0.38	0.38	0.00
	Working Ratio (Criterion: under 0.5- 0.6)				0.03	0.03	0.11	0.03	0.03	0.03	0.03	0.11	0.03	0.03	0.03	0.03	0.11	0.03	0.03	0.03	0.03	0.00
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)				1.81	1.84	1.72	1.88	1.91	1.93	1.96	1.84	2.01	2.04	2.07	2.10	2.16	1.27	1.27	1.27	1.27	0.00
	Retained Earnings Total		268,705	($1,000)																		
FINANCIAL INTERNAL RATE OF RETRUN			5.5%																			

Table 5.4-2 Result of Financial Analysis (Case-2): Bojonegara Port

Year of No.4-6 Q. Crane added	2016
Year of No.7 Q. Crane added	3000

OUTPUTS

Concession Fee	1st Prd	2nd Prd	3rd Prd
Fixed	0	0	0
Variable	3,204	3,311	3,257

		1000$
	RTG Lease for 15 years	0
	GT Crane lease for 25 years	0

TOC

					2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Financial Indicators																					
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																					
	Rate of Return on Net Fixed Assets (Criterion: over %)			8.00%	0.00%	0.00%	0.00%	0.00%	14.42%	15.88%	16.27%	16.69%	17.05%	17.49%	18.00%	18.55%	18.03%	18.68%	19.28%	20.05%	20.81%
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)				0.07	0.07	0.07	0.07	0.36	0.34	0.34	0.35	0.35	0.35	0.35	0.35	0.37	0.37	0.37	0.37	0.37
	Working Ratio (Criterion: under 0.5- 0.6)				0.07	0.07	0.07	0.07	0.23	0.22	0.22	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)				0.00	0.00	0.00	0.00	1.35	1.45	1.49	1.53	1.57	1.61	1.65	1.70	1.76	1.70	1.76	1.83	1.90
		concessionn fee rate (fixed)			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
		concession fee rate (variable)			0%	0%	0%	0%	0%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
		total concession fee/revenue			5%	5%	5%	5%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)		82.91%																	

					2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Financial Indicators																						
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																						
	Rate of Return on Net Fixed Assets (Criterion: over %)			8.00%	21.73%	22.74%	19.17%	19.17%	20.06%	21.04%	22.12%	23.07%	24.38%	25.84%	27%	27.48%	21%	21.51%	22.61%	23.73%	25.08%	29.61%
OPERATIONAL EFFICIENCY																						
	Operating Ratio (Criterion: under 0.7- 0.75)				0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.27
	Working Ratio (Criterion: under 0.5- 0.6)				0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
LOAN REPAYMENT CAPACITY																						
	Debt Service Coverage Ratio (Criterion: over 1.0)				1.97	2.06	2.17	1.64	1.63	1.72	1.89	2.01	2.12	2.28	2.46	2.67	2.62	2.41	3.64	3.85	4.04	4.30
FINANCIAL INTERNAL RATE OF RETURN				15.0%																		
		concessionn fee rate (fixed)			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
		concession fee rate (variable)			5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
		total concession fee/revenue			6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)		82.91%																		
	Retained Earnings Total			605,211	($1,000)																	

PA

					2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Financial Indicators																					
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																					
	Rate of Return on Net Fixed Assets (Criterion: over %)			1.59%	0.00%	0.00%	0.00%	0.00%	6.52%	8.87%	9.05%	9.24%	9.44%	7.50%	9.88%	10.11%	10.36%	10.62%	8.45%	11.19%	11.50%
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)				0.00	0.00	0.00	0.00	0.42	0.24	0.24	0.24	0.24	0.41	0.24	0.24	0.24	0.24	0.41	0.24	0.24
	Working Ratio (Criterion: under 0.5- 0.6)				0.00	0.00	0.00	0.00	0.22	0.05	0.05	0.05	0.05	0.22	0.05	0.05	0.05	0.05	0.22	0.05	0.05
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)				0.00	0.00	0.00	0.00	5.41	6.95	7.16	7.39	7.63	1.99	2.45	2.47	2.50	2.52	2.09	2.58	2.61

					2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Financial Indicators																						
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																						
	Rate of Return on Net Fixed Assets (Criterion: over %)			1.59%	11.83%	12.18%	9.73%	13.00%	13.45%	13.93%	14.45%	11.61%	15.62%	16.27%	16.99%	17.77%	14.40%	19.56%	20.60%	21.76%	23.05%	0.00%
OPERATIONAL EFFICIENCY																						
	Operating Ratio (Criterion: under 0.7- 0.75)				0.24	0.24	0.42	0.24	0.24	0.24	0.24	0.42	0.24	0.24	0.24	0.24	0.42	0.24	0.24	0.24	0.24	0.00
	Working Ratio (Criterion: under 0.5- 0.6)				0.05	0.05	0.22	0.05	0.05	0.05	0.05	0.22	0.05	0.05	0.05	0.05	0.22	0.05	0.05	0.05	0.05	0.00
LOAN REPAYMENT CAPACITY																						
	Debt Service Coverage Ratio (Criterion: over 1.0)				2.64	2.67	2.22	2.74	2.77	2.81	2.85	2.37	2.93	2.97	3.02	3.06	2.80	3.42	3.42	3.43	3.43	0.00
	Retained Earnings Total			147,744	($1,000)																	
FINANCIAL INTERNAL RATE OF RETRUN				8.6%																		

Table 5.4-3 TOC's Income Statement (Case-2): Bojonegara Port

Income Statement of the BJN Project ($'000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
REVENUE																																			
Harbor & Light Dues		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	0
Pilotage		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	0
Anchorage Fee for Vessel		0	0	0	0	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775
Anchorage Fee for Cargo																																			
Wharfage for Vessels		0	0	0	0	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680
Wharfage for Cargo		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	0
Procedure fee																																			
Towage fee		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	0
Moorage service		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	0
Charge for mooring/unmooring		0	0	0	0	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
Charge for opening/closing hatch		0	0	0	0	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256
Charge for handling container		0	0	0	0	45,041	47,487	47,287	47,093	46,903	46,718	46,537	46,360	46,187	46,018	45,852	45,690	45,532	45,377	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225
Charge for storage of Container		0	0	0	0	883	935	935	935	935	935	935	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936
Charge for CFS		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	0
Charge for PTI (Pre Trip Inspection) of Reefer Container		0	0	0	0	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Charge for lift-on/lift -off (R/D) at container yard		0	0	0	0	11,380	11,998	11,948	11,900	11,852	11,806	11,760	11,716	11,673	11,630	11,589	11,548	11,508	11,469	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431
Charge for handling cargoes																																			
Charge for general cargo storage																																			
Concession Fixed Fee (To PA)																																			
Concession Variable Fee (To PA)																																			
TOTAL REVENUE		0	0	0	0	64,074	67,190	66,941	66,698	66,461	66,229	66,003	65,781	65,565	65,353	65,147	64,944	64,746	64,552	64,363	64,363	64,363	64,363	64,363	64,363	64,363	64,363	64,363	64,363	64,363	64,363	64,363	64,363	64,363	64,363
EXPENSE																																			
DIRECT EXPENSE																																			
Labour Cost (Concessionaire)		0	0	0	0	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171
Maintenance of equipment (for PA asset)		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	0
Maintenance of equipment (Concessionaire including shore cranes)		0	0	0	0	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019
Fuel & Utilities (for PA)		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	0
Fuel & Utilities (for Concessionaire)		0	0	0	0	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546
Maintenance of infrastructures (PA: major repairs)		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	0
Maintenance of infrastructures (Concessionaire: minor repairs)		0	0	0	0	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588
Maintenance dredging		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	0
Total Direct Expense		0	0	0	0	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324	9,324
INDIRECT EXPENSE																																			
Depreciation (equipment) (for PA Asset)		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	0
Depreciation (equipment) (Concessionaire)		0	0	0	0	5,206	5,206	5,206	5,206	5,316	5,316	5,316	5,316	6,265	6,265	6,265	6,265	6,265	6,265	6,265	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507
Depreciation (Buildings of TO)		0	0	0	0	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	0	0	0	0
Depreciation (PA Infrastructure)		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	0
Depreciation (TO Facilities)		0	0	0	0	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634
Depreciation (PA Local Portion)		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	0
Depreciation (Consulting service)		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	0
Insurance & Claims (??% of Revenue)		0	0	0	0	961	1,008	1,004	1,000	997	993	990	987	983	980	977	974	971	968	965	965	965	965	965	965	965	965	965	965	965	965	965	965	965	965
Bad Debt (0.5% of Revenue)		0	0	0	0	320	336	335	333	332	331	330	329	328	327	326	325	324	323	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322
Concession Fixed Fee (to PA)		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	0
Concession Variable Fee (to PA)		0	0	0	0	3,204	3,360	3,347	3,335	3,323	3,311	3,300	3,289	3,278	3,268	3,257	3,247	3,237	3,228	3,218	3,218	3,218	3,218	3,218	3,218	3,218	3,218	3,218	3,218	3,218	3,218	3,218	3,218	3,218	3,218
Land & Water Rental Fee (to PA)		0	0	0	0	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498
RTG Lease Fee (to PA)		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	0
Crane Lease Fee (to PA)		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	0
Concession Fee for RTG (to PA)		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	0
Concession Fee for Crane (to PA)		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	0
Total Indirect Expense		0	0	0	0	13,013	13,231	13,214	13,197	13,290	13,274	13,258	13,243	14,176	14,162	14,147	14,133	14,119	14,105	14,092	14,334	14,334	14,334	14,334	14,334	14,334	14,334	14,334	14,334	14,334	14,144	14,144	14,144	14,144	14,144
GENERAL & ADMINISTRATIVE																																			
Administrative Personnel (Concessionaire)		0	0	0	0	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367
Others (Personnel Cost x 40%)		0	0	0	0	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
PA Bojonegara Port Office Administration		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	0
Total General & Administrative		0	0	0	0	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514
TOTAL EXPENSE		0	0	0	0	22,851	23,069	23,052	23,035	23,128	23,112	23,096	23,081	24,014	23,999	23,985	23,971	23,957	23,943	23,930	24,172	24,172	24,172	24,172	24,172	24,172	24,172	24,172	24,172	24,172	23,982	23,982	23,982	23,982	23,982
OPERATING INCOME		0	0	0	0	41,223	44,121	43,889	43,663	43,333	43,117	42,906	42,701	41,551	41,354	41,162	40,973	40,789	40,609	40,432	40,190	40,190	40,190	40,190	40,190	40,190	40,190	40,190	40,190	40,190	40,381	40,381	40,381	40,381	40,381
OTHER INCOME/(EXPENSE)																																			
Repayment of Interest on Initial Loans (PA)		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	0
Repayment of Interest on Long-Term Loans (PA Local Portion)	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	0	0
Repayment of Interest on Long-Term Loans (TO Local Loan)	163	521	2,393	12,409	24,811	26,752	25,733	24,714	23,695	22,675	21,656	20,637	19,618	18,599	17,580	16,561	15,542	14,522	13,503	12,484	11,465	10,446	9,427	8,408	7,389	6,370	5,350	4,331	3,312	2,293	1,274	255	0	0	0
Repayment of Interest on Short-Term Loans (PA)		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	0
Repayment of Interest on Long-Term Loans (Concessionaire)		0	0	0	0	0	267	240	213	187	229	238	200	162	1,109	972	962	840	786	657	528	4,728	5,162	4,514	3,865	3,315	2,960	2,403	1,846	1,296	1,730	7,361	6,517	5,771	5,094
Repayment of Interest on Short-Term Loans (Concessionaire)																																			
TOTAL OTHER	163	521	2,393	12,409	24,811	26,752	26,000	24,954	23,908	22,862	21,885	20,875	19,818	18,761	18,688	17,533	16,504	15,362	14,290	13,142	11,994	15,174	14,589	12,922	11,254	9,685	8,310	6,734	5,158	3,589	3,004	7,616	6,517	5,771	5,094
EARNINGS before TAXES	-163	-521	-2,393	-12,409	-24,811	14,471	18,121	18,935	19,755	20,470	21,232	22,031	22,882	22,789	22,666	23,628	24,470	25,427	26,319	27,291	28,197	25,016	25,601	27,269	28,936	30,506	31,880	33,456	35,032	36,602	37,377	32,765	33,864	34,610	35,287
INCOME TAX (from Concessionaire only)	0	0	0	0	0	2,894	3,624	3,787	3,951	4,094	4,246	4,406	4,576	4,558	4,533	4,726	4,894	5,085	5,264	5,458	5,639	5,003	5,120	5,454	5,787	6,101	6,376	6,691	7,006	7,320	7,475	6,553	6,773	6,922	7,057
NET INCOME after tax	-163	-521	-2,393	-12,409	-24,811	11,577	14,497	15,148	15,804	16,376	16,986	17,625	18,306	18,231	18,132	18,903	19,576	20,341	21,055	21,833	22,558	20,013	20,481	21,815	23,149	24,405	25,504	26,765	28,026	29,281	29,902	26,212	27,091	27,688	28,229
Retained Earnings	-163	-684	-3,077	-15,487	-40,298	-28,721	-14,224	924	16,728	33,105	50,090	67,715	86,021	104,252	122,385	141,288	160,863	181,205	202,260	224,093	246,650	266,663	287,144	308,959	332,108	356,513	382,017	408,782	436,808	466,089	495,991	522,203	549,294	576,982	605,211

Table 5.4-4 TOC's Cash Flow Statement and Balance Sheet (Case-2): Bojonegara Port

Statement of Cash Flows ($'000s) of Bojonegara	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Cash Beginning	0	-214	-5,631	-17,730	-39,845	-74,362	-64,461	-51,894	-38,675	-24,801	-10,244	4,856	20,555	36,935	54,190	70,408	87,396	105,192	123,753	142,963	162,950	183,969	198,369	212,299	227,563	245,099	263,890	283,715	304,801	327,213	350,881	374,041	396,500	425,629	455,354
Cash Inflow	2,243	5,290	38,210	124,793	120,898	51,794	52,151	51,920	51,694	52,127	51,664	51,047	50,841	60,012	50,443	51,450	50,062	50,533	49,698	49,521	90,683	58,893	49,521	49,521	49,521	51,375	49,521	49,521	49,521	58,893	109,328	49,521	49,521	50,176	49,521
CASH FLOWS FROM OPERATING ACTIVITIES	0	0	0	0	0	49,253	52,151	51,920	51,694	51,473	51,257	51,047	50,841	50,640	50,443	50,251	50,062	49,878	49,698	49,521	49,521	49,521	49,521	49,521	49,521	49,521	49,521	49,521	49,521	49,521	49,521	49,521	49,521	49,521	49,521
Operating Income	0	0	0	0	0	41,223	44,121	43,889	43,663	43,333	43,117	42,906	42,701	41,551	41,354	41,162	40,973	40,789	40,609	40,432	40,190	40,190	40,190	40,190	40,190	40,190	40,190	40,190	40,190	40,190	40,381	40,381	40,381	40,381	40,381
Depreciation (equipment) (for PA Asset)	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	0	0
Depreciation (equipment) (Concessionaire)	0	0	0	0	0	5,206	5,206	5,206	5,206	5,316	5,316	5,316	5,316	6,265	6,265	6,265	6,265	6,265	6,265	6,265	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507
Depreciation (Buildings of PA)	0	0	0	0	0	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	0	0	0	0	0
Depreciation (PA Infrastructure)	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	0	0
Depreciation Expense (TO Facilities)	0	0	0	0	0	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634	2,634
Depreciation (PA Local Portion)	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	0	0
Depreciation (Consulting Service)	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	0	0
[Total No cash Items included in Net Income (Depreciation)]	0	0	0	0	0	8,030	8,030	8,030	8,030	8,140	8,140	8,140	8,140	9,089	9,089	9,089	9,089	9,089	9,089	9,089	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,141	9,141	9,141	9,141	9,141
CASH FLOWS FROM FINANCING ACTIVITIES	2,243	5,290	38,210	124,793	120,898	2,541	0	0	0	655	407	0	0	9,372	0	1,199	0	655	0	0	41,162	9,372	0	0	0	1,854	0	0	0	9,372	59,807	0	0	655	0
Initial Long-Term Loans (PA)	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	0	0
Long-Term Loans (PA Reinvestment)	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	0	0
Long-Term Loans (PA Local Portion)	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	0	0
Initial Long-Term Loan (TO)	2,081	5,290	38,210	124,793	120,898	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
Long -Term Loan (Concessionaire)	0	0	0	0	0	2,541	0	0	0	655	407	0	0	9,372	0	1,199	0	655	0	0	41,162	9,372	0	0	0	1,854	0	0	0	9,372	59,807	0	0	655	0
Capitalized Interest (Long-term: Government)	0	0	0	0	0																														
Capitalized Interest (Long-term: TO facilities)	163	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	0
Cash Outflow	2,457	10,708	50,309	146,908	155,415	41,893	39,584	38,701	37,819	37,571	36,564	35,348	34,461	42,757	34,225	34,461	32,267	31,971	30,488	29,534	69,664	44,494	35,591	34,257	31,986	32,584	29,696	28,436	27,109	35,226	86,168	27,062	20,393	20,451	19,320
CASH FLOWS FROM INVESTING ACTIVITIES	2,243	5,290	38,210	124,793	120,898	2,541	0	0	0	655	407	0	0	9,372	0	1,199	0	655	0	0	41,162	9,372	0	0	0	1,854	0	0	0	9,372	59,807	0	0	655	0
Construction in Progress (PA)	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	0	0
Capitalized Interest (Long-term: Government)	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	0	0
Construction in Progress (TO)	2,081	5,290	38,210	124,793	120,898	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
Capitalized Interest (Long-term: TO)	163																																		
Assets Acquired (PA)	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	0	0
Assets Acqired Local Portion (PA)	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	0	0
Assets Acquired (Concessionaire: Equity and Equipment)	0	0	0	0	0	2,541	0	0	0	655	407	0	0	9,372	0	1,199	0	655	0	0	41,162	9,372	0	0	0	1,854	0	0	0	9,372	59,807	0	0	655	0
CASH FLOWS FROM FINANCING ACTIVITIES	214	5,417	12,099	22,115	34,517	39,352	39,584	38,701	37,819	36,916	36,157	35,348	34,461	33,385	34,225	33,262	32,267	31,317	30,488	29,534	28,502	35,122	35,591	34,257	31,986	30,731	29,696	28,436	27,109	25,854	26,361	27,062	20,393	19,796	19,320
Repayment of Initial Loan Principal (PA)	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	0	0
Repayment of Interest on Initial Loans (PA)	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	0	0
Repayment of shirt-Term Loan Principal (PA Reinvestment)	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	0	0
Repayment of Interest on Short-Term Loans (PA Reinvest)	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	0	0
Repayment of Lon-Term Loan Principal (PA Local Portion)	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	0	0
Repayment of Interest on Long-Term Loans (PA Local Portion)	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	0	0
Repayment on Long-Term Loans (TO Local Loan)	51	4,896	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	4,853	0	0	0
Repayment of Interest on Long-Term Loans (TO Local Loan)	163	521	2,393	12,409	24,811	26,752	25,733	24,714	23,695	22,675	21,656	20,637	19,618	18,599	17,580	16,561	15,542	14,522	13,503	12,484	11,465	10,446	9,427	8,408	7,389	6,370	5,350	4,331	3,312	2,293	1,274	255	0	0	0
Repayment of Lon-Term Loan (Concessionaire Equip)	0	0	0	0	0	0	254	254	254	254	320	360	360	360	1,297	1,297	1,163	1,163	1,229	1,229	1,163	5,239	6,176	6,176	5,239	5,239	5,304	5,304	5,239	5,239	6,176	8,040	7,103	7,103	7,169
Repayment of Interest on Long-Term Loans (Conc. Equip)	0	0	0	0	0	0	267	240	213	187	229	238	200	162	1,109	972	962	840	786	657	528	4,728	5,162	4,514	3,865	3,315	2,960	2,403	1,846	1,296	1,730	7,361	6,517	5,771	5,094
Repayment of short-Term Loan (PA)																																			
Repayment of short-Term Loan (Concessionaire)																																			
Repayment of Interest on Short-Term Loans (Concessionaire)	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	0	0
Income Tax (Concessionaire only)	0	0	0	0	0	2,894	3,624	3,787	3,951	4,094	4,246	4,406	4,576	4,558	4,533	4,726	4,894	5,085	5,264	5,458	5,639	5,003	5,120	5,454	5,787	6,101	6,376	6,691	7,006	7,320	7,475	6,553	6,773	6,922	7,057
Cash Inflow - Cash Outflow	-214	-5,417	-12,099	-22,115	-34,517	9,901	12,567	13,219	13,875	14,557	15,100	15,699	16,380	17,254	16,218	16,988	17,796	18,561	19,210	19,987	21,019	14,399	13,930	15,264	17,536	18,791	19,825	21,086	22,412	23,668	23,160	22,459	29,129	29,725	30,202
Cash Ending	-214	-5,631	-17,730	-39,845	-74,362	-64,461	-51,894	-38,675	-24,801	-10,244	4,856	20,555	36,935	54,190	70,408	87,396	105,192	123,753	142,963	162,950	183,969	198,369	212,299	227,563	245,099	263,890	283,715	304,801	327,213	350,881	374,041	396,500	425,629	455,354	485,556

Balance Sheet ($'000s)

Balance Sheet ($'000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
CURRENT ASSETS	-214	-5,631	-17,730	-39,845	-74,362	-64,461	-51,894	-38,675	-24,801	-10,244	4,856	20,555	36,935	54,190	70,408	87,396	105,192	123,753	142,963	162,950	183,969	198,369	212,299	227,563	245,099	263,890	283,715	304,801	327,213	350,881	374,041	396,500	425,629	455,354	485,556
Cash and Cash Equivalent Investments	-214	-5,631	-17,730	-39,845	-74,362	-64,461	-51,894	-38,675	-24,801	-10,244	4,856	20,555	36,935	54,190	70,408	87,396	105,192	123,753	142,963	162,950	183,969	198,369	212,299	227,563	245,099	263,890	283,715	304,801	327,213	350,881	374,041	396,500	425,629	455,354	485,556
PROPERTY, PLANT AND EQUIPMENT	2,081	7,371	45,581	170,373	291,271	285,782	277,752	269,721	261,691	254,205	246,472	238,332	230,191	230,474	221,385	213,495	204,406	195,971	186,882	177,793	209,624	209,665	200,334	191,003	181,672	174,195	164,863	155,532	146,201	146,242	196,909	187,768	178,627	170,141	161,000
Construction in Progress (PA)	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	0	0
Fixed Assets (PA)	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	0	0
Accumulated Depreciation (PA)	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	0	0
Net Fixed Assets (PA)	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	0	0
Fixed Assets (PA Local Portion)	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	0	0
Accumulated Depreciation (PA Local Portion)	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	0	0
Net Fixed Assets (PA Local Portion)	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	0	0
Fixed Assets (Concessionaire)	2,081	7,371	45,581	170,373	291,271	293,812	293,812	293,812	293,812	294,467	294,874	294,874	294,874	304,246	304,246	305,445	305,445	306,099	306,099	306,099	347,261	356,633	356,633	356,633	356,633	358,487	358,487	358,487	358,487	367,859	427,666	427,666	427,666	428,320	428,320
Accumulated Depreciation (Concessionaire)	0	0	0	0	0	8,030	16,061	24,091	32,121	40,262	48,402	56,542	64,682	73,772	82,861	91,950	101,039	110,128	119,217	128,306	137,637	146,968	156,299	165,630	174,961	184,292	193,623	202,954	212,285	221,616	230,757	239,898	249,039	258,179	267,320
Net Fixed Assets (Concessionaire)	2,081	7,371	45,581	170,373	291,271	285,782	277,752	269,721	261,691	254,205	246,472	238,332	230,191	230,474	221,385	213,495	204,406	195,971	186,882	177,793	209,624	209,665	200,334	191,003	181,672	174,195	164,863	155,532	146,201	146,242	196,909	187,768	178,627	170,141	161,000
TOTAL ASSETS	1,867	1,740	27,851	130,528	216,909	221,321	225,858	231,046	236,890	243,961	251,328	258,887	267,127	284,664	291,793	300,891	309,598	319,725	329,845	340,743	393,594	408,034	412,633	418,566	426,771	438,084	448,578	460,333	473,414	497,123	570,950	584,268	604,256	625,495	646,556
CURRENT 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	0	0
Short-Term Borrowings (PA)	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	0	0
Short-Term Borrowings (Concessionaire)	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	0	0
LONG-TERM LIABILITIES	2,030	2,424	30,928	146,015	257,207	250,042	240,082	230,122	220,162	210,856	201,238	191,172	181,106	180,411	169,408	159,604	148,734	138,520	127,585	116,651	146,943	141,371	125,489	109,607	94,662	81,571	66,561	51,551	36,606	31,034	74,959	62,065	54,962	48,513	41,345
Long-Term Borrowings (PA from JBIC)	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	0	0
Long-Term Borrowings (PA from Private)	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	0	0
Long-Term Borrowings (PA from Private Local Portion)	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	0	0
Long-Term Borrowings (Concessionaire)	2,030	2,424	30,928	146,015	257,207	250,042	240,082	230,122	220,162	210,856	201,238	191,172	181,106	180,411	169,408	159,604	148,734	138,520	127,585	116,651	146,943	141,371	125,489	109,607	94,662	81,571	66,561	51,551	36,606	31,034	74,959	62,065	54,962	48,513	41,345
CAPITAL	-163	-684	-3,077	-15,487	-40,298	-28,721	-14,224	924	16,728	33,105	50,090	67,715	86,021	104,252	122,385	141,288	160,863	181,205	202,260	224,093	246,650	266,663	287,144	308,959	332,108	356,513	382,017	408,782	436,808	466,089	495,991	522,203	549,294	576,982	605,211
Retained Earnings	-163	-684	-3,077	-15,487	-40,298	-28,721	-14,224	924	16,728	33,105	50,090	67,715	86,021	104,252	122,385	141,288	160,863	181,205	202,260	224,093	246,650	266,663	287,144	308,959	332,108	356,513	382,017	408,782	436,808	466,089	495,991	522,203	549,294	576,982	605,211
TOTAL LIABILITIES AND CAPITAL	1,867	1,740	27,851	130,528	216,909	221,321	225,858	231,046	236,890	243,961	251,328	258,887	267,127	284,664	291,793	300,891	309,598	319,725	329,845	340,743	393,594	408,034	412,633	418,566	426,771	438,084	448,578	460,333	473,414	497,123	570,950	584,268	604,256	625,495	646,556

Table 5.4-5 Result of Financial Analysis (Case-3): Bojonegara Port

Year of No.4-6 Q. Crane added	2016		OUTPUTS
Year of No.7 Q. Crane added	3000		
Concession Fee	1st Prd	2nd Prd	3rd Prd
Fixed	0	0	0
Variable	3,383	3,491	3,437

		1000$
	RTG Lease for 15 years	0
	GT Crane lease for 25 years	0

TOC

		Financial Indicators			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																					
	Rate of Return on Net Fixed Assets (Criterion: over %)		8.00%		0.00%	0.00%	0.00%	0.00%	12.55%	14.17%	14.51%	14.88%	15.20%	15.18%	16.05%	16.53%	16.17%	16.74%	16.78%	17.94%	18.62%
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)				0.07	0.07	0.07	0.07	0.37	0.34	0.34	0.34	0.35	0.36	0.35	0.35	0.36	0.36	0.38	0.37	0.37
	Working Ratio (Criterion: under 0.5- 0.6)				0.07	0.07	0.07	0.07	0.23	0.21	0.21	0.21	0.21	0.23	0.21	0.21	0.21	0.21	0.23	0.21	0.21
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)				0.00	0.00	0.00	0.00	1.22	1.33	1.37	1.41	1.44	1.45	1.52	1.57	1.62	1.58	1.60	1.70	1.77
		concessionn fee rate (fixed)			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
		concession fee rate (variable)			0%	0%	0%	0%	0%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
		total concession fee/revenue			5%	5%	5%	5%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)	83.79%																		

		Financial Indicators		2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																					
	Rate of Return on Net Fixed Assets (Criterion: over %)		8.00%	19.41%	20.28%	17.12%	17.73%	18.55%	19.45%	20.44%	20.72%	22.55%	23.89%	25%	25.61%	19%	20.86%	21.98%	23.15%	24.54%	28.18%
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)			0.37	0.37	0.39	0.37	0.37	0.37	0.37	0.39	0.37	0.37	0.37	0.37	0.39	0.37	0.37	0.37	0.37	0.29
	Working Ratio (Criterion: under 0.5- 0.6)			0.21	0.21	0.23	0.21	0.21	0.21	0.21	0.23	0.21	0.21	0.21	0.21	0.23	0.21	0.21	0.21	0.21	0.23
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)			1.84	1.92	1.97	1.59	1.58	1.67	1.83	1.91	2.06	2.21	2.39	2.60	2.51	2.50	3.92	4.15	4.35	4.53
FINANCIAL INTERNAL RATE OF RETURN			13.4%																		
		concessionn fee rate (fixed)		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
		concession fee rate (variable)		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
		total concession fee/revenue		6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)	83.79%																		
	Retained Earnings Total		601,015	($1,000)																	

PA

	Financial Indicators			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																				
	Rate of Return on Net Fixed Assets (Criterion: over %)	1.59%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
OPERATIONAL EFFICIENCY																				
	Operating Ratio (Criterion: under 0.7- 0.75)			0.00	0.00	0.00	0.00	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06
	Working Ratio (Criterion: under 0.5- 0.6)			0.00	0.00	0.00	0.00	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06
LOAN REPAYMENT CAPACITY																				
	Debt Service Coverage Ratio (Criterion: over 1.0)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Financial Indicators			2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																					
	Rate of Return on Net Fixed Assets (Criterion: over %)	1.59%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)			0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.00
	Working Ratio (Criterion: under 0.5- 0.6)			0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.00
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Retained Earnings Total		111,330	($1,000)																	
FINANCIAL INTERNAL RATE OF RETRUN																					

