

APPENDICES

Appendix I

List of Major Committees concerning Port Management and Operation

- i) Maritime Promotion Commission
(based on MP Act)
- ii) Eastern Seaboard Development Committee
(based on the Executive Order on the ESB Development)
- iii) Ad hoc committee on coordination of port planning and channel dredging (Coastal Ports)
(under HD)
- iv) Ad hoc committee on the development of seaports
(under MPC)
- v) Sub-committee on monitoring and coordinating PAT performance
(under the PAT Board)
- vi) Committee on controlling, supervising and coordinating the development of Songkhla and Phuket deep sea ports
(under MOC)
- vii) Ad hoc committee on studying and determining criteria of coordination between the public sector and the private sector on the development of Laem Chabang Commercial Port
(under ESB Committee)
- viii) Committee on coordination of the river ports and coastal ports administration
(under the Cabinet)
- ix) Ad hoc committee to prepare tender documents for hiring a computer system for PAT
(under the PAT Board)

- x) Sub-committee on the position of PAT employees
(under the PAT Board)

Appendix II

Financial Projection of Terminal Operations

(1) Common Assumptions

i) Study period (Project Life)

Considering the loan repayment period, the study period is set as 30 years from the year when the construction begins.

ii) Operation facilities and equipment

The cost (the number, capacity and unit price) of the required operation facilities and equipment is estimated by the Study Team.

iii) Terminal rent

Terminal rent will be paid to the port management body by a lessee. The rent is set considering the total cost including loan interest, depreciation, maintenance and repair cost and land rent. Personnel and other administrative costs of the port management body are estimated by the Study Team referring to the actual performance at Klong Toei Wharves. Detailed information on the construction cost is available in the Feasibility Study Report for each terminal. Later changes in the implementation plan concerning the number of terminals and lower price of the construction contract are taken into consideration by the Study Team as far as such information is available.

iv) Cargo volume

Cargo handling volume is estimated mostly based on the Feasibility Study and the Detailed Design reports for each terminal.

v) Other costs for the lessee

o Maintenance and repair cost

The annual maintenance and repair cost is calculated at 3% of the purchase value of the operation facilities and equipment.

o Cost for the depreciation of the fixed assets

The annual depreciation cost is based on the purchase value of operation facilities and equipment divided by the depreciation period which is basically determined referring to PAT's practice under the guidance of the Ministry of Finance within

the framework of the Revenue Code using the straight-line method with no salvage value.

o Personnel cost

The number of personnel required for the lessee in the terminal operation and the average personnel cost per capita are estimated by the Study Team referring to the actual performance at Klong Toei Wharves and at other ports in the world, with necessary regional adjustments.

o Other administrative cost

Other administrative cost for the private firm is set at 50% of the personnel cost.

o Business tax

Business tax is set at 0.55% of the operating revenue, including the municipal tax.

o Corporate income tax

Corporate income tax is set at 35% of annual net profit, taking the case of a Thai company not registered with the Securities Exchange of Thailand.

vi) Revenue basis for private firms

The major revenue source for private firms is the cargo handling fees. The tariff is set considering the present level prevailing in each region.

vii) Size of the private firms

The private firms are supposed to have a certain amount of paid-up capital referring to other cases like the invitation to the operation of Sattahip Commercial Port and Bang Sue CFS and also considering the borrowing scale, the recovering period of investment, and the size of terminal rent.

viii) Financial management of the private firm

Any cash shortage should be covered by short-term loans with an interest rate of 11.5% per annum, which will be paid whenever there remains an annual cash surplus. Any cash surplus remaining thereafter will be deposited in banks with 5% interest per annum.

ix) Effect of inflation

In this analysis, revenues and costs are basically calculated at constant 1987 prices.

x) Other presumptions for the projection

Other necessary conditions for the projection are set as shown in Table 2.1.

Table 2.1 Presumptions for the Financial Analysis

Item	Explanation	Mentioned in
Accounts receivable	8% of the operating revenue	Balance sheet Cash flow statement
Accounts payable	8% of the operating cost	Balance sheet Cash flow statement
Timing of: - Loan repayment - Depreciation - Interest payment for long-term loans	at the end of each year	
Timing of: - Interest payment for short-term loans	at the beginning of the succeeding year	

(2) Assumptions for Each Terminal

Assumptions for each terminal including the project cost, fund raising cost, cost sharing plan and tariff for the cargo handling charges are described below and summarized in Table 2.2.

i) Laem Chabang container terminal

o Cargo volume

Cargo handling volume per terminal is projected considering the capacity of Klong Toei Wharves and the demand forecast in the Detailed Design Study for Laem Chabang Port. It will reach the upper limit of the handling capacity at the terminal in 1997 (See Table 2.3).

The percentage of 20-foot containers is calculated as 54% of the total container volume on a TEU basis based on the actual results at Klong Toei Wharves in 1985. 10% of all containers are assumed to be handled at the CFS within the Laem Chabang container terminal.

Table 2.2 Assumptions for each Terminal (1)

(Unit: 1,000 Baht unless otherwise specified)

Port Terminal	A. Laem Chabang Container Terminals (one of 2 terminals)	B. Laem Chabang Break Bulk Terminal	C. Laem Chabang Coastal Shipping Terminal	D. Laem Chabang Tapioca Terminal	E. Laem Chabang Sugar/Molasses Terminal	Laem Chabang Port Total (2A+2+C+D+E)
Basic facilities	Terminal facilities	(F) 275,417 OECE Loan Interest 3.5% p.a. 30 years incl. 10 year grace period	(F) 129,184 OECE Loan	(F) 80,799 OECE Loan	(F) 80,988 OECE Loan	(F) 906,637
		(L) 187,816 Other Loan Interest free 10 years without grace period	(L) 170,237 Other Loan	(L) 54,350 Other Loan	(L) 80,989 Other Loan	(L) 797,602
	Public-use facilities	(F) 175,758 (L) 159,157	(F) 156,637 (L) 142,889	(F) 101,017 (L) 106,057	(F) 67,030 (L) 73,118	(F) 777,170 (L) 735,949
Land rent/Year	(L) 364	(L) 315	(L) 174	(L) 409	(L) 78	(L) 1,704
Operation equipment	(L) 210,042 Other Loan Interest 11.5% p.a. 5 years without grace period	(L) 39,407 Other Loan	(L) 38,099 Other Loan	(L) 162,771 Other loan	(L) 126,703 Other loan	(L) 787,064
Administration cost /Year	(L) 1,750	(L) 1,750	(L) 1,750	(L) 1,750	(L) 1,750	(L) 10,500
Paid-up capital	200,000	90,000	70,000	290,000	230,000	1,080,000
Tariff	20' Container B 1,800/unit 40' Container B 2,600/unit CFS in CT B 40/ton	Rice Export B 46.92/ton Steel Import B 155.97/ton Other Import B 92.97/ton	Outward B 56.30/ton Inward B 68.90/ton	Tapioca Export B 35.00/ton	Sugar Export B 50.00/ton Molasses Export B 25.00/ton	

- Note: * 1. Terminal facilities generally include quay wall, wharf, mooring facility, pavement, terminal office, transit shed, CFS, lighting, water supply & sewerage facilities, etc. and the construction cost includes engineering service fee and contingency.
- * 2. Cost for the construction of public-use facilities generally includes dredging and construction of breakwater, revetment, groin, navigation aids, road, railway, etc. Engineering service fee and contingency are also included.
- * 3. All the funds are raised before the construction work and the purchase of equipment starts.
- * 4. (F) indicates the foreign currency cost and (L) indicates the local currency cost.

Table 2.2 Assumptions for each Terminal (2)

(Unit: 1,000 Baht unless otherwise specified)

Port Terminal	Map Ta Phut Agri/Mineral Terminal	Songkhla 3 berths	Phuket 2 berths
Basic facilities	Terminal facilities	(F) 413,556 OSCF Loan	(ADB Loan) 105,017 Interest 10.1% p.a. 25 years incl. 5 year grace period
		(L) 310,892 Other Loan	(Other Loan) 108,555 Interest free 10 years without grace period
	Public-use facilities	(F) 199,563 (L) 158,774	(ADB Loan) 176,852 (Other Loan) 61,775
Land rent/Year	(L) 324	(L) 8,591	(L) 1,310
Operation equipment	(L) 36,931 Other Loan	(L) 89,487 Other Loan	(L) 81,384 Other Loan
Administration cost /Year	(L) 1,750	(L) 3,000	(L) 3,000
Paid-up Capital	130,000	170,000	80,000
Tariff	Tapioca Export B 48.00/ton Bulk Grain Export B 53.00/ton Grain Export in Bags B 30.55/ton Potash Export B 44.00/ton General Cargo Export B 38.65/ton General Cargo Import B 91.30/ton	Container B 830/TEU CFS in CT B 26.57/ton Bulk Export B 31.53/ton Bulk Import B 75.30/ton	Container B 830/TEU CFS in CT B 26.57/ton Bulk Export B 35.21/ton Coke Bulk Import B 77.71/ton Other Bulk Import B 70.38/ton

Table 2.3. Projected Cargo Volume at the
Laem Chabang Container Terminal

(Unit: 1,000 TEU)

Year	1987- 1989	After							
		1990	1991	1992	1993	1994	1995	1996	1997
Cargo Volume	under construc- tion	15	30	45	60	75	90	105	120
(including empty containers)									

o Project cost

The project cost for the basic facilities is calculated based on the Laem Chabang Feasibility Study (Final Report for the Study on the Development Project of Laem Chabang Coastal Area, JICA, February 1985).

Gantry cranes are assumed to be provided by the lessor and the cost will be included in the rent calculation.

ii) Laem Chabang break bulk, coastal shipping, tapioca and sugar/molasses terminals

o Cargo volume

Cargo handling volume is projected considering the capacity of Klong Toei Wharves and the neighboring private berths and the demand forecast in the Detailed Design Study for Laem Chabang Port. It will hit the upper limit which is regulated by the berth capacity at the break bulk terminal in 2005, at the coastal shipping terminal in 1993 and at the sugar/molasses terminal in 2014. Cargo volume at the tapioca terminal will remain constant over the project period.

o Project cost

The project cost is also based on the Laem Chabang Feasibility Study.

As for the operation at the tapioca and sugar/molasses terminals, the financial analysis is made for the shoreside activities only, excluding the storage operation. Therefore, the rent for storage is excluded from the revenue calculation while the cost of personnel, facilities and equipment for the storage side is also excluded.

iii) Map Ta Phut agri/mineral terminal

o Cargo volume

Cargo movement is projected on the basis of Design Report on Detailed Engineering Design of Map Ta Phut Port Project, by Nippon Koei Co. Ltd., Sindhu Pulsirivong Consultants Co. Ltd. and R.K.V. Engineering Consultant Co. Ltd., November 1985, but it will already reach the maximum value as limited by the berth capacity in 1992, the second year of operation.

o Project cost

The cost for the basic facilities is calculated based on the Map Ta Phut Feasibility Study (Final Report for the Study on the Development Project of the Industrial Port on the Eastern Seaboard in the Kingdom of Thailand, JICA, November 1983).

iv) Songkhla Port and Phuket Port

o Operational scheme

In order to minimize the operation cost, it is presumed that a single operator would operate all the three berths at Songkhla Port and that another single operator would operate the two berths at Phuket Port.

o Cargo volume

Cargo movement is estimated on the basis of the Feasibility Study (Songkhla and Phuket Ports Project, Interim Report Songkhla, January 1981 and Interim Report Phuket, September 1980 by Sir William Halcrow & Partners, Maunsell Consultants Ltd., and Sindhu Pulsirivong & Associates). It will reach the maximum value as limited by the port capacity at both ports in 2000. Some of the containers are assumed to be handled at a CFS within the terminal. In the case of Songkhla Port the cargo volume is based on the international cargo movement through deep sea vessels only.

o Project cost

The cost for the basic facilities is calculated based on the Detailed Design (Songkhla and Phuket Ports Project Design Report for Songkhla, July 1981, and for Phuket, March 1981, by the same consultants mentioned above).

o Personnel cost and tariff

The personnel cost is estimated based on the actual level at Bangkok with regional adjustments (i.e. two-thirds of the Bangkok level). The tariff for cargo handling charges is based

on the present tariff of PAT at Klong Toei Wharves with the same regional adjustment (i.e. two-thirds of the PAT tariff).

Table 2.4 Laem Chabang Container Terminal (Base Case)
Projected Profit and Loss Statement

(Unit: 1,000 Baht)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2015
LOS LAEM CHABANG CONTAINER TERMINAL-BASE CASE PROFIT & LOSS STATEMENT													
OPERATING REVENUE													
20 HANDLING REVENUE	12,960	26,920	38,880	51,840	64,800	77,760	90,720	103,680	103,680	103,680	103,680	103,680	103,680
40 HANDLING REVENUE	8,970	17,940	26,910	35,880	44,850	53,820	62,790	71,760	71,760	71,760	71,760	71,760	71,760
CFS HANDLING REVENUE	500	1,200	1,800	2,400	3,000	3,600	4,200	4,800	4,800	4,800	4,800	4,800	4,800
TOTAL REVENUE	22,530	45,060	67,590	90,120	112,650	135,180	157,710	180,240	180,240	180,240	180,240	180,240	180,240
OPERATING COST													
HANDLING VOLUME (1,000 TEU)	15.00	30.00	45.00	60.00	75.00	90.00	105.00	120.00	120.00	120.00	120.00	120.00	120.00
COST/TEU (BAHT)	624.981	624.981	624.981	624.981	624.981	624.981	624.981	624.981	624.981	624.981	624.981	624.981	624.981
TERMINAL RENT	65,276	65,276	65,276	65,276	65,276	65,276	65,276	65,276	65,276	65,276	65,276	65,276	65,276
MAINT. & REPAIR	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061
DEPRECIATION	12,063	12,063	12,063	12,063	12,063	12,063	12,063	12,063	12,063	12,063	12,063	12,063	12,063
PERSONNEL	13,341	13,341	13,341	13,341	13,341	13,341	13,341	13,341	13,341	13,341	13,341	13,341	13,341
ADMIN. COST : INDIRECT	6,670	6,670	6,670	6,670	6,670	6,670	6,670	6,670	6,670	6,670	6,670	6,670	6,670
ADMIN. COST : DIRECT	0	0	0	0	0	0	0	0	0	0	0	0	0
BUSINESS TAX	124	248	372	496	620	743	867	991	991	991	991	991	991
OTHER COST	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL COST	101,535	101,659	101,783	101,907	102,031	102,155	102,279	102,403	102,527	102,651	102,775	102,899	103,023
NET OPERATING PROFIT	(79,005)	(55,599)	(34,193)	(11,787)	10,619	33,025	55,431	77,837	77,837	77,837	77,837	77,837	77,837
(PROFIT BEFORE DEPRECIATION)	(66,942)	(44,535)	(22,130)	276	22,692	45,098	67,494	89,891	89,891	89,891	89,891	89,891	89,891
NON-OPERATING REVENUE	0	6,142	2,157	0	0	0	0	0	0	0	0	0	0
FUND MANAGEMENT INCOME	0	0	0	0	0	0	0	0	0	0	0	0	0
NON-OPERATING COST	15,558	12,454	9,341	6,227	3,114	0	0	8,937	8,937	8,937	8,937	8,937	8,937
INTEREST ON L-T LOAN	0	0	0	1,731	5,304	7,685	6,704	255	0	0	0	0	0
INTEREST ON S-T LOAN	0	0	0	0	0	0	0	0	0	0	0	0	0
NET INCOME BEFORE TAX	(84,573)	(52,911)	(41,377)	(19,745)	1,572	25,340	48,728	80,954	80,954	80,954	80,954	80,954	80,954
INCOME TAX	0	0	0	0	0	0	0	0	0	0	0	0	0
NET INCOME AFTER TAX	(84,573)	(52,911)	(41,377)	(19,745)	1,572	25,340	48,728	80,954	80,954	80,954	80,954	80,954	80,954
CUM. NET INCOME	(84,573)	(157,484)	(198,861)	(218,606)	(217,034)	(191,694)	(142,967)	(62,013)	(48,728)	(48,728)	(48,728)	(48,728)	(48,728)