Table 5.4-6 TOC's Income Statement (Case-3): Bojonegara Port

Income Statement of the BJN Project ($'000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
REVENUE																																			
Harbor & Light Dues		0	0	0	0	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589
Pilotage		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	0	0
Anchorage Fee for Vessel		0	0	0	0	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775	2,775
Anchorage Fee for Cargo																																			
Wharfage for Vessels		0	0	0	0	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680
Wharfage for Cargo		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	0	0
Procedure fee																																			
Towage fee		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	0	0
Moorage service		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	0	0
Charge for mooring/unmooring		0	0	0	0	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
Charge for opening/closing hatch		0	0	0	0	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256
Charge for handling container		0	0	0	0	45,041	47,487	47,287	47,093	46,903	46,718	46,537	46,360	46,187	46,018	45,852	45,690	45,532	45,377	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225	45,225
Charge for storage of Container		0	0	0	0	883	935	935	935	935	935	935	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936
Charge for CFS		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	0	0	0
Charge for PTI (Pre Trip Inspection) of Reefer Container		0	0	0	0	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Charge for lift-on/lift -off (R/D) at container yard		0	0	0	0	11,380	11,998	11,948	11,900	11,852	11,806	11,760	11,716	11,673	11,630	11,589	11,548	11,508	11,469	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431	11,431
Charge for handling cargoes																																				
Charge for general cargo storage																																				
Concession Fixed Fee (To PA)																																				
Concession Variable Fee (To PA)																																				
TOTAL REVENUE		0	0	0	0	67,663	70,779	70,530	70,287	70,050	69,818	69,592	69,370	69,154	68,942	68,736	68,533	68,335	68,141	67,952	67,952	67,952	67,952	67,952	67,952	67,952	67,952	67,952	67,952	67,952	67,952	67,952	67,952	67,952	67,952	67,952
EXPENSE																																				
DIRECT EXPENSE																																				
Labour Cost (Concessionaire)		0	0	0	0	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171
Maintenance of equipment (for PA asset)		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	0	0
Maintenance of equipment (Concessionaire including shore cranes)		0	0	0	0	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019	4,019
Fuel & Utilities (for PA)		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	0	0
Fuel & Utilities (for Concessionaire)		0	0	0	0	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546
Maintenance of infrastructures (PA: major repairs)		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	0	0
Maintenance of infrastructures (Concessionaire: minor repairs)		0	0	0	0	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
Maintenance dredging		0	0	0	0	1,250	0	0	0	0	1,250	0	0	0	0	1,250	0	0	0	0	1,250	0	0	0	0	1,250	0	0	0	1,250	0	0	0	1,250	0	0
Total Direct Expense		0	0	0	0	10,043	8,793	8,793	8,793	8,793	10,043	8,793	8,793	8,793	8,793	10,043	8,793	8,793	8,793	8,793	10,043	8,793	8,793	8,793	8,793	10,043	8,793	8,793	8,793	8,793	10,043	8,793	8,793	8,793	8,793
INDIRECT EXPENSE																																				
Depreciation (equipment) (for PA Asset)		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	0	0
Depreciation (equipment) (Concessionaire)		0	0	0	0	5,206	5,206	5,206	5,206	5,316	5,316	5,316	5,316	6,265	6,265	6,265	6,265	6,265	6,265	6,265	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507
Depreciation (Buildings of TO)		0	0	0	0	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	0	0	0	0	0
Depreciation (PA Infrastructure)		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	0	0
Depreciation (TO Facilities)		0	0	0	0	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975
Depreciation (PA Local Portion)		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	0	0
Depreciation (Consulting service)		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	0	0
Insurance & Claims (??% of Revenue)		0	0	0	0	1,015	1,062	1,058	1,054	1,051	1,047	1,044	1,041	1,037	1,034	1,031	1,028	1,025	1,022	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019
Bad Debt (0.5% of Revenue)		0	0	0	0	338	354	353	351	350	349	348	347	346	345	344	343	342	341	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
Concession Fixed Fee (to PA)		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	0	0
Concession Variable Fee (to PA)		0	0	0	0	3,383	3,539	3,527	3,514	3,502	3,491	3,480	3,469	3,458	3,447	3,437	3,427	3,417	3,407	3,398	3,398	3,398	3,398	3,398	3,398	3,398	3,398	3,398	3,398	3,398	3,398	3,398	3,398	3,398	3,398
Land & Water Rental Fee (to PA)		0	0	0	0	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498
RTG Lease Fee (to PA)		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	0	0
Crane Lease Fee (to PA)		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	0	0
Concession Fee for RTG (to PA)		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	0	0
Concession Fee for Crane (to PA)		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	0	0
Total Indirect Expense		0	0	0	0	14,606	14,824	14,807	14,790	14,883	14,867	14,851	14,835	15,769	15,754	15,740	15,726	15,712	15,698	15,685	15,927	15,927	15,927	15,927	15,927	15,927	15,927	15,927	15,927	15,927	15,927	15,736	15,736	15,736	15,736	15,736
GENERAL & ADMINISTRATIVE																																				
Administrative Personnel (Concessionaire)		0	0	0	0	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367
Others (Personnel Cost x 40%)		0	0	0	0	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
PA Bojonegara Port Office Administration		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	0	0	0
Total General & Administrative		0	0	0	0	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514	514
TOTAL EXPENSE		0	0	0	0	25,163	24,131	24,114	24,097	24,190	25,424	24,158	24,143	25,076	25,062	26,297	25,033	25,019	25,005	24,992	26,484	25,234	25,234	25,234	25,234	26,484	25,234	25,234	25,234	25,234	26,294	25,044	25,044	25,044	25,044
						0.767																														
OPERATING INCOME		0	0	0	0	42,500	46,648	46,416	46,190	45,860	44,394	45,433	45,228	44,078	43,881	42,439	43,500	43,316	43,136	42,959	41,467	42,717	42,717	42,717	42,717	41,467	42,717	42,717	42,717	42,717	41,658	42,908	42,908	42,908	42,908
OTHER INCOME/(EXPENSE)																																				
Repayment of Interest on Initial Loans (PA)	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	0	0	0
Repayment of Interest on Long-Term Loans (PA Local Portion)	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	0	0	0
Repayment of Interest on Long-Term Loans (TO Local Loan)	203	650	4,061	15,609	29,150	31,289	30,097	28,905	27,713	26,521	25,329	24,137	22,946	21,754	20,562	19,370	18,178	16,986	15,794	14,602	13,410	12,218	11,026	9,834	8,642	7,450	6,258	5,066	3,874	2,682	1,490	298	-0	0	0
Repayment of Interest on Short-Term Loans (PA)	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	0	0	0
Repayment of Interest on Long-Term Loans (Concessionaire)	0	0	0	0	0	0	267	240	213	187	229	238	200	162	1,109	972	962	840	786	657	528	4,728	5,162	4,514	3,865	3,315	2,960	2,403	1,846	1,296	1,730	7,361	6,517	5,771	5,094
Repayment of Interest on Short-Term Loans (Concessionaire)																																			
TOTAL OTHER	203	650	4,061	15,609	29,150	31,289	30,364	29,146	27,927	26,708	25,558	24,375	23,146	21,916	21,670	20,342	19,140	17,826	16,580	15,259	13,938	16,946	16,188	14,348	12,507	10,765	9,218	7,469	5,720	3,978	3,220	7,659	6,517	5,771	5,094
EARNINGS before TAXES	-203	-650	-4,061	-15,609	-29,150	11,211	16,284	17,271	18,263	19,151	18,836	21,058	22,082	22,162	22,211	22,097	24,361	25,491	26,556	27,700	27,529	25,771	26,529	28,370	30,210	30,702	33,500	35,249	36,998	38,740	38,438	35,249	36,391	37,137	37,814
INCOME TAX (from Concessionaire only)	0	0	0	0	0	2,242	3,257	3,454	3,653	3,830	3,767	4,212	4,416	4,432	4,442	4,419	4,872	5,098	5,311	5,540	5,506	5,154	5,306	5,674	6,042	6,140	6,700	7,050	7,400	7,748	7,688	7,050	7,278	7,427	7,563
NET INCOME after tax	-203	-650	-4,061	-15,609	-29,150	8,969	13,027	13,817	14,611	15,321	15,069	16,846	17,666	17,729	17,769	17,677	19,489	20,393	21,245	22,160	22,023	20,617	21,224	22,696	24,168	24,562	26,800	28,199	29,598	30,992	30,750	28,199	29,113	29,709	30,251
Retained Earnings	-203	-853	-4,913	-20,523	-49,672	-40,704	-27,677	-13,860	751	16,072	31,140	47,987	65,652	83,382	101,150	118,827	138,316	158,709	179,953	202,113	224,137	244,754	265,977	288,673	312,842	337,403	364,203	392,402	422,000	452,992	483,742	511,941	541,054	570,763	601,015

Table 5.4-7 TOC's Cash Flow Statement and Balance Sheet (Case-3): Bojonegara Port

Statement of Cash Flows ($'000s) of Bojonegara	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Cash Beginning	0	-266	-6,646	-22,058	-49,020	-89,522	-82,533	-71,741	-60,159	-47,783	-34,586	-21,708	-7,092	8,343	24,790	40,340	55,798	73,201	91,509	110,603	130,613	150,793	165,492	179,860	195,700	213,950	232,593	253,409	275,624	299,304	324,377	348,081	373,046	405,537	438,626
Cash Inflow	2,796	7,244	65,212	135,891	134,452	54,413	56,020	55,788	55,562	55,996	54,283	54,915	54,709	63,880	54,311	54,068	53,931	54,401	53,566	53,390	93,302	62,762	53,390	53,390	53,390	53,993	53,390	53,390	53,390	62,762	111,947	53,390	53,390	54,044	53,390
CASH FLOWS FROM OPERATING ACTIVITIES	0	0	0	0	0	51,872	56,020	55,788	55,562	55,341	53,876	54,915	54,709	54,508	54,311	52,869	53,931	53,747	53,566	53,390	52,140	53,390	53,390	53,390	53,390	52,140	53,390	53,390	53,390	53,390	52,140	53,390	53,390	53,390	53,390
Operating Income	0	0	0	0	0	42,500	46,648	46,416	46,190	45,860	44,394	45,433	45,228	44,078	43,881	42,439	43,500	43,316	43,136	42,959	41,467	42,717	42,717	42,717	42,717	41,467	42,717	42,717	42,717	42,717	41,658	42,908	42,908	42,908	42,908
Depreciation (equipment) (for PA Asset)	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	0	0
Depreciation (equipment) (Concessionaire)	0	0	0	0	0	5,206	5,206	5,206	5,206	5,316	5,316	5,316	5,316	6,265	6,265	6,265	6,265	6,265	6,265	6,265	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507	6,507
Depreciation (Buildings of PA)	0	0	0	0	0	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	0	0	0	0	0
Depreciation (PA Infrastructure)	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	0	0
Depreciation Expense (TO Facilities)	0	0	0	0	0	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975	3,975
Depreciation (PA Local Portion)	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	0	0
Depreciation (Consulting Service)	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	0	0
[Total No cash items included in Net Income (Depreciation)]	0	0	0	0	0	9,372	9,372	9,372	9,372	9,482	9,482	9,482	9,482	10,430	10,430	10,430	10,430	10,430	10,430	10,430	10,672	10,672	10,672	10,672	10,672	10,672	10,672	10,672	10,672	10,672	10,482	10,482	10,482	10,482	10,482
CASH FLOWS FROM FINANCING ACTIVITIES	2,796	7,244	65,212	135,891	134,452	2,541	0	0	0	655	407	0	0	9,372	0	1,199	0	655	0	0	41,162	9,372	0	0	0	1,854	0	0	0	9,372	59,807	0	0	655	0
Initial Long-Term Loans (PA)	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	0	0
Long-Term Loans (PA Reinvestment)	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	0	0
Long-Term Loans (PA Local Portion)	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	0	0
Initial Long-Term Loan (TO)	2,593	6,594	61,152	135,891	134,452	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
Long -Term Loan (Concessionaire)	0	0	0	0	0	2,541	0	0	0	655	407	0	0	9,372	0	1,199	0	655	0	0	41,162	9,372	0	0	0	1,854	0	0	0	9,372	59,807	0	0	655	0
Capitalized Interest (Long-term: Government)	0	0	0	0	0																														
Capitalized Interest (Long-term: TO facilities)	203	650	4,061	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 Outflow	3,062	13,623	80,625	162,853	174,953	47,425	45,227	44,206	43,186	42,799	41,404	40,299	39,274	47,433	38,762	38,610	36,527	36,094	34,472	33,380	73,121	48,063	39,022	37,550	35,140	35,350	32,574	31,175	29,710	37,689	88,242	28,425	20,898	20,956	19,825
CASH FLOWS FROM INVESTING ACTIVITIES	2,796	7,244	65,212	135,891	134,452	2,541	0	0	0	655	407	0	0	9,372	0	1,199	0	655	0	0	41,162	9,372	0	0	0	1,854	0	0	0	9,372	59,807	0	0	655	0
Construction in Progress (PA)	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	0	0
Capitalized Interest (Long-term: Government)	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	0	0
Construction in Progress (TO)	2,593	6,594	61,152	135,891	134,452	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
Capitalized Interest (Long-term: TO)	203	650	4,061																																
Assets Acquired (PA)	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	0	0
Assets Acqired Local Portion (PA)	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	0	0
Assets Acquired (Concessionaire: Equity and Equipment)	0	0	0	0	0	2,541	0	0	0	655	407	0	0	9,372	0	1,199	0	655	0	0	41,162	9,372	0	0	0	1,854	0	0	0	9,372	59,807	0	0	655	0
CASH FLOWS FROM FINANCING ACTIVITIES	266	6,379	15,413	26,961	40,502	44,884	45,227	44,206	43,186	42,145	40,997	40,299	39,274	38,061	38,762	37,411	36,527	35,439	34,472	33,380	31,959	38,691	39,022	37,550	35,140	33,496	32,574	31,175	29,710	28,317	28,435	28,425	20,898	20,302	19,825
Repayment of Initial Loan Principal (PA)	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	0	0
Repayment of Interest on Initial Loans (PA)	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	0	0
Repayment of shirt-Term Loan Principal (PA Reinvestment)	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	0	0
Repayment of Interest on Short-Term Loans (PA Reinvest)	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	0	0
Repayment of Lon-Term Loan Principal (PA Local Portion)	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	0	0
Repayment of Interest on Long-Term Loans (PA Local Portion)	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	0	0
Repayment on Long-Term Loans (TO Local Loan)	63	5,730	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	11,352	5,676	0	0	0
Repayment of Interest on Long-Term Loans (TO Local Loan)	203	650	4,061	15,609	29,150	31,289	30,097	28,905	27,713	26,521	25,329	24,137	22,946	21,754	20,562	19,370	18,178	16,986	15,794	14,602	13,410	12,218	11,026	9,834	8,642	7,450	6,258	5,066	3,874	2,682	1,490	298	-0	0	0
Repayment of Lon-Term Loan (Concessionaire Equip)	0	0	0	0	0	0	254	254	254	254	320	360	360	360	1,297	1,297	1,163	1,163	1,229	1,229	1,163	5,239	6,176	6,176	5,239	5,239	5,304	5,304	5,239	5,239	6,176	8,040	7,103	7,103	7,169
Repayment of Interest on Long-Term Loans (Conc. Equip)	0	0	0	0	0	0	267	240	213	187	229	238	200	162	1,109	972	962	840	786	657	528	4,728	5,162	4,514	3,865	3,315	2,960	2,403	1,846	1,296	1,730	7,361	6,517	5,771	5,094
Repayment of short-Term Loan (PA)																																			
Repayment of short-Term Loan (Concessionaire)																																			
Repayment of Interest on Short-Term Loans (Concessionaire)	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	0	0
Income Tax (Concessionaire only)	0	0	0	0	0	2,242	3,257	3,454	3,653	3,830	3,767	4,212	4,416	4,432	4,442	4,419	4,872	5,098	5,311	5,540	5,506	5,154	5,306	5,674	6,042	6,140	6,700	7,050	7,400	7,748	7,688	7,050	7,278	7,427	7,563
Cash Inflow - Cash Outflow	-266	-6,379	-15,413	-26,961	-40,502	6,988	10,792	11,582	12,376	13,197	12,879	14,616	15,435	16,447	15,549	15,458	17,404	18,308	19,094	20,010	20,180	14,699	14,368	15,840	18,250	18,643	20,816	22,215	23,680	25,073	23,704	24,965	32,492	33,088	33,564
Cash Ending	-266	-6,646	-22,058	-49,020	-89,522	-82,533	-71,741	-60,159	-47,783	-34,586	-21,708	-7,092	8,343	24,790	40,340	55,798	73,201	91,509	110,603	130,613	150,793	165,492	179,860	195,700	213,950	232,593	253,409	275,624	299,304	324,377	348,081	373,046	405,537	438,626	472,190

Balance Sheet ($'000s)

Balance Sheet ($'000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
CURRENT ASSETS	-266	-6,646	-22,058	-49,020	-89,522	-82,533	-71,741	-60,159	-47,783	-34,586	-21,708	-7,092	8,343	24,790	40,340	55,798	73,201	91,509	110,603	130,613	150,793	165,492	179,860	195,700	213,950	232,593	253,409	275,624	299,304	324,377	348,081	373,046	405,537	438,626	472,190
Cash and Cash Equivalent Investments	-266	-6,646	-22,058	-49,020	-89,522	-82,533	-71,741	-60,159	-47,783	-34,586	-21,708	-7,092	8,343	24,790	40,340	55,798	73,201	91,509	110,603	130,613	150,793	165,492	179,860	195,700	213,950	232,593	253,409	275,624	299,304	324,377	348,081	373,046	405,537	438,626	472,190
PROPERTY, PLANT AND EQUIPMENT	2,593	9,837	75,049	210,940	345,391	338,561	329,189	319,817	310,446	301,619	292,544	283,062	273,580	272,522	262,092	252,860	242,430	232,654	222,223	211,793	242,283	240,982	230,310	219,637	208,965	200,146	189,473	178,801	168,129	166,828	216,153	205,671	195,189	185,361	174,879
Construction in Progress (PA)	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	0	0
Fixed Assets (PA)	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	0	0
Accumulated Depreciation (PA)	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	0	0
Net Fixed Assets (PA)	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	0	0
Fixed Assets (PA Local Portion)	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	0	0
Accumulated Depreciation (PA Local Portion)	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	0	0
Net Fixed Assets (PA Local Portion)	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	0	0
Fixed Assets (Concessionaire)	2,593	9,837	75,049	210,940	345,391	347,932	347,932	347,932	347,932	348,587	348,994	348,994	348,994	358,366	358,366	359,565	359,565	360,219	360,219	360,219	401,381	410,753	410,753	410,753	410,753	412,607	412,607	412,607	412,607	421,979	481,786	481,786	481,786	482,440	482,440
Accumulated Depreciation (Concessionaire)	0	0	0	0	0	9,372	18,743	28,115	37,487	46,968	56,450	65,932	75,413	85,844	96,274	106,705	117,135	127,566	137,996	148,426	159,099	169,771	180,444	191,116	201,789	212,461	223,133	233,806	244,478	255,151	265,633	276,115	286,597	297,079	307,561
Net Fixed Assets (Concessionaire)	2,593	9,837	75,049	210,940	345,391	338,561	329,189	319,817	310,446	301,619	292,544	283,062	273,580	272,522	262,092	252,860	242,430	232,654	222,223	211,793	242,283	240,982	230,310	219,637	208,965	200,146	189,473	178,801	168,129	166,828	216,153	205,671	195,189	185,361	174,879
TOTAL ASSETS	2,327	3,191	52,990	161,920	255,870	256,027	257,448	259,658	262,663	267,032	270,836	275,970	281,923	297,312	302,431	308,658	315,631	324,163	332,827	342,406	393,076	406,474	410,170	415,337	422,915	432,739	442,883	454,425	467,432	491,205	564,235	578,717	600,726	623,987	647,069
CURRENT 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	0	0
Short-Term Borrowings (PA)	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	0	0
Short-Term Borrowings (Concessionaire)	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	0	0
LONG-TERM LIABILITIES	2,530	4,044	57,904	182,443	305,542	296,731	285,125	273,519	261,912	250,961	239,696	227,983	216,271	213,931	201,281	189,831	177,315	165,454	152,873	140,293	168,939	161,720	144,192	126,664	110,073	95,336	78,679	62,023	45,432	38,213	80,492	66,776	59,672	53,224	46,055
Long-Term Borrowings (PA from JBIC)	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	0	0
Long-Term Borrowings (PA from Private)	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	0	0
Long-Term Borrowings (PA from Private Local Portion)	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	0	0
Long-Term Borrowings (Concessionaire)	2,530	4,044	57,904	182,443	305,542	296,731	285,125	273,519	261,912	250,961	239,696	227,983	216,271	213,931	201,281	189,831	177,315	165,454	152,873	140,293	168,939	161,720	144,192	126,664	110,073	95,336	78,679	62,023	45,432	38,213	80,492	66,776	59,672	53,224	46,055
CAPITAL	-203	-853	-4,913	-20,523	-49,672	-40,704	-27,677	-13,860	751	16,072	31,140	47,987	65,652	83,382	101,150	118,827	138,316	158,709	179,953	202,113	224,137	244,754	265,977	288,673	312,842	337,403	364,203	392,402	422,000	452,992	483,742	511,941	541,054	570,763	601,015
Retained Earnings	-203	-853	-4,913	-20,523	-49,672	-40,704	-27,677	-13,860	751	16,072	31,140	47,987	65,652	83,382	101,150	118,827	138,316	158,709	179,953	202,113	224,137	244,754	265,977	288,673	312,842	337,403	364,203	392,402	422,000	452,992	483,742	511,941	541,054	570,763	601,015
TOTAL LIABILITIES AND CAPITAL	2,327	3,191	52,990	161,920	255,870	256,027	257,448	259,658	262,663	267,032	270,836	275,970	281,923	297,312	302,431	308,658	315,631	324,163	332,827	342,406	393,076	406,474	410,170	415,337	422,915	432,739	442,883	454,425	467,432	491,205	564,235	578,717	600,726	623,987	647,069

IV. Case Study on Coal Terminal in Pelaihari

1. Current Condition of Coal Mining Industry in South Kalimantan

A. Socio-economic Outline of South Kalimantan Province

162. In 2007, total GDP of South Kalimantan Province was Rp.25, 922 billion in 2000 constant value. Agriculture, livestock, forestry and fishery sector was the largest sector in this province with a 24.1% contribution, followed by Mining and Quarrying sector at 21.9%.

163. Coal is the most important export product for South Kalimantan. In 2007, this province exported goods worth of US$2,914 million, and coal accounted for 74.1% of the total export value.

164. Vigorous direct investment has been taking place in South Kalimantan, both for domestic and foreign investment.

B. Coal Mining Development in South Kalimantan Province

165. Indonesia adopted the National Coal Policy in January 2004, which seeks to promote the development of the country's coal resources to meet domestic requirements and to increase coal exports in the long-run.

(i) Mining Concession; PKP2B and KP

166. There are two groups among companies which are exploiting coal. Companies of the first group have a license of PKP2B issued by the central government and those of the second group have a license of Mining Concession (KP) issued by Regency governments.

(ii) Mining Concession Holders in Tanah Laut Regency

167. Tanah Laut Regency is one of regency consisting of Kintap sub-district and Jorong sub-district located in South Kalimantan.

168. There are 13 companies which have PKP2B licenses for extracting coal, but only two (2) companies out of the 13 PKP2B companies have concession areas in Tanah Laut Regecy.

169. Number of mining concession (KP) in South Kalimantan Province is 378. A total of 12 KP mines are in operation in Tanah Laut Regency in 2008.

2. Review of Coal Transport Plan in Kalimantan

170. Kintap Port Office in Tanah Laut Regency is in charge of supervising and administrating the eleven (11) coal handling special ports in Kintap and Jorong districts. Total Cargo tonnage in both districts reached about 6.8 million tons in 2008.

171. According to information provided by the provincial government of South Kalimantan, out of eleven special ports, seven (7) ports did not have mining concession (KP) in 2008.

172. According to information provided by DGST, temporary permits for public use of special ports have been issued although in principle the special ports can be used for loading and unloading activities of the facility owner's commodity only. Out of nine special ports under the Kintap Port Office jurisdiction, four (4) special ports have been given the temporary public use permit.

173. The actual circumstances of the facility development, operation and utilization of the special ports in relation with mining permit do not comply with the present laws and regulations, and there exist several problems in administrative and socioeconomic matters.

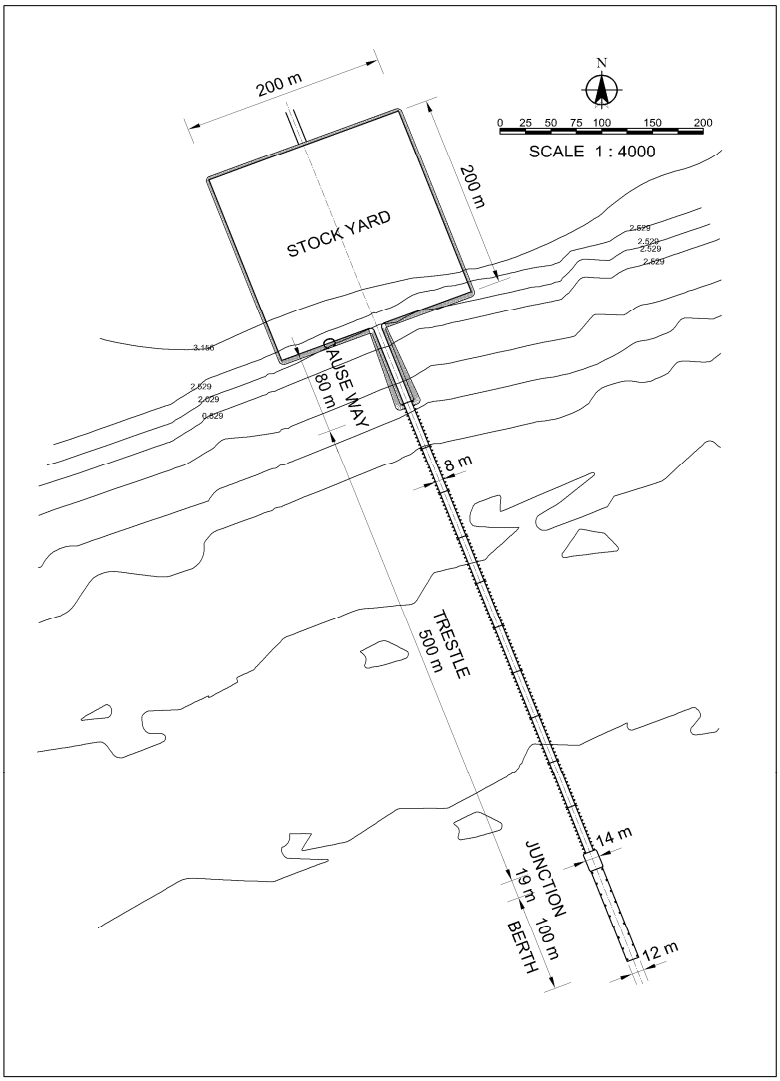
174. Possible coal transport demand;

Small mining companies without port facilities in Jorong district ;	100,000 ~ 400,000tons
If new deposits near Pelaihari are developed;	+one million tons

3. Proposed Development Plan for Case Study

3.1. Facility for Case Study

175. DGST has already started the construction works for a public coal shipping terminal under its own finance and supervision in the Pelaihari area, which is in close proximity to Kintap, and plans to complete the terminal by the end of 2012. DGST is also preparing the budget for the civil works portion under the annual recognition of the Diet. Layout plan of Pelaihari coal terminal planned by DGST is shown in Figure 3.1-1.



(Original Plan by DGST)

Figure 3.1-1 General Layout Plan of Pelaihari Coal Terminal

176. According to DGST, the purpose of developing the new terminal is to assist small scale mining companies not having their own terminals. DGST also expects the new terminal for public use to eliminate illegal terminal operation and complement the function of Banjarmasin port.

3.2. Review of the Original Plan and Proposed Development Plan

177. The new coal terminal being constructed by DGST should be attractive for the coal companies and competitive among the neighboring coal terminals. The original plan including a modification Pelaihari Terminal is reviewed in terms of the capability of coal handling; specifically stock volume and loading capacity is examined by the study team referring to those of neighboring coal terminals.

178. Firstly, the volume of the stock yard should be pointed out. The original plan has a space of 200m×200m for the stock yard which translate into a stocking capacity of only around 70,000 tons. Comparing with stock volume of other terminals, it is easily understood that the capacity of the stock yard of the original plan is much smaller than that of the neighboring coal terminals operated by local coal companies.

179. Secondly, mention should also be made of the ship loading performance. According to the original plan, there is no conveyor system from the stock yard to the barge. Coal is planned to be dumped on the barge directly by trucks. A 20-ton dump truck, however, only has a capacity of around 600 tons per hour because of the narrow width of the trestle and difficulty of crossing on the trestle against a 20-ton dump truck. The capacity of 600 tons per hour is much smaller than that of the neighboring coal terminal.

180. Thirdly, it is necessary to point out that direct dumping by trucks on berth is not feasible. The berth width is not sufficient to provide the slope for the dumping motion of trucks to the hold of the barge. Other terminals neighborhoods have introduced the conveyor system.

181. Consequently, to attract more small scale coal companies and operate the public coal terminal with competitiveness, the capacity of the stock yard should be at least 100,000 tons and the ship loading performance of 1,000 tons per hour is necessary. Furthermore, carriage of coal from yard to berth should be done by a conveyor system and a ship loader with conveyor should be employed for loading coal to the barge.

182. Additionally, the necessary facilities such as drainages in the stock yard, electrical house, pump house, administrative building and so on shall be taken into consideration.

183. Specifications of the proposed development plan and stock yard expansion plan are shown in Table 3.2-1 and Figure 3.2-1 respectively. The area of the stock yard shall be 200m x 280m, that is 1.4 times that of the DGST's plan for securing the capacity of 100,000tons of coal.