Table 2.5 Laem Chabang Container Terminal (Base Case)
Projected Cash Flow Statement

(Unit: 1,000 Baht)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
CASHFLOW STATEMENT													
CASH IN													
OPERATING REVENUE	22,530	45,060	67,330	90,120	112,650	135,180	157,710	180,240	180,240	180,240	180,240	180,240	180,240
EQUITY	200,000	0	0	0	0	0	0	0	0	0	0	0	0
DEBT : L-T LOAN	135,371	0	0	0	0	0	0	74,571	0	0	0	0	0
DEBT : S-T LOAN	0	0	15,050	38,548	15,232	0	0	0	0	0	0	0	0
A/C PAYABLE	7,158	10	10	10	10	10	10	726	0	0	0	0	0
FUND MANAGEMENT INCOME	0	6,142	2,157	0	0	0	0	0	3,436	5,573	11,721	24,400	45,073
TOTAL	365,059	51,212	84,536	126,678	127,892	135,190	157,720	255,638	183,676	185,813	191,951	204,540	225,313
CASH OUT													
INVESTMENT	135,371	0	0	0	0	0	3,005	74,571	0	27,032	25,872	1,005	15,739
REPAYMENT : L-T LOAN	0	27,074	27,074	27,074	27,074	27,074	0	0	14,934	14,934	0	0	0
REPAYMENT : S-T LOAN	0	0	0	0	0	8,536	55,953	2,300	0	0	0	0	0
INTEREST ON L-T LOAN	15,558	12,454	9,341	6,227	3,114	0	0	0	0	0	0	0	0
INTEREST ON S-T LOAN	0	0	0	1,731	5,934	7,585	6,704	285	6,870	5,152	0	0	0
TAX	124	248	372	495	620	743	867	991	18,826	22,937	25,857	31,235	38,531
OPERATING CASH EXPENSES	89,348	89,348	89,348	89,348	89,348	89,348	89,348	89,302	89,302	89,302	89,302	89,302	89,302
A/C RECEIVABLE	1,802	1,802	1,802	1,802	1,802	1,802	1,802	1,802	0	0	0	0	0
TOTAL	242,213	130,927	127,937	126,678	127,892	135,190	157,720	186,919	138,932	138,357	151,031	130,592	152,532
NET CASHFLOW	122,846	(79,715)	(43,131)	0	0	0	0	68,719	44,744	17,556	40,920	74,039	72,581
CUM NET CASHFLOW	122,846	43,131	0	0	0	0	0	58,719	113,463	131,019	275,352	552,047	1,143,406

Table 2.6 Laem Chabang Container Terminal (Base Case)
Projected Balance Sheet

(Unit: 1,000 Baht)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2003	2015	2016
BALANCE SHEET														
CASH	122,845	43,131	0	0	0	0	0	68,719	113,463	131,019	275,352	552,047	974,141	1,143,406
A/C RECEIVABLE	1,802	3,605	5,407	7,210	9,012	10,814	12,617	14,419	14,419	14,419	14,419	14,419	14,419	0
OPERATION EQUIPMENT	135,371	135,371	135,371	135,371	135,371	135,371	135,371	213,047	213,047	240,079	375,235	442,770	531,687	459,740
- DEPRECIATION	12,063	24,126	36,189	48,253	60,316	72,379	84,442	103,207	121,972	140,737	234,551	323,336	440,975	459,740
TOTAL ASSETS	247,956	157,981	194,559	94,328	84,067	73,906	66,551	192,978	218,957	244,780	430,505	636,851	1,079,272	1,143,406
LIABILITIES & EQUITY														
A/C PAYABLE	7,158	7,158	7,178	7,188	7,197	7,207	7,217	7,943	7,943	7,943	7,943	7,943	7,943	0
S-T LOAN	0	0	15,060	51,538	66,830	58,293	2,300	0	0	0	0	0	0	0
L-T LOAN	135,371	106,297	81,223	54,143	27,074	0	0	74,571	59,737	44,803	0	0	0	0
TOTAL LIABILITIES	142,529	113,455	103,450	112,869	101,101	65,501	9,517	82,515	67,681	52,746	7,943	7,943	7,943	0
EQUITY														
RETAINED EARNINGS	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
NET WORTH	(94,573)	(157,464)	(198,861)	(218,606)	(217,034)	(191,694)	(142,967)	(89,636)	(48,733)	(7,955)	222,561	438,907	871,328	943,406
TOTAL LIAB. & CAPITAL	105,427	42,516	1,139	(18,606)	(17,034)	8,306	57,033	110,364	151,217	132,034	422,561	636,907	1,071,328	1,143,406
	247,956	157,981	194,559	94,328	84,067	73,906	66,551	192,978	218,957	244,780	430,505	636,851	1,079,272	1,143,406

Table 2.7 Laem Chabang Break Bulk Terminal (Base Case)
Projected Profit and Loss Statement

(Unit: 1,000 Baht)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
PROFIT & LOSS STATEMENT																		
OPERATING REVENUE																		
EXPORT RICE	7,976	8,267	8,639	8,820	9,102	9,388	9,665	9,946	10,226	10,509	11,917	12,198	12,198	12,198	12,198	12,198	12,198	12,198
IMPORT STEEL	12,477	13,191	13,725	14,343	14,973	15,597	16,221	16,844	17,468	18,092	21,212	21,835	21,835	21,835	21,835	21,835	21,835	21,835
OTHERS	930	1,116	1,302	1,487	1,673	1,859	2,045	2,231	2,417	2,603	3,533	3,719	3,719	3,719	3,719	3,719	3,719	3,719
TOTAL REVENUE	21,383	22,474	23,566	24,657	25,749	26,839	27,931	29,022	30,113	31,205	36,661	37,752	37,752	37,752	37,752	37,752	37,752	37,752
OPERATING COST																		
TERMINAL RENT	49,442	49,442	49,442	49,442	49,442	49,442	49,442	49,442	49,442	49,442	49,442	49,442	49,442	49,442	49,442	49,442	49,442	49,442
MAINT. & REPAIR	1,103	1,103	1,103	1,103	1,103	1,103	1,103	1,103	1,103	1,103	1,103	1,103	1,103	1,103	1,103	1,103	1,103	1,103
DEPRECIATION	3,598	3,598	3,598	3,598	3,598	3,598	3,598	3,598	3,598	3,598	3,598	3,598	3,598	3,598	3,598	3,598	3,598	3,598
PERSUNNEL	17,128	17,128	17,128	17,128	17,128	17,128	17,128	17,128	17,128	17,128	17,128	17,128	17,128	17,128	17,128	17,128	17,128	17,128
ADMIN. COST : INDIRECT	8,554	8,554	8,554	8,554	8,554	8,554	8,554	8,554	8,554	8,554	8,554	8,554	8,554	8,554	8,554	8,554	8,554	8,554
BUSINESS TAX	119	124	130	136	142	148	154	160	166	172	202	208	208	208	208	208	208	208
OTHER COST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL COST	79,952	79,958	79,964	79,970	79,976	79,982	79,988	79,994	80,000	80,006	82,550	82,556	82,556	82,556	82,556	82,556	82,556	82,556
NET OPERATING PROFIT	(58,569)	(57,484)	(56,398)	(55,313)	(54,228)	(53,143)	(52,057)	(50,972)	(49,887)	(48,801)	(45,885)	(44,800)	(44,800)	(44,800)	(44,800)	(44,800)	(44,800)	(44,800)
PROFIT BEFORE DEPRECIATION	(54,971)	(53,886)	(52,801)	(51,715)	(50,630)	(49,545)	(48,460)	(47,374)	(46,289)	(45,204)	(42,051)	(40,966)	(40,966)	(40,966)	(40,966)	(40,966)	(40,966)	(40,966)
NON-OPERATING REVENUE	0	1,760	(0)	(0)	(0)	0	(0)	(0)	(0)	(0)	0	(0)	(0)	(0)	(0)	(0)	0	0
FUND MANAGEMENT INCOME	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON-OPERATING COST	4,228	3,383	2,537	1,691	846	0	0	0	0	0	61	0	0	0	0	0	0	0
INTEREST ON L-T LOAN	0	0	3,191	10,778	19,015	27,977	37,747	47,557	58,918	70,916	160,581	368,469	632,650	632,650	632,650	632,650	632,650	632,650
INTEREST ON S-T LOAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET INCOME BEFORE TAX	(62,797)	(59,106)	(62,127)	(67,782)	(74,098)	(81,119)	(88,805)	(96,829)	(108,705)	(119,717)	(206,480)	(333,272)	(577,453)	(577,453)	(577,453)	(577,453)	(577,453)	(577,453)
INCOME TAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET INCOME AFTER TAX	(62,797)	(59,106)	(62,127)	(67,782)	(74,098)	(81,119)	(88,805)	(96,829)	(108,705)	(119,717)	(206,480)	(333,272)	(577,453)	(577,453)	(577,453)	(577,453)	(577,453)	(577,453)
CASH NET INCOME	(62,797)	(121,904)	(194,030)	(251,813)	(325,901)	(407,020)	(496,824)	(595,553)	(704,359)	(824,075)	(1,570,443)	(3,106,185)	(5,257,213)	(7,012,131)	(7,012,131)	(7,012,131)	(7,012,131)	(7,012,131)

(Unit: 1,000 Baht)

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Table 2.9 Laem Chabang Coastal Shipping Terminal (Base Case)
Projected Profit and Loss Statement

(Unit: 1,000 Baht)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
PROFIT & LOSS STATEMENT																	
OPERATING REVENUE																	
OUTWARD	3,264	3,763	4,223	4,324	4,324	4,324	4,324	4,324	4,324	4,324	4,324	4,324	4,324	4,324	4,324	4,324	4,324
INWARD	12,092	13,790	15,593	15,875	15,875	15,875	15,875	15,875	15,875	15,875	15,875	15,875	15,875	15,875	15,875	15,875	15,875
TOTAL REVENUE	15,342	17,553	19,725	20,199	20,199	20,199	20,199	20,199	20,199	20,199	20,199	20,199	20,199	20,199	20,199	20,199	20,199
OPERATING COST																	
TERMINAL RENT	31,639	31,639	31,639	31,639	31,639	31,639	31,639	31,639	31,639	31,639	31,639	31,639	31,639	31,639	31,639	31,639	31,639
MAINT. & REPAIR	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143
DEPRECIATION	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264
PERSONNEL	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997
ADMIN. COST : INDIRECT	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498
ADMIN. COST : DIRECT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUSINESS TAX	84	96	108	111	111	111	111	111	111	111	111	111	111	111	111	111	111
OTHER COST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL COST	55,635	55,637	55,649	55,652	55,652	55,652	55,652	55,652	55,652	55,652	55,652	55,652	55,652	55,652	55,652	55,652	55,652
NET OPERATING PROFIT	(40,294)	(38,104)	(35,924)	(35,454)	(35,454)	(35,454)	(35,454)	(35,454)	(35,454)	(35,454)	(35,454)	(35,454)	(35,454)	(35,454)	(35,454)	(35,454)	(35,454)
GROSS PROFIT BEFORE DEPRECIATION	(37,020)	(34,840)	(32,660)	(32,190)	(32,190)	(32,190)	(32,190)	(32,190)	(32,190)	(32,190)	(32,190)	(32,190)	(32,190)	(32,190)	(32,190)	(32,190)	(32,190)
NON-OPERATING REVENUE	0	1,578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FUND MANAGEMENT INCOME	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON-OPERATING COST	4,381	3,505	2,623	1,753	876	0	0	0	0	0	0	0	0	0	0	0	0
INTEREST ON L-T LOAN	0	0	1,455	6,522	12,167	18,245	24,321	31,645	38,967	47,172	109,271	212,133	438,448	492,571	0	0	0
INTEREST ON S-T LOAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET INCOME BEFORE TAX	(44,655)	(40,031)	(40,048)	(43,828)	(48,497)	(53,693)	(58,375)	(67,093)	(74,440)	(82,626)	(144,725)	(247,595)	(473,932)	(528,025)	(473,932)	(473,932)	(528,025)
INCOME TAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET INCOME AFTER TAX	(44,655)	(40,031)	(40,048)	(43,828)	(48,497)	(53,693)	(58,375)	(67,093)	(74,440)	(82,626)	(144,725)	(247,595)	(473,932)	(528,025)	(473,932)	(473,932)	(528,025)
CASH NET INCOME	(44,655)	(40,031)	(40,048)	(43,828)	(48,497)	(53,693)	(58,375)	(67,093)	(74,440)	(82,626)	(144,725)	(247,595)	(473,932)	(528,025)	(473,932)	(473,932)	(528,025)

Table 2.10 Laem Chabang Coastal Shipping Terminal (Sensitivity Analysis)
Projected Profit and Loss Statement

(Unit: 1,000 Baht)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2015	2015
106 LAEM CHABANG COASTAL													
PROFIT & LOSS STATEMENT													
OPERATING REVENUE													
OUTWARD	3,284	3,753	4,223	4,324	4,324	4,324	4,324	4,324	4,324	4,324	4,324	4,324	4,324
INWARD	12,033	13,780	15,503	15,875	15,875	15,875	15,875	15,875	15,875	15,875	15,875	15,875	15,875
TOTAL REVENUE	15,342	17,533	19,725	20,198	20,198	20,198	20,198	20,198	20,198	20,198	20,198	20,198	20,198
OPERATING COST	233	267	300	307	307	307	307	307	307	307	307	307	307
HANDLING VALUE (1,000T)	72,035	21,805	21,805	21,805	21,805	21,805	21,805	21,805	21,805	21,805	21,805	21,805	21,805
TERMINAL RENT	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143	1,143
MAINT. & REPAIR	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264
DEPRECIATION	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997	12,997
PERSONNEL	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498
ADMIN. COST : INDIRECT	0	0	0	0	0	0	0	0	0	0	0	0	0
BUSINESS TAX	84	96	108	111	111	111	111	111	111	111	111	111	111
OTHER COST	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL COST	45,791	45,800	45,815	45,818	45,818	45,818	45,818	45,818	45,818	45,818	45,818	45,818	45,818
NET OPERATING PROFIT	(30,449)	(28,270)	(26,090)	(25,619)	(25,619)	(25,619)	(25,619)	(25,619)	(25,619)	(25,619)	(25,619)	(25,619)	(25,619)
PROFIT BEFORE DEPRECIATION	(27,185)	(25,006)	(22,826)	(22,355)	(22,355)	(22,355)	(22,355)	(22,355)	(22,355)	(22,355)	(22,355)	(22,355)	(22,355)
NON-OPERATING REVENUE	0	2,030	317	0	0	0	0	0	0	0	0	0	0
FUND MANAGEMENT INCOME	0	0	0	0	0	0	0	0	0	0	0	0	0
NON-OPERATING COST	4,381	3,505	2,623	1,733	876	0	0	0	0	0	0	0	0
INTEREST ON L-T LOAN	0	0	0	3,089	7,064	11,424	16,185	20,773	25,733	31,263	37,831	44,702	51,736
INTEREST ON S-T LOAN	0	0	0	0	0	0	0	0	0	0	0	0	0
NET INCOME BEFORE TAX	(34,831)	(29,744)	(28,402)	(30,431)	(30,559)	(37,043)	(41,804)	(45,382)	(51,352)	(56,882)	(61,321)	(65,735)	(69,425)
INCOME TAX	0	0	0	0	0	0	0	0	0	0	0	0	0
NET INCOME AFTER TAX	(34,831)	(29,744)	(28,402)	(30,431)	(30,559)	(37,043)	(41,804)	(45,382)	(51,352)	(56,882)	(61,321)	(65,735)	(69,425)
CUM. NET INCOME	(34,831)	(54,575)	(82,977)	(123,408)	(156,967)	(194,010)	(235,813)	(282,206)	(333,558)	(390,440)	(451,777)	(518,514)	(590,939)