Table 3.2-1 Proposed Development Plan of Pelaihari Terminal
(Amendment to the Original Plan)

		Specifications	Remarks
1	Coal yard	200 m x 280 m	Expansion to the Original Plan
2	Trestle	Length 700 m	
3	Berth	12 m x 100 m	
4	Conveyor	Width: 1,200 mm Length: 700 m Speed: 180 m/min.	Not-inflammable
5	Ship Loader	Productivity: 1,000 tons/hour	
6	Administrative Building	2-storey x 200 m^2	
7	Repair Shop	W: 15 m x D: 10 m x H: 7 m	
8	Power Station	90 m^2 x H: 3 m	
9	Weighing Device	30-ton weighing (50-ton)	Load: 25 tons Truck: 25 50ns
10	Lightings	Around berth Fluorescent: 14 Flood light: 4 Along Trestle Fluorescent: 50 Surrounding Stock Yard Fluorescent: 50 Flood light: 4	
11	Pump Room and Sprinkler	40 tons/hour water for sprinkler	
12	Yard Drainage		Proposed in the Original Plan
13	Access Road	2 km x 4-lane road, RoW = 25 m	

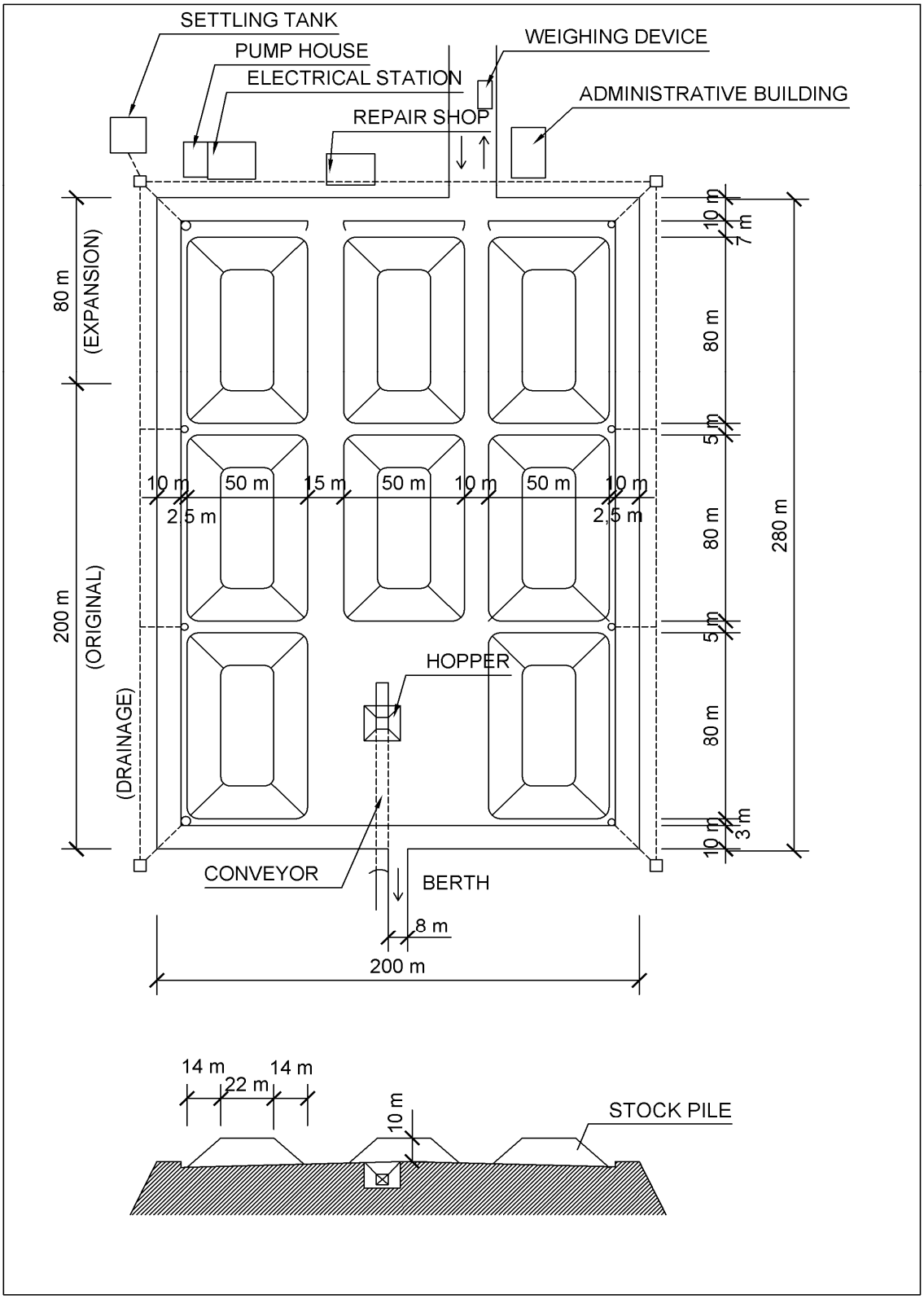


Figure 3.2-1 Coal Stock Yard Expansion and Terminal Facilities

4. Cost Estimate

184. Project cost for Pelaihari terminal is estimated and presented in Table 4.1-1.

Table 4.1-1 Cost Estimate of Pelaihari Coal Terminal Development

Description	Unit	Quantity	Amount (1,000 Rupiah)	Remarks
1. Civil Works				
1.1 General Cost (GC)	l.s.	1	2,801,586	Mobilization, temporary works, etc.
1.2 Land Reclamation	m^2	56,000	45,000,000	Coal Stock Yard, EL+3.7 m, 200 m x 280 m
1.3 Causeway	m	80	3,029,270	W: 8 m x L: 80 m, EL+3.70 m
1.4 Abutment			143,353	
1.5. Trestle and Jjoint to Berth	m^2	5,400	76,007,583	9 x W: 8 m x L: 50 m, RC deck supported by Steel Pipe Pile structure (D 508 mm, t=12 mm)
1.6 Small Craft Berth			27,403,726	
Structure	m^2	750	26,346,363	W: 15 m x L: 50 m, RC deck on Steel Pipe Piles
Rubber Fender	Nos	26	818,713	V type, H: 400 mm x L: 2,000 mm, 4 m interval
Bollard	Nos	10	154,695	35-ton, 12 m interval
Lighting	l.s.	1	83,954	
1.7 Second Berth			30,594,168	
Structure	m^2	2,000	28,268,000	2 x W: 12 m x L: 50 m, RC deck on Steel Pipe Piles
Rubber Fender	Nos	52	1,637,427	V type, H: 400 mm x L: 2,000 mm, 4 m interval
Bollard	Nos	20	220,994	50-ton, 12 m interval
Lighting	l.s.	1	467,747	
1.8 Drainage and Settle Tanks	l.s.	1	18,497,968	10 % of Construction cost
1.9. Access Road	m	2,000	16,000,000	8 million Rp./m
Sub-total of Civil Works (TC)			219,477,653	Total of 1.1 ~ 1.9
1.10 Supervision			6,584,330	3 % of TC
1.11 Total of Civil Works			**226,061,982**	**93%**
2. Super-structures of Terminal				
2.1 Coal Coveyer	l.s.	1	5,500,000	500,000 USD
2.2 Ship Loader	l.s.	1	3,300,000	300,000 USD
2.3 Administrative Building	m^2	400	2,200,000	500 USD/m^2
2.4 Repair Shop	m^2	150	577,500	350 USD/m^2
2.5 Weighing Device	l.s.	1	1,650,000	150,000 USD
2.6 Utility Facilities	l.s.	1	3,968,250	Power supply, water supply, pump, lighting, etc.
2.7 Total of Super-structures (TS)			**17,195,750**	**7%**
3. Total Project Cost			**243,257,732**	**Total of 1. + 2.**
VAT (10 %)			24,325,773	

5. Implementation Plan.

A. Public and Private Partnership

185. Assuming formation of a consortium of the local industries and its participation as a concessionaire for the operation and management of the terminal, Investment scheme for the public coal terminal is basically conceived as follow; development and construction of the infrastructure of the coal terminal shall be borne by the public sector side, while the super-structure of the terminal and terminal operation shall be borne by the private sector side. Possible PPP schemes for the project will be analyzed in the following chapter.

B. Construction of Terminal Infrastructure

186. Construction of Pelaihari Terminal commenced in 2008 with the DGST's own budget and under its supervision, and construction works are scheduled for completion in 2012. Preliminary implementation schedule of Pelaihari terminal development and disbursement schedule are presented in Table 5.1-1. In this case, it is necessary to conduct the selection processfor the operator of the coal terminal (which includes a market study and formation of the consortium etc.,) who will be responsible super-structure of the terminal by the end of 2012.

Table 5.1-1 Pelaihari Coal Terminal Construction Schedule and Disbursement

Description	Unit	Quantity	Amount (1,000 Rupiah)	2008	2009	2010	2011	2012	2013
Civil Works									
1.1 General Cost (GC)	l.s.	1	2,801,586	560,317	560,317	560,317	560,317	560,317	
1.2 Land Reclamation	m^2	56,000	45,000,000			22,500,000	22,500,000		
1.3 Causeway	m	80	3,029,270	3,029,270					
1.4 Abutment			143,353			143,353			
1.5. Trestle and Joint to Berth	m^2	5,400	76,007,583		30,403,033	30,403,033	15,201,517		
1.6 Small Craft Berth			27,403,726			27,403,726			
1.7 Second Berth			30,594,168				30,594,168		
1.8 Drainage and Settle Tanks	l.s.	1	18,497,968					18,497,968	
1.9. Access Road	m	2,000	16,000,000				16,000,000		
1.10 Supervision			6,584,330	1,316,866	1,316,866	1,316,866	1,316,866	1,316,866	
Operator Selection									
Market Study for PPP									
Tender Documentation / Prequalification									
Operator Selection (Tender Process)									
Consortium / Financial Arrangement									
Concession Contract of Terminal Operator									
2. Super-structures of Terminal									
2.1 Coal Coveyer	l.s.	1	5,500,000					5,500,000	
2.2 Ship Loader	l.s.	1	3,300,000					3,300,000	
2.3 Administrative Building	m^2	400	2,200,000					2,200,000	
2.4 Repair Shop	m^2	150	577,500					577,500	
2.5 Weighing Device	l.s.	1	1,650,000					1,650,000	
2.6 Utility Facilities	l.s.	1	3,968,250					3,968,250	

6. Possible PPP Schemes and Financial Analysis

6.1. Premises on the Project

A. Initial Investment Costs

187. Initial investment costs are estimated as shown in Table 6.1-1.

Table 6.1-1 Initial Investment Costs (Public + Private)

	Item	Approx. Q'ty		Total Cost US$ '000
	Construction of Port Facilities, Buildings and Equipment for Pelaihari Coal Termi			22,114
	1. Civil Works	1	sum	
	1.1 General Cost	1	l.s.	255
	1.2 Land Reclamation	56,000	m2	4,091
	1.3 Causeway	80	m	275
	1.4 Abutment	1	l.s.	13
	1.5 Trestle and Joint to Berth	5,400	m2	6,910
	1.6 Small Craft Berth	1	l.s.	2,491
	1.7 Second Berth	1	l.s.	2,781
	1.8 Drainage and Settle Tanks	1	l.s.	1,682
	1.9 Access Road	1	l.s.	1,455
	1.10 Supervision	1	l.s.	599
	1.11 Total Civil Works (TC)			20,551
	2. Super-structure of Terminal			
	2.1 Coal Conveyor	1	l.s.	500
	2.2 Ship Loader	1	l.s.	300
	2.3 Administration Building	400	m2	200
	2.4 Repair Shop	150	m2	53
	2.5 Weighting Device	1	l.s.	150
	2.6 Utility Facilities	1	l.s.	361
	2.7 Total Super-structures (TS)			1,563
	3. Price Escalation			442
	Total Construction Cost			22,557
	4. Interest During Construction (IDC)			-
	TJP Total Direct Project Cost-1			22,557
	5. Physical Contingency			2,256
	PLH Total Direct Project Cost	1.12200		24,812
	6. VAT			2,481
	PLH Total Project Cost			27,294

Notes. 1US$=100Yen, 1US$=11,000Rp

B. Management and Operation Costs

188. Manning of the port authority and the operator are scheduled and operation costs are estimated.

C. Tariff and Duties

189. Tariff and duties are set taking the current level applied in Balikpapan Coal Terminal into consideration.

D. Estimated Scale of Business

190. Potential demand for Pelaihari Coal Terminal is presumed as 1.2 million tons/year considering the production scale of potential user mining industries, and vessel size is set as 8,000GRT which will make 156 calls/year during the concession period from 2013 to 2042 (30 years)

6.2. Possible PPP Schemes for Development and Operation of Pelaihari Coal Terminal

191. In Indonesia, special terminal which is exclusively used by the industry for the transportation of its products and/or materials such as coal terminal is stipulated to be developed by the industry itself and is prohibited to be used for other purposes and for other users.

192. There are, however, some medium or small scale industries which are not financially capable to provide the terminal for its own use, and hence the Project is intended to provide some scheme to be able to provide the facilities for these minor users.

193. One of the possible schemes is to assist these industries by offering non interest loan from government to ease their financial burden like the exclusive use container terminal development in Japan.

194. Rationale for this scheme is that it is not proper to provide facilities by the fund from a general account budget to the specific private firm for its exclusive use, but provision of non interest or law interest loan to the development of such facility might be politically accepted when such user industry has special importance to the national economy.

195. Pelaihari Coal Terminal is planned to provide certain schemes to ease financial burden of medium and small scale coal mining industries for development of common use by these industries when they form a union of terminal operator.

196. Originally it is planned and under development by DGST as a common use terminal, though its rationale has not been seriously examined.

197. Case studies are set to check the feasibility of some PPP scheme to be applied including the project currently implemented by DGST.

A. Case-1

- Port authority/DGST provides the infrastructure (land reclamation and causeway) by a general account budget and terminal operator (union of coal mining industries) provides superstructure and equipment by the fund of which 40% is provided by non interest loan from the government and 60% is provided by the union (debt/equity ratio is 70/30)
- PPP scheme applied is the concession to lease the infrastructure to the terminal operator with the concession fee.
- Concession fees consist of fixed fee for repayment of government fund by the port authority to the national treasury and land and water rent and variable fee in the form of 5% revenue share.

（Duration of the concession period should be decided based on the financial assessment under relevant concession conditions such as initial investment, reinvestment for renewal of equipment and facilities, maintenance obligation and concession fee etc. A 25~30 year period or more is common. Therefore, duration of the concession period in this case study is set at 30 years.）

B. Case-2

- Scheme is the same as case-1 with only difference in non interest loan of 20% instead of 40% in case-1

C. Case-3

- Scheme is the same as case-1 with only difference in non interest loan of 0% instead of 40% in case-1

D. Case-4

- All the facilities are provided by the terminal operator with the fund of which 40% is non interest loan from the government and 60% is provided by the terminal operator with debt/equity ratio of 70/30.
- PPP scheme is the concession with concession fees consist of variable fee of 5% revenue share and land and water rent

6.3. Financial Conditions of the Port Authority and the Concessionaire

198. For the purpose of financial analysis, financial conditions of the port authority and the terminal operator/concessionaire are set as shown in Table 6.3-1.

The discount rate of each case is set as follows;

Port Authority: 0.0% (the interest rate of government funds)

Terminal Operator: 6.3% (case-1), 8.4% (case-2), 10.5% (case-3), 6.3% (case-4) (calculated from market interest rates (15.0%) of Indonesia, ratio of fund-raising except for government funds (0.6, 0.8, 1.0 and 0.6 respectively) and debt-equity ratio (70:30))

（One of the criteria for evaluating the financial viability of a project is that the FIRR which is one of the financial indicators should exceed the discount rate.）

Table 6.3-1 Financial Conditions of Port Authority and Terminal Operator

Case-1	Port Authority	Terminal Operator (Concessionaire)
1. Cost Allocation	Invest on infrastructure (Causeway, land reclamation)	Superstructure and equipment
2. Financial Resource	Government fund	non interest loan (40%), bank (70%) and own equity (30%=$0.5mill)
3. Tax	non taxable	20% income tax
4. Maintenance	infrastructure & maintenance dredging	superstructure & other equipment
5. Depreciation	Infrastructure	Superstructure and equipment
6. Concession fees	Fixed fee for infrastructur equivalent amount to repayment of governmet fund +land & water rent +variable fee in terms of 10% revenue share (initial 5 years 5%)	
7. Renewal cost for equipment	not applicable	by its own equity
Case-2	Port Authority	Terminal Operator (Concessionaire)
1. Cost Allocation	Same as case-1	same as case-1
2. Financial Resource	Same as case-1	non interest loan (20%), bank (70%) and own equity (30%=$0.7mill)
3. Tax	Same as case-1	same as case-1
4. Maintenance	Same as case-1	same as case-1
5. Depreciation	Same as case-1	same as case-1
6. Concession fees	Same as cas-1	
7. Renewal cost for equipment	not applicable	same as case-1
Case-3	Port Authority	Terminal Operator (Concessionaire)
1. Cost Allocation	Same as case-1	same as case-1
2. Financial Resource	Same as case-1	bank (70%) and own equity (30%=$0.8mill)
3. Tax	Same as case-1	20% income tax
4. Maintenance	Same as case-1	same as case-1
5. Depreciation	Same as case-1	same as case-1
6. Concession fees	Same as case-1	
7. Renewal cost for equipment	not applicable	same as case-1
Case-4	Port Authority	Terminal Operator (Concessionaire)
1. Cost Allocation	no investment	investment on all facilities and
2. Financial Resource	not applicable	non interest loan (40%), bank (70%) and own equity (30%=$5mill)
3. Tax	Same as cas-1	20% income tax
4. Maintenance	not applicable	all the facilities and equipment
5. Depreciation	not applicable	all the facilities and equipment
6. Concession fees	land and water rent + variable fee of 5% revenue share (initial 5 years exemption)	
7. Renewal cost for equipment	not applicable	from own equity

6.4. Evaluation of PPP Scheme

A. Table of Financial Indicators and Financial Statements for the concession evaluation

199. In case-4、it is clear that Debt Service Coverage Ratio does not improve for a long time based on the financial indicators and financial statements. The financial statements of the case-4 are attached in the report.

B. Result of Evaluation

200. Terminal Operator will be able to invest on the superstructure with 0.5 million dollars of its own equity when the government provides 40% of the operator's investment amount with non interest

loan (case-1) and financial statements during the concession period shows possible stable financial management both for the port authority and the terminal operator (see Table 6.4-1).

201. Case-2 shows the financial effects of 20% of non interest loan provided to the operator instead of 40% in cas-1. Estimated financial statements show that even 20% of non interest loan form the government, both the port authority and the terminal operator can financially operate since the initial investment amount for the operator is rather small (less than 10% of the total investment cost) (see Table 6.4-2).

202. Case-3 shows the financial effects of no provision of financial assistance to the operator's investment while the government provides the infrastructure, and results show that even in case without government financial assistance, port can be financially sustainable (see Table6.4-3).

203. Only difference among above these three cases lies in the necessary amount of own equity of the terminal operator. When there is no government support in the terminal operator's investment, he has to prepare at least about 1 million dollars equity. Hence project viability highly depends on the financial capability of such small or medium scale industry whether they can prepare the necessary paid up capital.

204. Case-4 is the case that whole investment including infrastructure is done by the terminal operator with the government assistance with non interest loan for 40% of the total investment cost. In this case, financial analysis shows that even the terminal operator prepares about 5 million dollars equity, still 42% (11.5 million dollars) of total investment costs (around 27.3 million dollars) has to be financed by market bank and it will make severe burden to the operator for these small scale business (see Table 6.4-4~Table 6.4-6).

205. In case of the provision of the terminal for exclusive use by the specific industry, the terminal should be, in principle, provided by the firm, since it is a kind of facility of its production line. There is, however, the case where such terminal is difficult for the industry to be prepared by itself because of necessity of huge amount of investment.

206. When the government assistance is considered to be necessary for the promotion of such industry from the political reason, provision of infrastructure by the public sector for leasing such infrastructure to the specific industry is a proper scheme, and the superstructure should be provided by the industry itself, since it is designed to fit to specific handling of the product of the industry.

207. In this case, there may be a case where some member firm will have different time period of license, and hence short time lease would be appropriate to cope with variable situation.

Table 6.4-1 Result of Financial Analysis (Case-1): Pelaihari Coal Terminal

OUTPUTS

Concession Fee	1st Prd	2nd Prd	3rd Prd
Fixed	845	845	845
Variable	99	198	198

	1000$
Loader lease	0
Conveyer lease	0

TOU

		Financial Indicators				2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																						
	Rate of Return on Net Fixed Assets (Criterion: over %)		8.00%			0.00%	0.00%	12.94%	13.63%	14.40%	15.14%	16.10%	13.11%	14.05%	13.58%	14.60%	13.26%	14.22%	15.18%	16.47%	17.99%	9.99%
OPERATIONAL EFFICIENCY																						
	Operating Ratio (Criterion: under 0.7- 0.75)					0.00	0.00	0.79	0.79	0.79	0.79	0.79	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.87
	Working Ratio (Criterion: under 0.5- 0.6)					0.00	0.00	0.71	0.71	0.71	0.71	0.71	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
LOAN REPAYMENT CAPACITY																						
	Debt Service Coverage Ratio (Criterion: over 1.0)					0.00	0.00	1.71	1.77	1.84	1.91	1.99	1.73	1.81	1.90	1.99	2.10	2.22	2.35	2.50	2.67	2.87
		concessionn fee rate (fixed)				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
		concession fee rate (variable)				5%	5%	5%	5%	5%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
		total concession fee/revenue				0%	0%	49%	49%	49%	49%	49%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)	67.50%																			
		Financial Indicators		2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																						
	Rate of Return on Net Fixed Assets (Criterion: over %)		8.00%	9.94%	10.93%	12.13%	13.63%	12.44%	14.02%	16.07%	18.82%	18.64%	22.44%	28.19%	37.90%	55.02%	110.00%	18.39%				
OPERATIONAL EFFICIENCY																						
	Operating Ratio (Criterion: under 0.7- 0.75)			0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87				
	Working Ratio (Criterion: under 0.5- 0.6)			0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76				
LOAN REPAYMENT CAPACITY																						
	Debt Service Coverage Ratio (Criterion: over 1.0)			13.95	13.95	13.95	13.95	13.95	13.95	13.95	13.95	13.95	13.95	13.95	13.95	13.95	13.95	13.95				
FINANCIAL INTERNAL RATE OF RETURN			13.5%																			
		concessionn fee rate (fixed)		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%				
		concession fee rate (variable)		10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%				
		total concession fee/revenue		54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%				
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)	67.50%																			
	Retained Earnings Total		6,045	($1,000)																		

PA

		Financial Indicators				2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																						
	Rate of Return on Net Fixed Assets (Criterion: over %)		1.59%			0.00%	0.00%	0.92%	0.94%	0.96%	0.79%	1.01%	1.49%	1.53%	1.58%	1.40%	1.67%	1.72%	1.78%	1.84%	1.64%	1.97%
OPERATIONAL EFFICIENCY																						
	Operating Ratio (Criterion: under 0.7- 0.75)					0.00	0.00	0.78	0.78	0.78	0.83	0.78	0.72	0.72	0.72	0.76	0.72	0.72	0.72	0.72	0.76	0.72
	Working Ratio (Criterion: under 0.5- 0.6)					0.00	0.00	0.23	0.23	0.23	0.27	0.23	0.21	0.21	0.21	0.24	0.21	0.21	0.21	0.21	0.24	0.21
LOAN REPAYMENT CAPACITY																						
	Debt Service Coverage Ratio (Criterion: over 1.0)							0.97	0.97	0.97	0.91	0.97	1.08	1.08	1.08	1.03	1.08	1.08	1.08	1.08	1.03	1.08
		Financial Indicators		2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																						
	Rate of Return on Net Fixed Assets (Criterion: over %)		1.59%	2.04%	2.12%	2.21%	1.99%	2.40%	2.51%	2.63%	2.76%	2.51%	3.06%	3.24%	3.45%	3.67%	3.40%	4.24%				
OPERATIONAL EFFICIENCY																						
	Operating Ratio (Criterion: under 0.7- 0.75)			0.72	0.72	0.72	0.76	0.72	0.72	0.72	0.72	0.76	0.72	0.72	0.72	0.72	0.76	0.72				
	Working Ratio (Criterion: under 0.5- 0.6)			0.21	0.21	0.21	0.24	0.21	0.21	0.21	0.21	0.24	0.21	0.21	0.21	0.21	0.24	0.21				
LOAN REPAYMENT CAPACITY																						
	Debt Service Coverage Ratio (Criterion: over 1.0)			1.08	1.08	1.08	1.03	1.08	1.08	1.08	1.08	1.03	1.08	1.08	1.08	1.08	1.03	1.08				
	Retained Earnings Total		9,005	($1,000)																		
FINANCIAL INTERNAL RATE OF RETRUN			1.5%																			

Table 6.4-2 Result of Financial Analysis (Case-2): Pelaihari Coal Terminal

OUTPUTS

Concession Fee	1st Prd	2nd Prd	3rd Prd
Fixed	845	845	845
Variable	99	198	198

	1000$
Loader lease	0
Conveyer lease	0

TOU

		Financial Indicators			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																					
	Rate of Return on Net Fixed Assets (Criterion: over %)		8.00%		0.00%	0.00%	12.88%	13.54%	14.27%	14.97%	15.87%	12.92%	13.80%	13.33%	14.27%	12.98%	13.87%	14.74%	15.91%	17.27%	9.76%
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)				0.00	0.00	0.79	0.79	0.79	0.79	0.79	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.87
	Working Ratio (Criterion: under 0.5- 0.6)				0.00	0.00	0.71	0.71	0.71	0.71	0.71	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)				0.00	0.00	1.41	1.47	1.53	1.60	1.68	1.46	1.54	1.63	1.72	1.83	1.95	2.09	2.25	2.44	2.66
		concessionn fee rate (fixed)			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
		concession fee rate (variable)			5%	5%	5%	5%	5%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
		total concession fee/revenue			0%	0%	49%	49%	49%	49%	49%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)	67.50%																		
	Financial Indicators			2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																					
	Rate of Return on Net Fixed Assets (Criterion: over %)		8.00%	9.69%	10.60%	11.69%	13.03%	11.93%	13.33%	15.10%	17.41%	17.21%	20.29%	25.82%	32.23%	41.45%	60.90%	16.91%			
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)			0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.86	0.86	0.86	0.86	0.86			
	Working Ratio (Criterion: under 0.5- 0.6)			0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76			
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)			27.91	27.91	27.91	27.91	27.91	27.91	27.91	27.91	27.91	27.91	27.91	27.91	27.91	27.91	27.91			
FINANCIAL INTERNAL RATE OF RETURN			13.3%																		
		concessionn fee rate (fixed)		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		concession fee rate (variable)		10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%			
		total concession fee/revenue		54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%			
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)	67.50%																		
	Retained Earnings Total		5,819	($1,000)																	

PA

		Financial Indicators			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																					
	Rate of Return on Net Fixed Assets (Criterion: over %)		1.59%		0.00%	0.00%	0.92%	0.94%	0.96%	0.79%	1.01%	1.49%	1.53%	1.58%	1.40%	1.67%	1.72%	1.78%	1.84%	1.64%	1.97%
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)				0.00	0.00	0.78	0.78	0.78	0.83	0.78	0.72	0.72	0.72	0.76	0.72	0.72	0.72	0.72	0.76	0.72
	Working Ratio (Criterion: under 0.5- 0.6)				0.00	0.00	0.23	0.23	0.23	0.27	0.23	0.21	0.21	0.21	0.24	0.21	0.21	0.21	0.21	0.24	0.21
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)						0.97	0.97	0.97	0.91	0.97	1.08	1.08	1.08	1.03	1.08	1.08	1.08	1.08	1.03	1.08
	Financial Indicators			2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																					
	Rate of Return on Net Fixed Assets (Criterion: over %)		1.59%	2.04%	2.12%	2.21%	1.99%	2.40%	2.51%	2.63%	2.76%	2.51%	3.06%	3.24%	3.45%	3.67%	3.40%	4.24%			
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)			0.72	0.72	0.72	0.76	0.72	0.72	0.72	0.72	0.76	0.72	0.72	0.72	0.72	0.76	0.72			
	Working Ratio (Criterion: under 0.5- 0.6)			0.21	0.21	0.21	0.24	0.21	0.21	0.21	0.21	0.24	0.21	0.21	0.21	0.21	0.24	0.21			
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)			1.08	1.08	1.08	1.03	1.08	1.08	1.08	1.08	1.03	1.08	1.08	1.08	1.08	1.03	1.08			
	Retained Earnings Total		9,005	($1,000)																	
FINANCIAL INTERNAL RATE OF RETRUN			1.5%																		

Table 6.4-3 Result of Financial Analysis (Case-3): Pelaihari Coal Terminal

OUTPUTS

Concession Fee	1st Prd	2nd Prd	3rd Prd
Fixed	845	845	845
Variable	99	198	198

	1000$
Loader lease	0
Conveyer lease	0

TOU

		Financial Indicators				2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																						
	Rate of Return on Net Fixed Assets (Criterion: over %)		8.00%			0.00%	0.00%	12.81%	13.44%	14.14%	14.80%	15.65%	12.74%	13.56%	13.09%	13.97%	12.72%	13.54%	14.34%	15.39%	16.62%	9.54%
OPERATIONAL EFFICIENCY																						
	Operating Ratio (Criterion: under 0.7- 0.75)					0.00	0.00	0.79	0.79	0.79	0.79	0.79	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.87
	Working Ratio (Criterion: under 0.5- 0.6)					0.00	0.00	0.71	0.71	0.71	0.71	0.71	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
LOAN REPAYMENT CAPACITY																						
	Debt Service Coverage Ratio (Criterion: over 1.0)					0.00	0.00	1.20	1.26	1.32	1.38	1.45	1.27	1.34	1.42	1.52	1.62	1.74	1.88	2.05	2.24	2.48
		concessionn fee rate (fixed)				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
		concession fee rate (variable)				5%	5%	5%	5%	5%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
		total concession fee/revenue				0%	0%	49%	49%	49%	49%	49%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)	67.50%																			
	Financial Indicators			2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																						
	Rate of Return on Net Fixed Assets (Criterion: over %)		8.00%	9.47%	10.30%	11.29%	12.49%	11.47%	12.71%	14.25%	16.22%	16.02%	18.55%	23.07%	27.86%	34.21%	45.92%	15.61%				
OPERATIONAL EFFICIENCY																						
	Operating Ratio (Criterion: under 0.7- 0.75)			0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.86	0.86	0.86	0.86	0.86				
	Working Ratio (Criterion: under 0.5- 0.6)			0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76				
LOAN REPAYMENT CAPACITY																						
	Debt Service Coverage Ratio (Criterion: over 1.0)			n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
FINANCIAL INTERNAL RATE OF RETURN			13.2%																			
		concessionn fee rate (fixed)		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		concession fee rate (variable)		10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%			
		total concession fee/revenue		54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%	54%			
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)	67.50%																			
	Retained Earnings Total		5,529	($1,000)																		

PA

		Financial Indicators				2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																						
	Rate of Return on Net Fixed Assets (Criterion: over %)		1.59%			0.00%	0.00%	0.92%	0.94%	0.96%	0.79%	1.01%	1.49%	1.53%	1.58%	1.40%	1.67%	1.72%	1.78%	1.84%	1.64%	1.97%
OPERATIONAL EFFICIENCY																						
	Operating Ratio (Criterion: under 0.7- 0.75)					0.00	0.00	0.78	0.78	0.78	0.83	0.78	0.72	0.72	0.72	0.76	0.72	0.72	0.72	0.72	0.76	0.72
	Working Ratio (Criterion: under 0.5- 0.6)					0.00	0.00	0.23	0.23	0.23	0.27	0.23	0.21	0.21	0.21	0.24	0.21	0.21	0.21	0.21	0.24	0.21
LOAN REPAYMENT CAPACITY																						
	Debt Service Coverage Ratio (Criterion: over 1.0)							0.97	0.97	0.97	0.91	0.97	1.08	1.08	1.08	1.03	1.08	1.08	1.08	1.08	1.03	1.08
	Financial Indicators			2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																						
	Rate of Return on Net Fixed Assets (Criterion: over %)		1.59%	2.04%	2.12%	2.21%	1.99%	2.40%	2.51%	2.63%	2.76%	2.51%	3.06%	3.24%	3.45%	3.67%	3.40%	4.24%				
OPERATIONAL EFFICIENCY																						
	Operating Ratio (Criterion: under 0.7- 0.75)			0.72	0.72	0.72	0.76	0.72	0.72	0.72	0.72	0.76	0.72	0.72	0.72	0.72	0.76	0.72				
	Working Ratio (Criterion: under 0.5- 0.6)			0.21	0.21	0.21	0.24	0.21	0.21	0.21	0.21	0.24	0.21	0.21	0.21	0.21	0.24	0.21				
LOAN REPAYMENT CAPACITY																						
	Debt Service Coverage Ratio (Criterion: over 1.0)			1.08	1.08	1.08	1.03	1.08	1.08	1.08	1.08	1.03	1.08	1.08	1.08	1.08	1.03	1.08				
	Retained Earnings Total		9,005	($1,000)																		
FINANCIAL INTERNAL RATE OF RETRUN			1.5%																			

Table 6.4-4 Result of Financial Analysis (Case-4): Pelaihari Coal Terminal

OUTPUTS

Concession Fee	1st Prd	2nd Prd	3rd Prd
Fixed	0	0	0
Variable	103	206	206

	1000$
Loader lease	0
Conveyer lease	0

TOU

		Financial Indicators			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																					
	Rate of Return on Net Fixed Assets (Criterion: over %)		8.00%		0.00%	0.00%	1.03%	1.06%	1.10%	1.14%	1.18%	0.83%	0.86%	0.90%	0.94%	0.98%	1.02%	1.07%	1.12%	1.18%	0.87%
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)				0.00	0.00	0.84	0.84	0.84	0.84	0.84	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.93
	Working Ratio (Criterion: under 0.5- 0.6)				0.00	0.00	0.37	0.37	0.37	0.37	0.37	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)				0.00	0.00	0.37	0.38	0.40	0.42	0.44	0.43	0.45	0.47	0.50	0.54	0.57	0.62	0.67	0.73	0.80
		concessionn fee rate (fixed)			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
		concession fee rate (variable)			5%	5%	5%	5%	5%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
		total concession fee/revenue			0%	0%	7%	7%	7%	7%	7%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)	68.04%																		
		Financial Indicators		2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																					
	Rate of Return on Net Fixed Assets (Criterion: over %)		8.00%	0.93%	0.99%	1.06%	1.14%	1.24%	1.35%	1.49%	1.66%	1.87%	2.14%	2.75%	3.29%	4.11%	5.47%	8.17%			
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)			0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92			
	Working Ratio (Criterion: under 0.5- 0.6)			0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42			
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)			3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24			
FINANCIAL INTERNAL RATE OF RETURN			1.0%																		
		concessionn fee rate (fixed)		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		concession fee rate (variable)		10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%			
		total concession fee/revenue		12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%			
	MAXIMUM CONCESSION FEE RATE	NPV(Profit/Revenue)	68.04%																		
	Retained Earnings Total		-11,298	($1,000)																	