Table 2.11 Songkhla Port (Sensitivity Analysis)
Projected Profit and Loss Statement

(Unit: 1,000 Baht)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	2002	2007	2013	2014
ONG SONGKHLA PORT														
-SENSITIVITY ANALYSIS														
PROFIT & LOSS STATEMENT														
OPERATING REVENUE														
CONTAINER	38,840	43,160	48,140	49,800	53,120	55,440	58,100	61,420	64,740	68,060	75,360	76,360	76,360	76,360
BULK EXPORT	6,496	6,064	5,455	5,455	5,455	5,455	5,361	5,280	5,234	5,108	4,730	4,730	4,730	4,730
BULK IMPORT	3,012	3,309	3,765	3,765	3,765	3,765	3,765	3,765	3,765	3,765	3,765	3,765	3,765	3,765
CTS IN TERMINAL	0	0	283	283	283	283	363	416	459	576	896	896	896	896
TOTAL REVENUE	49,348	52,603	57,643	59,303	62,623	65,943	67,528	70,899	74,209	77,509	86,751	86,751	86,751	86,751
OPERATING COST														
TERMINAL RENT	69,358	69,358	69,358	69,358	69,358	69,358	69,358	69,358	69,358	69,358	69,358	69,358	69,358	69,358
MAINT. & REPAIR	2,685	2,685	2,685	2,685	2,685	2,685	2,685	2,685	2,685	2,685	2,685	2,685	2,685	2,685
DEPRECIATION	8,928	8,928	8,928	8,928	8,928	8,928	8,928	8,928	8,928	8,928	8,928	8,928	8,928	8,928
PERSONNEL	18,304	18,304	18,304	18,304	18,304	18,304	18,304	18,304	18,304	18,304	18,304	18,304	18,304	18,304
ADMIN. COST : INDIRECT	9,152	9,152	9,152	9,152	9,152	9,152	9,152	9,152	9,152	9,152	9,152	9,152	9,152	9,152
ADMIN. COST : DIRECT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUSINESS TAX	271	283	317	325	344	363	372	390	408	426	472	472	472	472
OTHER COST	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL COST	108,838	108,716	108,744	108,753	108,771	108,789	108,799	108,817	108,835	108,853	108,899	108,899	108,899	108,899
NET OPERATING PROFIT	(59,380)	(56,113)	(51,101)	(49,450)	(46,149)	(42,847)	(41,210)	(37,916)	(34,626)	(31,344)	(23,147)	(23,147)	(23,147)	(23,147)
PROFIT BEFORE DEPRECIATION	(50,428)	(47,186)	(42,173)	(40,523)	(37,221)	(33,919)	(32,283)	(28,991)	(25,699)	(22,416)	(14,220)	(14,220)	(14,220)	(14,220)
NON-OPERATING REVENUE	0	5,666	2,271	0	0	0	0	0	0	0	0	0	0	(0)
FINANCING INCOME	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON-OPERATING COST	10,251	8,233	5,175	4,115	2,058	0	0	0	0	0	0	0	0	0
INTEREST ON L-T LOAN	0	0	0	2,181	9,833	17,353	26,338	32,287	39,364	46,877	107,953	199,870	405,941	454,253
INTEREST ON S-T LOAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET INCOME BEFORE TAX	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
INCOME TAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET INCOME AFTER TAX	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)	(70,205)	(73,991)	(78,221)	(131,100)	(223,018)	(423,088)	(477,407)
CON. NET INCOME	(69,641)	(58,690)	(55,005)	(55,747)	(57,845)	(60,193)	(66,548)							

Table 2.12 Phuket Port (Sensitivity Analysis)
Projected Profit and Loss Statement

(Unit: 1,000 Baht)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	2002	2007	2013	2014
OP6 PHUKET PORT-SENSITIVITY ANALYSIS														
PROFIT & LOSS STATEMENT														
OPERATING REVENUE														
CONTAINER	5,474	6,300	10,126	10,707	11,620	12,367	13,260	14,193	15,272	16,102	19,588	19,588	19,588	19,588
BULK EXPORT	6,408	6,444	6,408	6,514	6,514	6,725	6,594	6,620	6,594	6,549	6,338	6,338	6,338	6,338
BULK IMPORT-ONE	699	699	699	622	622	544	544	544	455	455	388	388	388	388
-OTHERS	563	704	845	985	1,126	995	1,408	1,548	1,689	1,830	2,182	2,182	2,182	2,182
OPS IN TERMINAL	0	0	51	37	37	11	11	0	37	64	251	251	251	251
TOTAL REVENUE	14,145	16,147	18,159	18,855	19,919	20,632	21,827	22,935	24,049	25,011	28,747	28,747	28,747	28,747
OPERATING COST														
TERMINAL RENT	25,356	25,356	25,356	25,356	25,356	25,356	25,356	25,356	25,356	25,356	25,356	25,356	25,356	25,356
MAINT. & REPAIR	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438	2,442	2,442	2,442	2,442
DEPRECIATION	4,784	4,784	4,784	4,784	4,784	4,784	4,784	4,784	4,784	4,784	8,026	8,026	8,026	8,026
PERSONNEL	12,451	12,451	12,451	12,451	12,451	12,451	12,451	12,451	12,451	12,451	14,517	14,517	14,517	14,517
ADMIN. COST : INDIRECT	6,226	6,226	6,226	6,226	6,226	6,226	6,226	6,226	6,226	6,226	7,259	7,259	7,259	7,259
ADMIN. COST : DIRECT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUSINESS TAX	78	89	100	104	110	113	120	126	132	138	158	158	158	158
OTHER COST	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL COST	50,330	50,344	50,355	50,399	50,365	50,369	50,375	50,381	50,388	50,399	57,757	57,757	57,757	57,757
NET OPERATING PROFIT	(36,185)	(34,197)	(32,186)	(31,494)	(30,446)	(29,737)	(28,549)	(27,476)	(26,338)	(25,382)	(28,010)	(28,010)	(28,010)	(28,010)
PROFIT BEFORE DEPRECIATION	(31,404)	(29,413)	(27,402)	(26,710)	(25,662)	(24,952)	(23,765)	(22,632)	(21,554)	(20,597)	(20,984)	(20,984)	(20,984)	(20,984)
NON-OPERATING REVENUE	0	2,280	215	(0)	(0)	(0)	0	(0)	(0)	(0)	(0)	(0)	(0)	(0)
FUND MANAGEMENT INCOME														
NON-OPERATING COST														
INTEREST ON L-T LOAN	5,513	4,411	3,308	2,205	1,103	0	0	0	0	0	769	0	0	0
INTEREST ON S-T LOAN	0	0	0	4,139	9,043	14,273	19,893	25,056	30,557	36,561	50,185	174,728	355,749	410,228
NET INCOME BEFORE TAX	(41,701)	(36,328)	(35,279)	(37,832)	(40,591)	(44,009)	(48,441)	(52,533)	(56,896)	(61,942)	(119,954)	(208,738)	(394,759)	(439,233)
INCOME TAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET INCOME AFTER TAX	(41,701)	(36,328)	(35,279)	(37,832)	(40,591)	(44,009)	(48,441)	(52,533)	(56,896)	(61,942)	(119,954)	(208,738)	(394,759)	(439,233)
CASH NET INCOME	(41,701)	(78,030)	(113,308)	(151,141)	(191,792)	(235,741)	(284,182)	(336,715)	(393,611)	(455,553)	(948,788)	(1,779,376)	(3,611,423)	(4,950,556)

Appendix III

Terminal Operation System of New International Ports

1. Laem Chabang Container Terminal

(1) Necessary Conditions of New Container Terminal

- i) One container terminal should be operated by a single operator who has enough skilled personnel and equipment to supply good service to customers. Operation for a single shipping company is the most efficient and simple. If several shipping companies are going to use the same container terminal, the stacking yard should be allotted in proportion to their container volumes day by day, but the operation system should be continuously unified and operated by a single operator.
- ii) The CFS operator in the container terminal is expected to be the same as the container terminal operator. If several shipping companies utilize the CFS, the space should be allotted in proportion to their cargo volumes.

(2) Container Flow

Fig. 3.1 shows import and export container flow.

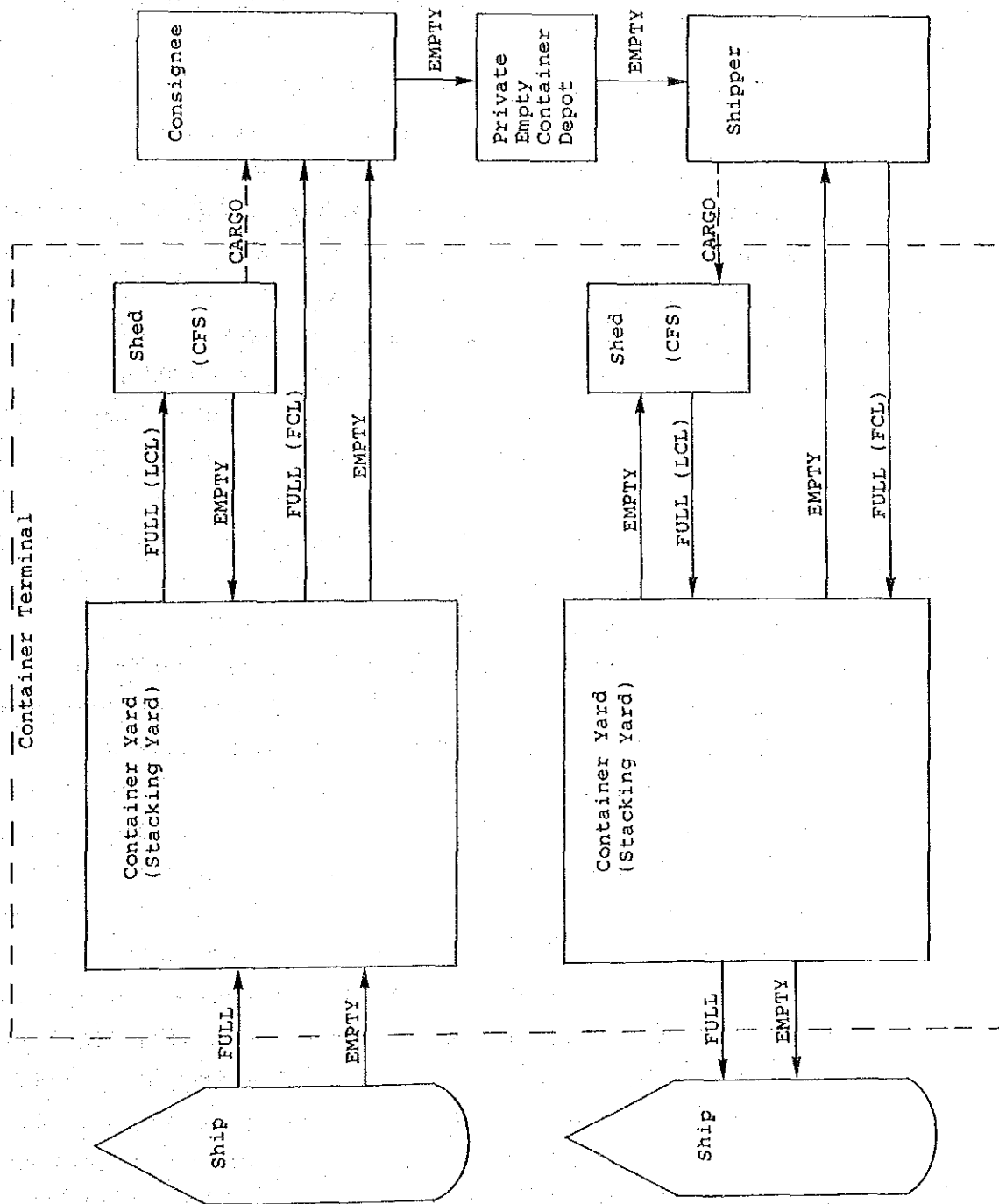
i) Import containers

All import containers are discharged from a ship and then transferred to the container stacking yard for stacking. FCL containers (door to door service containers) are basically delivered from the container stacking yard directly to consignees through the gate office. Containers with consolidated cargoes (LCL cargoes) are moved to the designated shed (CFS). Cargoes are unstuffed from the containers in the CFS, sorted, and then delivered. The empty containers are then stored at the stacking yard or transferred to the shipping companies' empty container depots. If space is available in the container terminal, empty containers are stacked in the stacking yard.

ii) Export containers

Prior to a ship's arrival, export FCL containers are received at

Fig. 3.1 Container Flow



the gate office and stacked in the stacking yard. Export LCL cargoes are brought into the CFS by shippers, and then stuffed into the containers by the operator. All export (full and empty) containers are loaded onto a ship in accordance with the loading sequence plan.

(3) Container Terminal Operation

Container terminal operation consists of the following aspects:

i) Container ship operation

Container ship operations refer to loading and discharging work to and from container ships. Normally, these operations are performed by gantry cranes which are equipped on the wharf. In order to minimize the staying time of a container ship at the wharf, an efficient operation plan should be prepared prior to the ship's arrival. Each section of the terminal should make preparations in accordance with the plan. The ship planner's duty is to prepare the above plan, and to supervise container loading/discharging operations. Successful terminal operation depends on his proper planning.

ii) Container yard operation

As all containers to be loaded/discharged pass through the gate office into the container yard before being moved to consignees or shippers, the container yard itself may be considered to be a part of the container ship. The container yard, which is a junction between sea and land transport, has two functions: it serves as a location for the physical and legal transfer of cargoes and also as a storage space.

iii) Gate operation

The works at the gate office, which is located at the entrance of the container terminal, are very important because the office is the location for the transfer of legal responsibility between shippers/consignees and shipping companies. All containers pass through the gate before entering or leaving the container terminal area. The gate is the first and last checkpoint to discover container damage, etc.

iv) CFS operation

The works of a CFS operator are receiving, delivering, storing,

stuffing and unstuffing container cargoes. Small lot (LCL) cargoes are handled at the CFS.

v) Cargo documentation

In order to achieve the smooth flow of cargoes and containers in the container terminal, efficient cargo operation plans must be prepared. The terminal office must maintain close contact with shipping companies, shippers/consignees, and forwarding agents. Information and data must be disseminated to every section of the terminal, and certain information should also be sent to shipping companies, shippers/consignees, and forwarding agents. Thus, cargo documentation is an important aspect of terminal operations.

vi) Maintenance

As the container terminal is highly mechanized, any troubles with cargo handling equipment will directly influence terminal operation. Mechanical troubles with container cranes or transtainers block the flow of container operation and result in reduced efficiency, extending ship berthing time. Ultimately, mechanical breakdowns may completely stop the functioning of the container terminal. To ensure safe and efficient cargo transportation, containers and handling equipment must always be well maintained. The condition of all the containers stowed in the terminal should be checked daily, and all damaged containers should be repaired completely before they are delivered to the next user.

(4) Terminal Office

Following is a short explanation of the duties of each section of the container terminal office.

o General Affairs, Accounting and Documentation Section

- i) Administration of terminal properties and costs, labor costs and flow of general administration funds. Other general affairs.
- ii) Issuing invoices for loading/discharging, storage, delivery and receiving cargo and for dockage. Receiving payments.
- iii) Issuing and typing of necessary documents for import/export containers, arrangement for government officials' inspections.

- iv) Husbanding work for ship arrival and departure.
- o Operational Section
 - i) Planning of container ship stevedoring, container marshalling in the container yard, shifting within the container yard, etc.
 - ii) Arrangement of necessary equipment and operators, and of other workers. Controlling yard operation at the control center in the office. Controlling road trailers arranged by shippers/consignees in the container terminal area.
 - iii) Clerical work of container delivery and receiving at the gate office, inspection of the exterior condition of loaded containers and damage inspection of empty containers which are returned from consignees or discharged from ships.
 - iv) Inventory control of empty containers, and the documentation of their delivery.
- o Maintenance Section
 - i) Maintenance of terminal equipment and facilities. Maintenance, checking, and repair of electrical equipment for transformer substations, refrigerated containers, illumination of the terminal, and cargo handling (gantry cranes, transtainers, etc.).
 - ii) Inspection of damaged and dirty containers which are returned to the gate office or discharged from ships. Cleaning and damage repairs of containers, and inventory control of repairing materials.
- o CFS Section
 - i) Planning of cargo operations such as delivery/receiving, storage, stuffing and unstuffing at the CFS. Arrangement, operation and supervision of necessary equipment, operators and other workers. Control of shippers'/consignees' vehicles at the CFS.
 - ii) Issuing and typing of necessary documents for import/export cargoes. Arrangement of government officials' inspections.
 - iii) Issuing invoices for all charges for CFS operations, and collecting payments.

(5) Organization and Necessary Number of Personnel and Equipment

A sample organization chart for a container terminal office utilizing the transtainer system is shown in Fig. 3.2, assuming an initial container volume of 15,000 TEU per year. The necessary equipment is listed in Table 3.1.

2. Laem Chabang Break Bulk Terminal

(1) Conventional-type Ship Operation

Shipping company's liability for conventional cargo ceases when the cargoes are free of the ship's tackle. Loading/discharging to and from a ship is carried out mainly using ship gear. The stevedoring is performed by a designated stevedore company at the request of the shipping company in case of a berth term contract (In case of an FIO term contract, it is arranged by shippers/consignees).

The main business of the terminal operator consists of berth arrangement of ships and delivery/receiving/storage of cargoes including longshore cargo handling work.

As for loading/discharging to and from wharfs, it is very important for the terminal operator to control direct shipping and direct delivery on the wharf so that efficient shoreside operations can be maintained. When small lot cargoes are directly discharged onto a wharf, it is difficult to deliver them immediately to individual consignees or forwarding agents, who provide their own trucks and laborers.

Therefore, the terminal operator should deliver cargoes to each consignee or forwarding agent after the completion of handling and sorting at the cargo shed. In the case of large lot single commodity cargo, cargoes can sometimes be directly delivered to consignees. These two types of procedures depend on the judgment of the operator considering the efficiency of the stevedoring and shoreside operation.

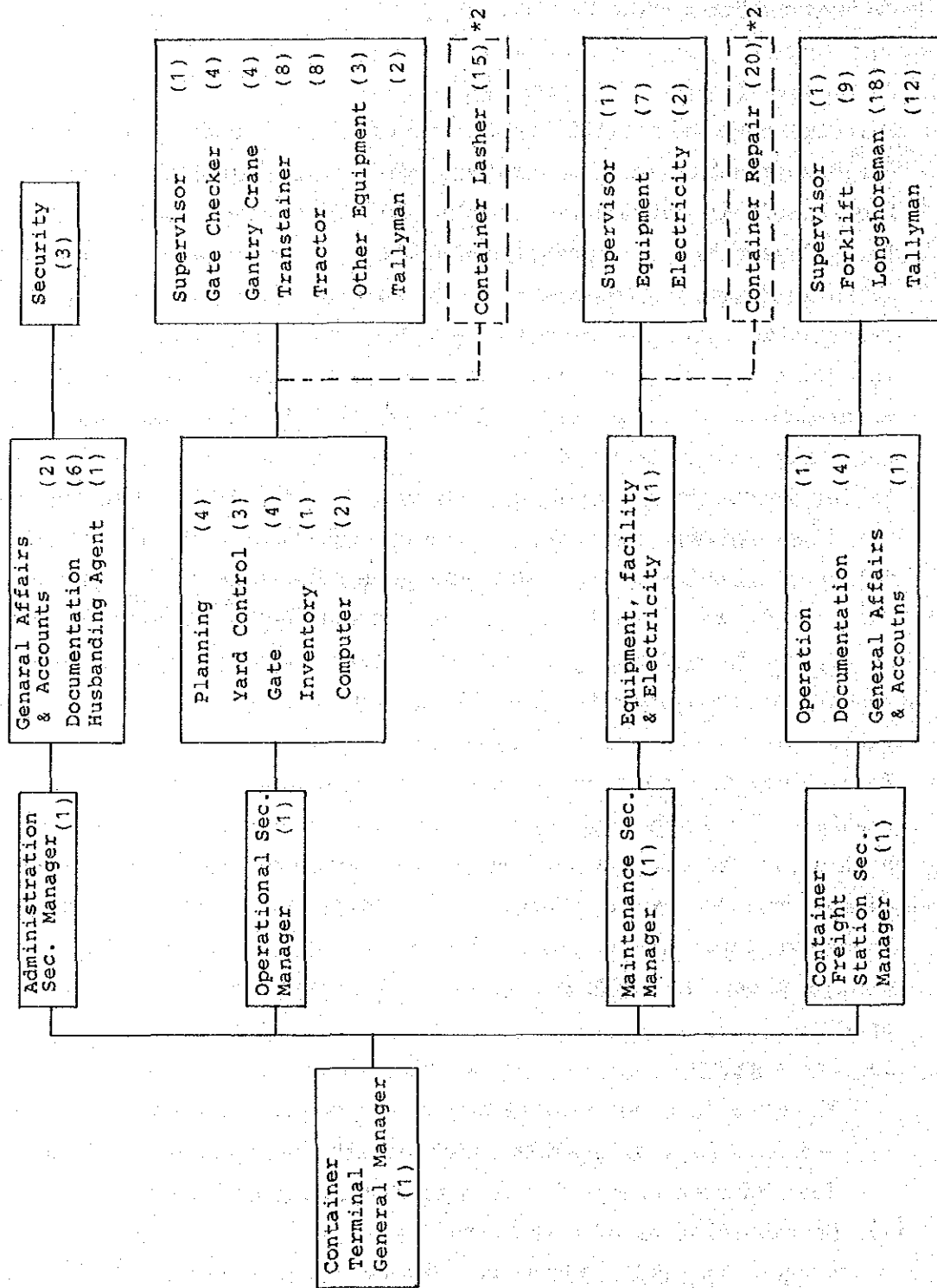
i) Cargo flow

The typical cargo flow of import and export break bulk cargoes is shown in Fig. 3.3. This is almost the same system used at Klong Toei Wharves except for loading from the wharf.

ii) Characteristics of cargo handling

Conventional ships are usually self-sustained, and

Fig. 3.2 Organization Chart of Container Terminal



Total 118 men *1

Note: *1 Daytime Shift, Initial Stage.
*2 Possible to entrust to external company.

Table 3.1 Equipment Necessary for Container Terminal *

Item	Number
Gantry Crane (40 tons)	2
Auxiliary Heavy Lift Beam	1
Transtainer (35 tons)	4
Yard Tractor (35 tons)	8
Yard Chassis (35 tons)	16
Top Lifter (30 tons)	1
Side Lifter (20 tons)	1
Mobile Crane (20 tons)	1
Forklift (6 tons)	1
Forklift (2 tons)	9
Mini Truck (2 tons)	1
Messenger Car	1
Wireless Phone	23
Weighing Scale (50 tons)	2
Maintenance Tool (Set)	1

Note: * Initial Stage

loading/discharging to and from a ship is carried out using ship gear. At this berth, the distance between the apron and transit shed is rather long (about 250m). The main expected cargoes are export rice and import steel products, 50% and 25% of which will be stored respectively in the transit shed. Therefore, these cargoes should be transported by trailers using pallets to the maximum extent.

Just behind the berth there is a wide open storage area where containers can be handled, so this berth may be used for container ships or combination ships in the future.

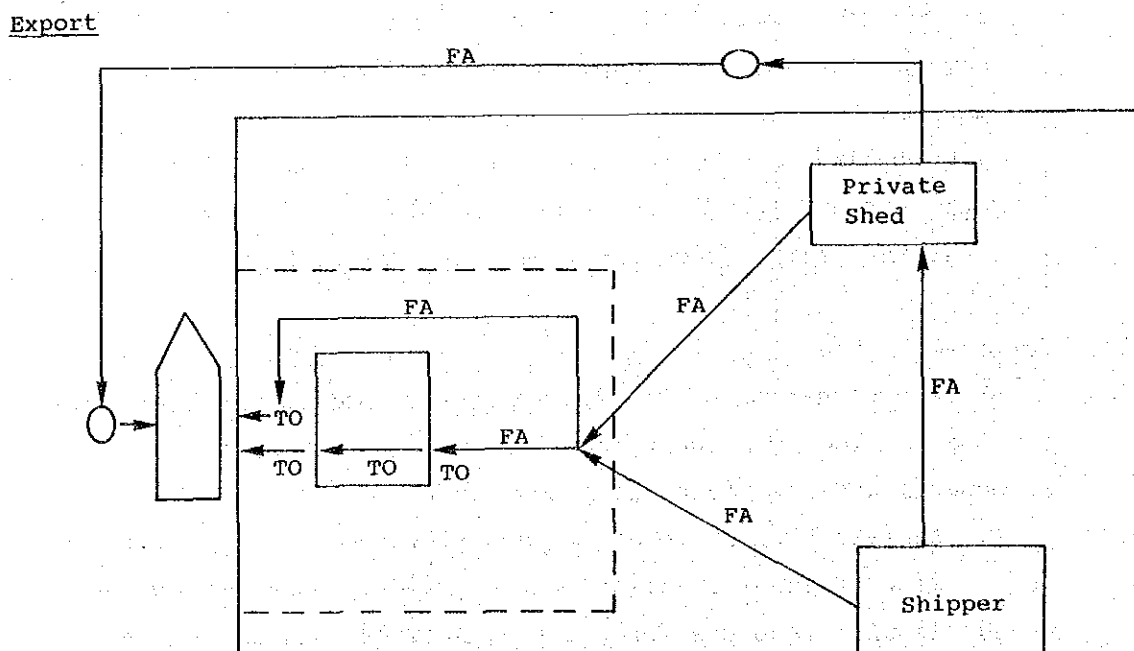
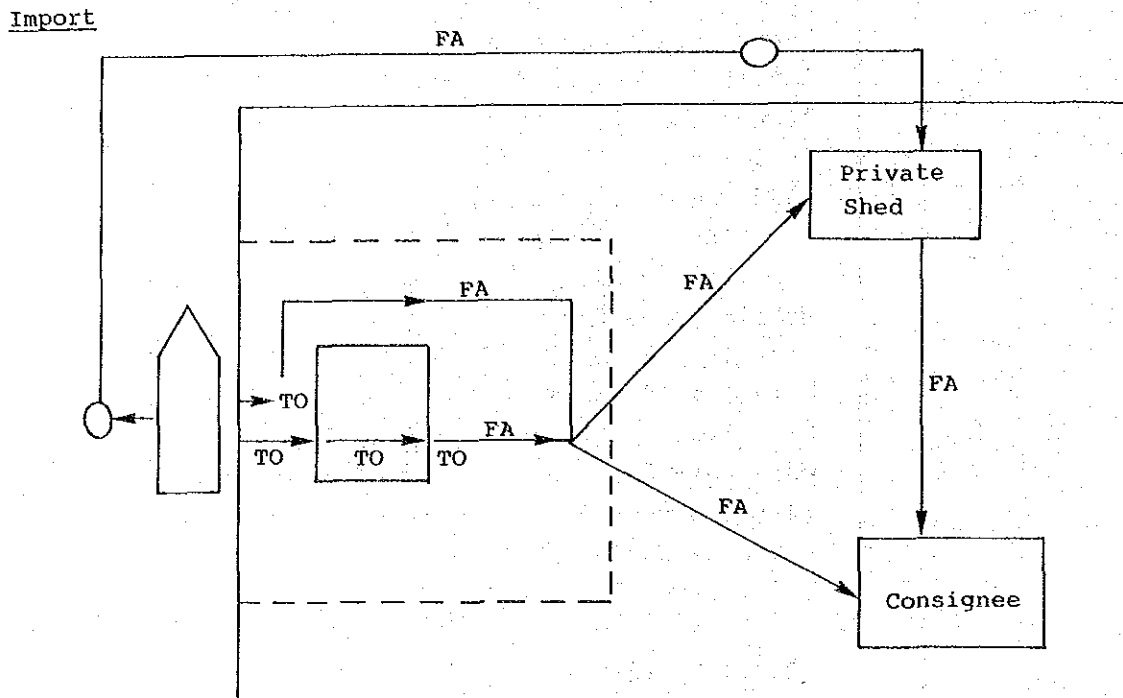
(2) Terminal Office

A short explanation of the duties of each section of the break bulk terminal office is given below:

o General Affairs, Accounting Section

- i) Administration of terminal properties and costs, labor costs and flow of general administration funds. Other general affairs.
- ii) Issuing invoices for storage, delivery and receiving cargo and for dockage. Receiving payments.