PA

	Financial Indicators			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																				
	Rate of Return on Net Fixed Assets (Criterion: over %)	1.59%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
OPERATIONAL EFFICIENCY																				
	Operating Ratio (Criterion: under 0.7- 0.75)			0.00	0.00	0.21	0.21	0.21	0.21	0.21	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
	Working Ratio (Criterion: under 0.5- 0.6)			0.00	0.00	0.21	0.21	0.21	0.21	0.21	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
LOAN REPAYMENT CAPACITY																				
	Debt Service Coverage Ratio (Criterion: over 1.0)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Financial Indicators			2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
PROFITABILITY (Net Operating Income/ Net Fixed Assets)																					
	Rate of Return on Net Fixed Assets (Criterion: over %)	1.59%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
OPERATIONAL EFFICIENCY																					
	Operating Ratio (Criterion: under 0.7- 0.75)			0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12			
	Working Ratio (Criterion: under 0.5- 0.6)			0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12			
LOAN REPAYMENT CAPACITY																					
	Debt Service Coverage Ratio (Criterion: over 1.0)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	Retained Earnings Total		5,744	($1,000)																	
FINANCIAL INTERNAL RATE OF RETRUN			0.0%																		

Table 6.4-5 TOU's Income Statement (Case-4): Pelaihari Coal Terminal

Income Statement of the Pelaihari Project ($'000s)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
REVENUE																																			
Tonnage(Harbor Due)						52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Pilotage						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
Anchorage Fee for Vessel						4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Anchorage Fee for Cargo																																			
Wharfage for Vessels						114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114
Wharfage for Cargo						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
Procedure fee																																			
Towage fee						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
Moorage service						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
Light Due						22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
Charge for mooring/unmooring						11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Charge for opening/closing hatch						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
Charge for handling coal						1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855
Bond Interest (From PA)						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
Concession Variable Fee (To PA)																																			
TOTAL REVENUE						2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058
EXPENSE																																			
DIRECT EXPENSE																																			
Labour Cost (Concessionaire)						35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Maintenance of equipment (for PA asset)						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
Maintenance of equipment (Concessionaire including shore cranes)						89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89
Fuel & Utilities (for PA)						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
Fuel & Utilities (for Concessionaire)						36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
Maintenance of infrastructures (PA: major repairs)						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
Maintenance of infrastructures (Concessionaire: minor repairs)						256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256
Maintenance dredging						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
Total Direct Expense						415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415
INDIRECT EXPENSE																																			
Depreciation (equipment) (for PA)						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
Depreciation (renewal/add equipment) (Concessionaire)						72	72	72	72	72	72	72	72	72	72	72	72	72	72	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
Depreciation (own equity)						16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	0	0	0	0	0
Depreciation Expense (Infrastructures)						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
Depreciation (TOU Gov finance)						373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373
Depreciation (Consulting service)						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
Depreciation (TOU domestic fund)						511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511
Insurance & Claims (??% of Revenue)						31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Bad Debt (0.5% of Revenue)						10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Concession Fixed Fee (To PA)						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
Concession Variable Fee (to PA)						103	103	103	103	103	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206
Land & Water Rental Fee (to PA)						32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Total Indirect Expense						1,148	1,148	1,148	1,148	1,148	1,251	1,251	1,251	1,251	1,251	1,251	1,251	1,251	1,251	1,316	1,316	1,316	1,316	1,316	1,316	1,316	1,316	1,316	1,316	1,316	1,301	1,301	1,301	1,301	1,301
GENERAL & ADMINISTRATIVE																																			
Administrative Personnel (Concessionaire)						123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123
Others (Personnel Cost x 40%)						49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
PA TJ Port Office Administration						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
Total General & Administrative						172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
TOTAL EXPENSE						1,735	1,735	1,735	1,735	1,735	1,838	1,838	1,838	1,838	1,838	1,838	1,838	1,838	1,838	1,904	1,904	1,904	1,904	1,904	1,904	1,904	1,904	1,904	1,904	1,904	1,888	1,888	1,888	1,888	1,888
OPERATING INCOME						322	322	322	322	322	219	219	219	219	219	219	219	219	219	154	154	154	154	154	154	154	154	154	154	154	169	169	169	169	169
OTHER INCOME/(EXPENSE)																																			
Repayment of Interest on Initial Loans (PA)						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
Repayment of Interest on Long-Term Loans (PA Reinvestment)						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
Repayment of interest on Lon-Term Loan Principal (Gov finance)						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
Repayment of Interest on Long-Term Loans (TOU domestic fund)						2,149	2,003	1,857	1,712	1,566	1,420	1,275	1,129	983	838	692	546	401	255	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Repayment of Interest on Short-Term Loans (PA)																																			
Repayment of Interest on Long-Term Loans (TOU Reinvestment)						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
Repayment of Interest on Short-Term Loans (Concessionaire)																																			
TOTAL OTHER						2,149	2,003	1,857	1,712	1,566	1,420	1,275	1,129	983	838	692	546	401	255	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EARNINGS before TAXES						-1,826	-1,681	-1,535	-1,389	-1,244	-1,201	-1,055	-910	-764	-618	-473	-327	-181	-36	44	154	154	154	154	154	154	154	154	154	154	169	169	169	169	169
INCOME TAX (from Concessionaire)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	31	31	31	31	31	31	31	31	31	31	34	34	34	34	34
NET INCOME after tax						-1,826	-1,681	-1,535	-1,389	-1,244	-1,201	-1,055	-910	-764	-618	-473	-327	-181	-36	35	123	123	123	123	123	123	123	123	123	123	135	135	135	135	135
Retained Earnings						-1,826	-3,507	-5,042	-6,431	-7,675	-8,876	-9,931	-10,841	-11,604	-12,223	-12,695	-13,022	-13,203	-13,239	-13,203	-13,081	-12,958	-12,835	-12,712	-12,589	-12,467	-12,344	-12,221	-12,098	-11,975	-11,840	-11,704	-11,569	-11,433	-11,298

Table 6.4-6 TOU's Cash Flow Statement and Balance Sheet (Case-4): Pelaihari Coal Terminal

Statement of Cash Flows ($'000s) of Pelaihari	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Cash Beginning	0	0	0	0	0	0	-2,234	-4,323	-6,266	-8,064	-9,716	-11,325	-12,788	-14,106	-15,278	-16,304	-17,185	-17,920	-18,509	-18,953	-19,260	-18,466	-17,673	-16,880	-16,086	-15,293	-14,499	-13,706	-12,912	-12,119	-11,326	-10,535	-9,745	-8,955	-8,165
Cash Inflow	5,260	3,079	8,206	9,169	6,491	1,294	1,294	1,294	1,294	1,294	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191
CASH FLOWS FROM OPERATING ACTIVITIES	0	0	0	0	0	1,294	1,294	1,294	1,294	1,294	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191
Operating Income	0	0	0	0	0	322	322	322	322	322	219	219	219	219	219	219	219	219	219	154	154	154	154	154	154	154	154	154	154	154	169	169	169	169	169
Depreciation (equipment) (for PA)	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	0	0
Depreciation (renewal/add equipment) (Concessionaire)	0	0	0	0	0	72	72	72	72	72	72	72	72	72	72	72	72	72	72	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
Depreciation (own equity)	0	0	0	0	0	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	0	0	0	0	0
Depreciation Expense (Infrastructures)	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	0	0
Depreciation (TOU Gov finance)	0	0	0	0	0	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373
Depreciation (Consulting service)	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	0	0
Depreciation (TOU domestic fund)	0	0	0	0	0	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511
[Total No cash Items included in Net Income (Depreciation)]	0	0	0	0	0	972	972	972	972	972	972	972	972	972	972	972	972	972	972	1,038	1,038	1,038	1,038	1,038	1,038	1,038	1,038	1,038	1,038	1,038	1,022	1,022	1,022	1,022	1,022
CASH FLOWS FROM FINANCING ACTIVITIES	5,260	3,079	8,206	9,169	6,491	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
Initial Long-Term Loans (PA)	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	0	0
Long-Term Loans (PA Reinvestment)	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	0	0
Long-Term Loans (TOU by Gov finance)	220	1,474	3,720	3,842	2,569	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
Long-Term Loans (TOU domestic fund)	0	1,606	4,486	5,327	3,922	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
Short -Term Loan (PA)																																			
Concessionaire own equity: initial investment	5,039	0	0	0	0																														
Short -Term Loan (Concessionaire)																																			
Capitalized Interest (Long-term: Government)	0	0	0	0	0	0	0	0																											
Cash Outflow	5,260	3,079	8,206	9,169	6,491	3,529	3,383	3,237	3,092	2,946	2,800	2,655	2,509	2,363	2,218	2,072	1,926	1,781	1,635	1,498	398	398	398	398	398	398	398	398	398	401	401	401	401	401	
CASH FLOWS FROM INVESTING ACTIVITIES	5,260	3,079	8,206	9,169	6,491	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
Construction in Progress (PA)	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	0	0
Capitalized Interest (Long-term: Government)	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	0	0
Assets Acquired (PA)	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	0	0
Assets Acquired (TOU by Gov finance)	220	1,474	3,720	3,842	2,569	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
Assets Acquired domestic fund (TOU)	0	1,606	4,486	5,327	3,922	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
Assets Acquired (Concessionaire own equity)	5,039	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	0
CASH FLOWS FROM FINANCING ACTIVITIES	0	0	0	0	0	3,529	3,383	3,237	3,092	2,946	2,800	2,655	2,509	2,363	2,218	2,072	1,926	1,781	1,635	1,498	398	398	398	398	398	398	398	398	398	401	401	401	401	401	
Repayment of Initial Loan Principal (PA)	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	0	0
Repayment of Interest on Initial Loans (PA)	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	0	0
Repayment of Lon-Term Loan Principal (PA Reinvestment)	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	0	0
Repayment of Interest on Long-Term Loans (PA Reinvestment)	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	0	0
Repayment of Lon-Term Loan Principal (Gov finance)	0	0	0	0	0	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367
Repayment of interest on Lon-Term Loan Principal (Gov finance)	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	0	0
Repayment of Long-Term Loan Principal (TOU domestic fund)	0	0	0	0	0	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Repayment of Interest on Long-Term Loans (TOU domestic fund)	0	0	0	0	0	2,149	2,003	1,857	1,712	1,566	1,420	1,275	1,129	983	838	692	546	401	255	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Repayment of Lon-Term Loan Principal (Concessionaire)	0	0	0	0	0	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Repayment of Interest on Long-Term Loans (Concessionaire)	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	0	0
Repayment of short-Term Loan (TOU)																																			
Repayment of Interest on Short-Term Loans (TOU)	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	0	0
Repayment of short-Term Loan (Concessionaire)																																			
Repayment of Interest on Short-Term Loans (Concessionaire)	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	0	0
Income Tax (Concessionaire only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	31	31	31	31	31	31	31	31	31	31	34	34	34	34	34
Cash Inflow - Cash Outflow	0	0	0	0	0	-2,234	-2,089	-1,943	-1,797	-1,652	-1,609	-1,463	-1,318	-1,172	-1,026	-881	-735	-589	-444	-307	793	793	793	793	793	793	793	793	793	790	790	790	790	790	
Cash Ending	0	0	0	0	0	-2,234	-4,323	-6,266	-8,064	-9,716	-11,325	-12,788	-14,106	-15,278	-16,304	-17,185	-17,920	-18,509	-18,953	-19,260	-18,466	-17,673	-16,880	-16,086	-15,293	-14,499	-13,706	-12,912	-12,119	-11,326	-10,535	-9,745	-8,955	-8,165	-7,374

Balance Sheet ($'000s)

Balance Sheet ($'000s)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
CURRENT ASSETS	0	0	0	0	0	-2,234	-4,323	-6,266	-8,064	-9,716	-11,325	-12,788	-14,106	-15,278	-16,304	-17,185	-17,920	-18,509	-18,953	-19,260	-18,466	-17,673	-16,880	-16,086	-15,293	-14,499	-13,706	-12,912	-12,119	-11,326	-10,535	-9,745	-8,955	-8,165	-7,374
Cash and Cash Equivalent Investments	0	0	0	0	0	-2,234	-4,323	-6,266	-8,064	-9,716	-11,325	-12,788	-14,106	-15,278	-16,304	-17,185	-17,920	-18,509	-18,953	-19,260	-18,466	-17,673	-16,880	-16,086	-15,293	-14,499	-13,706	-12,912	-12,119	-11,326	-10,535	-9,745	-8,955	-8,165	-7,374
PROPERTY, PLANT AND EQUIPMENT	5,260	8,339	16,545	25,714	32,206	31,234	30,262	29,290	28,318	27,346	26,374	25,402	24,430	23,458	22,486	21,514	20,542	19,570	18,598	17,561	16,523	15,485	14,447	13,410	12,372	11,334	10,296	9,259	8,221	7,183	6,161	5,139	4,117	3,095	2,073
Construction in Progress (PA)	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	0	0
Fixed Assets (PA)	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	0	0
Accumulated Depreciation (PA)	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	0	0
Net Fixed Assets (PA)	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	0	0
Fixed Assets (TOU domestic fund)	0	1,606	6,091	11,418	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340	15,340
Accumulated Depreciation (TOU domestic fund)	0	0	0	0	0	511	1,023	1,534	2,045	2,557	3,068	3,579	4,091	4,602	5,113	5,625	6,136	6,647	7,159	7,670	8,181	8,693	9,204	9,715	10,227	10,738	11,250	11,761	12,272	12,784	13,295	13,806	14,318	14,829	15,340
Net Fixed Assets (TOU domestic fund)	0	1,606	6,091	11,418	15,340	14,829	14,318	13,806	13,295	12,784	12,272	11,761	11,250	10,738	10,227	9,715	9,204	8,693	8,181	7,670	7,159	6,647	6,136	5,625	5,113	4,602	4,091	3,579	3,068	2,557	2,045	1,534	1,023	511	0
Fixed Assets (Concessionaire own equity and Gov finance)	5,260	6,734	10,454	14,296	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865	16,865
Accumulated Depreciation (Concessionaire own equity and Gov finance)	0	0	0	0	0	461	921	1,382	1,842	2,303	2,764	3,224	3,685	4,145	4,606	5,066	5,527	5,988	6,448	6,975	7,501	8,028	8,554	9,080	9,607	10,133	10,660	11,186	11,712	12,239	12,749	13,260	13,771	14,281	14,792
Net Fixed Assets (Concessionaire own equity and Gov finance)	5,260	6,734	10,454	14,296	16,865	16,405	15,944	15,483	15,023	14,562	14,102	13,641	13,181	12,720	12,259	11,799	11,338	10,878	10,417	9,891	9,364	8,838	8,311	7,785	7,259	6,732	6,206	5,679	5,153	4,626	4,116	3,605	3,095	2,584	2,073
TOTAL ASSETS	5,260	8,339	16,545	25,714	32,206	28,999	25,938	23,023	20,254	17,630	15,049	12,614	10,324	8,180	6,182	4,330	2,623	1,061	-354	-1,699	-1,943	-2,188	-2,432	-2,676	-2,921	-3,165	-3,409	-3,654	-3,898	-4,143	-4,374	-4,606	-4,838	-5,069	-5,301
CURRENT 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	0	0
Short-Term Borrowings (PA)	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	0	0
Short-Term Borrowings (Concessionaire)	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	0	0
LONG-TERM LIABILITIES	220	3,300	11,505	20,675	27,166	25,786	24,406	23,026	21,646	20,266	18,886	17,506	16,125	14,745	13,365	11,985	10,605	9,225	7,845	6,465	6,098	5,731	5,363	4,996	4,629	4,262	3,895	3,528	3,160	2,793	2,426	2,059	1,692	1,325	957
Long-Term Borrowings (PA)	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	0	0
Long-Term Borrowings (PA from Private)	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	0	0
Long-Term Borrowings (TOU from Private)	0	1,606	6,091	11,418	15,340	14,369	13,398	12,427	11,456	10,485	9,514	8,543	7,571	6,600	5,629	4,658	3,687	2,716	1,745	774	774	774	774	774	774	774	774	774	774	774	774	774	774	774	774
Long-Term Borrowings (Concessionaire Gov finance)	220	1,694	5,414	9,256	11,826	11,417	11,008	10,599	10,190	9,781	9,372	8,963	8,554	8,145	7,736	7,327	6,918	6,509	6,100	5,691	5,324	4,957	4,590	4,223	3,855	3,488	3,121	2,754	2,387	2,019	1,652	1,285	918	551	184
CAPITAL	5,039	5,039	5,039	5,039	5,039	3,213	1,532	-2	-1,392	-2,635	-3,836	-4,892	-5,801	-6,565	-7,183	-7,656	-7,983	-8,164	-8,199	-8,164	-8,041	-7,918	-7,796	-7,673	-7,550	-7,427	-7,304	-7,181	-7,059	-6,936	-6,800	-6,665	-6,529	-6,394	-6,258
Retained Earnings	0	0	0	0	0	-1,826	-3,507	-5,042	-6,431	-7,675	-8,876	-9,931	-10,841	-11,604	-12,223	-12,695	-13,022	-13,203	-13,239	-13,203	-13,081	-12,958	-12,835	-12,712	-12,589	-12,467	-12,344	-12,221	-12,098	-11,975	-11,840	-11,704	-11,569	-11,433	-11,298
Capital	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039	5,039
TOTAL LIABILITIES AND CAPITAL	5,260	8,339	16,545	25,714	32,206	28,999	25,938	23,023	20,254	17,630	15,049	12,614	10,324	8,180	6,182	4,330	2,623	1,061	-354	-1,699	-1,943	-2,188	-2,432	-2,676	-2,921	-3,165	-3,409	-3,654	-3,898	-4,143	-4,374	-4,606	-4,838	-5,069	-5,301

V. New PPP Strategy for D.M.O of Ports

1. Proposed Basic Direction of New PPP Strategy on D.M.O of Ports

1.1. Background

208. The basic goal of government in increasing private participation is, as commonly acknowledged in most of the countries, to establish a more competitive and financially sustainable system of ports.

209. In Indonesia, the port sector faces the problem of inefficient operation both in productivity and investment recovery by the state-own companies caused mainly by the followings:

- Commercial ports in Indonesia is managed and operated by state own company -IPC- which is enjoying its monopolistic power, and supervision of IPC is under the jurisdiction of MOSOC which has no experience and knowledge of port management..
- Neither IPC nor DGST has enough knowledge on management and supervision of port concession which led impartial concession contract and insufficient supervision of conceded terminal operators.

210. On the basis of the background mentioned above, the government promulgated the new shipping law which intends to separate regulator's function and operator's function of IPC and to establish new body as the regulator, Port Authority and Port Management Unit.

1.2. Objectives

211. Considering the background mentioned above, the objectives of introduction of new public-private partnership scheme to port development, management and operation can be said as follows:

- Increase operational efficiency
- Generate the system to recover state investment and to raise state revenue
- Create conditions for more efficient and accountable entities in port management and operation
- Create a more transparent and competitive port concession scheme consistently applied throughout the country for financially sound and efficient port development , management and operation

1.3. Basic Direction for the Establishment of New PPP Strategy

212. In order for creating better and workable system to introduce new public-private partnership to the port development, management and operation, it is necessary firstly to redefine the roles and functions of related organizations including KKPPI (National Committee for the Acceleration of Infrastructure Provision), RMU (Risk Management Unit), MOSOC (Ministry of State Own Company), MOT, DGST and PELINDOs currently involved in the PPP implementation of port sector, reform/amendment of the regulatory framework from currently applied one and institutional reform of related organizations including establishment of Port Authority solely responsible for management and development of each port for the promotion of PPP in general to more suitable and specific one to the development, management and operation of port.

213. Regulation related with PPP is stipulated in related government regulations in general form regardless of sectors, and they are not workable to PPP project on the port sector which has quite different characteristics from other public infrastructure project.

214. Port is generally composed as a group of various terminals including container terminal, general cargo terminal, bulk cargo terminal and often special terminal owned and operated by specific industry.

215. It is necessary to establish workable and effective strategy and regulations specific to port development and operation.

216. Principal issues to be incorporated in the PPP strategy on port sector are (1) clear definition of roles, function, powers and responsibilities of concerned parties related with port concession, (2) regulatory framework related with port concession, (3) institutional framework on supervision and management of port concession, (4) framework for consultation with maritime community, (5) basic policy and rules on bidding and contract management of port concession, (6) basic rule on port infrastructure pricing (concession pricing) and (7) strategy and scheme on human resource development for port management and operation. Basic direction of establishing new PPP strategy is shown in Figure 1.3-1.

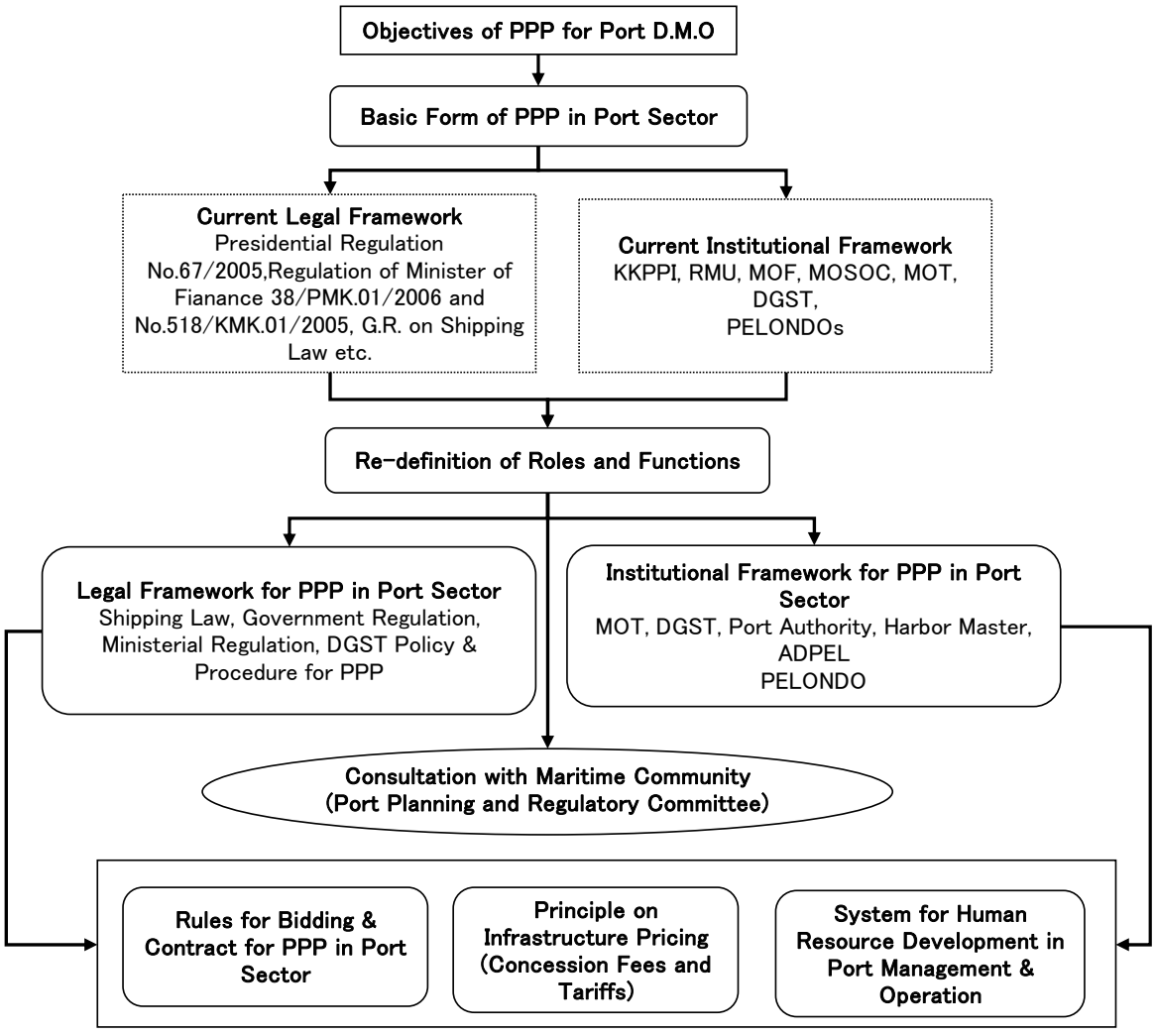


Figure 1.3-1 Basic Direction of New PPP Strategy

2. Principles on New PPP Strategy

2.1. Basic Form of PPP in Port Sector

217. In order for the port to function properly, there are lot of facilities and services to be provided for both of vessels and cargoes as is shown in Figure 2.1-1. Other services to provide utilities for the operation of terminal, to provide fire fighting services and other ancillary services concerning port operation will be needed and with the combination of provisions of all these services, port can function properly.

218. All these services will require various type of infrastructure such as access road, sewerage system, water and electricity supply system in addition to the fundamental port facilities such as terminal facilities.

219. In the presidential regulation No.67/2005 seems to be applicable to the case of power station, water supply system, railway and highway etc. which does not require related ancillary services like port, and hence it seems to imply the applicable PPP form of BOT.

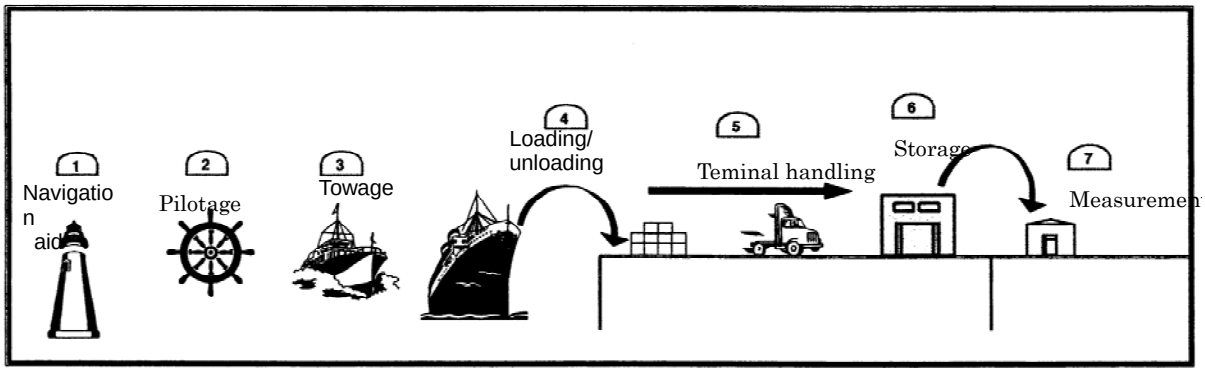


Figure 2.1-1 Services Provided in Port

220. In the port sector, various type of infrastructure will be required as is stated in the preceding paragragh, and it is not proper to limit the type of PPP to BOT.

221. In the case studies in this study, three types of PPP were analyzed.

222. PPP in port sector needs rather variety of forms of PPP corresponding to the characteristics of port and facilities to be provided and master concession should be limited to rather small scale port in order to avoid the defact monopolistic behavior. Table 2.1-1 shows the typical form of PPP provided in port sector.

Table 2.1-1 Port PPP Forms

Authority Type	Description
Agreement	Port-related services provided on port property
Concession Agreement	Commercial use of state property, long term agreements, typically 25-30 years or more, classified into partial concession and master concession according to the roles of public and private sectors
Lease	Fixed term leases typically 10-15 years
Order	Port infrastructure (streets, sewers, etc.) permit with public agencies
Revocable permit	Leases that may be revoked with 30-120 days notice. Typically of indeterminate length (temporary use of land/facilities, etc.)

(All cases of this study are categorized in the concession agreement.)

223. Shipping law stipulate that provision of breakwater, channel and navigation aid is the obligation of the Port Authority and hence Port Business Entity is expected to provide mainly terminal and other ancillary facilities and services when it is expected to be commercially viable.

224. Hence, principles on new PPP strategy will be based on these applicable forms of PPP.

2.2. Principle on Regulatory Framework

225. Principle on regulatory framework for the purpose is as follows;

- The private sector participation scheme is open to competitive bidding
- The private sector participation scheme has to be in line with government policy
- The port authority/port management body becomes the owner and manager of a “landlord port”
- The scheme will concern partial introduction of private sector in full or in part
- The facilities/services will be managed and operated on a common user, non-discriminatory basis
- The operator of facilities has to be experienced in the activities to be carried out
- The bidder selected will set up a new local operating company
- Land ownership remains with the government or the public port authority/port management body
- Management and operational autonomy of the introduced operating company
- A priority objective of the private sector participation scheme is to boost performance levels maintaining the well balanced supply and demand condition of the facilities
- Another priority objective is the private funding of the extension of existing facilities or the construction of new facilities

2.3. Principle on Institutional Settings

226. In order for the system to effectively function following the principles mentioned above, proper and clear definition of legal status of the parties concerned is a must.

227. Government oversight typically takes several forms: strategic planning, technical regulation, and economic regulation.

228. After introduction of non-state sectors’ participation in the port operation, roles and functions among the parties concerned are generally demarcated as follows;

- A central body, either Ministry of Transport or the council comprising senior representatives

from relevant ministries, municipalities of port cities, and from Port Authorities, would work out national port policy and would establish the main sector regulations to be enforced by the Port Authorities/Port Management Body;

- The Port Authorities/port management body, autonomous public institutions, would be granted the right to use state-owned land, administer, maintain and develop port infrastructure assets, manage and enforce navigation safety measures, enforce environmental protection regulations, monitor the concessions and leases governing non state sectors' activities in the port area, and market the port to attract new investors; and
- The introduced operating companies would carry out commercial activities related to cargo traffic management and handling and market their services to attract new port users.

A. Special Consideration on Planning and Marketing Functions

229. The planning function of the Port Authority in co-ordination with the Municipality is a complicated affair, especially for large ports located within or near a city.

230. Actual port services and balancing of supply and demand occur at the levels of the Port Authority and individual port firms. Hence, the development of realistic investment projects for infra-structure and superstructure should be initiated at these levels.

231. The port marketing and promotion function is a logical extension of the port planning function.

B. Special Consideration on the Roles and Functions of Central Government

232. As to the implementation of PPP scheme, there are many government agencies concerned in Indonesia.

233. Most basic regulation on PPP is the presidential regulation No.67/2005 which stipulate the basic rules on PPP scheme, and in the implementation of PPP scheme, regulation of Ministry of Finance No.38/PMK01/2006 and No. 518/KMK01/2005 are applied.

234. In the promotion of PPP scheme, it is important to simplify the procedure for application of PPP scheme for the private sector and hence considering the role of central government and current regulations on PPP, it is better to promulgate sector wise regulation taking into consideration of the new institutional settings in port sector as is shown in the implementation guideline for Government Regulation in Chapter VI..

C. Issues on the Reform of IPC

235. For the establishment of the Port Authority as a new regulatory and management body, Personnel with skill in port management (currently these people are concentrated in IPC) are required.

236. Currently major management work including entrance and departure of the vessels to/from the port and allocation of berths and all the procedure of using port is managed by IPC in commercial ports. After the establishment of the Port Authority, majority of these management works should be transferred to the Port Authority, otherwise it is natural for IPC to carry out these works in a manner favorable to IPC as the operator of its own terminal.