Fig. 3.3 Cargo Flow of Import and Export Break Cargo



Note: TO (Terminal Operator)
FA (Forwarding Agent)

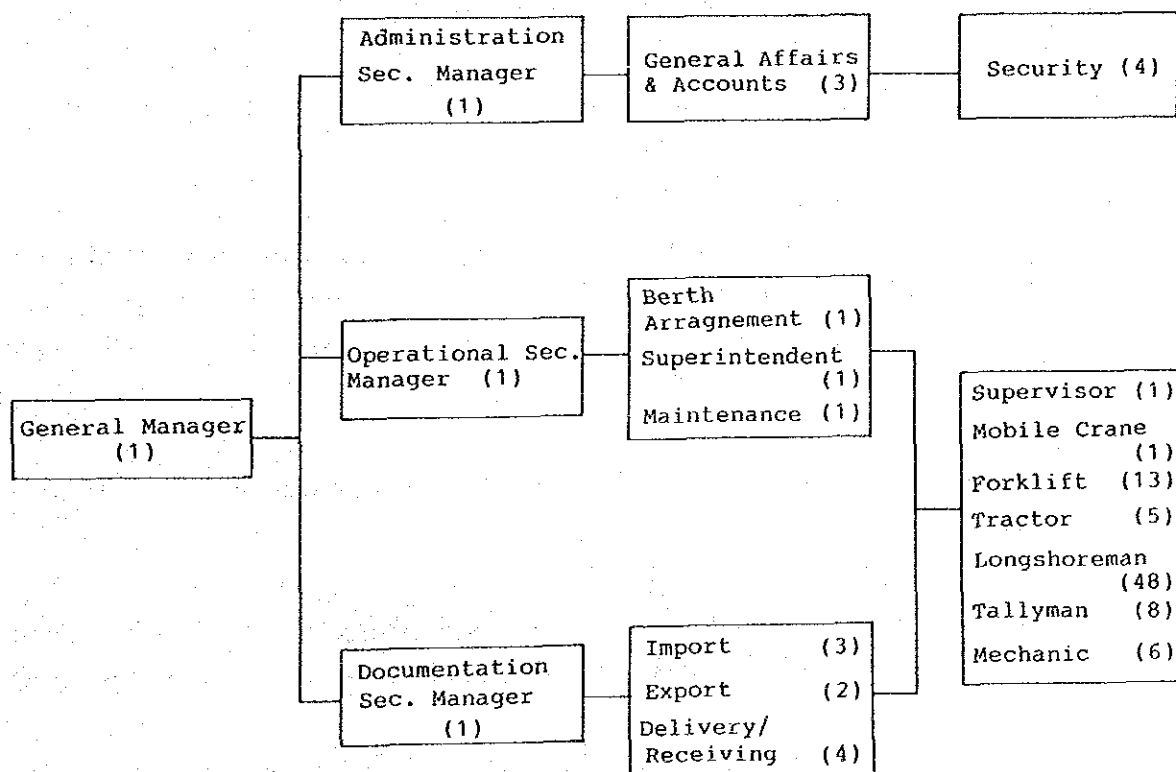
- o Operational Section
Arrangement of berth use, supervising shoreside operation, arrangement of necessary equipment, operators and other workers. Maintenance of equipment and facilities.
- o Documentation Section
Issuing and typing of necessary documents for import/export cargoes. Inventory control of cargoes. Arrangement for government officials' inspections.

(3) Organization and Necessary Number of Personnel and Equipment

Fig. 3.4 shows a sample organization chart of the Laem Chabang Break Bulk Terminal office assuming an initial cargo volume of 260 thousand tons per year.

The necessary equipment is listed in Table 3.2.

Fig. 3.4 Organization Chart of Bread Bulk Terminal



Note: * Daytime Shift, Initial Stage.

Total 105 men *

Table 3.2 Equipment Necessary for Break Bulk Terminal *

Item	Number
Mobile Crane (35 tons)	1
Tractor (40 tons)	1
" (20 tons)	1
" (10 tons)	4
Trailer (40 tons)	1
" (20 tons)	1
" (10 tons)	7
Forklift (10 tons)	1
" (6 tons)	1
" (3 tons)	12
Small Equipment (Sling, Pallet, Net, etc. - Set)	1
Mini Truck (2 tons)	1
Messenger Car	1
Wireless Phone	9
Maintenance Tool (Set)	1

Note: * Initial Stage

3. Laem Chabang Coastal Shipping Terminal

(1) Coastal Shipping Terminal Operation

Generally coastal ships have no ship gear, so loading/ discharging to and from ships is carried out using mobile cranes. Other operations are almost the same as those at the break bulk terminal.

(2) Terminal Office

A short explanation of the duties of each section at the Coastal Shipping Terminal is given below:

o General Affairs, Accounting Section

i) Administration of terminal properties and costs, labor costs and flow of general administration funds. Other general affairs.

ii) Issuing invoices for dockage and storage, delivery and receiving of cargoes. Receiving payments.

o Operational Section

Arrangement of berth use, supervising shoreside operations,

arrangement of necessary equipment, operators and other workers.
Maintenance of equipment and facilities.

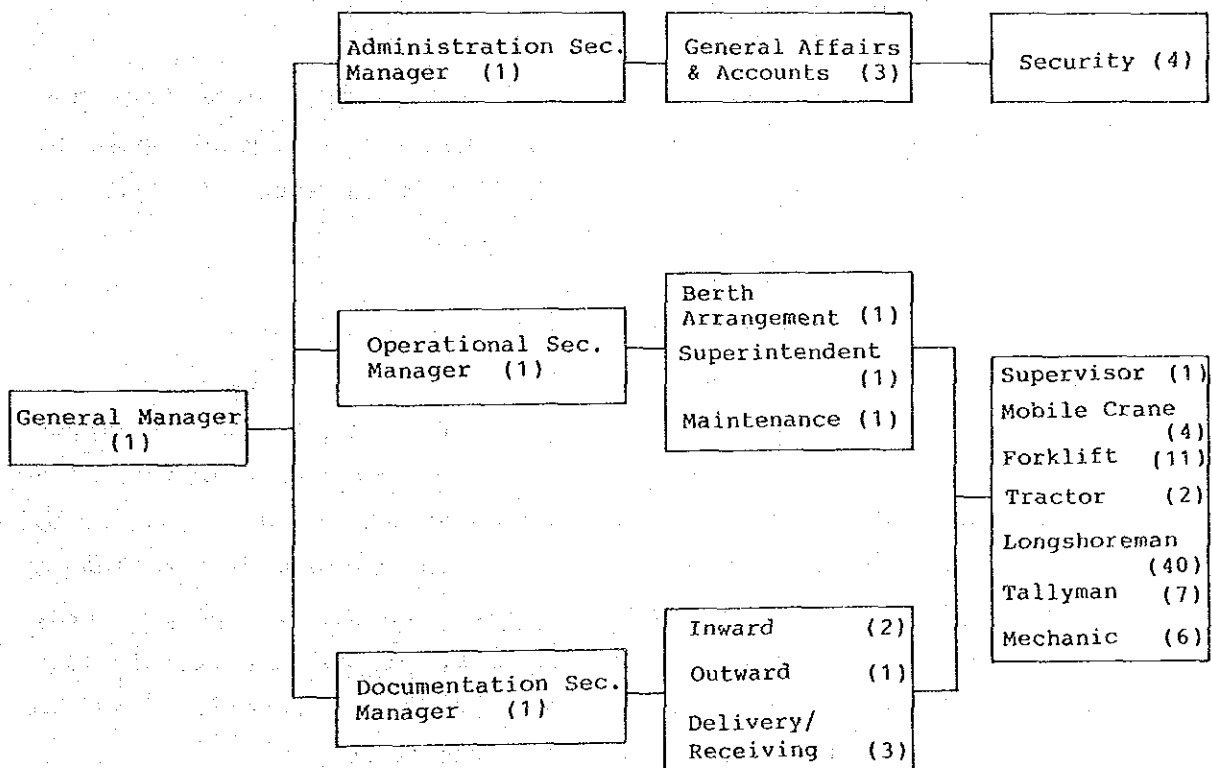
o Documentation Section

Issuing and typing of necessary documents for inward and outward cargoes. Inventory control of cargoes.

(3) Organization and Necessary Number of Personnel and Equipment

Fig. 3.5 shows a sample organization chart assuming an initial cargo volume of 200 thousand tons per year. The necessary equipment is listed in Table 3.3.

Fig. 3.5 Organization Chart of Coastal Shipping Terminal



Total 91 men *

Note: * Daytime Shift, Initial Stage.

Table 3.3 Equipment Necessary for Coastal Shipping Terminal *

Item	Number
Mobile Crane (20 tons)	4
Tractor (5 tons)	2
Trailer (5 tons)	4
Forklift (6 tons)	1
" (3 tons)	10
Small Equipment (Sling, Pallet, Net, etc. - Set)	1
Mini Truck (2 tons)	1
Messenger Car	1
Maintenance Tool (Set)	1

Note: * Initial Stage

4. Break Bulk and Coastal Shipping Terminal

If these two terminals are operated by a single operator, the operating costs may be reduced. The number of personnel could be reduced by 47 and the number of machines could be reduced by 12.

5. Laem Chabang Tapioca Terminal

(1) Tapioca Terminal Operation

This kind of agri-bulk terminal is generally operated by a single operator who acts on behalf of one or several traders or a consortium. Tapioca pellets will be transported either by road or by rail and stored in a silo or warehouse. The pellets will be loaded onto ships using a bucket elevator, belt conveyor and ship loader. This operation is continuously performed without any distinction between stevedoring and longshoring. In the ship holds, leveling work is carried out using bulldozers as necessary.

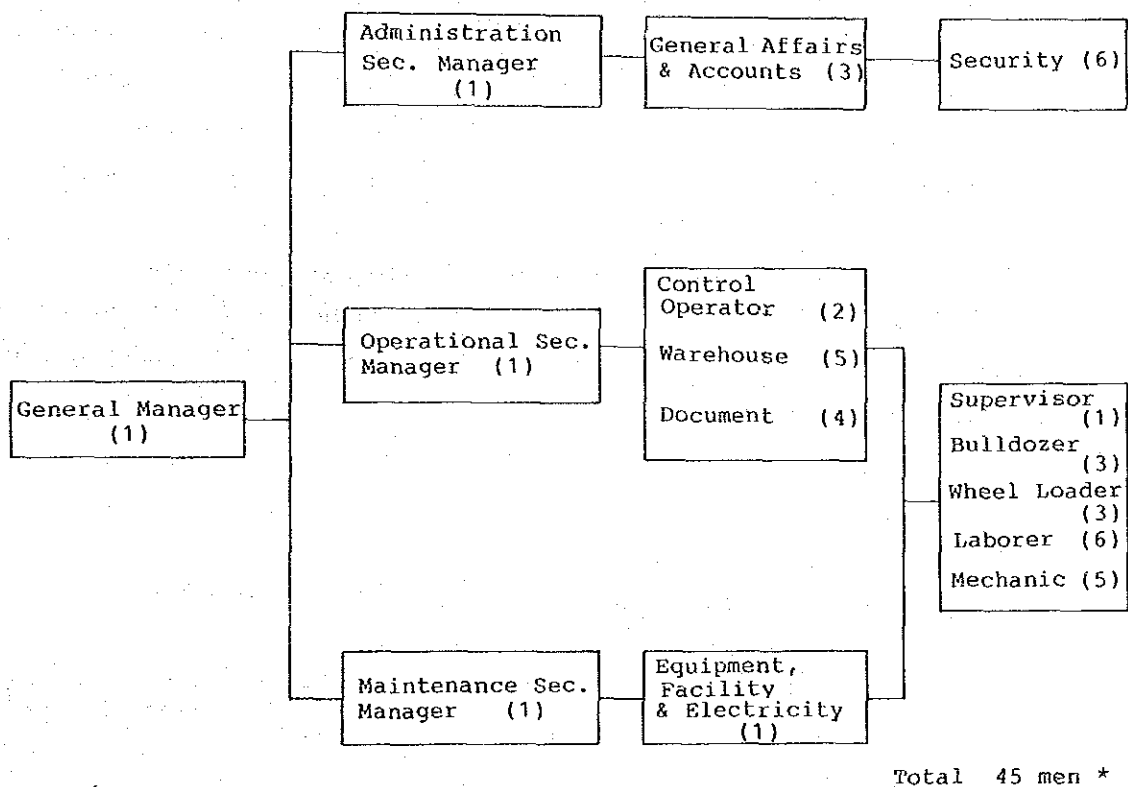
(2) Organization and Necessary Number of Personnel and Equipment

Fig. 3.6 shows a sample organization chart assuming a cargo volume of 1,300 thousand tons per year. The required number of personnel is less than that at the break bulk terminal because the operation is

highly centralized and mechanized.

The necessary equipment is listed in Table 3.4.

Fig. 3.6 Organization Chart of Tapioca Terminal



Note: * Daytime Shift, Initial Stage.

Table 3.4 Equipment Necessary for Tapioca Terminal *

Item	Number
Loading Tower	3
Dump Pit (Set)	1
Chain Conveyor (Set)	1
Bucket Elevator (Set)	1
Belt Conveyor (Set)	1
Bulldozer (2 tons)	3
Wheel Loader (4 tons)	3
Forklift (3 tons)	1
Mini Truck (2 tons)	1
Messenger Car	1
Wireless Phone	8
Maintenance Tool (Set)	1

Note: * Initial Stage

6. Laem Chabang Sugar / Molasses Terminal

(1) Sugar/Molasses Terminal Operation

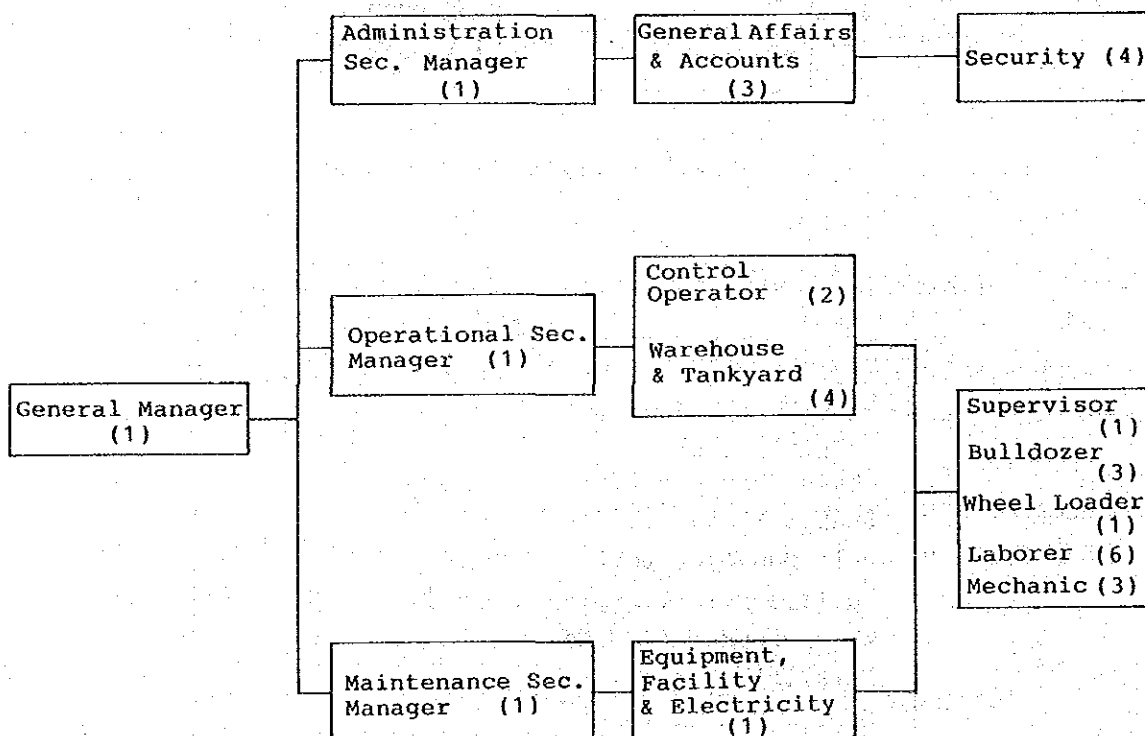
Sugar and molasses are handled at the same terminal. The bulk sugar operation is carried out in almost the same way as at the tapioca terminal. Molasses, which is a liquid, will be transported either by tank truck or tank car and stored in a storage tank via a pipeline. The molasses will be loaded onto ships through a pipeline which will be connected with the ship pipelines at the manifold of the wharf.