237. With the difference in status of ADPEL and IPC employees, it may difficult to transfer the employees to the Port Authority, and hence it is recommended to second the employees of IPC to the Port Authority under the management of a special company for liquidation of IPC2 for some limited terms, say three years, to transfer necessary skills to the original staff of the Port Authority.

238. Another important issue on liquidation of IPC2 is abolishment of cross subsidizing system among IPC2 and its affiliate companies as well as all of the port branches under IPC2. In order to do so, careful analysis on the financial viability of the separated entities from IPC2 is needed.

239. Function of special company for the liquidation of IPC2 should be maintained at least to the existing concession contract and joint operation contract with HPH on JICT and KOJA expire for smooth landing of corporatization of IPC2.

240. Final form of transformation/liquidation of IPC is shown in Figure 2.3-1.

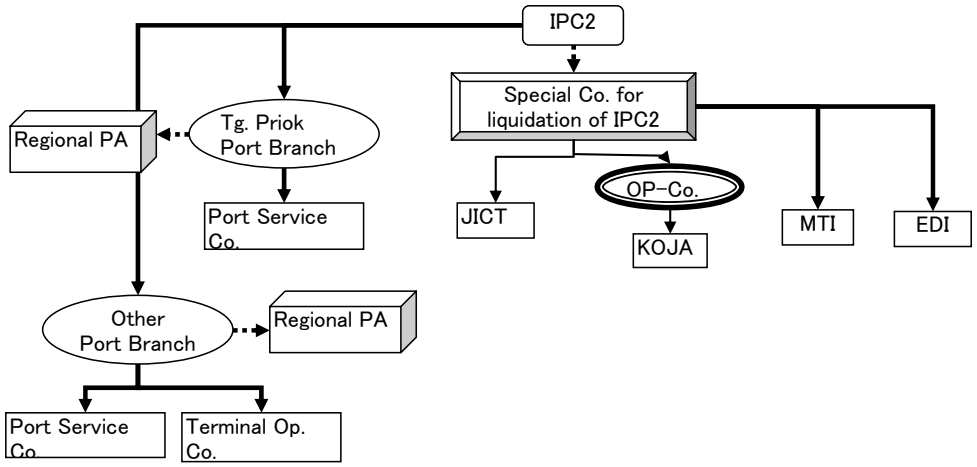


Figure 2.3-1 Transformation of IPC

2.4. Principle on Consultation with Maritime Community and Others

A. Need for Official Consultation with Maritime Community

241. In the execution of administration and management of port, decisions taken by the government, port management body and operators sometime seriously affect on various interest groups. Such decisions include operation rule of the port, tariff structure, land and water area use, designation of restrictive areas and port development plan.

242. In the management of concession contract, coordination among terminal operator/concessionaire, PMB/conceding authority and users is necessary. Especially for the resolution of complaints and conflicting opinions among the interest groups, study and deliberation by fair and independent institution is necessary.

243. Concession contract should precisely define monitoring and reporting relationship of the port management body (conceder) in line with the ministry and private operator respectively. Implementation guideline should also be established together with the contract.

244. In doing so, particular attention should be paid to the establishment of official consultation procedures between the private port and maritime community and the local public monitoring bodies (PMB). These consultation procedures will be important in making certain that customers' concerns and suggestions about the functioning of the ports can be timely and regularly channeled to the ports' management boards or to the sector regulatory body.

B. Establishment of Ports Council

245. In order to satisfy the needs mentioned above, such institution as ports council is needed both for national level (Council for Minister) and local level (Council for the Chairman of PMB), and usually named as Ports Commission (or Ports Council) and established by law. Generally, such institution has an advisory role and provides input to the formulation of a national ports policy at national level and of individual port development plan and of by-laws of the PMB at local level.

246. National Commission/Council may be asked to contribute to the development of ports policy and plan by offering advice on:

- The prioritization of policies that will maximize private/non state sectors' participation in the port sector;
- The preparation of a national ports (restructuring and investment) plan based on an objective methodology for the evaluation of project proposals received from the port authorities (national level) ;
- The allocation of public sector funding for port development etc.

247. Local Commission/Council may be asked to contribute to the formulation of port development plan and policy by offering advice on:

- The preparation of individual port plan based on an objective methodology for the evaluation of project proposals received from port investors;
- The allocation of public sector funding for port facility development;
- Setting and revising the port due and tariff, etc.

248. Such committee shall generally have around 10 members with 3 or 4 years term and consists of representatives from related central government possibly from DGST, Ministry of Finance, Ministry of State Own Companies, the related province, users, maritime business, operators (concessionaire) and persons experienced in port planning, regulation and management of port and port engineering.

2.5. Investment Fund and Budgeting System

249. For the sustainable development of the port sector, it is necessary to secure the necessary financial resource to materialize the development planned in the port principal plan.

250. It is, therefore, necessary to set up the investment program with identified financial resources for at least five year terms including government budget in coordination with competent ministries such as MOF and BAPPENAS through the deliberation in Port Planning and Regulatory Council.

251. In order to secure the necessary fund for the investment in the port sector, it is also necessary to establish a special account within the national treasury to meet the necessary investment schedule set in the 5 year development plan to avoid political influence and financial conditions of the time.

252. For the special account within the national treasury, it is also necessary to establish the fund for the part of revenue to the account in order to bear the accountability of the port sector.

253. These countermeasures for securing investment schedule of each port are a must to implement the PPP scheme which requires coordinated investment of the public and private sectors. Without such a clear milestone, private sector including those who provide him financial assistance will hesitate to bear any financial risk.

254. For the establishment of port investment fund, concession fee and currently port due which is the major source of revenue for KANPEL and ADPEL shall be considered to be the revenue source of the fund:

255. After establishment of the Port Authority, IPC will become a kind of Port Business Entity and thus in order to set a level playing ground to all the private service providers, it is necessary to restructure the framework of fees and dues and seek fair revenue source of the Port Authority and Port fund.

256. For seeking the measures of soft-landing of liquidation of IPC, it is the first step to introduce independent accounting system for each business filed of IPC and Port Authority should supervise IPC's business conduct in the context of fair competition among the operators.

2.6. Principle on Infrastructure Pricing

A. General Idea on Concession Fee

257. The concession fee mechanism typically has a fixed and variable component. The fixed component can be a fee equivalent to a rent paid by the operator to the port authority for the use of land and facilities/utilities provided by the public sector. This fee also incorporates profit sharing; i.e., the rental fee effectively includes an element to reward the conceding authority for permitting the operator to profit from the operation of the terminal.

258. The variable component of the compensation to the conceding authority can be a payment by the operator of a fee based on the level of activity. This includes a minimum traffic threshold that can be used to share the traffic risk and indemnify the operator if the level falls below the predefined threshold. This latter approach may be most appropriate when there is significant uncertainty about the potential traffic moving through the terminal and when conceding authority desires to impose tight technical and pricing regulations.

259. The port authority could choose to set the initial level for the fixed and variable components of fees. However, these levels represent the most frequently adopted financial criterion for judging bids and, therefore, preferably should not be set by the port authority, but left for the bidders to propose.

B. Criterion to Estimate the Probable Level of Fees

260. In estimating acceptable level of concession fees, it is necessary to conduct detailed market analysis, financial analysis and estimating financial contributions both to the government and concessionaire.

261. Based on these realistic assumptions, financial estimation should be conducted for the whole period of concession. Estimation of financial viability should be conducted based on projected cash flow, projected net assets position, return on equity, dividend on equity invested on the basis of projected risk sharing scheme.

262. Possible level of concession fees are greatly influenced by the risk sharing scheme, especially of capital expenditure shares (investment share between conceding authority and concessionaire). Therefore, it is desirable to conduct financial assessment together with decision making of investment sharing scheme.

263. The study team proposes following financial indicators to assess financial viability of the projected risk allocation scheme, taking concession fee level and commercial factors including tariff level and throughput as variables.

- FIRRs of conceding authority and concessionaire: this is the indicator to assess the financial viability of the project. The FIRR is the discount rate that makes the discounted costs and revenue over the project life equal, i.e. the rate "r" that satisfies the following formula:

$$\Sigma (B_i - C_i)/ (1+r)^{i-1} = 0$$

Where B_i: Revenue in the i-th year
C_i: Cost in the i-th year
r: Discount rate

In this calculation, fund management income is excluded from the revenue and depreciation cost, repayment of the loan principal and interest on loans are excluded from the costs.
When the FIRR exceeds a certain threshold, the project is considered to be financially viable. The weighted average of the interest rates of various funds generated for the project is used as the threshold.

- Net Present Value (NPV) Ratio of Gross Profit to Turnover based on the assumption that the port is to be operated by the port authority itself. It is assumed that the operation by the concessionaire will be more efficient than the operation by the port authority and hence, the operation by the port authority is conducted at the higher tariff level with less amount of throughput.
- Return on Net Fixed Asset: This is the indicator to assess the profitability of the project and calculated by (Net operating Income)/ (Total Fixed Assets) x 100%. It is necessary to keep the rate higher than the average interest rate of various funds for investments, which have different interest rates.
- Operating Ratio = (Operating Expenses)/(Operating Revenues) x 100% and Working Ratio = (Operating Expenses – Depreciation Expenses)/(Operating Revenues) x 100 %. The Operating Ratio shows the operational efficiency of the organization as an enterprise, while the Working Ratio shows the efficiency of the routine operations. When the Operating Ratio is less than 70~75% and the Working ratio is less than 50~60%, the operation of the organization is assessed to be efficient.
- Debt Service Coverage Ratio = (Net Operating Income + Depreciation Cost)/(Repayment and Interest on Long-term Loans). This indicator shows whether the operating income can cover the repayment of both the principal and the interest on long-term loans. The ratio should be higher than 1.0 and is desirable to be higher than 1.75.

C. Principle of Investment Cost Recovery and Concession Price

264. Investment in unprofitable basic facilities of which user is difficult to specify and to decide the reasonable level of charges such as breakwater, channel, basin, navigation aids etc. is borne by the state either from its general budget or foreign loan.

265. Initial investment cost on conceded facilities is recovered from the fixed portion of the concession fee set to enable to repay the loan (principal and interest) according to loan condition.

266. A part of profit is paid to the Port Authority (for the necessary administrative expense of port authorities even from the investors like IPC other than Port Authority) through the variable portion of the concession fee as a royalty to operate the terminal through profit sharing system; the amount is

decided based on the assessment of the financial viability of both the concessionaire and port authority and proposed business plan by the concessionaire.

2.7. Principle on Rules for Tender and Contract of PPP in Port Sector

267. In order to manage the port under the concession scheme, it is necessary for the Port Authority to provide a level playing field to all concessionaires and manage the concession contract to secure the implementation of rights and obligations of the parties of contract.

268. Most important issue for realizing a fair and transparent concession is to make clear the responsible organization and procedure for tender and evaluation to guide the Port Authority in DGST's official document.

269. Sample documents to stipulate such procedure is shown in Chapter VI for implementation guideline for Government Regulation.

2.8. Principle on Human Resource Development

270. Port labor -from crane and equipment operators to stevedores to harbor pilots is a key to success or failure in today's competitive port and international trade environment.

A. Establishment of Port Labor Law

271. In order to procure the necessary human resource in the port sector and balance the demand and supply of human resource, establishment of the port labor low/act for securing port skilled workers may be effective.

272. Substance of the port labor law is to secure skilled workers through improvement of employment environment and workers' capability and Government shall formulate a plan for sustainable employment in the port labor law.

273. The plan shall include;

- current status of employment condition
- target of supply and demand
- preparation for training course

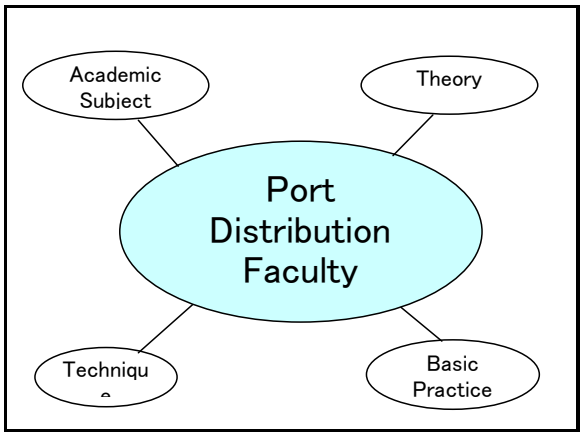
274. For securing the implementation of the plan, port sector entities should secure employment opportunities and train manpower and Government should subsidize to private sector entities and train manpower.

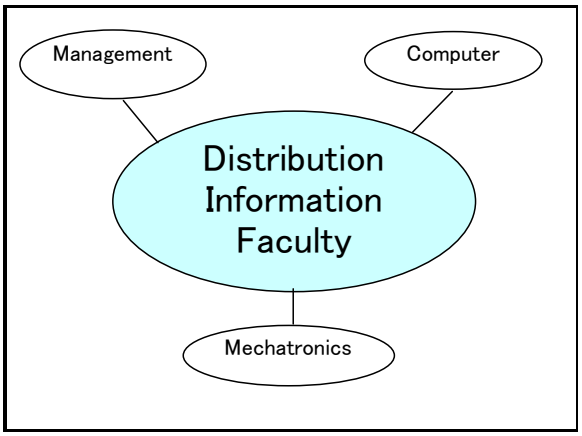
B. Establishment of Port Labor Training Institution

275. Although various maritime university and maritime schools are established to provide skilled human resource, it is said to be insufficient because most of them do not seem to have course specialized in port operation and management except STIP Jakarta which has port and shipping management faculty and also because of their wider coverage of training programs lacking concentrated training in skills and knowledge in the port sector. Necessary skills and knowledge for port labor are wide range even in the port sector, from management of port and trade to operation of port.

276. Therefore, establishment of national port college to increase the number of skilled port workers may be another alternative. The port college should have two courses; port distribution

faculty to train for the maritime frontier, second distribution information faculty to train for the logistics engineer.





VI. Guideline for the Government Regulation on the Shipping Law No.17/2008

1. Introduction

277. The Government Regulation regarding ports (hereinafter referred to as "G.R.") was finalized in October 20, 2009 after year-long deliberation among the concerned authorities.

278. Those subjects highlighted above are literally covering most of the area which distinguishes the regime under the new Shipping Law from the old one. The new Law dictates two major policies in the port sector, one is introduction of port management body, and the other is promotion of private sector participation in port development, management and operation.

279. The introduction of port management body aims to separate the role of regulator and operator in the development and management of the port. G.R extensively describes management activities at port in Chapter IV for the purpose of making clear distinction between regulator function and operator function at the port.

280. The private sector participation is envisaged with the introduction of the new concept of Port Business Entity under the PPP framework initially set out by Presidential Regulation No.67 of 2005. Chapter IV of G.R. also provides essential details of commercial activities by private sector at port.

281. This chapter of the report is intended to provide the practical guideline for G.R. In order to achieve the successful implementation of the new scheme under the new G.R., based on the new Shipping Law, the provision of G.R. may not be sufficient enough for daily conducts of port operation. While waiting for the establishment of Ministerial Decrees in some aspects, it would be of some help to refer to the guideline hereinafter provided as an additional tool for practical solution.

2. Guideline for the Government Regulation on Article 78 of the Shipping Law

2.1. Summary of G.R. on Port Principal Plan, Port Working Area and Port Interest Area

282. Article 73 and 74 of the law stipulate that every port shall be obliged to maintain a Port Principal Plan which shall include a land allocation plan and a waters allocation plan. Furthermore, Article 75 stipulates that the Port Principal Plan is to be provided with a Port Working Area and Port Interest Area.

283. Article 75 explains that the Port Working Area shall consist of the land area used for the port activities of main facility and supporting facility, and waters used for the port activities of ship channel, docking place, place for load transfer between ships, dock for mooring and ship movement, piloting activity, ship repair place, and other activities according to the necessity.

284. Also explained in the same article, the Port Interest Area shall constitute outside Port Working Area of waters used for navigation channel from and to port, the need of emergency, long-term port development, placement of dead ship, shipping trial run, piloting activity shipbuilding facility and maintenance.

285. G.R. also stipulates in Article28 that the determination of Port Principal Plan for main port and national port shall be stipulated by the Minister upon the recommendation from Governor and Regent/Mayor.

286. G.R. stipulates in Article 34 that in case of the port working area is determined, the land management right and/or waters use right or beneficial right shall be granted pursuant to the relevant laws and regulations.

287. Port Principal Plan and Port Working Area are main subjects to propose guidelines for the implementation of the shipping law No.17/2008 because these concepts are key issues for securing the smooth port activities as well as providing clear guideline for the port business entity of its obligations and responsibilities and their concepts are similar to the Japanese port system.

288. Port Interest Area is considered to indicate the territorial limits where PMB has to manage. Therefore, important points regarding the procedure, necessary regulation are proposed.

2.2. Guideline for the stipulation of Port Principal Plan

2.2.1 Role of Port Principal Plan and Necessity of Port Planning Standard

289. Requirements for the Indonesian port sector are summarized as follows;

a) Efficient and effective port development should be promoted to solve the shortage of port facilities appropriately.
b) Well-coordinated port development plan should be essential to attract private sector's participation in port development.
c) Systematic use of the spaces in and around port is essential to improve the efficiency and productivity of port activities.

290. Port Principal Plan clarifies the direction of a port's future development in this sense; it should be shared with private investors who might be able to help implement it.

291. Therefore, Port Principal Plan is a base for smooth implementation of port development, use and management.

292. Port Planning Standard is also very important for the formulation of Port Principal Plan.

293. Though there are some master plans for the development of port, most of those plans focus on the development of particular terminal(s) or a port without sufficient coordination of supply and demand (often seen as over supply) and comprehensive considerations and relations among facilities, ports and other items related to port activities, and hence it creates the barriers to port business entity to participate in investment with fear of so called traffic risks.

294. In order to clarify the national government's stance on port development, it is necessary to introduce a Port Planning Standard. Without such a standard, it would be very difficult for agencies responsible for ports to properly formulate, evaluate and determinate an individual port principal plan as well as to promote efficient and effective port development in order to cope with increasing traffic demand and realize efficient and safe transport in and around port while maintaining the consistency with supply-demand balance of all the ports in the nation.

2.2.2 Items to be planned in Port Principal Plan

295. As Port Principal Plan has a role to make clear the direction of future development of a port, items which should be included in a plan have to be defined clearly in the beginning of port planning standard such as;

(1) Policies for the development, utilization and preservation of ports as well as the conservation of the areas adjacent to the port.
(2) Items relating to the volume of cargo handled, the number of passengers embarking and disembarking from ships, and various other capacities.
(3) Items relating to the scale and arrangement of water area facilities, berthing facilities, and other port facilities in accordance with the capacities of the port.
(4) Items relating to the development and conservation of port environments.
(5) Other important items relating to the development, utilization, and preservation of ports as well as the conservation of the areas adjacent to the port.

296. The following items should be planned in a port principal plan and the way of examination of each item should be prescribed in the following section.

A. Planning Policy of Port

297. With regard to the items related to the planning policy in the Port Principal Plan, the following matters should be formulated.

i. History of the development of the port
ii. Present situation of the use of port facilities, transportation of cargo and passengers, and land use in and around the port
iii. Key issues related to the port development and the main purposes of the port development
iv. Target year
v. Other important issues (if necessary)

B. Capacity of Port

298. The total cargo throughput and the number of the passengers embarking and disembarking in the port should be determined using appropriate methods, taking into account the natural conditions and socio-economic conditions of the port and its hinterland.

C. Zoning

299. Zoning of port should be conducted so as to appropriately secure the following matters;

i. Safe and efficient use of Port Working Area of Waters
ii. Safe and efficient transport in and around Port Working Area of Land
iii. Efficient and effective land use in and around Port Working Area of Land
iv. Efficient and effective port development

D. Development in each Zone

300. With regard to the development in each zone, the following matters about the facilities should be determined so as to suit the future function and use expected at each zone as prescribed in the section of Zoning as well as in the section of Planning Policy.

i. Purpose of the development of each facility
ii. Scale and layout of each facility

E. Land Reclamation and Land Use in each Zone

301. The scale and layout of the land to be reclaimed in each zone should be determined in order to utilize the water's edge effectively for appropriate development, use and preservation of the port, taking into account the natural conditions, use of the port, safety in the port, as well as the impact on the natural and living environment in and around the port.

F. Development of Fundamental Infrastructures

302. The term "fundamental infrastructures " as used in this standard means infrastructures of which function and purpose are shared by multiple zones such as protective facilities like breakwaters, major port transport facilities like trunk roads, and major water facilities like trunk waterways, etc.

303. Therefore, the scale and layout of fundamental facilities should be determined with integrated and comprehensive considerations to promote the development, use and preservation of the port effectively and efficiently.

G. Port Planning Map

304. The items determined in the Port Principal Plan, such as the scale and layout of the facilities, zoning, land use etc., should be shown in the port planning map in a uniformed manner under the guidance of the Ministry of Transport.

305. By preparing the map and showing the contents of the plan in a uniform manner, any person who is interested in the port development can easily understand the direction of future port development, and this will be particularly useful for the people from the private sector considering whether or not to invest in port

2.2.3 Documentation and Map necessary for Port Planning

306. Documentation of the port planning is also indispensable because the port principal plan has a role to indicate an official intention of the port management body which is a government agency. Therefore, documentation of the port planning should be a part of the official procedure and open to the public in the course of the formulation.

307. Documentation of the port planning should be made in a uniform manner and the contents of the documentation had better be prepared in a conventional format. Furthermore, items to be planned prescribed in the preceding section 2.2.2 should be included in the document

308. A port planning map is attached with the main document. Significance and role of the map has already explained in the preceding section "B.". A planning map includes lots of variable information and preparation of the map reflecting the contents of the plan and its utilization is one of the keys for attracting potential private investors.

2.2.4 Procedure for the Formulation and Modification of Port Principal Plan

309. It is, indeed, quite important for the port management body to make the process of the formulation of the plan clear and to involve the stakeholders and interest groups in the course of the formulation because lots of people and entities are taking part in port activities in spite of commercial or non-commercial activities and reaching a consensus among interest groups is key for achieving effective development, use and operation of the port; it also reduce the risk level for private investors which will attract greater investment. A model procedure of the formulation of Port Principal Plan in case of main port and national port is proposed in Figure 2.2-1.

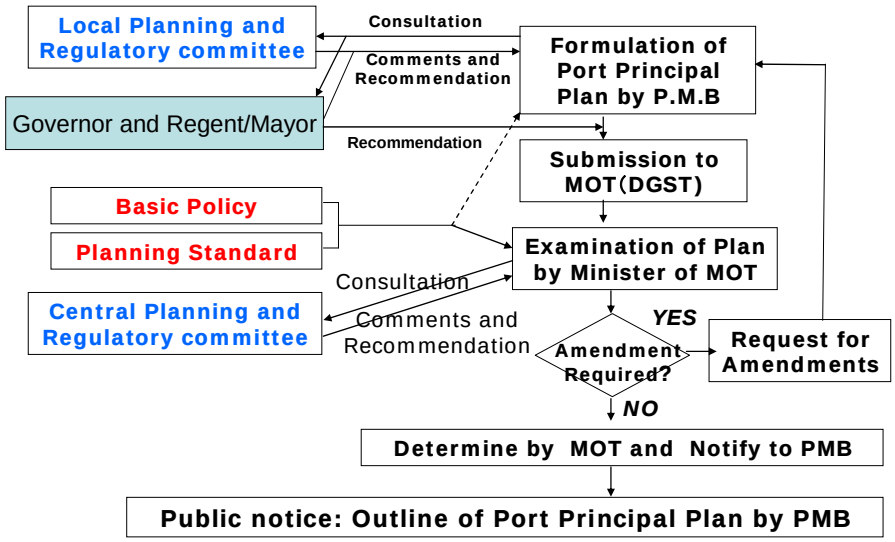


Figure 2.2-1 Procedure of Port Planning (in the case of main port & national port)

2.3. Guideline for the Stipulation and Management of Port Working Area and Port Interest Area

2.3.1 Objectives of Regulations on Port Working Area

310. The shipping law defines that Port means a place consisting of land and/or waters with certain boundaries as a place for governmental and business activities which is used as moor, entrance and exit of passengers, and/or discharge of goods, in form of terminal and dock equipped with shipping safety and security facilities and supporting activities also as the place of change for intra and inter-mode transportation.

311. In order to carry out port activities most effectively, such as warehousing, handling cargoes, cargo storage as well as port traffic and passenger, it is necessary to regulate the use of the port area which means areas of land and waters.

312. Objectives of setting Port Working Area is to carry out port activities most effectively, to ensure port functions sufficiently and for effective future development of the port. Furthermore, enhancing international competitiveness and contribution to the national economic growth and regional development are also pointed out as objectives for setting port working area.

2.3.2 Definition and Deference between Indonesian System and Japanese System in terms of Legal Aspects

313. Definition of Port Working Area as terminology is that it means waters and land area within port or special terminal directly used for activities of the relevant port.

314. A remarkable point is that the concept of Port Working Area includes both waters area and land area.

315. On the other hand, in the case of Japanese port and harbor law, waters part and land part of the port area are understood as different concepts and stipulated separately. Waters part of the port area is defined as port water area and land part of the port area is defined as port land premise.

316. Purpose for setting these areas are not necessarily clear in the shipping law No.17/2008 and /or G.R., but they are supposed to be set to preserve port function. Furthermore, though the duties of the port management body which are stipulated in G.R., regulations in these areas are much more important and should be prescribed in some kind of a government document.

317. Because it is commonly acknowledged that certain rules and regulations for land use are necessary to avoid the disorderly use or conflicting use of land for maintaining sound socio-economic activity in the potentially densely used land area. Similarly, certain rules and regulations for water area use are necessary to preserve the water area for sound socio-economic activity and to preserve the facilities in the water area.

2.3.3 Purpose of Designation of Port Working Area

318. Major purposes of designation of Port Working Area of Waters are;

- to notify the public of the water area under the jurisdiction of the port management body and to let them know that activities in the area require authorization.
- to maintain the facilities (channels, basins, navigation aids and other protection facilities) in a good operational condition through controlling activities in the area and punishing illegal acts.

319. Major purposes of designation of Port Working Area of Land are;

- to maintain the area exclusively used for port activities and separating it from the areas for other socio-economic activities.
- the area exclusively used for port activities such as warehousing, cargo handling/storage and port traffic usually need to be spacious, and these activities have low productivity in terms of land.
- the area once the land use is decided by market mechanism, such port activities are forced to move out of the Port Working Area, because this area is more convenient for commercial use with higher land productivity.

2.3.4 Guideline for Regulations within Port Working Area

A. Port Working Area of Waters

(i) Significance

320. Port Working Area of waters represents the area wherein PMB and port business entity carry out port activities. PMB can implement duties which are defined in the shipping law No.17/2008 and G.R. Port Working Area of Waters represents the territorial limit wherein PMB grants permission for construction works. Any person wishing to construct a facility etc. in Port Working Area of Waters must obtain permission from PMB.

(ii) Regulations

321. In the light of the purpose of designating Port Working Area of Waters, any person who intends to engage in works specified under any of the following items within Port Working Area of Waters must obtain permission from PMB.

a. Proprietary use of water area (including the space above and the sea bottom as specified by government regulation, the same shall apply hereinafter) or public owned open spaces within Port Working Area of Waters.

b. Mining of sand and earth in the water area or public owned open spaces within Port Working Area of Waters.
c. Construction or improvement of water facilities, protective facilities, mooring facilities, canals and irrigation ditches or drainage ditches (excluding those facilities associated with proprietary use under item a.).
d. Such acts as specified by government regulation which may seriously impede the development, utilization or preservation of the port.

322. PMB should not grant permission in the following cases.

a. Acts which may seriously impede the utilization or preservation of the port.
b. Acts which may seriously obstruct the implementation of the port plan.
c. Acts which may seriously interfere with the development or progress of the port.

323. PMB should not grant permission for the use of Port Working Area of Waters except for the following cases.

a. Cases in which the exclusive use of water area is necessary for construction, improvement, maintenance or restoration of water facilities, protective facilities, mooring facilities, port transportation facilities or navigation aid facilities.
b. Cases in which the exclusive use of water area of necessary for salvaging a sunken ship or other objects.
c. Cases in which the exclusive use of water area is necessary for the performance of acts specified by PMB.

(iii) Penalty

324. Penalty should be imposed on any person who violates the regulations by fraud or other illegal means. Therefore, penalty provisions should be included in a ministerial degree or a decision made by a competent authority. In case of the Japanese port and harbor law, it is stipulated that PMB may impose a penalty not exceeding five times the amount evaded.

(iv) Range of Port Working Area of Waters

325. Port Working Area of Waters is a minimum area required for the economic operation and management as an independent port.

B. Regulation within Port Working Area of Land

(i) Significance

326. On the other hand, Port Working Area of Land also indicates the territorial limit to be managed and administrated by PMB. Port Working Area of Land indicates the territorial limit wherein new construction works or expansion plans must be reported. To secure safety, promote effective use of the port and prevent the environment, developers must submit a report whenever they intend to carry out new construction works or expand existing facilities in the Port Working Area of Land. If PMB deems that new activities would have a negative impact, it can recommend modifications to submitted plans.

(ii) Regulations

327. In the light of the purpose of designating Port Working Area of Land, any person who intends to engage in the work specified under any of the following items within Port Working Area of Land must inform PMB.

a. Reporting of acts engaged in Port Working Area of Land

- Construction or improvement of water facilities, canals, irrigation ditches or drainage ditches.
- Construction or improvement of waste disposal facilities.
- Construction or expansion of a factory or a business establishment in which the total floor area or the total ground area exceeds the standard specified by government regulation.
- Construction or improvement of facilities as specified by government regulation which may cause a major obstacle to the development, utilization or preservation of the port, such as facilities which handle explosives and other hazardous materials

b. Regulation on construction of facilities

- Any person who intends to construct a facility must comply with the regulation.

(iii) Penalty

328. Penalty should be imposed on any person who carried out an act without reporting it beforehand, who changed the reported act without permission or submitted a false report, and who fails to carry out a recommended change. Therefore, provisions so as to clauses of penalty should be included in a ministerial degree concerned or a decision made by a competent authority

(iv) Range of Port Working Area of Land

329. Port Working Area of Land is a minimum land area required for the operation and management of the port and PMB should manage and operate Port Working Area of Land as integrated area with Port Working Area of Waters.

2.3.5 Procedure to designate Port Working Area

330. Port Working Area of Waters and Land are restricted areas. To restrict means to impose limitations on someone's rights and activities in the area. Therefore, it is necessary to make the purpose clear and to make the public understand the necessity of designating Port Working Area of Waters and Land. Furthermore, the procedure of designation of them should be open to the public

331. G.R. stipulates that same method with Port Principal Plan for the determination of Port Working Area shall be taken and Port Principal Plan, Port Working Area and Port Interest Area are closely related each other, so they had better be determined at the same time.

332. However, considering that Port Working Area of Land is sometimes included in a part of city and citizen and stakeholders may be affected for the designation of it, it is recommendable that PMB should hold a public hearing and/or briefing in the process of the designation of Port Working Area prior to consult with the local planning and regulation council.

2.3.6 Guideline for the stipulation and management of Port Interest Area

333. Main purpose of setting Port Interest Area is to secure the shipping safety. However, as explained in paragraph 4 of the previous section 2.1, Port Interest Area is used for other purposes such as navigation channel from and to port, in case of emergency, long term port development, dead ship relocation, shipping trial run, pilotage, shipbuilding facilities and maintenance.

334. Port Interest Area seems to be a reserved area for the future and a space for accommodating technological advancement. So far, there is no clear description so as to waters use right in port interest area.

335. Port Interest Area is understood to be the territorial limits of port which PMB has to manage and can collect the port due (navigation aids due) from vessels using the port facilities, though the main purpose of setting Port Interest Area is to secure the shipping safety. From this point of view, important items which should be carried out as PMB are as follows.

336. As long as Port Interest Area is an area mainly for the shipping safety, the uses which hamper the shipping safety and affect to the port activities within Port Working Area should be regulated. Any person who intends to use the Port Interest Area must submit an application to PMB and obtain permission from PMB. In case that the use affects to the shipping safety, PMB should consult with a harbormaster.

337. Furthermore, permission except for the use related to the shipping safety should be a temporary or a short term one to avoid a continuous use which may generate the right of waters use.

338. According to G.R., Port Interest Area and Port Working Area are always proposed and determined simultaneously and they are closely related to Port Principal Plan, so the procedure to designate Port Interest Area is considered to be the same to that of Port Principal Plan.

3. Guideline for the Government Regulation on Article 89 of the Shipping Law

3.1. Summary of G.R. on Port Management Body

339. Port Management Body is classified into Port Authority which shall be established in the commercial port and Port Management Unit which shall be established in non-commercial port, and further, Port Management Unit is classified into Governmental Port Management Unit and Regional Government Port Management Unit.

340. Port Authority is regulated to perform the functions of regulation, development, control and supervision in respect of port activities with the following duties and responsibilities in Article 42 of GR.:

341. In relation with PPP, the most important role and function of the Port Authority is to manage and supervise the port activities undertaken by the Port Business Entity for the protection of public interest as well as to provide effective and efficient environment for the Port Business Entity for his participation in the port activity.

342. Therefore, in addition to the powers and responsibilities of the Port Authority stipulated in the GR, it is necessary to stipulate more in details for the management activities related with PPP in the port sector such as necessary organization of Port Authority for the management of concession, policy and procedure of concession, rules and procedure for compiling the port facilities ledger and auditing and accounting for the better management of the PPP in any other form such as Ministerial decision or DGST guideline.

3.2. Rules, Regulations and Management of Port Concession

3.2.1 Rules and Regulations

A. Allocation of Functions among MOT, DGST and Port Authority

343. In order to effectively and efficiently implement the PPP scheme in port sector, allocation of roles and functions within public sector to clearly define which organization has what kind of powers and authority as well as responsibility is necessary as shown in Figure 3.2-1.

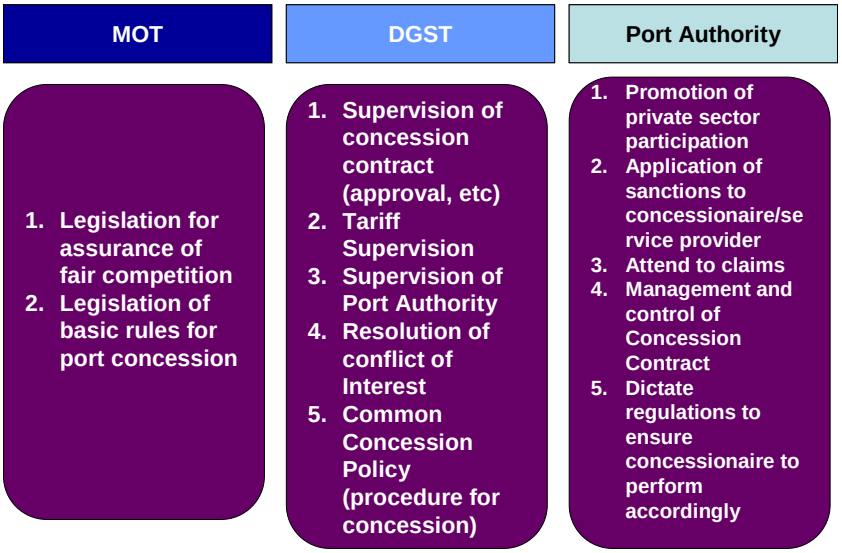


Figure 3.2-1 Allocation of Roles and Functions among MOT, DGST and Port Authority

B. Necessary Legislations

344. In order to legislate for the assurance of fair competition in the port sector, following Ministerial Regulation is necessary to be stipulated as the port sector implementation regulation of PR. No.67/2005.

(i) Standard for Protecting Fair Competition

345. Any act that has the intention or the result of restricting in an undue manner the competition among ports and providers of port services shall be expressly prohibited. For this purpose, the following shall be understood to be restrictions to fair competition:

a) Charging prices that are lower than operational costs

b) Offering services for free in addition to the officially published services

c) Agreements of any kind for sharing quotas for servicing or supplying ships or cargo in order to establish of inter-connected price levels, etc.

(ii) Method of Implementation of Cooperation Project in Port Sector

346. In the Presidential Regulation No.67/2005, only competitive bidding is stipulated for the cooperation with business entity for the provision of infrastructure. Considering the variety of concession form in the port sector, it is necessary to apply other mode of bidding.

347. When implementing port concession, following shall be applied:

a. Except for succeeding concessions with existing concessionaires, the Conceding Administration shall award concession rights based on competitive bid, competitive proposal, or sole source negotiation.

b. Competitive bids shall be used when in the judgment of the Competent Authority that financial return is the only relevant criteria for selecting among prospective concessionaires.

c. Competitive proposals shall be used when, in the judgment of the Competent Authority that criteria other than financial return to the Port are relevant to selecting a prospective concessionaire.

d. Sole source negotiation shall be used only in those instances where, in the judgment of the Competent Authority, a prospective concessionaire offers services that are unique, patented, or otherwise demonstrated to be available only from a single source.

(iii) Regulatory Work of DGST

348. DGST as the regulatory organization shall perform the followings;

- Supervision (approval, conflict resolution) of the concession agreement for the use, operation, maintenance, conservation and administration of port infrastructure and superstructure, including their restoration and construction under the jurisdiction of DGST
- Establish DGST concession policies and procedures to guide Port Authority with respect to concession.
- The rates for services rendered to cargo and ships shall be established if all possible by the concessionaire and shall be presented by him in his technical bid, within the process of the respective bidding. If a bidder is allocated the concession, the rates offered in his bid may later be adjusted in accordance with the mechanisms established by DGST, the entity responsible for regulating, controlling and inspecting the port rates.
- Supervise the Port Authority in the implementation of concession including approval of concession plan, bid evaluation, finalization of contract.
- Resolve all conflict of Interests that may exist among concessionaire, holders of rights, and users of ports and maritime services.

(iv) Concession Implementation by Port Authority

349. In order to implement the PPP scheme more efficiently and effectively, Port Authority shall;

- Promote the participation of the social and private sectors, and the municipalities in operating ports, terminals, marinas and port installations.
- Apply sanctions to concessionaires or providers of maritime and port services in accordance with the obligations that each had assumed under contract.
- Attend to the claims made by all the users of the maritime and port services provided in the ambit of its port.
- Supervise and control the fulfillment of the concession contracts that are entered into with concessionaires, and private operators of ports and all the agents that participate in maritime activity.
- Control the functioning of ports in accordance with the commitments assumed by the

respective concessionaires and operators, and applying control to fulfill legal standards and port regulations.

- Control the services rendered by concessionaires, operators, and service providers to ships and cargo, insuring that the users of port services receive efficient, fair and egalitarian treatment
- Exercise the rights corresponding to the State, as established in the respective laws, to control and inspect for the fulfillment of the obligations assumed by the concessionaires and operators of ports and maritime activity
- Dictate regulations to insure that the holders of concessions and usage-permits establish plans and procedures for maintaining the goods used for the services in good condition during the period of said concessions and permits, and to make periodic reports to the DGST, which allow it to determine the level of fulfillment of said plans and procedures

3.2.2 Management of Concession

A. Institutional Settings

350. In terms of PPP implementation scheme, Port Authority shall have the role as Government representative to give concession or any other form to Port Business Entity to conduct business activity at port as set forth in an agreement (New Shipping Law Article 82 (4)) and Concession Proceeds obtained by Port Authority as referred to in section (4) shall constitute state revenue in accordance with the provision of laws and regulations. (ditto (5))

351. Hence, considering the PR 67/2005 and No.38/PMK.01/2006, institutional organization is recommended to set as in Figure 3.2-2.

352. Considering the concession procedure set in the proposed DGST concession policy, structure of Port Authority is proposed as is shown in Figure 3.2-3.

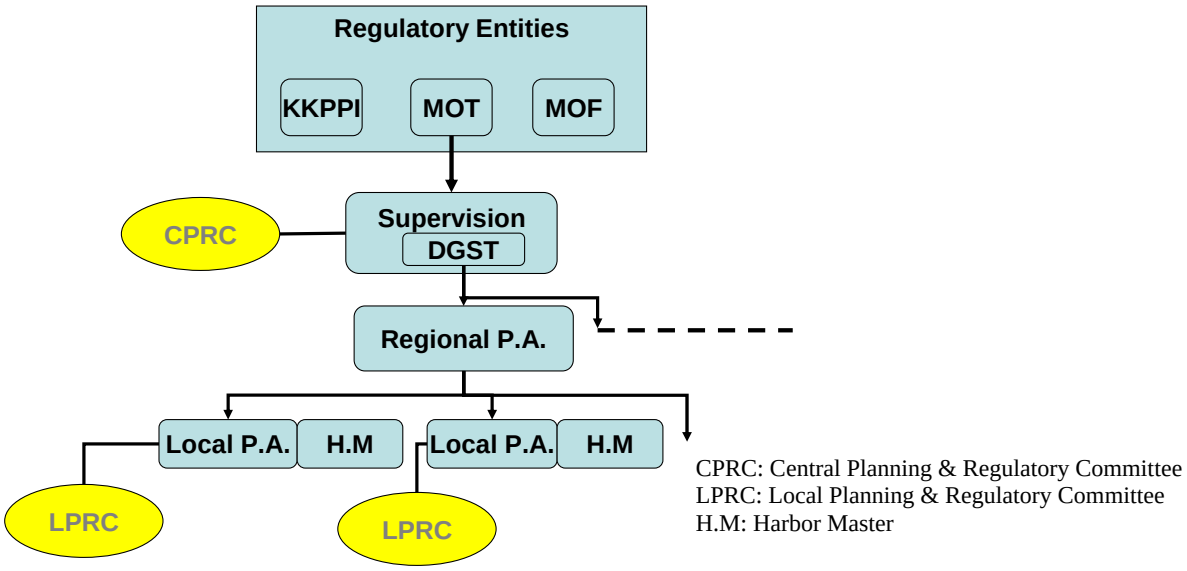


Figure 3.2-2 Institutional Settings for PPP implementation in Port Sector

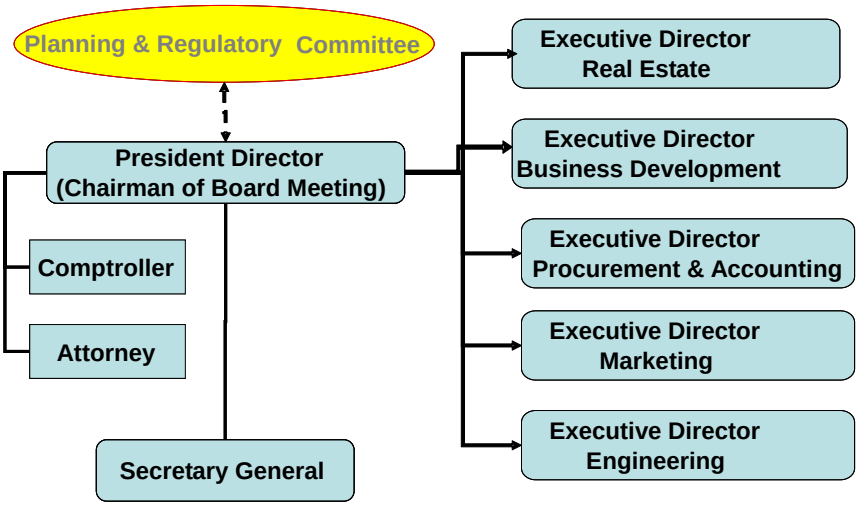


Figure 3.2-3 Structure of Port Authority

353. Port Authority is to have the role as the Government representative in New Shipping Law. It plays the role to coordinate various business entities.

354. Hence, it is desirable to form the board for decision of principal matters on management of port and board member consists of representatives of local government, IPC and central government for efficient and timely decision.

B. DGST Policies and Procedures for Port Concession

(i) Policies

a) Objectives

355. The objective of the Port's Real Estate Concession/Leasing Policy is to provide the following:

1) Recognizing existing relation ships with current concessionaire/tenant and their investment in the occupied terminal and premises;
2) Maintain fair and equitable methods for potential and existing concessionaire/tenant to conduct business with the Port;
3) Ensure that no one entity secures a competitive advantage by means of controlling a significant amount of Port property and/or berthing area;
4) Establish an approval process that is consistent with the PR No. 67/2005 and MOT & DGST applicable policies and procedures;
5) Specify guidelines for selecting Qualified Concessionaire/Tenants to enter into concessions/leases for Available Property. Rate of Return shall not be the only criteria for the basis of selection. Other factors shall include public benefit and job maximization shall also be included;
6) Establish a process for assembling, sharing, and maintaining information related to the proposed selection and negotiation processes in an open and transparent manner;
7) Ensure consistency with the Port's Principal Plan and strategic objectives in conceding/leasing property;
8) Evaluate performance of concessions/leases annually based on financial viability, minimization of environmental impacts and maintenance of the facility.

b) Key Guiding Principles

356. Key Guiding Principles area as follows:

1) The Port Authority shall foster a spirit of partnership with its tenants in the application of this concession/leasing policy.
2) The Port Authority shall make port properties available on fair and reasonable terms without unjust discrimination.
3) The Port Authority shall retain effective management controls over the use of port property assets and will structure management controls in all concession/leases and rental agreements.
4) The Port Authority shall establish and maintain a level and structure of rents, fees and charges that are fair and equitable for all concessionaires/tenants, and which are based on current market land values.
5) The Port Authority shall establish minimum operational and maintenance standards for users of port property.
6) The Port Authority shall actively monitor compliance with provisions of concession/lease agreements, shall give timely notice of non-compliance, shall employ available remedies to enforce compliance when reasonable cure periods have lapsed, and shall terminate agreements when appropriate in accordance with good business practices.
7) The Port Authority, in its role as a tidelands trustee, must take into account more than just the maximum revenue that can be generated by a new concession/lease.
8) The Port Authority shall be open and transparent in its selection of new concessionaires/tenants and in concession/lease negotiations.

c) Applicability and Delegation of Authority

357. Applicability and delegation of the port authority are as follows:

1) The Executive Director of the Port Authority is authorized to formulate, implement, and amend directives to implement this Policy.
2) The Executive Director shall formulate and recommend for approval by the Board lease provisions that are consistent with the Policy, which will be included in new concessions/leases, concession/lease extensions, and concession/lease modifications.
3) The policy addresses all types of agreements involving the use and occupancy of properties within the port for the lease of land, buildings, and improvements.
4) At the time a concession/lease is submitted to the Board, the Executive Director shall submit a written report (1) disclosing any proposed deviations from the Policy, (2) explaining the rationale for any such deviations, and (3) offering recommendations as to whether such deviations whatsoever from this Policy, the Board's action shall constitute an amendment or exception to the Policy for the narrow and limited purpose of approving said concession/lease.
5) The Policy is intended to provide a framework governing concession/leasing and rental decisions.
6) Nothing within this Policy shall be construed as conferring upon, nor shall it constitute the granting to any party (1) third party beneficiary rights, (2) a right of private enforcement, or (3) a private right of action. This Policy shall not grant any concessionaire/tenant or any user of any port property the right to enforce the terms and conditions of this Policy.
7) Nothing within this Policy shall be construed as overriding the terms and conditions of an

existing concession/lease between the port and a concessionaire/tenant.

8) The Policy shall remain in effect until changed by subsequent DGST action.

d) Compliance

358. The Port Authority shall strictly monitor compliance with concession/lease provisions.

1) The Director of Real Estate of the Port Authority shall monitor compliance with concession/lease provisions. The premises of each concession/lease shall be subject to periodic physical inspections coupled with concession/lease compliance evaluations.

2) Failure to compliance with concession/lease provisions after being notified by the Executive Director, with concessionaire/tenant having been given appropriate time to correct the non-compliance, will place the concessionaire/tenant in default of their concession/lease.

e) General Provisions

359. The provisions of this section are applicable to conceding/leasing and rental actions for all classes of properties.

1) No Unauthorized Use. All uses of port properties shall be specifically authorized pursuant to a concession/lease in accordance with this Policy, or by license, permit, or other formal agreement with the Port Authority.

2) Qualified Users. All prospective industrial, commercial and retail users of port property shall meet, and adhere to, minimum standards with respect to financial capability and responsibility, management qualifications and experience, general reputation to conduct authorized uses, and such other factors as the Executive Director deems appropriate.

   In selecting a Qualified User, the Policy and Procedures will ensure that no one entity secures a competitive advantage by means of controlling a significant amount of port property and/or berthing areas.

3) Consistency with Port Principal Plan. Proposed uses of port property shall comply with the Port Principal Plan in terms of appropriate land and water use and permitted activities.

4) Rents, Fees, and Charges. Rents, fees, and charges for the use of occupancy of port properties shall reflect fair market value Unless otherwise stated, rents shall reflect triple-net terms (inclusive of all property tax, insurance and utilities related to occupying the property).

5) Term. The term of a concession/lease shall be determined by taking into account (1) the operational needs capital investment in development or in leasehold improvements by the concessionaire/tenant and (2) ability of the Port Authority to manage capacity and long-term port development.

6) Succeeding Leases for Existing Tenants: The Port Authority shall consider succeeding leases, of similar length or term, for existing tenants, subject to the following conditions: (1) the tenant has made substantial investment in leasehold capital improvements to the premises; (2) the tenant has a consistent record of good standing; (3) permitted uses in the proposed lease are consistent with applicable land use plans; (4) all parts of the premises proposed to be leased are or will be developed or used for permitted uses; (5) the tenant agrees to pay the fair market rent for the property as determined by certified appraiser, and (6) the tenant agrees to comply with the port environmental measures and criteria for operating a terminal or facility.

(ii) Concession Procedure

360. Port Property concessions extending beyond 15 years, and having an annual revenue beyond Competent Authority's signature authority, are subject to the following concession procedures. Competent Authority subsequent to a competitive bidder selection process outlined below and summarized in the flow chart, Figure 3.2-4 approves concessions of this type. Following the approval of the concession by Competent Authority, Conceding Administration signs the concession agreement with the Terminal Operator.

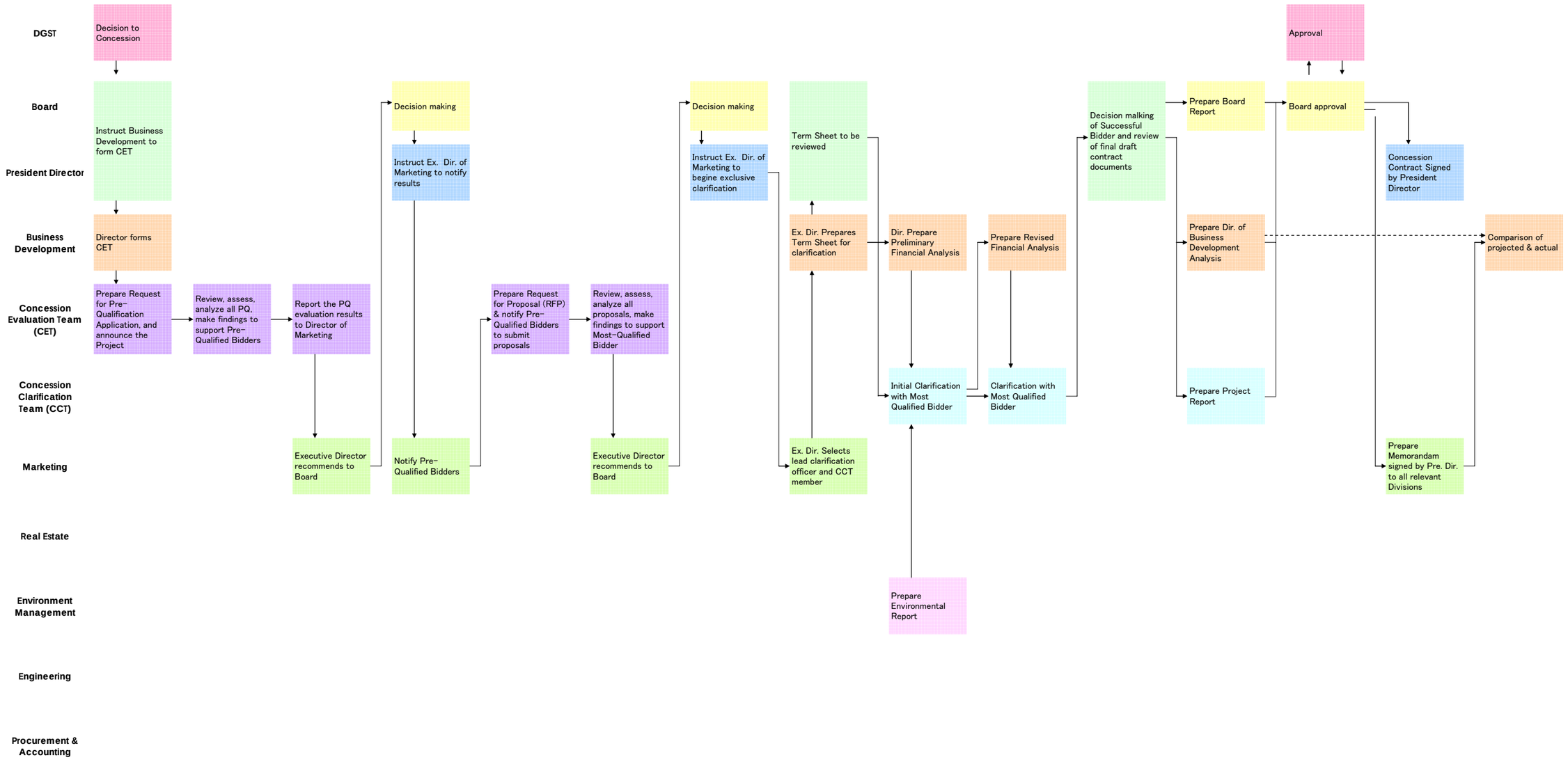


Figure 3.2-4 Procedure of Concession

3.3. Management and Supervision of Concession Contract

3.3.1 Port Facilities Ledger

A. Necessity of Compiling System for Port Facilities Ledger

361. Port facilities ledger is a tool for management of port which is a principal role of PMB together with other tools as financial report and port statistics.

362. An important role of PMB in the management of a concession contract is to monitor the performance of the terminal and to secure the payment of concession fee agreed and record the facilities ledger with the history of maintenance and renovation to verify the assets kept by the concessionaire and PMB in the financial statements.

363. Therefore, it is necessary to establish a compiling system of port facilities ledger for both of PMB and concessionaire and to keep and update information and data on current status of facilities and equipment, throughput and financial conditions of all the terminals under its management ambit.

B. Purpose and Contents of Port Facilities Ledger

(i) To carry out regular and periodical inspection and monitoring for the operation

364. Regular and periodical inspection of the facilities is conducted to investigate whether the leased facilities are properly maintained or repaired comparing the latest data of facilities and current condition. If some of the facilities are deteriorated beyond normal wear and tear, PMB has to order the lessee to recover them to the normal condition based on the lease contract.

365. For these purposes, port facilities ledger must include data/information on handover date, original design, specification and historical record of maintenance, repair and/or refurbishment together with altered design

(ii) To inspect, monitor the fulfillment of obligations by parties of the infrastructure operation lease/purchase contract

366. It is common for the lessee/concessionaire to be obliged to install necessary equipment and facilities and to achieve a performance target specified in the lease/concession contract. In order to monitor the fulfillment of such obligation, PMB has to record and keep data/information on facilities and equipment under the obligation of the lessee/concessionaire together with data/information on performance.

367. For these purposes, port facilities ledger has to include data/information on numbers and specifications with nominal capacity of facilities and equipment together with their age.

(iii) To manage the asset on lease contract

368. In order to audit the financial statements of the lessee/concessionaire and conduct the fair lease/purchase contract, PMB has to know the current conditions of facilities and equipment to valuate the current price of them.

369. It is common that operators will use the facilities and equipment beyond their regulated life time. When PMB sets the lease/purchase price of these facilities and equipment, price is set either

based on book value or fair market value which depends on the physical and economic life of the facilities and equipment.

370. For this purpose, port facilities ledger has to include data/information necessary to valuate them; purchased cost, depreciated value and record of refurbishment value etc

(iv) To let the public know the responsible entity of management of facilities

371. It is also duties of PMB to let the public know the responsible entity of the facilities and equipment. For such purpose, PMB has a responsibility as a manager of public infrastructure to disclose the ownership/management responsibility of such facilities to the public.

372. For this purpose, port facilities ledger has to include information on owner and manager of the facilities.

C. Composition, Updating and Reporting of Port Facilities Ledger

(i) Composition of Port Facilities Ledger

373. Port facilities ledger consists of ledger sheets and drawings.

(ii) Updating the Data

374. Port facilities ledger has to contain the latest data to be most useful. Therefore, a method of updating the data is important.

(iii) Reporting the Data

375. Ledger administration department in PMB has to collect updated reports regularly from each department/organization (construction department, maintenance and repair department and/or users*) and update the port facilities ledger regularly. (*) Users mean lessees/concessionaires

D. Proposed Compiling System of Port Facilities Ledger

(i) Responsible Department in PMB

376. In this report, the Study Team proposes the functional roles and responsibilities of PMB and also examines the institutional setting of PMB. Judging from the functions of each department and the characteristics of the said transaction, Department of Real Estate is suitable for managing a port facilities ledger

(ii) Method of Updating

377. Table 3.3-1 shows the relations among sections/departments of PMB by situation of facilities.

Table 3.3-1 Method of Updating

Situation	From	To	Frequency
New Facility	Construction section	Department of Real Estate	When construction (transfer) or installation
Large-scale Repair/Improvement	Management/maintenance section	Department of Real Estate	When repair or improvement
Maintenance	Management/maintenance section	Department of Real Estate	Annually
Lease contract Concession agreement	Lessee/concessionaire	Department of Real Estate	annually

Remarks: names of each section are tentative ones
They might belong to Dept. of Engineering of PMB

(iii) Necessary Legal Framework

378. Port facilities ledger is not defined in both the shipping law No.17/2008 and G.R. However, a sound legal framework for a port facilities ledger is necessary to establish a compiling system for it and manage and control a concession contract as mentioned in the preceding section A and B.

379. In case of Japan, Port and Harbor Law stipulates that PMB must make public the outline of port facilities under its management and maintain a port facilities ledger for the port under its management.

3.3.2 Auditing and Accounting

380. Under the new shipping law (17/2008), DGST shall have duty and responsibility to control and supervise the port management activities of the Port Authority. One of the important areas for control and supervision is to oversee the financial condition of the Port Authority. DGST should have appropriate auditing system for that purpose. At the same time, Port Authority should have same kind of audit system to check the accurate payment of concession fee by concessionaire.

A. Financial Reporting System of Port Management Bodies in Japan

381. Port authorities or port management bodies in Japan have an established system to compile its financial statements and announce these to the public in order to assure accountability of their financial activities.

382. The Japanese Government has imposed two obligations to the port authorities to monitor and administer their financial conditions.

383. One is a reporting system of the annual financial statements to the Central Government.

The other is a strict surveillance system on the public terminal corporations which manage the major container terminals in the Japanese main ports.

B. Ports and Harbors Act of Japan

(i) Duties of Reporting

384. It is clearly stipulated in the Article 49 of the Ports and Harbor Act of Japan that a port management body (PMB) should annually report to the Ministry of Land, Infrastructure and Transport (MLIT) on its settlement of account in relation to the performance of the port.

(ii) Contents of Report

385. Format and items to be reported to the MLIT are stipulated in the Article 13 of the ordinance.

386. Upon receiving the reports, the MLIT reviews the financial performances of the PMBs.

C. Reporting System of Port Management Bodies

387. The ordinance regulates that the accounting items should be reported separately and specifically for the port management and for the port construction, because the expenditures on port construction account for a large portion in the port accounting.

388. With these revealed data, it would be possible to see the outline of the financial condition of the PMBs, but it is still difficult to get an idea on the points such as, how much assets the PMBs have, or how much debts the PMBs have accumulated through the past activities.

389. According to the relevant laws and regulations, the PMBs are not obliged to prepare full-scale financial statements, which is usually mandatory for private enterprises. This is because all the PMBs in Japan belong to the local governments and in most cases the PMBs are the local government themselves. All the budgetary considerations and accounting results for port management are incorporated into the budget and audit systems of the local governments.

390. The whole financial activities of the local governments, including port management, have to be discussed and approved in the local assemblies.

391. In recent years, lots of local governments are striving to obtain a much clearer view on their financial status, though it is not mandatory by laws and regulations. They have begun to change their financial system from the public style to the private one, evaluating their financial status not only by cash flows in any given year but also by assets and debts accumulated.

D. Financial Reporting System of Terminal Corporations

392. In order to quickly promote container terminal industry in Japan to catch up with the global trend of containerization in the international trade, the two public container terminal corporations were established by the central government in 1967. Then, the public container terminal corporations were dissolved in the 1980s in conformity with the central government's policy of decentralization of public sector. As results, four local container terminal corporations were newly set up in Tokyo, Yokohama, Osaka and Kobe. The four corporations have continued to develop and manage container terminals since then, and according to the latest statistics, the total throughput of the four terminals accounts for approximately 60% to 70% of the entire container throughput in Japan.

393. The controlling government agency (MLIT) has imposed a strict financial reporting system to the corporations, partly because the facility currently owned by these corporations were financed by the central government using national fund at the initial stage, and partly because their public terminals are leased out to the specific private companies for longer period of time (ordinary public berths or terminals are open for any users).

394. The ruling regulation, "The Act on Management and Administration of Specified Container Terminals for External Trade", was enacted in 1981. The strict surveillance rules on the financial reporting were stipulated in the Act.

E. Examples of Yokohama Terminal Corporation

395. Yokohama Terminal Corporation produces a simplified version of profit and loss statement and balance sheet as a modification of standard format used by private companies.

396. In this specific case, the financial reports of the corporation have to be discussed and approved at the Yokohama Local Assembly and audited by auditors appointed by the Mayor of Yokohama City. They have to report the MLIT after these internal reporting and auditing are completed.

F. Beyond the experience of Japanese Financial Reporting System

397. Japan has established the two systems for reporting the financial performance of port activities. One is a very streamlined reporting system on income and expenses of port authorities.

398. The other is full fledged reporting system which involves a concept of asset management which is currently applied to the four public terminal corporations in consideration of long-term lease contracts.

399. On the occasion of establishment of the new Port Authority System in Indonesia, it would be indispensable to establish appropriate port financial reporting system for the sound development of the port.

400. It is strongly recommended that the detailed financial reporting system be introduced at least for the large scale container terminals, because financial performance of these terminals, which are usually leased out to the private sector, has to be carefully monitored to make appropriate future decisions.

G. Draft Plan for the Financial Reporting and Auditing System of PMB

(i) Principles on Financial Reporting and Auditing

401. In the construction of the financial reports, following principles should be obeyed:

402. Financial Report to be submitted by the concessionaire or lessee should basically follow the International Financial Reporting Standards (IFRS) and comply with Indonesian Accounting law.

403. Financial Report to be submitted by Port Management Body should comply with the Indonesian Accounting law.

404. The financial statements should be audited by external certified accountant.

405. The Minister of Transportation can make the specified corporations to report to the Ministry on the activities and financial status, when such actions are deemed necessary, and moreover, he can make DGST to inspect the business activities, the financial papers, book keeping materials, and the other necessary items on site when such actions are deemed necessary.