(2) Organization and Necessary Number of Personnel and Equipment

Fig. 3.7 shows a sample organization chart assuming an initial cargo volume of 450 thousand tons per year for sugar and 210 thousand tons per year for molasses.

The necessary equipment is listed in Table 3.5.

Fig. 3.7 Organization Chart of Sugar/ Molasses Terminal



Total 32 men *

Note: * Daytime Shift, Initial Stage.

Table 3.5 Equipment Necessary for Sugar / Molasses Terminal *

Item	Number
Loading Tower	3
Dump Pit and Well (Set)	1
Chain Conveyor (Set)	1
Bucket Elevator (Set)	1
Belt Conveyor (Set)	1
Bulldozer (2 tons)	3
Wheel Loader (4 tons)	1
Forklift (3 tons)	1
Mini Truck (2 tons)	1
Messenger Car	1
Wireless Phone	7
Maintenance Tool (Set)	1

Note: * Initial Stage

7. Special Terminals---Map Ta Phut NFC and NPC Terminals

(1) Operation of Special Terminals

Exclusive industrial berths which are part of production plants are generally equipped with large cargo handling equipment to receive raw materials and to load onto ships industrial products on an exclusive basis. As the stevedorage is borne by the shipper/consignee in accordance with an FIO term contract, the entire cargo handling process is consistently carried out by a single operator, which is the plant itself.

However, if there is a commercial terminal located nearby, the cargo handling work at the exclusive industrial berth might be entrusted to the commercial terminal operator who provides workers and equipment, at least in the initial stage. This has the merit of saving the labor and equipment costs of the company which operates the plant.

(2) Necessary Number of Personnel

Since loading/discharging by the large cargo handling equipment is highly mechanized and automated, only a few workers would be required as shown in Tables 3.6 and 3.7.

Table 3.6 Necessary Number of Personnel for NFC Terminal *

Position	Number
Control Operator	2
Engineer	4
Supervisor	2
Crane Driver	4
Bulldozer Driver	6
Raking Laborer	9
Total	27

Note: * Daytime Shift, Initial Stage of Cargo Handling Division

Table 3.7 Necessary Number of Personnel for NPC Terminal *

Position	Number
Control Operator	1
Engineer	2
Supervisor	1
Tank yard laborer	4
Total	8

Note: * Daytime Shift, Initial Stage of Cargo Handling Division

8. Other Special Terminal---Map Ta Phut, Agri/Mineral Terminal

(1) Operation of Agri/Mineral Terminal

This is a bulk terminal to handle various agricultural and mineral bulk cargoes as well as break bulk. As for agri-mineral bulk, the berth and the attached facilities are utilized alternately by a few specific shippers/consignees. The export bulk minerals will be transported to the port area by rail and dumped into a pit. They will then be transported by belt conveyor and stored in an open yard using a stacker/reclaimer. The cargo is loaded onto ships using a stacker/reclaimer, belt conveyor, and ship loader. On the other hand, the export agri-bulk will be transported either by road or by rail, and stored in a warehouse. It will be loaded using a bucket elevator and belt conveyor, and then the same ship loader will be

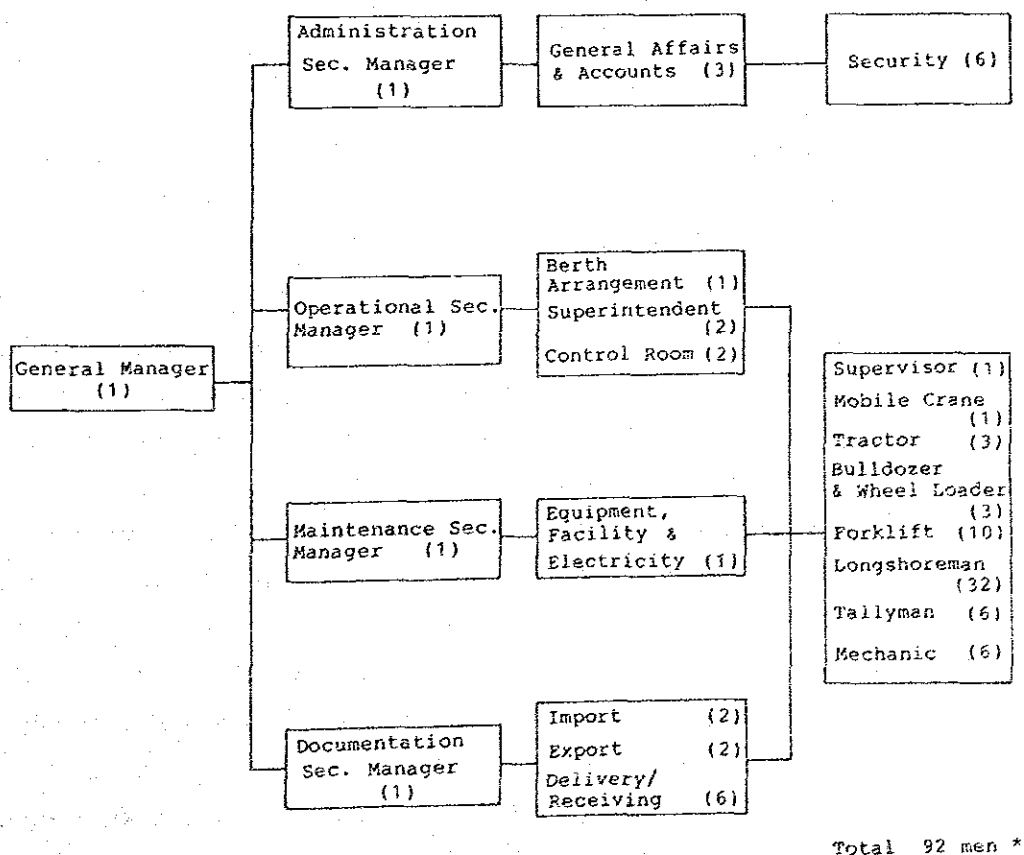
used for the mineral bulk loading. Although it may be possible for shippers/consignees to use their own workers and equipment for each shipment by turns, it is better that a single operator be responsible for the entire cargo handling process. This operation results in saving labor and equipment costs for several shippers/ consignees. In the case of break bulk cargo the operation is carried out in the same way as at the break bulk terminal. The operator provides delivery/receiving/storage service including longshoring but does not provide stevedoring, which is performed by a private stevedoring company.

(2) Organization and Necessary Number of Personnel and Equipment

A sample organization chart is shown in Fig. 3.8 assuming an initial cargo volume of 300 thousand tons per year for agri-bulk and 175 thousand tons per year for break bulk.

The necessary equipment is listed in Table 3.8.

Fig. 3.8 Organization Chart of Agri/Mineral Terminal



Note: * Daytime Shift, Initial Stage.

Table 3.8 Equipment Necessary for Agri / Mineral Terminal *

Item	Number
Ship Loader	1
Stacker Reclaimer	1
Belt conveyer (Set)	1
Mobile Crane (20 tons)	1
Bulldozer (2 tons)	3
Wheel Loader (4 tons)	3
Forklift (6 tons)	1
" (3 tons)	13
Tractor (10 tons)	1
" (5 tons)	3
Trailer (10 tons)	1
" (5 tons)	6
Small Equipment (Sling, Pallet, Net, etc. - Set)	1
Mini Truck (2 tons)	1
Messenger Car	1
Wireless Phone	9
Maintenance Tool (Set)	1

Note: * Initial Stage

9. Multi-Purpose Terminals---Songkhla and Phuket

(1) Operation of Multi-Purpose Terminals

- i) At both Songkhla and Phuket Ports, the expected cargoes are break bulk and containers, and the calling ships will consist of conventional-type ships and combination ships in the initial stage. Songkhla and Phuket Ports each should be operated by a single operator respectively for the following reasons:
 - o Considering the layout of the port areas, in the middle of the berths there is a transit shed behind the apron. The transit shed is to be mainly utilized for the storage of import and export cargoes, and of course a part of this is to be utilized as a container freight station for LCL container cargoes. If the wharf is divided into two or three berths and allocated to two or three operators, it will be difficult for each operator to operate its berth efficiently.

- o As for the cargo handling operation of a combination ship, break bulk cargoes are transported by forklifts and trailers, and containers are transported by trailers. If there are two operators who are independently in charge of break bulk cargoes and containers, the cargo handling operation may become rather confused.

When a new container terminal is constructed at a later stage to accommodate increased container cargo, another single operator should operate this new terminal.

- ii) The principle of "first come, first served" should be maintained in the assignment of berths.
- iii) The stuffing and unstuffing work of containers is to be carried out at the open storage area located behind the transit shed.
- iv) A paved stacking area for containers will be required. When the number of empty containers increases, a separate empty container depot should also be provided, and will also have to be paved.
- v) Since it is forecast that large passenger ships will call at Phuket Port, it is necessary to consider the usage of wharves, aprons and open storage areas in conjunction with some sort of passenger terminal.

(2) Terminal Offices

Following is a short explanation of the duties of each section of the multi-purpose terminal offices at both Songkhla and Phuket Ports.

o General Affairs, Accounting Section

- i) Administration of terminal properties and expenses, labor costs, and flow of general administrative expenses. Other general affairs.
- ii) Issuing invoices for dockage and storage, delivery and receiving of cargoes. Receiving payments.

o Operational Section

- i) Arrangement of berth use, supervising shoreside operation.
- ii) Container marshalling in the container yard, shifting within the container yard, etc.
- iii) Arrangement of necessary equipment, operators and other workers.
- iv) Clerical work of container delivery and receiving at the gate

office. Inspection of the exterior condition of containers.

o Documentation Section

- i) Issuing and typing of necessary documents for import/export break bulk and containers.
- ii) Documentation on the control of cargoes.
- iii) Arrangement for government officials' inspections.

o Maintenance Section

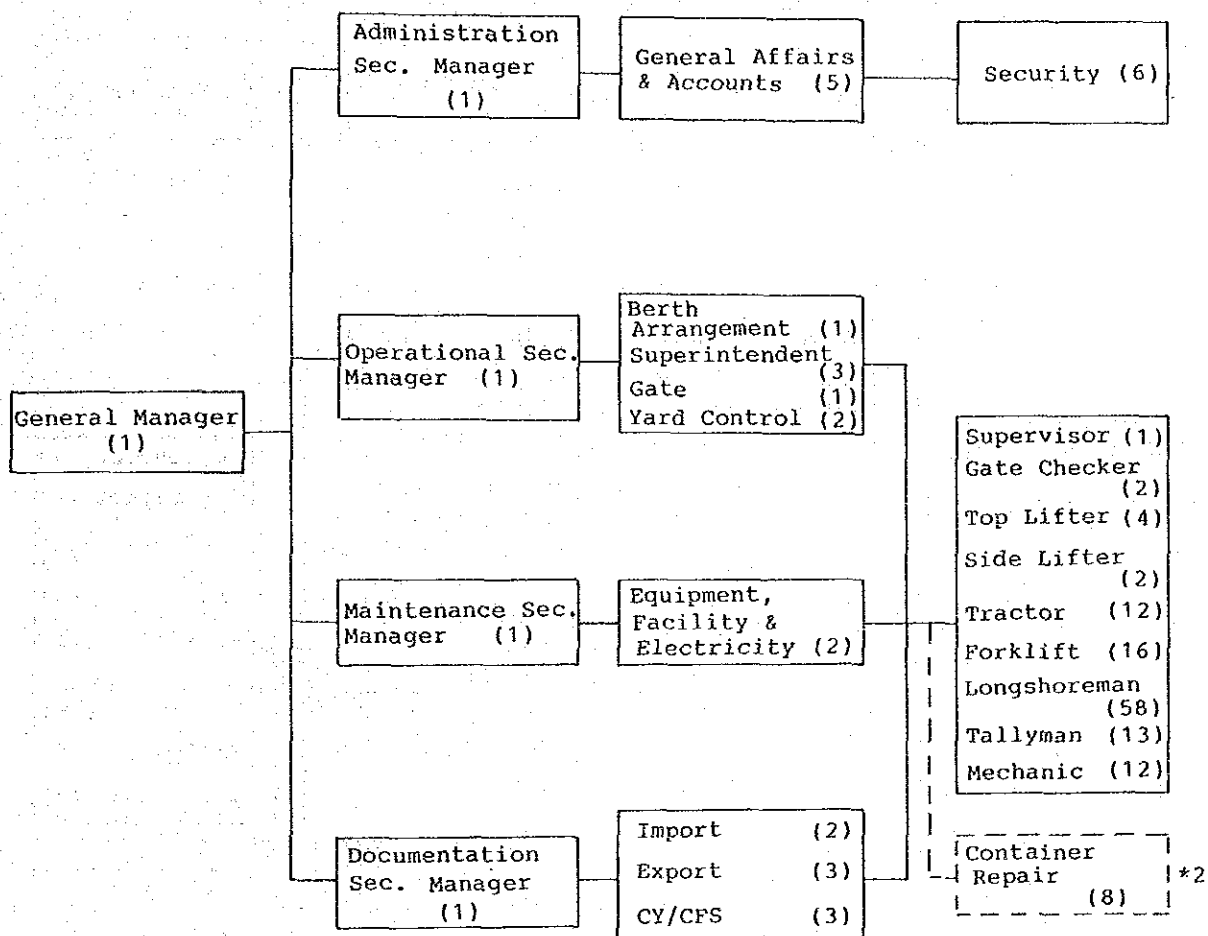
- i) Maintenance of equipment and facilities.
- ii) Inspection of damaged and dirty containers.
- iii) Cleaning and repairs of containers, and inventory control of repairing materials.

(3) Organization and Necessary Number of Personnel and Equipment

Fig. 3.9 and 3.10 show sample organization charts assuming an initial cargo volumes of 677 thousand tons per year at Songkhla Port and 266 thousand tons per year at Phuket Port.

The necessary equipment is listed in Tables 3.9 and 3.10.