(ii) Proposed Form of Financial Report by Port Management Body

406. The proposed form of Financial Report by Port Management Body is shown in the report.

(iii) Sample of Financial Report by Operator

407. The sample of financial reports by Terminal Operating Company based on International Financial Reporting Standard (IFRS) is shown in the report.

4. Guideline for the Government Regulation on Article 94 of the Shipping Law

4.1. Summary of G.R. on Service Standard

408. Business activities at a port are stipulated in Paragraph 4 of Chapter VII of the shipping law and Government Regulation and consist of port provisions and/or services related to ships, passengers and cargoes.

409. Port Business Entity is obligated to conduct the port provision and/or service by the following manners (Article 94 of the law Article 73 of G.R.).

- Provide and maintain port facility feasible;
- Provide service to port service users in accordance with the service standard stipulated by the Government;
- Fulfill the obligations pursuant to the concession agreement ; and
- Conform to the provision of national as well as international laws and regulations, etc.

410. Port Authority is required to be established at commercial ports and has power to perform the duties and responsibilities such as determining the operational performance standard of port service, which is evaluated annually (Article 66 of G.R.).

4.2. Guideline for Implementation of G.R. on Operational Performance Standard

411. Performance standard is to be set for the purpose of securing the minimum service to the users as well as the minimum revenue as one of the concession conditions.

412. The service efficiency at container terminals varies by operational systems and methods practiced by the operators; thus the moves of QGC is not enough to evaluate its efficiency. Accordingly, it is advisable to stipulate in the concession contract the performance standard by targeted minimum throughput volume (TEU) for container terminal.

413. In case of general cargo terminal or bulk cargo terminal, it is better to stipulate in terms of minimum volume in either metric ton or long ton according to the unit in port statistics.

414. The targeted volume, however, should vary by specification of terminals, vessels' type/size and type of containers to be handled (Local Import/Export, Transshipment, Empty to be stored as a depot at the terminal or not, etc.). The target volume is calculated based on the terminal capacity in general.

4.2.1 Terminal Capacity (either CY or Berth Capacities of the Terminal, whichever is smaller)

A. Container Yard (CY) Capacity

415. CY capacity is constrained by explicit factors such as ground TEU slot numbers, stacking capacity of container handling equipment utilized at the terminal, average dwell-days of containers handled at there and weekly peak-factor (peak-day's volume/average day's volume in a normal week) of the terminal (see Figure 4.2-1).

416. The capacity should be increased when the TOC uses higher-stacking machines than usual; though the efficiency of the terminal operation will be affected in certain degrees in peak-periods when the TOC stacks containers at their CY up to its maximum storable capacity.

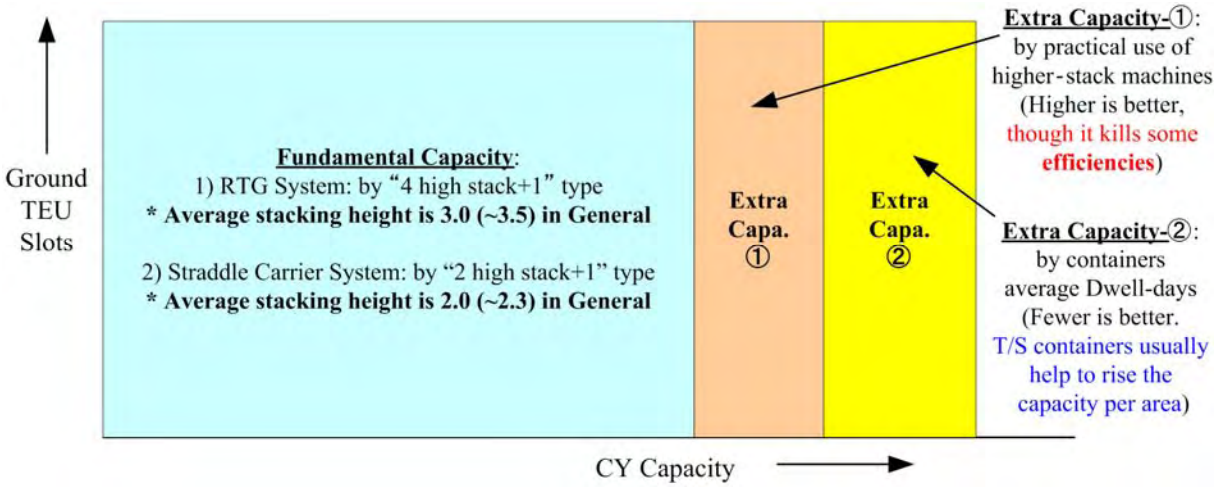


Figure 4.2-1 Basic concept of the CY Capacity

417. The CY capacity of Bojonegara terminal 1 and 2 (600m x 600m) is estimated as 1,060,000 TEU per annum when the average container stacking height is 4.0 tiers, peak-factor is 1.3 and average containers dwell-days is 5.0 days, or 880,000 TEU when the average dwell-day of the containers is increased up to 6.0 days.

B. Berth (Apron) Capacity

418. The berth capacity can be calculated based on the quantity and capability of QGC, ships size to be accommodated, container handling volume per vessel-call, ships stowage conditions, skills of QGC drivers, skills of ship/CY planners and skills of CY/Gate operation controllers, although the last two (2) skills are deeply related to the CY capacity also (see Figure 4.2-2).

419. When ships size as well as the volume per ship-call to handle becomes larger, QGC drivers can not only discharge and/or load containers with less affection of ships-heeling but also can stay for longer periods of time in the same hatch and thus handle more containers compared to the case of smaller ships during the stevedoring work; this helps the TOC to increase the ship's (GC's = Berth) operational productivity.

420. Moreover, ship planners of such terminals can easily split the work-volume equally per assigned QGCs which helps the TOC to increase the equipment utilization rate up to the maximum throughout the operation.

421. Another key factor for improving the Berth as well as CY capacities is the skill of CY planners who make working-plans of CY in weekly/daily basis in beforehand and control and manage the actual CY-operations, allocating the space of CY in a sophisticated manner not only by characteristics of containers such as export, import, transshipment and empty containers but also by vessel/voyage, destination, height, weight-range etc considering the ships' calling schedules.

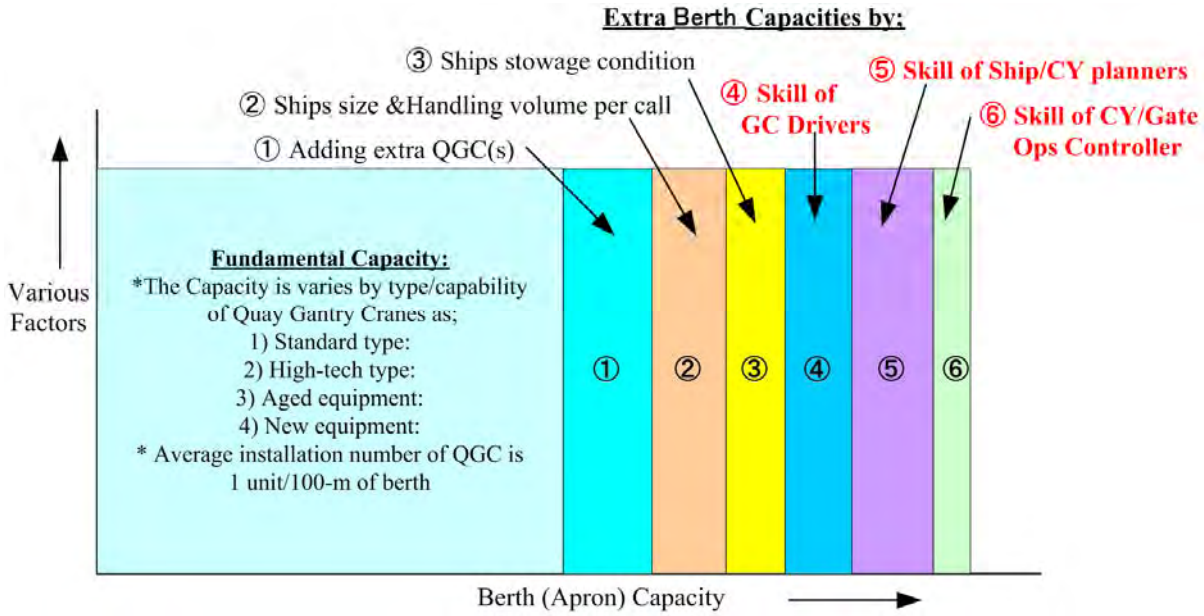


Figure 4.2-2 Basic Concept of the Berth (Apron) Capacity

422. The berth capacity of Bojonegara terminal 1 and 2 is estimated as 930,000 TEU per annum when the average QGC's net-productivity is 30.0 moves, average handling volume per ship-call is 1,000 boxes and TEU/box ratio is 1.6; The berth capacity may increase to 950,000 TEU per annum when the average handling volume is increased from 1,000 to 1,500 boxes per call and other conditions are the same as stated above.

423. The terminal capacity of Bojonegara 1 and 2 terminals, therefore, can be said to be around 900,000 TEU per annum as maximum.

4.2.2 Recommendable Target Throughput Volume as the Operational Performance Standard

424. Recommendable minimum handling volume as the operational performance standard at terminals for concession is around 50%~60% of the terminal capacity, thus in the case of Bojonegara terminals 1 and 2, the volume should be around 500,000 TEU (450,000 ~540,000) per annum.

425. However, a terminal's profitability varies according to the tariff rates applied as well as operational costs such as human cost, energy cost, loan amortization, lease/concession fees and so on; thus the volume as the minimum guarantee should be carefully calculated and accepted by the TOC when making a contract agreement.

426. Furthermore, conceding authorities need to clarify and reach an agreement with TOCs concerning the maximum capacities of terminals for concession under various scenarios, such as when an additional QGC is installed or the CY is expanded etc.; it will also be necessary to stipulate the target years in the agreements when the TOCs have to reach the capacity volumes.

427. Because the variable concession fee paid by TOCs to conceding authorities depends on the maximum capacities of terminals, a higher capacity generally translates into a higher fee.

5. Guideline for the Government Regulation on Article 95 of the Shipping Law

5.1. Summary of G.R. on Port Business Entity

428. Business activity at port is stipulated in Paragraph 4 of Chapter VII of shipping law and the activity of services may be conducted by any individual person and/or business entity of Indonesian Nationality (Article 91) and based on concession or other form from Port Authority set forth in an agreement (Article 92). The obligations of the port business entity are stipulated as follows (Article 94);

- Provide and maintain port facility
- Provide service to port service users in accordance with the service standard stipulated by the Government
- Fulfill the obligations pursuant to concession in the agreement; and
- Conform to the provision of national as well as international laws and regulations, etc.

429. G.R. stipulates in Art.68 that Commercial activities at port shall include; a. ship and passenger and/or cargo service provision and/or rendering; and b. port-related services.

430. Port Business Entity shall, in the performance of its business activities at port, be obliges to have business permit issued by the Minister in case of main port and national port.

431. Concession regarding port provision and/or service shall be granted to port business entity in the form of agreement and term of concession shall depend on investment fund payback and reasonable profit.

432. G.R also stipulates that the grant of concession to port business entity shall be made through the mechanism of tender (Article 74 of G.R).

433. It is also stipulated that in the event of the period of concession has ended, port facilities resulting from such concession shall be transferred to Port Management Body and port management body shall appoint any port business entity to manage and provide port services following such transfer through the mechanism of tender.

434. In addition to the grant of concession, G.R stipulates in Article 76 that Port Management Body may grant any other forms, such as land lease, warehouse lease and storage lease and so on, to port business entities and/or Indonesian individuals in order to carry out commercial activities embodied in the form of agreement.

435. Concession proceeds and compensation received by the port authority shall be the state revenues that shall be used pursuant to laws and regulations (Art.77 of G.R).

5.2. Guideline for Implementation of G.R. on Port Business Entity

5.2.1 Duration of Concession

436. Duration of concession period should be decided based on the financial assessment under relevant concession conditions such as initial investment, reinvestment for renewal of equipment and facilities, maintenance obligation and concession fees etc.

437. Financial assessment should be conducted referring to the various financial indicators and not based on only FIRR as is shown in section IV-3 of the implementation guideline for PPP strategy attached in this report.

5.2.2 Conditions for the Revocation of Concession

438. Revocation of concession should be conducted based on the conditions set forth in the respective concession contract following the necessary procedures specified in the contract based on the fair business rule.

439. Presidential Regulation No.67/2005 stipulates the necessary provisions provided in cooperation agreement (concession agreement) which includes sanction in case the parties failed to meet the provisions of the agreement (Article 23 (1) h) and termination of the agreement (Article 23 (1) i).

440. In the Ministerial Regulation on this matter, it should stipulate that concession agreement shall provide necessary clauses to clearly specifying the event of default and termination and consequences.

441. Sample clauses for provision of event of default and termination are shown in the report.

5.2.3 Service Standard

442. Service standard in terms of performance of the service will vary with the kind of services provided and provision of facilities and equipment as well as the commercial environment of the port. Hence it should be specified in each of the concession contract or agreement based on the business plan proposed by the concessionaire.

443. More general requirement on operation of port business could be stipulated in the regulation in such a manner shown as follows;

(a) Upon the issuance of a Commercial Operation Certificate, the Concessionaire shall have the responsibility for operating and maintaining and insuring the State Infrastructure and the State Equipment for the remaining duration of the Construction Period.
(b) Insofar as the same relates to the installation and commissioning of the Concessionaire Equipment and Additional Equipment, the Concessionaire will observe jobsite work rules for safety, health and security in accordance with the Laws of the Republic of Indonesia, etc.

5.2.4 Procedure of Concession Granting and Requirements

444. As the requirements for the concessionaire as a port business entity, following shall be applied;

- The bids for concession made by national legal persons, established in accordance with Shipping Law and the Government Regulation, shall be admissible.
  a) One or more partners who prove they have practiced in the business and labor environment of Indonesia. “local partner”.

b). One or more partners who prove they have capability and international knowledge as port operators and in port development. “port partner”; and
c). One or more partners as investors. “investor partner”.

- The maximum participation of the partners described above in numbers a) and b) shall be 24.5% for each one of the subscribed capital of the corporate concessionaire. Greater participation than this by one of them must be authorized by the conceding administration, but in no case shall the sum of both participants be greater than 49% of the subscribed capital of the corporate concessionaire. The complementary stock for totaling 100% of the subscribed capital shall correspond to the investor partner.

445. In selecting the concessionaire, the Port Authority/Conceding Administration should consider at least the followings;

a) The Port Investment Plan to be carried out by the concessionaire in correspondence with the Port Principal Plan established by Port Authority;
b) The basic plans for the use and operation of port infrastructure and superstructure;
c) The rate structure proposed for port services according to the item;
d) The economic offer for the use of the concession, which includes the annual rent;
e) The financial capacity of the partners that form the bidder, and the origin of their resources;
f) The experience of the specialized operator;
g) The economic evaluation of the development projects in the phases of design, construction, expansion and improvement of port infrastructure and superstructure throughout the concession period; and,
h) Any other aspect of public interest or of specific importance.

5.2.5 Powers and Obligations of the Concessionaire

446. In the implementation of granting concession to the port business entity, powers and obligations of the concessionaire should be clearly stipulated.

447. The concessionaire shall be under the obligation to:

a) Develop the infrastructure and superstructure under conditions of quality, efficiency and productivity at reasonable and internationally competitive prices;
b) Pay the concession rent in the manner and conditions established by contract as the price;
c) Conserve the infrastructure under concession in a good operational state;
d) Implement all the works for urbanization;
e) Maintain the infrastructure and superstructure in conditions of good hygiene;
f) In the case of a total or master concession, control the entering and exiting of persons, merchandise and vehicles in the port’s installations;
g) Organize vehicular and pedestrian circulation;
h) Present periodically to the Port Authority, statistical reports;
i) Inform the Port Authority every time that there is a happening that affects the port’s operation or which constitute a risk to the operations;
j) Assume, within his fixed costs, the inherent costs for lighting, watchmen and safety;
k) Prepare contingency plans for taking preventive and immediate actions for the purpose of fighting fires, etc;
l) Install a system for processing data with adequate software and hardware for their management;
m) Assume liability for the eventual damages that the operation shall cause to third parties;
n) Adopt the necessary measures so that the competent authority may carry out customs, sanitary, immigration and other controls;
o) Insure the care of goods and the safety of persons;

p) Fulfill the port's internal rules of operation and the rates system;
q) Fulfill labor obligations, honoring and making others honor the current labor laws;
r) Develop the rendering of all the services in compliance with international agreements; and
s) Fulfill the technical and economic regulations and provisions established by the Port Authority.

448. The concessionaire shall have the following fundamental rights:

a) Operate with exclusivity in the ambit given in concession by contract, being able to do this with any type of cargo in accordance with the port's purpose.
b) Offer and charge for the services, to port users, for which he was authorized by the Port Authority; and,
c) Contract, or subcontract third parties, for the rendering of services, likewise the leasing of spaces or use permits within the ambit that was given in concession.

6. Guideline for the Government Regulation on Article 99 of the Shipping Law

6.1. Summary of G.R. on Port Construction and Operation

449. Article 96 of the law stipulates that Port Construction shall be conducted based on permit from the Minister in case of main port and national port and the Governor or Regent/Mayor in case of feeder port and must fulfill port technical requirements and environment sustainability with consideration of the integrity of transportation between intra and inter mode.

450. It is also stipulated in Article 97 that port may be operated only upon the completion of construction, fulfillment of operational requirements and obtaining permit which shall be granted by the Minister in case of main port and national port and the Governor or Regent/Mayor in case of feeder port.

451. Proponent of the port development is stipulated in Article 87 of G.R.; a port business entity shall be the proponent in case of commercial port and port management unit shall be the proponent in case of non-commercial port. License of port development shall be granted upon application of the port management body according to the provision of Article91.

452. Obligations of the organization which engages port development are stipulated in Art 87 (in case of port business entity and port management unit) as follows;

a) to perform port development works, at the latest within 2 (two) year following the grant of port development permit;
b) to perform port development works according to Port Principal Plan as decided;
c) to report the implementation of port development activities periodically to Minister, Governor, or Regent/Mayor according to their respective authorities; and
d) to be responsible for any impacts arising during the performance of the port development.

453. An important point is that port development has to be conducted according to port principal plan and this idea is prescribed in b. of the preceding paragraph and Article 79 and 89.

454. Port operation shall be carries out by the port management body upon obtaining license from the Minister in case of main port and national port and the Governor or Regent/Mayor in case of feeder port and requirements of port operation permit are stipulated in Article 94.

6.2. Guideline for Technical Regulations in Port Construction

6.2.1 Background

455. Design codes play an important role to ensure the safety of facilities/structures and the convenience of using those things. Port facilities shall also follow design codes in order to ensure the safety of facilities and the convenience of port users and ship traffic.

456. Together with the globalization of economic activities, such design codes are requested to meet the international standards and WTO agreement on Technical Barrier to Trade (TBT). WTO agreement recommends the performance based specification rather than ordinary design methods based on design specifications.

457. Regulations on port facilities are usually stipulated by law or decree and details of such regulations are announced by competent authority.

458. Developers/concessionaires are requested to build their facilities in accordance with the technical requirements stipulated by the government. The government also requests port management bodies to make their port development plan in accordance with their criterion on port development and environmental preservation.

6.2.2 WTO Requirements

A. TBT Agreement Key Points

459. Key points of the WTO agreement on TBT in 1995 are that member countries' technical regulations shall conform to the international standards, comply with the Code of Good Practice, and be checked by the conformity assessment.

B. Performance Based Specifications

460. TBT agreement requests member countries to adopt technical regulations based on "product requirements in terms of performance" in stead of "design requirements or descriptive features".

C. ISO Standards related to Port Infrastructure

461. While WTO recommends the adoption of ISO standards if available, no specific standard covers the design of port infrastructure except general standards like ISO 2394:1998 (General principles on reliability for structures) and ISO 3010:2001 (Basis for design of structures - Seismic actions on structures), ISO 21650:2007 (Actions from waves and currents on coastal structures)

6.2.3 Technical Regulations on Port Facilities

A. Necessity of Technical Regulations

462. Technical regulations are necessary for ensuring the safety and productivity of port facilities, controlling concessionaires, and improving the performance of port.

463. World Bank report[1] pointed out the importance of technical regulations and indicates three types, i.e. technical regulations on investment, maintenance, and performance.

[1] Tool Kit Module 5, Financial Implications of Port Reform, World Bank, p24

B. Revision of Technical Regulation in Japanese Port and Harbor Law

464. In order to comply with the Performance Based Specifications, the Japanese Port and Harbor Law was revised in May 2006 and entered into effect as of 1st April, 2007 (See Box-7). Relevant ordinance of the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and several public announcements on details of the ordinance were made by MLIT and entered into force as of 1st April 2007.

465. Ministerial ordinance No.15 on 26 March 2007 requires that the designated port facilities shall be constructed in accordance with the new standards. The new standards stipulated that port facilities shall be designed, constructed and maintained to satisfy the required performance.

C. Assessment of Conformity to Technical Standards

466. In order to make port facilities conform to technical standards, Japanese Port and Harbor Law stipulates that the design of important port facilities, which generate the public benefit and are fairly large in scale, shall be examined to ensure conformity with Technical Standard by an agency authorized by the Minister of MLIT, except a case that the special design method is used for smaller scale port facilities. Procedure for the assessment of conformity to technical standard in Japan is shown in Figure 6.2-1.

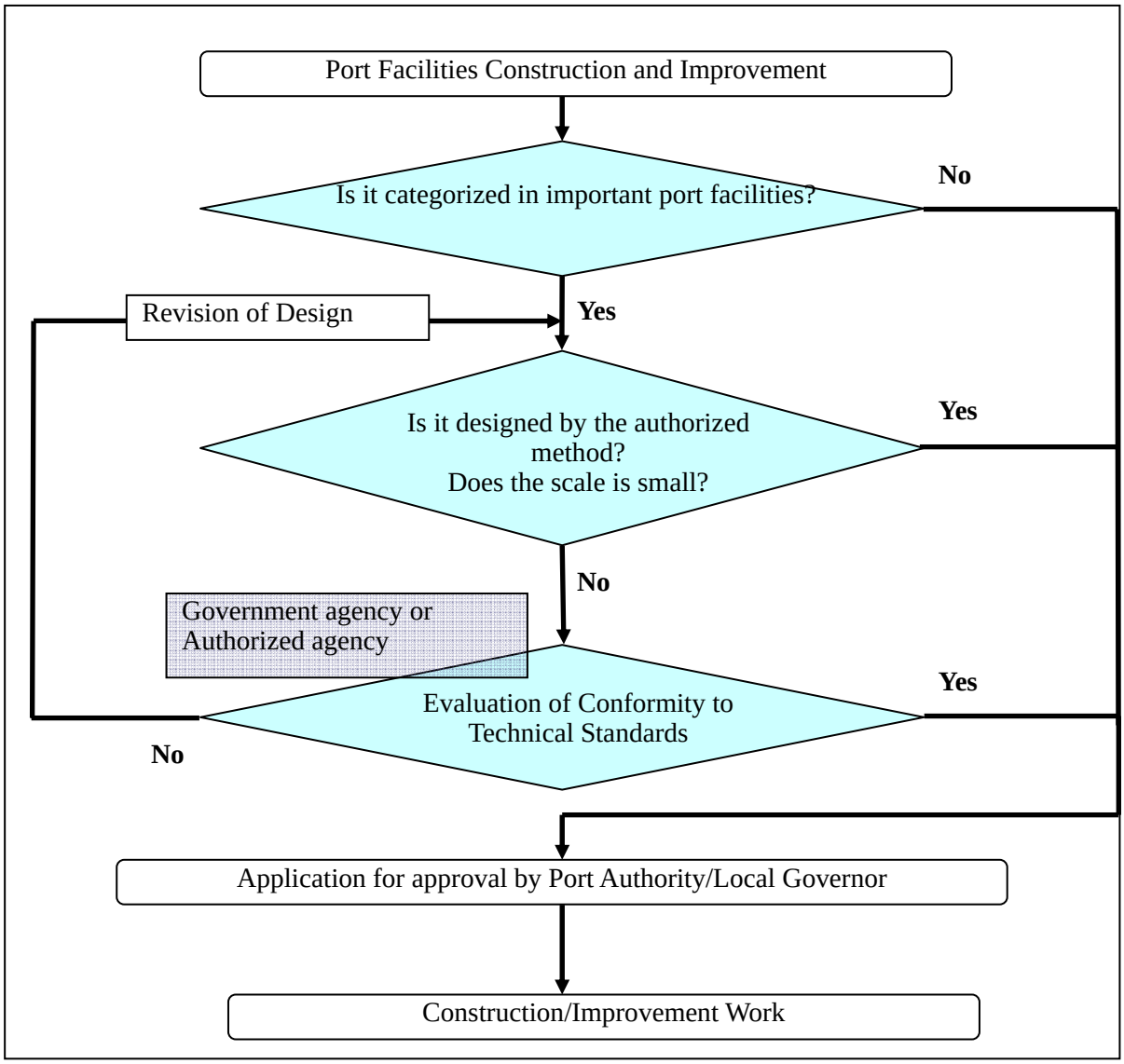


Figure 6.2-1 Assessment of Conformity to Technical Standard

D. Recommendations for Technical Standard

467. G.R. stipulates only that port development shall comply with the technical requirements and the technical requirements shall include technical feasibility and technical design of port. Any description regarding technical regulations or standards for design of port facilities and port development/construction is not seen in G.R.

468. In this connection, technical guidelines for design, construction and maintenance of port facilities should be prepared in consideration of following points.

- A new provision for mandatory technical regulations and non-mandatory technical standards should be publicized as a decree or decision.
- Technical regulations should be examined from the view point of requirements in terms of performance rather than descriptive characteristics in due course.
- Besides the relevant regulations on construction projects stipulated by relevant authorities, PMB shall be responsible for assessing the conformity of port facilities to the technical

regulations on port facilities.

6.3. Environmental Preservation

6.3.1 Compliance with Environment Impact Assessment

469. Environment preservation and prevention of pollution in the port area are an important function for the port management body (PMB).

470. Indonesian Government has implemented environment impact assessment system. Development projects in environmentally sensitive areas require environment impact assessment according to the living environmental management law established in 1997. The procedure known as "AMDAL", specifies that a project executing organization is required to submit the environment impact analysis, environmental management plan and environmental monitoring plan to the government agency concerned.

471. According to the regulation by the Ministry of Environment regarding the type of business and/or activities for which environment impact assessment is mandatory, the scale/size of port projects which are obligated to follow AMDAL are prescribed.

472. As PMB has a responsibility to keep the port area environmentally in a good condition, PMB has to pay attention to the daily activities of port and take necessary measures in accordance with AMDAL, if necessary, to preserve port environment and prevent pollution.

6.3.2 Environmental and Social Considerations

473. JICA (former JBIC, hereinafter referred as to JICA) conducts screenings and reviews of environmental and social considerations to confirm that the requirements are duly satisfied in making funding decision of Japanese yen loan. Therefore, every project proponent has to make effort and fulfill the requirement of it.

474. For the confirmation of environmental and social considerations, JICA is conducting the following items.

a. classifies the project into one of the categories which are the following category A, category B, category C and category FI (hereinafter referred as to " screening")

- Category A means it is likely to have significant adverse impact on the environment. Port sector constitutes one of sensitive sectors.
- Category B means its potential adverse environmental impact is less adverse than that of category A projects.
- Category C means it is likely to have minimal or no adverse environmental impact.
- Category FI means it satisfies all of the following: the sub-projects cannot be specified prior to JICA's approval of funding (or assessment of the project); and those sub-projects are expected to have potential impact on the environment, etc.

b. conducts a review of environmental and social considerations when making a decision on funding, to confirm that the requirements are duly satisfied (hereinafter referred to as "environmental review"); and
c. conducts monitoring and follow-up after the decision has been made on funding (hereinafter, such monitoring and follow-up processes will be simply referred to as "monitoring").

475. The corresponding environmental checklist for port sector will be referred to in conducting the aforementioned reviews.

476. Port project in general is apt to bring environmental effect to the vicinity of the project site. Therefore, environment impact assessment and social consideration have to be well prepared and these are one of the obligations of PMB.

6.3.3 International Convention for Environmental preservation

477. Observance to the international convention in the field of maritime environment preservation is also an important obligation for PMB to preserve the environment of the port.

478. The most important convention regulating and preventing marine pollution by ships is the IMO International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). As Government of Indonesia has already ratified this convention, PMB has to carry out the duty continuously by providing facilities.

479. The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LDC), 1972, generally known as the London Convention, which has been updated by the 1996 Protocol, lays down the measures to prevent the marine pollution by dumping waste materials from inland areas.

480. Others such as the international convention for the Control and Management of Ships' Ballast Water and the international convention on Oil Pollution Preparedness, Response and Co-operation (OPRC) are also deeply related to the port activities.

481. Marine environment protection committee (MEPC) of IMO is energetically active to preserve marine environment, so that PMB and related organization to the port should pay attention to the movement of MEPC.

6.4. Guideline for Operational Requirements

482. Port operation, in general, is carried out according to demand, while always trying to increase efficiency. Basic requirements for port operation are to get hold of necessary personnel and equipment, secure safety and environmental conservation and provide necessary services.

483. There are provisions in Article 98 and Article 100 for requirements for 24 hour operation and upgrading, and these requirements are all necessary for port operation. It is important not to impose minute requirements on port operation because such minute requirements may sometimes hamper port operation.

484. As for 24 hour operation, which is common among the world’s major ports in which Tg.Ptiok port are included, there is no clear criterion on what conditions are required for a port to provide 24 hour operation. As mentioned in the preceding paragraph, demand and basic requirements are the bases for 24 hours operation.

485. Generally speaking, the cost of handling cargo in a 24 hour operation is relatively higher compared to that of the daytime operation and there is not necessarily enough demand in terms of profitability. Therefore, the feasibility of 24 hour operation should be examined carefully.

486. In the feasibility examination, a key point is whether handling charge at night time will be set comparatively high or not. Pilotage charge, tug service and other ancillary service are necessary to be considered, too. Handling charge and other charges should be examined carefully to ensure that competitiveness is maintained. Because it is common that major ports do not introduce an extra charge even in sight time handling.

487. Environmental assessment should be carried out before the commencement of 24 hour operation. Noise and vibration and other negative environmental impact might occur on account of the night time operation.

488. Furthermore, 24 hour operation might affect the daily lives of surrounding residents and this should also be considered before a final decision is reached.

489. In case of a port open to foreign trade, functions of other government agencies such as custom, immigration and quarantine are essential. It is necessary for PMB coordinating with the harbormaster to set up an institutional framework for cooperation with such agencies.

490. 24 hour operation sometimes includes two types of operational services; first one is to handle cargoes for 24 hours, and the other is to open the gate for 24 hours. 24 hour operation generally means the former one in world port circles. However, the latter one is becoming popular as well. Though, the major ports such as American ports, European ports, etc. have limitations on the service hours of gates, most of the Asian major ports have already realized the service of 24 hours gate opening.

491. To extend the gate opening hours of the port, it should be made clear who shares the cost for the opening. Furthermore, this would likely affect the society surrounding the port because of the traffic of port related vehicles. Careful consideration is thus required.

Conclusion and Recommendation

1. Case Study

1. In order to study the applicability of the various types of PPP scheme, following different types of the port projects were reviewed as the case study projects.

Rehabilitation Project of Pier III of Tg. Priok Port

2. The project is under implementation by IPC2 and the objective of the case study is focus on how to apply new shipping law to the ongoing rehabilitation project.

3. According to the new shipping law, port management is entrusted to the newly established port authority and IPC becomes one of port business entity concentrating its business to those of operator on the same ground with private operators. Hence, in application of the new shipping law to the project, following two possible schemes are considered; port authority concedes the project to new operator after purchasing the project form IPC2, or port authority give concession right exclusively to IPC2 while IPC2 pays concession fee to the port authority.

4. As the result of evaluation, the project involves no typical risk caused by the favorable market and small scale of initial investment cost and hence either scheme has no financial problem.

5. As a conclusion from the case study, it can be said that port authority can succeed the business after transfer of the project or to give concession to new operator in the case of the project which has been operated without any problem, but it is better to extend the existing concession without tendering after transfer of the project.

New Port Development in Bojonegara

6. As to the new port development project in Bojonegara, concession for development, management and operation of all the port facilities was once tendered to the concessionaire forming JV with IPC2 resulting no tenderer.

7. PPP scheme for green field port development generally takes the form of master concession (development, management and operation of whole port), or partial concession (either in the form of BOT or joint development by public and private) and case study was conducted to study feasibility of above three schemes for Bojonegara new port development.

8. Schemes to be studied are; master concession, terminal development by BOT and other infrastructure is developed by the public, and infrastructure development including quaywall and gantry cranes by the public and superstructure development by the private.

9. As the result of the study, master concession is not appropriate in new port development which requires huge amount of initial investment including non profitable infrastructure like breakwater and channels because of required long period of time for recovery of initial investment, and BOT or joint development is more appropriate.

10. Even in the case of BOT, when it requires rather big amount of initial investment and involves traffic risk, some counter measures to avoid risks such as decreasing concession fees or tax exemption for the initial stage of operation is needed.

Pelaihari Coal Teminal Development Project

11. The facilities to be exclusively used by the private company for the transportation of its products or law materials such as coal terminal is designated as special port in the new shipping law to be developed, managed and operated by the company. In this case study, following schemes are studied in order to provide the facilities for medium or small scale companies by the government assistance.

- The public provide the infrastructure and the private provide the superstructure by the assistance of non interest loan from the government.
- The private provides all the facilities by the assistance of non interest loan by the government.

12. As the result of analysis, it can be said that financial soundness is maintained in any case, leaving the issue whether such private company (ies) can prepare its own fund for initial investment.

13. Under the judgment that government assistance is justified from the political consideration that such assistance should be provided for the promotion of employment opportunity or of industries important to either nation or region as a whole, provision of infrastructure and leasing it to the company(ies) is appropriate scheme, and superstructure should be provided by the company(ies) itself within its financial capability.

2. New PPP Strategy on Development, Management and Operation of the Ports

14. The basic goal of government in increasing private participation is, as commonly acknowledged in most of the countries, to establish a more competitive and financially sustainable system of ports.

15. Port has an unique characteristics that it consists of various terminals such as container terminal, general cargo terminal, bulk cargo terminal and special terminal owned and operated by individual industry, and it has to provide unprofitable facilities such as breakwater and channels other than commercial facility of terminal and ancillaly services such as bunkering, water supply, electricity supply, fire fighting, pilotage and towage etc. have to be provided for common use. Considering such unique characteristics, effective strategy designated specifically focust on port development and management is necessary.

16. The Study proposes to establish basic framework on the following issues as the basic direction of the strategy.

(1) Clear definition of roles and functions of the port related organizations and agencies

17. It is necessary to redefine the roles and functions of all the government agencies concerned with PPP, inter alia, those of agencies of central government, port management body and port business entity. The principle is recommended as follows;

- A central body, either Ministry of Transport or the council comprising senior representatives from relevant ministries, municipalities of port cities, and from Port Authorities, would work out national port policy and would establish the main sector regulations to be enforced by the Port Authorities/Port Management Body;
- The Port Authorities/port management body, autonomous public institutions, would be granted the right to use state-owned land, administer, maintain and develop port infrastructure assets, manage and enforce navigation safety measures, enforce environmental protection regulations,

monitor the concessions and leases governing non state sectors' activities in the port area, and market the port to attract new investors; and

- The introduced operating companies would carry out commercial activities related to cargo traffic management and handling and market their services to attract new port users.

(2) Establishment of legal framework on port concession

18. Basic principles on legal framework are set as follows;

- The private sector participation scheme is open to competitive bidding
- The private sector participation scheme has to be in line with government policy
- The port authority/port management body becomes the owner and manager of a "landlord port".
- The scheme will concern partial introduction of private sector in full or in part
- The facilities/services will be managed and operated on a common user, non-discriminatory basis
- The operator of facilities has to be experienced in the activities to be carried out
- The bidder selected will set up a new local operating company
- Land ownership remains with the government or the public port authority/port management body
- Management and operational autonomy of the introduced operating company
- A priority objective of the private sector participation scheme is to boost performance levels maintaining the well balanced supply and demand condition of the facilities
- Another priority objective is the private funding of the extension of existing facilities or the construction of new facilities

19. In the Presidential Regulation No.67/2005, only competitive bidding is stipulated for the cooperation with business entity for the provision of infrastructure. Considering the variety of concession form in the port sector, it is necessary to apply other mode of bidding and followings are better to be stipulated in the Ministerial Regulation as the implementation guideline for PPP scheme in the port sector.

Type of Bid

a. Except for succeeding concessions with existing concessionaires, the Conceding Administration shall award concession rights based on competitive bid, competitive proposal, or sole source negotiation.
b. Competitive bids shall be used when in the judgment of the Competent Authority that financial return is the only relevant criteria for selecting among prospective concessionaires.
c. Competitive proposals shall be used when, in the judgment of the Competent Authority that criteria other than financial return to the Port are relevant to selecting a prospective concessionaire.
d. Sole source negotiation shall be used only in those instances where, in the judgment of the Competent Authority, a prospective concessionaire offers services that are unique, patented, or otherwise demonstrated to be available only from a single source.

Regulatory Work of DGST

20. DSGT as the regulatory organization shall perform the followings;

- Supervision (approval, conflict resolution) of the concession agreement for the use, operation, maintenance, conservation and administration of port infrastructure and superstructure,

including their restoration and construction under the jurisdiction of DGST

- Establish DGST concession policies and procedures to guide Port Authority with respect to concession
- The rates for services rendered to cargo and ships shall be established if all possible by the concessionaire and shall be presented by him in his technical bid, within the process of the respective bidding. If a bidder is allocated the concession, the rates offered in his bid may later be adjusted in accordance with the mechanisms established by DGST, the entity responsible for regulating, controlling and inspecting the port rates.
- Supervise the Port Authority in the implementation of concession including approval of concession plan, bid evaluation, finalization of contract.
- Resolve all conflict of interests that may exist among concessionaire, holders of rights, and users of ports and maritime services.

Concession Implementation by Port Authority

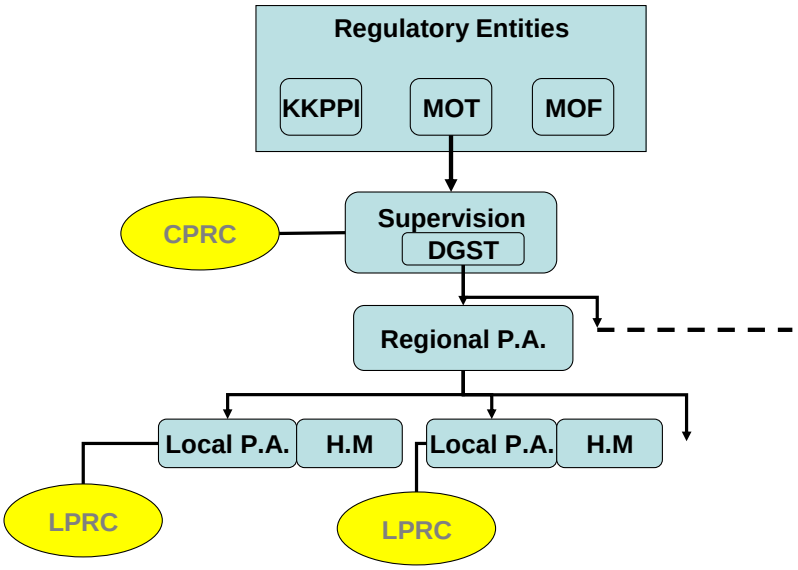
21. In order to implement the PPP scheme more efficiently and effectively, Port Authority shall;

- Promote the participation of the social and private sectors, and the municipalities in operating ports, terminals, marinas and port installations
- Apply sanctions to concessionaires or providers of maritime and port services in accordance with the obligations that each had assumed under contract
- Attend to the claims made by all the users of the maritime and port services provided in the ambit of its port
- Supervise and control the fulfillment of the concession contracts that are entered into with concessionaires, and private operators of ports and all the agents that participate in maritime activity
- Control the functioning of ports in accordance with the commitments assumed by the respective concessionaires and operators, and applying control to fulfill legal standards and port regulations.
- Control the services rendered by concessionaires, operators, and service providers to ships and cargo, insuring that the users of port services receive efficient, fair and egalitarian treatment
- Exercise the rights corresponding to the State, as established in the respective laws, to control and inspect for the fulfillment of the obligations assumed by the concessionaires and operators of ports and maritime activity
- Dictate regulations to insure that the holders of concessions and usage-permits establish plans and procedures for maintaining the goods used for the services in good condition during the period of said concessions and permits, and to make periodic reports to the DGST, which allow it to determine the level of fulfillment of said plans and procedures

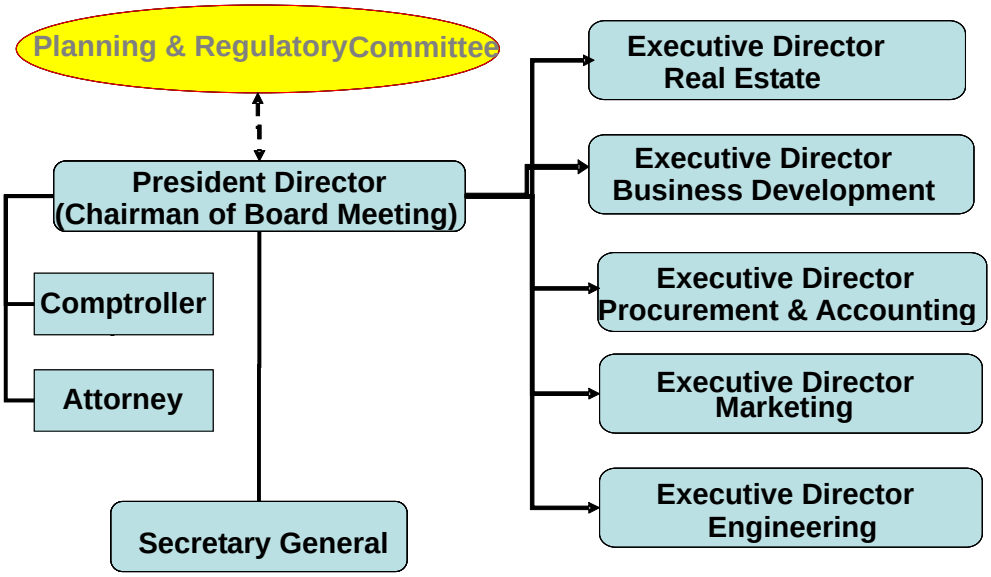
(3) Establishment of institutional framework for port concession

22. In order to effectively implement the port concession in compliance with the existing laws and regulations in Indonesia such as PR 67/2005 and No.38/PMK.01/2006 and legal framework recommended in (2) above, institutional framework is recommended to be set as shown in the following figures.

Institutional Relations



Institution of Port Authority



(4) Establishment of framework for consultation with maritime community

23. In the execution of administration and management of port, decisions taken by the government, port management body and operators sometime seriously affect on various interest groups. Such decisions include operation rule of the port, tariff structure, land and water area use, designation of restrictive areas and port development plan.

24. In the management of concession contract, coordination among terminal operator/concessionaire, PMB/conceding authority and users is necessary. Especially for the resolution of complaints and conflicting opinions among the interest groups, study and deliberation by fair and independent institution is necessary.

25. Concession contract should precisely define monitoring and reporting relationship of the port management body (conceder) in line with the ministry and private operator respectively. Implementation guideline should also be established together with the contract.

26. In doing so, particular attention should be paid to the establishment of official consultation procedures between the private port and maritime community and the local public monitoring bodies (PMB). These consultation procedures will be important in making certain that customers' concerns and suggestions about the functioning of the ports can be timely and regularly channeled to the ports' management boards or to the sector regulatory body.

27. In order to satisfy the needs mentioned above, establishment of such institution as ports council is recommended both for national level (Council for Minister) and local level (Council for the Chairman of PMB), and usually named as Ports Commission (or Ports Council) and established by law. Generally, such institution has an advisory role and provides input to the formulation of a national ports policy at national level and of individual port development plan and of by-laws of the PMB at local level.

(5) Establishment of Infrastructure Pricing Rule

28. The concession fee mechanism typically has a fixed and variable component. The fixed component can be a fee equivalent to a rent paid by the operator to the port authority for the use of land and facilities/utilities provided by the public sector. This fee also incorporates profit sharing; i.e., the rental fee effectively includes an element to reward the conceding authority for permitting the operator to profit from the operation of the terminal.

29. The variable component of the compensation to the conceding authority can be a payment by the operator of a fee based on the level of activity. This includes a minimum traffic threshold that can be used to share the traffic risk and indemnify the operator if the level falls below the predefined threshold. This latter approach may be most appropriate when there is significant uncertainty about the potential traffic moving through the terminal and when conceding authority desires to impose tight technical and pricing regulations.

30. The port authority could choose to set the initial level for the fixed and variable components of fees. However, these levels represent the most frequently adopted financial criterion for judging bids and, therefore, preferably should not be set by the port authority, but left for the bidders to propose.

31. Before tendering the concession, possible level of concession fees should be estimated through financial analysis based on the estimated financial statements of both Port Authority and Concessionaire. For the evaluation of the concession fees, following financial indicators are recommended to use rather than FIRR stated in the No.38/PMK.01/2006.

- FIRRs of conceding authority and concessionaire: this is the indicator to assess the financial viability of the project. The FIRR is the discount rate that makes the discounted costs and revenue over the project life equal, i.e. the rate "r" that satisfies the following formula:

$$\Sigma \ (Bi-Ci)/ (1+r)i \ -1=0$$

Where Bi: Revenue in the i-th year
Ci: Cost in the i-th year
r: Discount rate

In this calculation, fund management income is excluded from the revenue and depreciation cost, repayment of the loan principal and interest on loans are excluded from the costs.
When the FIRR exceeds a certain threshold, the project is considered to be financially viable. The weighted average of the interest rates of various funds generated for the project is used as the threshold.

- Net Present Value（NPV）Ratio of Gross Profit to Turnover based on the assumption that the port is to be operated by the port authority itself. It is assumed that the operation by the concessionaire will be more efficient than the operation by the port authority and hence, the operation by the port authority is conducted at the higher tariff level with less amount of throughput.

- Return on Net Fixed Asset: This is the indicator to assess the profitability of the project and calculated by (Net operating Income)/ (Total Fixed Assets) x 100%. It is necessary to keep the rate higher than the average interest rate of various funds for investments, which have different interest rates.

- Operating Ratio = (Operating Expenses)/(Operating Revenues) x 100% and Working Ratio = (Operating Expenses – Depreciation Expenses)/(Operating Revenues) x 100 %. The Operating Ratio shows the operational efficiency of the organization as an enterprise, while the Working Ratio shows the efficiency of the routine operations. When the Operating Ratio is less than 70~75% and the Working ratio is less than 50~60%, the operation of the organization is assessed to be efficient.

- Debt Service Coverage Ratio = (Net Operating Income + Depreciation Cost)/(Repayment and Interest on Long-term Loans). This indicator shows whether the operating income can cover the repayment of both the principal and the interest on long-term loans. The ratio should be higher than 1.0 and is desirable to be higher than 1.75.

(6) Establishment of human resource development system for port service

Port Labor Law

32. In order to procure the necessary human resource in the port sector and balance the demand and supply of human resource, establishment of the port labor low/act for securing port skilled workers may be effective.

33. Substance of the port labor law is to secure skilled workers through improvement of employment environment and workers' capability and Government shall formulate a plan for sustainable employment.

34. The plan shall include;

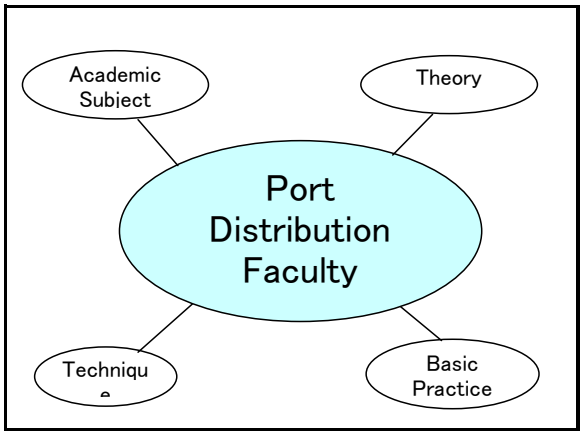
- current status of employment condition
- target of supply and demand
- preparation for training course

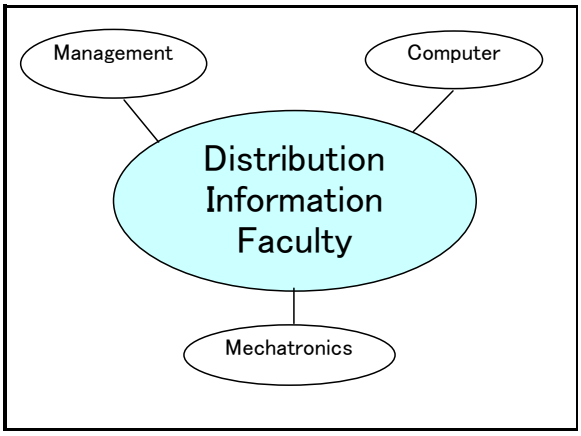
35. For securing the implementation of the plan, port sector entities should secure employment opportunities and train manpower and Government should subsidize to private sector entities and train manpower.

Port Training Institution

36. Although various maritime university and maritime schools are established to provide skilled human resource, it is said to be insufficient because most of them do not seem to have course specialized in port operation and management except STIP Jakarta which has port and shipping management faculty and also because of their wider coverage of training programs lacking concentrated training in skills and knowledge in the port sector. Necessary skills and knowledge for port labor are wide range even in the port sector, from management of port and trade to operation of port.

37. Therefore, establishment of national port college to increase the number of skilled port workers may be another alternative. The port college should have two courses; port distribution faculty to train for the maritime frontier, second distribution information faculty to train for the logistics engineer.





3. Implementation Guideline for the Government Regulation on Shipping Law

Guideline for the Implementation of Article 78 of Shipping Law on Port Principal Plan, Port Working Area (DLKr) and Port Interest Area (DLKp)

38. Port principal plan is the most basic tool to implement the development, management and operation of the port smoothly, and it should play the role of guideline for the private sector investment. Hence it is recommended to clearly define the planning procedure and port planning standard including the followings;

39. As the basic direction of port plan;

- Policies for the development, utilization and preservation of ports as well as the conservation of the areas adjacent to the port.
- Items relating to the volume of cargo handled, the number of passengers embarking and disembarking from ships, and various other capacities.
- Items relating to the scale and arrangement of water area facilities, berthing facilities, and other port facilities in accordance with the capacities of the port.
- Items relating to the development and conservation of port environments.
- Other important items relating to the development, utilization, and preservation of ports as well as the conservation of the areas adjacent to the port.

40. As the items to be planned;

(1) Planning Policy of port
(2) Capacity of port
(3) Zoning
(4) Development in each zone
(5) Land reclamation and land use in each zone

(6) Development of fundamental infrastructures
(7) Other important items to be considered
(8) Planning Map

41. Details of these items are shown in the guideline.

42. Major purposes of designation of Port Working Area of Waters are;

- to notify the public of the water area under the jurisdiction of the port management body and to let them know that activities in the area require authorization.
- to maintain the facilities (channels, basins, navigation aids and other protection facilities) in a good operational condition through controlling activities in the area and punishing illegal acts.

43. Major purposes of designation of Port Working Area of Land are;

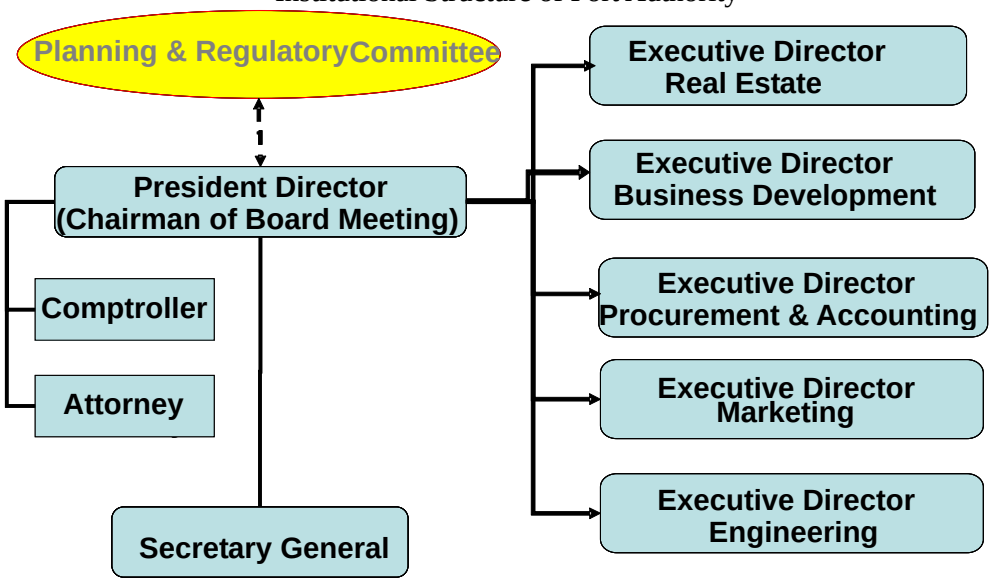
- to maintain the area exclusively used for port activities and separating it from the areas for other socio-economic activities.
- the area exclusively used for port activities such as warehousing, cargo handling/storage and port traffic usually need to be spacious, and these activities have low productivity in terms of land.
- the area once the land use is decided by market mechanism, such port activities are forced to move out of the port working area, because this area is more convenient for commercial use with higher land productivity.

44. In order to effectively pursue these purposes, it is recommended to establish regulations including penalties against violation of the regulation on the management of these areas as well as rules and procedures to designate these areas. Details are shown in the guideline.

Guideline for the Government Regulation on Shipping Law Article 89 on Port Management Body

45. As a guideline for establishment of port management body for the implementation of PPP scheme, institutional structure of the port management body, and establishment of DGST policies and procedure for port concession is proposed. It is recommended to constitute the departments in port authority similar to the private sector for clearly defining the responsibility and authority of each department for effective implementation of concession scheme as shown in the following figure.

Institutional Structure of Port Authority



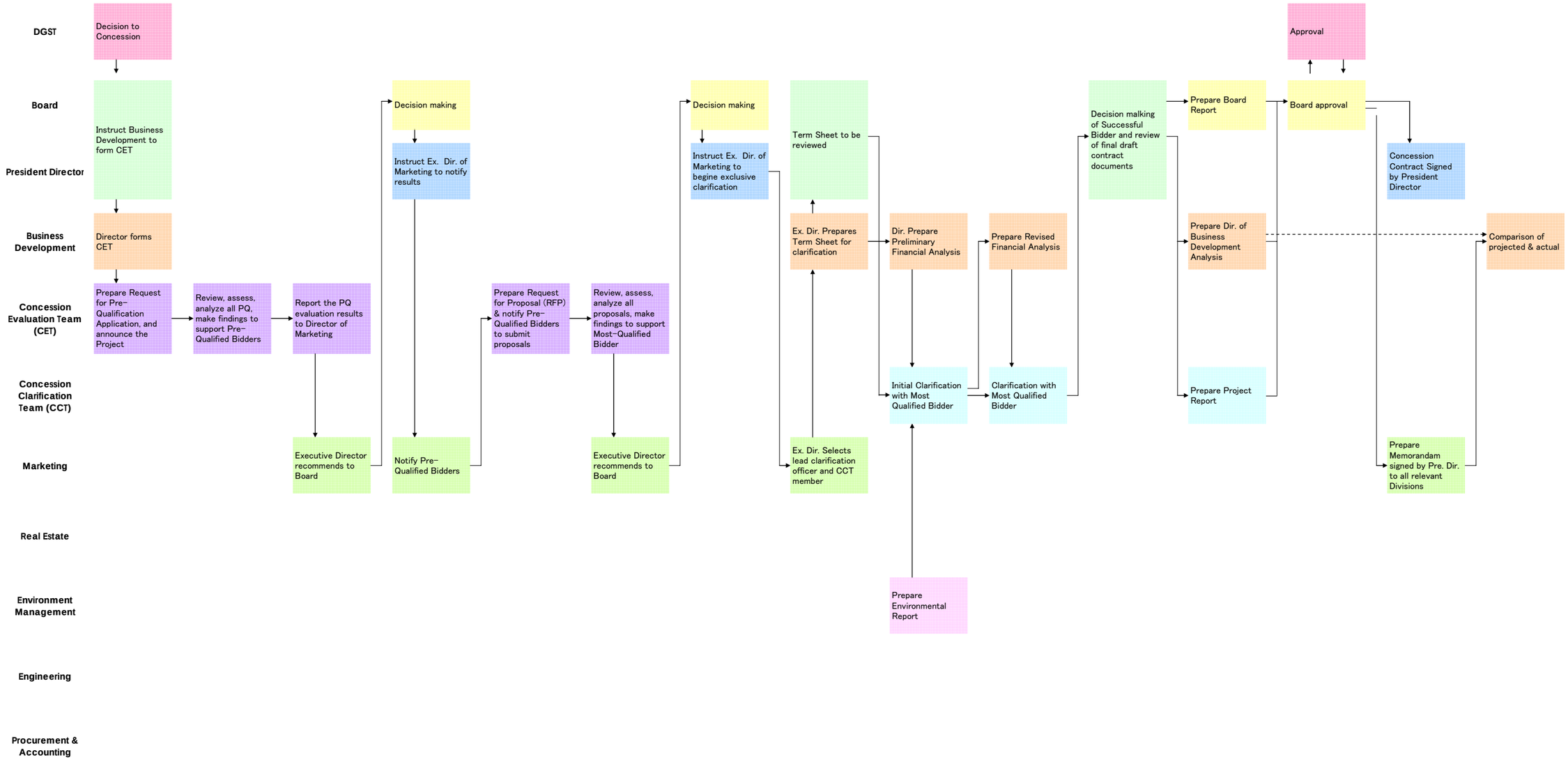
46. Responsibilities and authorities of each department is clearly defined in the DGST policies and procedures together with detailed procedure for the selection and management of concessionaire.

47. Summary of the procedure is shown in the following figure. It is necessary to revise the proposed DGST policies and procedure if the structure of port authority is changed from the proposed structure so as to clearly reallocate the functions of the proposed department without missing any functions stated.

48. It is also necessary to maintain the port facilities ledger for carrying out the function of regulator, inspection and monitoring the port operation, for inspection and monitoring the fulfillment of the obligations of the parties of the concession contract, for management of the assets held by port authority and for letting the public know the responsible entity of management of the port facilities following the guideline proposed on composition, upgrading and reporting of port facilities ledger.

49. Under the new shipping law (17/2008), DGST shall have duty and responsibility to control and supervise the port management activities of the Port Authority. One of the important areas for control and supervision is to oversee the financial condition of the Port Authority. DGST should have appropriate auditing system for that purpose. At the same time, Port Authority should have same kind of audit system to check the accurate payment of concession fee by concessionaire.

50. It is recommended to standardize the form of financial report and reporting procedure following the proposed format in this Study.



Procedure of Concession

Guideline for the Government regulation on Shipping Law Article 94 on Service Standard

51. The Performance Standard on the current concession contact at JICT is prescribed by moves per hour per quay gantry crane (QGC) only. Performance standard is to be set for the purpose of securing the minimum service to the users as well as minimum revenue as one of the concession conditions.

52. In the context above, however, the service efficiency at container terminals varies by operational systems and methods practiced by the operators; thus the moves of QGC is not enough to evaluate its efficiency. Accordingly, it is advisable to stipulate in the concession contract the performance standard by targeted minimum throughput volume (TEU) for container terminal.

53. In the case of general cargo terminal or bulk cargo terminal, it is better to stipulate in terms of minimum volume in either metric ton or long ton according to the unit in port statistics.

54. The targeted volume, however, should vary by specification of terminals, vessels' type/size and type of containers to be handled (Local Import/Export, Transshipment, Empty to be stored as a depot at the terminal or not, etc.). The target volume is calculated based on the terminal capacity in general. The target volume is considered as the minimum performance obligation of the terminal operating company (TOC) to the conceding authority and it should be agreed upon at the concession clarification stage.

Guideline for the Government Regulation on Shipping Law Article 95 on Port Business Entity

a Duration of Concession

55. Duration of concession period should be decided based on the financial assessment under relevant concession conditions such as initial investment, reinvestment for renewal of equipment and facilities, maintenance obligation and concession fees etc.

b Conditions for the Revocation of Concession

56. Revocation of concession should be conducted based on the conditions set forth in the respective concession contract following the necessary procedures specified in the contract based on the fair business rule.

57. In the Ministerial Regulation on this matter, it should stipulate that concession agreement shall provide necessary clauses to clearly specifying the event of default and termination and consequences referring to the sample clauses provided in this report.

c Powers and Obligations of the Concessionaire

58. In the implementation of granting concession to the port business entity, powers and obligations of the concessionaire should be clearly stipulated following the specification shown in 5.2.5 of this report.

Guideline for the Government Regulation on Shipping Law Article 99 on Port Construction and Operation

59. Since private investments are encouraged to build port facilities and terminals, technical regulations and standards should be established and announced for the convenience of investors, construction and design companies and other entities interested in port projects. It is also necessary not only to ensure the safety of navigation channels, anchorages and port structures but also important for proper management of port.

60. G.R. stipulates only that port development shall comply with the technical requirements and the technical requirements shall include technical feasibility and technical design of port. Any description regarding technical regulations or standards for design of port facilities and port development/construction is not seen in G.R.

61. In this connection, technical guidelines for design, construction and maintenance of port facilities should be prepared in consideration of following points.

- A new provision for mandatory technical regulations and non-mandatory technical standards should be publicized as a decree or decision.
- Technical regulations should be examined from the view point of requirements in terms of performance rather than descriptive characteristics in due course.
- Besides the relevant regulations on construction projects stipulated by relevant authorities, PMB shall be responsible for assessing the conformity of port facilities to the technical regulations on port facilities.

62. Technical standard should be established in compliance with WTO agreement on Technical Barriers to Trade (TBT)

63. As to the criteria for designation of 24 hour operation of the port, Article 105 (3) of Government Regulation stipulates two conditions for the increase of port operation. In addition to these conditions, feasibility of 24 hour operation should be carefully examined.

64. In the feasibility examination, a key point is whether handling charge at night time will be set comparatively high or not. Pilotage charge, tug service and other ancillary service are necessary to be considered, too. Handling charge and other charges should be examined carefully to ensure that competitiveness is maintained. Because it is common that major ports do not introduce an extra charge even in sight time handling.

65. Environmental assessment should be carried out before the commencement of 24 hour operation. Noise and vibration and other negative environmental impact might occur on account of the night time operation.

66. Furthermore, 24 hour operation might affect the daily lives of surrounding residents and this should also be considered before a final decision is reached.