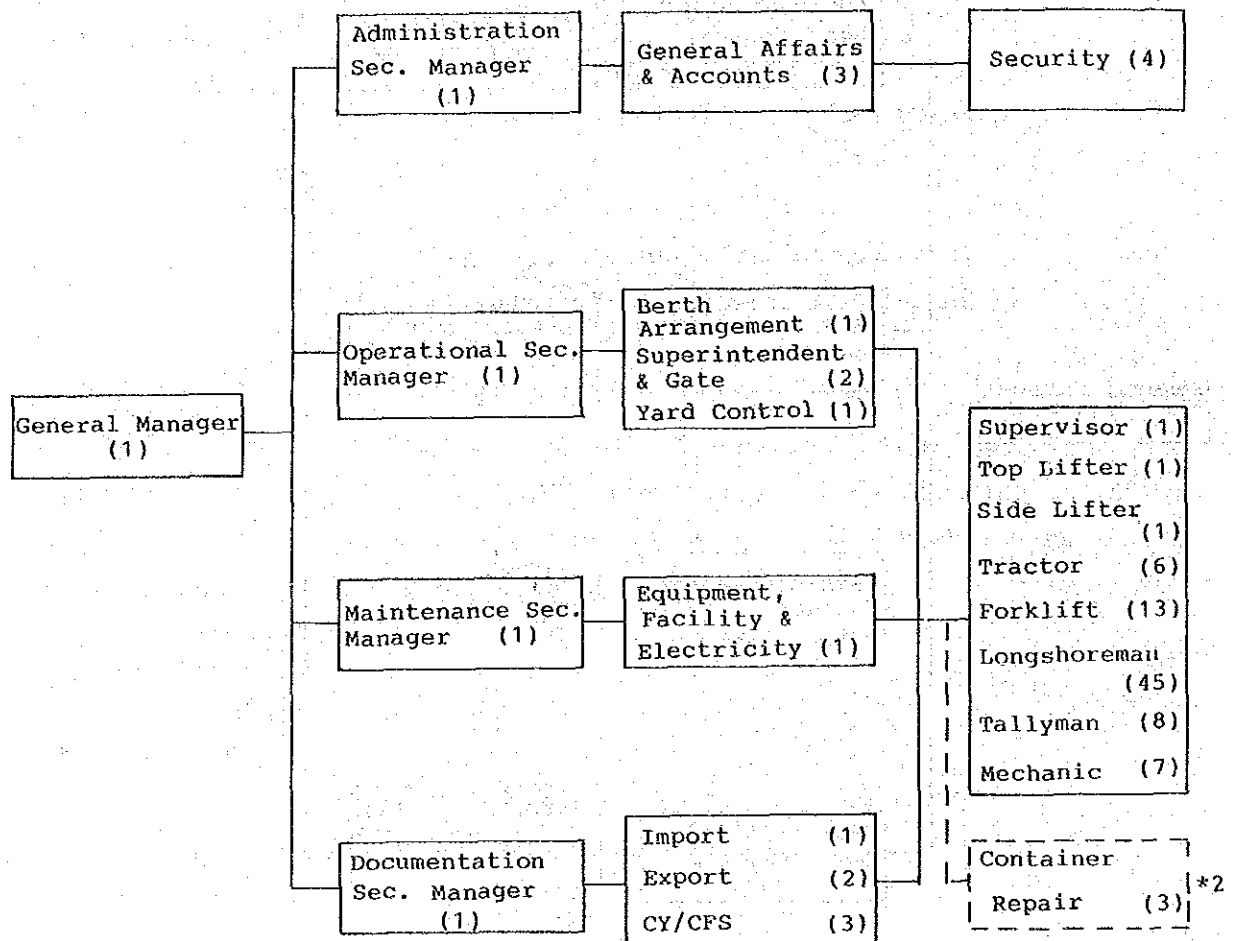
Fig. 3.9 Organization Chart of Multi-Purpose Terminal (Songkhla)



Total 153 men *1

Note: *1 Daytime Shift, Initial Stage.
 *2 Possible to entrust to external company.

Fig. 3.10 Organization Chart of Multi-Purpose Terminal (Phuket)



Total 105 men *1

Note: *1 Daytime Shift, Initial Stage.
 *2 Possible to entrust to external company.

Table 3.9 Necessary Equipment for Multi-Purpose Terminal (Songkhla)*

Item	Number
Top Lifter (30 tons)	2
Side Lifter (20 tons)	2
Tractor (40 tons)	3
" (20 tons)	6
" (10 tons)	1
" (5 tons)	2
Trailer (40 tons)	3
" (20 tons)	6
" (10 tons)	1
" (5 tons)	4
Mobile Crane (20 tons)	1
Forklift (6 tons)	1
" (3 tons)	14
" (2 tons)	2
Small Equipment (Sling, Pallet, Net, etc. - Set)	1
Mini Truck (2 tons)	1
Messenger Car	2
Wireless Phone	12
Weighing Scale (50 tons)	2
Maintenance Tool (Set)	1

Note: * Initial Stage

Table 3.10 Necessary Equipment for Multi-Purpose Terminal (Phuket)*

Item	Number
Top Lifter (30 tons)	1
Side Lifter (20 tons)	1
Tractor (40 tons)	1
" (20 tons)	3
" (10 tons)	1
" (5 tons)	1
Trailer (40 tons)	1
" (20 tons)	3
" (10 tons)	1
" (5 tons)	2
Forklift (6 tons)	1
" (3 tons)	11
" (2 tons)	2
Small Equipment (Sling, Pallet, Net, etc. - Set)	1
Mini Truck (2 tons)	1
Messenger Car	1
Wireless Phone	8
Weighing Scale (50 tons)	1
Maintenance Tool (Set)	1

Note: * Initial Stage

Appendix IV

Main Conditions of the Terminal Lease Agreement

The following main points are to be considered in preparing a terminal lease agreement between the port management body and a lessee as a terminal operator.

(1) Criteria for the Lessee

- i) If a potential lessee is a new company or a joint venture, the financial condition of its parent company is to be checked using its financial statements over the past three years.
- ii) The financial condition of a potential lessee is to be checked based on its paid-up capital and bank guarantee, if any, as well as its financial statements over the past three years, if applicable.
- iii) Experience as a terminal operator is to be checked by the performance record over the past five years.
- iv) Technical conditions of a lessee are to be checked by the number and experience of skilled laborers and the training program.

(2) Obligations of the Lessor and the Lessee

i) Objects of the lease

- o Turnkey method: A plot of land (or seabed) or land and quays will be leased for port facility development under this method.
- o Modified turnkey method: With this method the objects of the lease are the immovable properties, the infrastructure and superstructure, and, exceptionally, some large movable properties like gantry cranes, etc. on top of land and quays. The lessee should usually procure at his own expense the other movable properties like cargo operation equipment. There may be many variations depending on the size and type of the terminal, the lessor's policy, the lessee's demands, etc.
- o Leasing of completed facilities: In this case the objects of the lease would include standard-type operation equipment in addition to the objects of the lease under the modified

turnkey method mentioned above. It is necessary to conclude a separate lease agreement to cover the equipment which has a shorter period of depreciation, such as forklifts, top lifters, etc.

ii) Improvement of facilities

In case of the turnkey method the facilities should be improved or increased quite extensively as the lessee should construct almost all the infrastructure and the superstructure.

Even in the case of the modified turnkey method, the lessee should be allowed to construct or reconstruct non-standard fixtures on the premises in order to enhance the utilization efficiency of the premises. Under this method it would also become necessary to enlarge the CFS or to install additional gate lanes, maintenance shops, weight scales, etc. as the throughput increases. Such necessity would be larger in case of a longer-term lease.

If a lessee makes alterations or additions to the leased property under the lessor's approval, then the alterations or additions shall become the property of the lessor according to Thai laws unless otherwise stipulated in the agreement (Section 107 of Civil and Commercial Code (CCC)). In this case the lessee cannot get any compensation upon the termination of the lease.

However, the agreement could clearly stipulate that any alteration or addition to the leased property made by a lessee under the approval of the lessor shall remain the property of the lessee until the termination of the lease, in order to let the lessee enjoy the liberty of procuring funds using such alterations or additions as collateral (Such a clause is especially useful in a long-term lease under a turnkey or a modified turnkey method). However, upon the termination of the lease, the ownership of any such an alteration or addition would revert to the lessor, and the lessee would not be entitled to any compensation whatsoever.

The agreement usually stipulates that the lessee should deliver up the terminal in the same condition as it was at the time of the delivery of the terminal to the lessee. It is also possible to stipulate that upon termination of the lease the lessee may

leave the alterations or additions made with the lessor's approval.

iii) Maintenance and repairs

The lessor is usually responsible for periodic maintenance and major repairs of the fundamental structure of the facilities in his possession. Such cost and/or relevant insurance premiums will ultimately be included in the terminal rent. But the lessee has to bear the cost directly when the lessee is responsible for the damage.

The lessee is responsible for the other repairs (e.g. repairs of leased equipment and broken windows or doors of the leased facility, etc.) at his own expense.

In the event that the leased facilities are damaged or their use is prevented due to force majeure, such as storm wind, flood, earthquake, fire, accident or sometimes including war, government action, riot, etc., then the reduction of the rent payable by the lessee is widely acknowledged by terminal lease agreements throughout the world. At the same time, the lessor is ordinarily exempted from the responsibility of a breach of the agreement as a result of the force majeure. If such conditions continue for a certain period, for example six months, it shall be a reason to suspend temporarily or to terminate the agreement. The recovery or reconstruction of these damaged facilities is, in principle, the responsibility of the owner, usually the lessor, but the actual sharing of expenses between the lessor and the lessee is subject to their negotiations considering the total cost, period until the completion of the works, availability of substitute facilities, etc.

(3) Regulation of the Terminal Utilization

i) Objectives of the lease

The agreement should clearly stipulate how the terminal will be used-- exclusive use, with or without sub-users, or a strict or modified "first come, first served" basis.

It should also stipulate the objectives of the lease as follows:

- o Loading and discharging of cargo
- o Receiving of cargo from shippers and delivery to consignees

- o Storage of empty containers, and maintenance and repairs of containers, chassis and yard equipment

The lessee cannot use the terminal apart from the objectives of the lease unless otherwise approved by the lessor. In case of allowing sub-users, it is necessary to mention the maximum percentage of sub-users' usage in the agreement, to screen out incompetent terminal operators.

- ii) The lessee cannot usually sublet or transfer the right to hire without the approval of the lessor, or mortgage the objects of the lease.

- iii) The lessor is usually entitled to receive financial statements, business reports and other materials from the lessee and to make site inspections to check how the terminal is used.

- iv) The agreement should stipulate that the lessee's standard tariff of charges to be collected from users should be open to the lessor.

(4) Lease Period

- i) Legal restrictions

The duration of the lease should not exceed 30 years, but it can be renewed for a further period of up to 30 years under Thai law (Section 540 of CCC).

- ii) Criteria for the lease period

- o The duration of the lease should permit the lessee reasonable security of tenure and opportunity to recover his investment and to obtain a reasonable return depending on the following factors:

- (a) Size of the lessee's investment
- (b) Depreciation period of the lessee's facilities
- (c) Forecast throughput
- (d) Forecast revenue

- o The duration of the lease also depends on the demand for leasing of terminals from potential new lessees.

- iii) Appropriate lease period

- o At the container terminal or break bulk terminal at Laem Chabang Port, for example, an appropriate duration of the first lease agreement would be 10 to 15 years with an option

for further renewals of, say, five years.

- o If the lessee should invest a large amount for the procurement of facilities and equipment which have a longer depreciation period and are not easily diverted to other purposes, as in the case of the agri-bulk terminals at Laem Chabang Port, then a longer duration of, say, 25 to 30 years is necessary for the first lease agreement with an option for further renewals of five years for the lessee to recover his investment and also for the stable operation of the terminals.
- o A lease of a shorter period of, say, five years or less may be feasible when the investment could be recovered shortly on the basis of substantial throughput. A shorter-term lease may also be possible for the leasing of completed facilities.

iv) Renewal of the lease

The lessee should formally notify the lessor of his wish to renew the lease a certain period (e.g. 6 to 18 months) in advance of the expiration of the lease. Such a period is necessary for the incumbent lessee to prepare for the lease termination and it is necessary on the lessor's side for the public invitation and selection of a subsequent lessee. Such a period may be longer if there are not many potential lessees. However, it should not be so long as to allow the lessor to unnecessarily extend the time required to arrange a new lessee.

In general the priority for the renewal should be given to the incumbent lessee, even though this may be against the principle of free competition, considering the stability and efficiency of the whole port operation, the impact on users, etc. But even in such a case it would be reasonable to stipulate the maximum duration of the lease (e.g. 30 years considering the weighted average depreciation period of the port facilities to be leased) for a single lessee to allow fair competition thereafter.

v) Termination

o Normal termination

It is customary to stipulate that the lessee may either (a) terminate the lease by giving notice a certain period (e.g. one year) in advance or (b) terminate the lease immediately by the payment of the rent for the same period. Such a period is

necessary for the public invitation and selection of a subsequent lessee.

On the lessor's side, it will promote the stability of the agreement to stipulate that the lessee cannot terminate the lease agreement within a specified period (e.g. a half of the total period) from the date of the agreement. Such a condition is especially useful in a longer-term lease under a turnkey or a modified turnkey method.

o Special termination

It is possible to stipulate that the lessor may annul the lease immediately by giving notice to the lessee in one of the following cases:

- (a) Default of the rent payment exceeding a certain period (e.g. three months), which depends on the payment terms
- (b) The lessee as a juridical person is dissolved
- (c) It is disclosed that the lessee entered into the lease agreement through illegal means
- (d) Other violations of the agreement

It may be possible to stipulate that, if the lessor has to annul the lease due to legislation to the effect that the central or local government shall expropriate the terminal or a part thereof, then the lessor should give notice to the lessee a certain period (e.g. 18 to 24 months) in advance and should provide a similar terminal under the same conditions and should compensate the lessee for any loss or damage including the cost of moving.

(5) Rent

i) Criteria for rent

Terminal leases can be classified by the form of their rent computation into three basic types: fixed rate, mini-max and shared revenue. Criteria for the rent's decision are discussed in Section D of Chapter VI.

ii) Payment terms of rent

The lessor would prefer the advance payment of rent and the lessee vice versa. Both parties will usually compromise on the

timing of the monthly or quarterly payment.

iii) Deposit

The lessor might request a deposit in the form of cash or a bank guarantee from the lessee to cover the risk of non-payment of rent or other defaults in the lessee's performance. The amount of such deposit is to be minimized in order not to impose too heavy a burden on the lessee.

iv) Review of rent

The method used to review the rent depends on the duration of the lease and the criteria for setting the rent. The agreement may stipulate that during the lease period the rent will be reviewed at specified intervals (e.g. an interval of three to five years for a lease of 10 to 15 years) either by (a) objective criteria or (b) negotiation between both parties. For method (a) objective criteria could be either the wholesale price index (W.P.I.) or "the limited fluctuation" method whereby the rent will be changed within a fixed percent (e.g. 2%) in a specified period (e.g. one year). Method (a) would enable both parties to forecast stable income or expenditure since it would exclude the self-will, if any, of both parties. As for method (a), the W.P.I. is not always reliable or available on a timely basis although it will reflect any price changes. The limited fluctuation method is simple but cannot follow unforeseeable economic changes. Therefore, under method (a) the rent will not necessarily reflect the increase of the value of the terminal.

Review by method (b) on negotiation between both parties can flexibly follow any change of situation but it may sometimes be difficult for both parties to reach agreement (Such a case should be decided by the arbitration rule, which is to be clearly stipulated in the agreement). Method (b) is generally adopted by the parties in mature relations when the forecast throughput is not clear enough over the lease period. The limited fluctuation method is recommended for leases with a duration shorter than 15 years, but the rent is to be reviewed by method (b) at the renewal. The rent for a lease with a duration longer than 15 years may also be reviewed by the limited fluctuation method, but it should be reviewed by method (b) halfway through the lease

period and again when the lease is extended.

(6) Altering Construction Specifications

If the lessee desires to alter the construction specifications after the agreement of the lease but prior to the completion of construction works, the lessor should make every effort to honor the lessee's request whenever possible, taking into account available time and economic sensibility for their completion.

Appendix V

A Composite Instrument Governing the Administration and Management of Ports (Preliminary Draft and Explanatory Notes)

Part I General Provisions

Sect.1 (Preliminary)

- (1) This [Instrument] may be cited as the "Port [Act]".
- (2) This [Instrument] shall come into force on and from the day following the date of its publication in the Government Gazette.

Sect.2 (Scope of Application)

- (1) Unless otherwise provided, ^{1/} this [Instrument] shall apply to all matters with respect to the planning, administration and management of ports and to matters related thereto, regardless of the ownership of ports or their facilities.
- (2) This [Instrument] does not apply to the activities of the Royal Thai Navy.

Sect.3 (Definitions)

----- To be drafted -----

Sect.4 (Classification of Ports) ^{2/}

For the purpose of carrying out the provisions of this [Instrument], the ports are classified as follows and the names of the ports of each category are included in the schedule:

- i) Category A Major deep sea ports which serve vessels engaging in overseas trade as well as vessels engaging in domestic trade,
- ii) Category B Deep sea ports other than ports included in Category A which serve vessels engaging in overseas trade as well as vessels engaging in domestic trade,
- iii) Category C Ports which solely serve vessels engaging in domestic trade, ^{3/}

- iv) Category D. Major ports the facilities of which are owned by private persons.

Part II National Port Commission 4/

Sect.5 (Members)

- (1) A "National Port Commission" (hereinafter cited as the "Commission") shall be established in the Ministry of Communications.

The Commission shall consist of the [Permanent Secretary of the Ministry] of Communications as the Chairman; representatives of the Ministries of Finance, Commerce, Industry and Interior, and representatives of the National Economic and Social Development Board, the Office of Maritime Promotion Commission and the Royal Thai Navy as members; and not more than [] other qualified members who shall be appointed by the Cabinet among Thai nationals who are knowledgeable and experienced in the fields of port development and operation, mercantile marine, civil engineering, transport, trade and economics; and the Director General of the [Port] Department of the Ministry of Communications as a member and the secretary.

- (2) The qualified members shall hold office for a term of [four] 5/ years.

Upon the expiration of their term of office, they may be re-appointed by the Cabinet.

- (3) A person under any of the following conditions is prohibited from serving as a qualified member:

- (i) being an incompetent or quasi-incompetent person,
- (ii) being sentenced by a final judgment of the court to imprisonment,
- (iii) being a bankrupt,
- (iv) being a political official or an official of a political party.

- (4) In addition to the expiration of the term of office specified by virtue of paragraph (2) of this Section, any qualified member shall vacate their office upon:

- (i) death,
- (ii) resignation, or
- (iii) being under any of the prohibitions under paragraph (3) of this Section.

When the qualified member vacates his office before the expiration of the term of office, the Cabinet may appoint another person to serve out the remainder of his term.

Sect.6 (Rules of Procedure)

- (1) The Chairman of the Commission shall preside over meetings of the Commission, being responsible for conducting the work of the Committee.
- (2) If the Chairman is not present or is unable to perform his duty at a Commission meeting, the Commission shall elect by majority vote one of its members to preside over that meeting.
- (3) The presence of not less than one-half of the total members of the Commission is required to constitute a quorum at each meeting.
- (4) Decisions at meetings shall be made by majority vote; in case of a tie, the presiding person shall have an additional vote.

Sect.7 (Sub-committee) 6/

- (1) The Committee may establish a sub-committee to consider and carry out matters assigned by the Commission within the scope of its duties.
- (2) The sub-committee shall elect its chairman by majority vote.
- (3) Provisions of Section 6 shall apply, mutatis mutandis, to sub-committee meetings.

Sect.8 (Duties)

The Commission shall have the following duties: 7/8/

- (a) to submit the draft "National Port Plan" to the Cabinet as provided for in Section 10 and 11 of this [Instrument],
- (b) to submit recommendations to the Cabinet on any matters relating to the planning, development, supervision, operation, management and coordination of ports,
- (c) to submit draft guidelines for the port authorities to the [Minister] on the following matters:
 - (i) budget and accounts, with particular reference to the standard form of budget and accounts to be submitted to the Minister,
 - (ii) statistics and reports, with particular reference to the standard form of statistics and reports to be submitted to the Minister,
 - (iii) charges, fees, dues, rents, fares and any other moneys levied and

collected in relation to the usage of the facilities and services of the ports,

- (iv) training of personnel, employees and workers of the port including entrusting training to appropriate bodies,
- (v) wages and conditions of labor, and qualifications for promotion of personnel, employees and port workers,
- (vi) investment for development, expansion, improvement and maintenance of port facilities and all of the investment activities of the port authorities, and
- (vii) fund raising for investment, with particular reference to the extent and limit of the cost borne by the central government, local governments and the limits of both domestic and foreign loans,
- (d) to advise the Cabinet on the approval or disapproval of all investments of more than Baht [] million as provided for in paragraph (vi), subsection (c) of this Section,
- (e) to submit to the Minister the technical standards for construction, improvement, equipment and maintenance of ports and port facilities,
- (f) to advise the Cabinet on matters provided for in the Port Authority of Thailand Act,
- (g) to advise the Minister on matters provided for in this [Instrument], and
- (h) to advise the various organizations concerned on the research related to ports.

Sect.9 (Office of the Committee)^{9/}

- (1) The [Port Department] (hereinafter cited as the "Department") shall be established in the Ministry of Communications to act as an office of the Commission.
- (2) The Department shall have the following duties: ^{10/}
 - (a) to carry out duties assigned by the Commission,
 - (b) to make studies and analyses of, and to coordinate the technical, managerial and operational aspects of ports, and
 - (c) to collect, analyze and disseminate research, statistics, reports and other basic materials with respect to ports.

Part III The National Port Development Plan

Sect.10 (Characteristics of the Plan)

- (1) Periodically, the Cabinet shall, based on the draft made by the Commission, decide and promulgate the National Port Plan (hereinafter cited as the "Plan").
- (2) The purpose of the Plan is to function as a guideline for central and local governments, port authorities, industrial circles and other interested organizations when determining their policies, investments and other activities concerning ports.
- (3) The Plan shall be drawn up in such a manner as is consistent with the National Economic and Social Development Plan ^{11/} and taking into account the economic, social and financial conditions of the nation as well as the present and future aspects of transportation, in particular those relating to the structure of transport.
- (4) The Plan shall include long-term and short-term plans.
- (5) The short-term plan shall not be longer than [five] years, and in addition to the conditions provided for in subsection (3) of this Section, shall be drawn up in accordance with the relevant long-term plan.

Sect.11 (Contents of the Plan)

The Plan shall include, inter alia, the following items:

- (1) The term of the Plan,
- (2) Major engineering works,
- (3) Total amount of the investment,
- (4) Breakdown of the investment by major work,
- (5) Specifics of the funding for the investment, and
- (6) Suggestions on port-related matters. ^{12/}

Part IV The Port Authorities

Sect.12 (Designation of Port Authorities)

- (1) The port authority governing the Port of Bangkok [and Sattahip Commercial Port] shall be the Port Authority of Thailand.

- (2) The [Cabinet] shall designate an appropriate organization, be it publicly or privately owned, 13/ as the port authority of each port of Category A and B other than the Port of Bangkok [and Sattahip Commercial Port].
- (3) The [Cabinet] shall designate the governments of the provinces in which the ports are located as the port authorities of each port of Category C. 14/
- (4) Where no appropriate organization exists which can serve as the port authority for a given port, the Minister shall appoint a person to establish the port authority of the said port and to act as the president of the authority.
- (5) The port authorities shall have the status of juridical persons.

Sect.13 (Boards of the Port Authorities)

- (1) Each port authority shall have a board which shall have powers and duties to decide policy and to exercise general control over the activities of the port authority.
- (2) The boards shall consist of a chairman and not more than [] members.
- (3) The boards shall be so constituted as to represent adequately the relevant governmental organizations and the interests of the users of the port and other commercial institutions of the area.
- (4) Persons under any of following conditions are prohibited from serving as the chairmen, members of the board, presidents, secretaries-general or other high-ranking officials:
 - (i) being a person under any of the conditions as provided for in paragraphs (i), (ii), (iii) and (iv), subsection (3) of Section 5;
 - (ii) being an interested party to any contract with the port authority.
- (5) The terms of office, appointment and resignation of the chairman and members, and the rules of procedure of the meetings shall be decided by the boards.

Sect.14 (The Port Area) 15/

- (1) The areas of all ports shall be fixed by Cabinet ordinances and by the maps annexed thereto which shall indicate the port areas.
However, the Minister may determine that it is unnecessary to fix the area of certain ports of Category C and D. 16/

- (2) The port authorities shall submit draft definitions of the area of each port to the Cabinet through the Minister. Upon receipt of the draft definitions, the Minister shall, before submissions of the draft definitions to the Cabinet, request the Commission to provide its recommendations thereon. 17/
- (3) The provisions of subsections (1) and (2) of this Section shall, mutatis mutandis, be applied to the revision of the port areas.
- (4) The port areas shall consist of both water areas and land areas, the substance of which are described as follows:
- (a) The water areas of the ports shall be the minimum areas in the sea and other navigable waters sufficient to secure the safe and uninterrupted navigation of ships, and the safe and smooth operation of the ports, where roadsteads, approaches, channels, waterways, anchorages, dumping grounds and other facilities necessary for the operation of the ports, whether or not they are the property of the port authorities, are included.
 - (b) The land areas of the ports shall be the minimum areas on the land adjacent to the water areas of the ports which are sufficient to secure the safe and uninterrupted operation of the ports, and also which provide sites for works or activities closely connected to the functions of the ports, including the following facilities:
 - (i) quays, wharves, sheds, warehouses, passenger terminals, parking lots for cars and lorries, railway terminals, stacking yards and such facilities as are indispensable for the operation of the ports, whether or not they are the property of the port authorities;
 - (ii) stores, shops, bunker's suppliers, workers' canteens, repair yards, houses for dock workers, offices and such facilities as to provide goods or services to support the operation of the ports, whether or not they are the property of the port authorities; and
 - (iii) if they are the property of the port authorities, the sites of such facilities as to provide amenities for the community, public utilities of the district, and areas for the processing of goods or materials which pass through the ports. 18/
 - (c) Notwithstanding the provisions of paragraph (b) of this subsection,

the land areas of the ports may be extended to areas not adjacent to water areas of the port, where the inland depots of the ports are located.

Sect.15 (Statement of Policy)

The following principles shall be observed by the port authorities when they plan, provide, manage and operate facilities or services within the port areas: 19/

- (a) to ensure that the interest of the state and the public is best achieved,
- (b) to ensure the efficient and safe movement of vessels, cargo and passengers, paying particular attention to cost-effectiveness and conservation of the quality of the environment,
- (c) to facilitate and promote the development of trade for the ultimate benefit of the community and the nation, and
- (d) to ensure that no particular person is given any undue preference or subjected to any undue disadvantage.

Sect.16 (Duties and Powers)

(1) The port authorities shall have the following duties within the port areas:

- (a) to provide, operate and supply such facilities and services with respect to ports as designated by this or any other statutory instruments or ordinances of the Government,
- (b) to maintain, improve, repair, dredge, alter, or clean such port facilities as designated by this or any other statutory instruments or ordinances of the Government,
- (c) to provide and exercise such other services as requested by the Government, and
- (d) to submit to the [Minister] for appraisal the draft of individual port plans in conformity with the National Port Development Plan.

(2) The port authorities shall have requisite powers to discharge their duties as provided for in subsection (1) of this Section in conformity with the policy as provided for in Section 15.

(3) The port authorities may, inter alia:

- (a) acquire, hire, construct or manufacture anything required for operation of the ports,

- (b) let, lease, hire or rent any port facility for carrying out port operations,
 - (c) determine or levy charges, fees, dues and other moneys levied and collected in relation to the usage of the facilities and services provided by the port authorities,
 - (d) raise loans, borrow, overdraw bank accounts or issue bonds to carry out the duties as provided for in subsection (1) of this Section,
 - (e) sell, let or dispose of any property, movable or immovable, which appears to be unnecessary for the operation of the ports,
 - (f) enter into agreements or close contracts with any person for the supply, construction, manufacture, maintenance or repair of any property, movable or immovable, as deemed necessary by the port authorities,
 - (g) train or make arrangement for training the persons employed by the port authorities for the purpose of advancing the skill of such persons,
 - (h) prohibit, restrict, control, regulate or permit any act within the port areas so as to secure safe navigation and safe activities in the port, to preserve the quality of the environment, or otherwise for the uninterrupted operation of the port, 20/ and
 - (i) enact regulations or by-laws for the purpose of carrying out their statutory duties.
- (4) The port authorities may provide or make arrangement for the provision of pilotage services, tug services, navigational services, firefighting services, search and rescue services and other measures to ensure safe navigation and activities in the port, where no other organization, be it publicly or privately owned, is prepared to provide or operate such facilities or services.
- (5) The port authorities may provide or operate other port facilities or services which are not the responsibility of other governmental organizations and which appear desirable in the interest of port operations where private firms are not prepared to provide or operate such facilities or services. 21/
- (6) The port authorities shall, whenever they carry out their duties under the provisions of subsection (1) of this Section, or whenever they exercise their powers under the provisions of subsections (2), (3), (4) and (5) of this Section, observe the guidelines laid down by

the Minister pursuant to the provisions of subsection (c) of Section 8.

Sect.17 (Capital and Reserve Fund)

- (1) After the establishment of the port authorities, all the assets and liabilities which belong to the relevant departments or offices of the government or the state enterprises (hereinafter cited as the "relevant organizations") shall, where necessary for the purpose of port operations in accordance with this [Instrument], be transferred from the relevant organizations to the port authorities.
- (2) The initial capital of the port authorities shall be decided by the Cabinet at a level which shall be sufficient for carrying out the operation of the ports.
- (3) The initial capital shall consist of:
 - (a) assets taken over by virtue of subsection (1) of this Section after deducting liabilities, and
 - (b) budgetary grants allotted by the government for the initial capital.
- (4) The reserve funds of the port authorities of Category A and B ports 22/ shall consist of ordinary reserve funds which are provided for contingencies and other reserve funds for special purposes as the port authorities deem necessary.

Sect.18 (Governmental Support for the Investment) 23/

- (1) The State may, with the consent of the port authorities, undertake the construction or manufacturing of port facilities which are included in the relevant port plans and the investment which is approved by the Minister where the work is of a technical nature requiring such assistance. In such cases, the port authorities may, according to prior agreements which are in compliance with the guidelines laid down by the Minister pursuant to the provisions of paragraph (vii), subsection (c) of Section 8, pay for a part of the expenses in connection with the work.
- (2) The State may, according to the guidelines laid down by the Minister pursuant to the provisions of paragraph (vii), subsection (c) of Section 8, provide grants to the port authorities toward investments which are included in the relevant port plans and other investments

which are approved by the Minister pursuant to subsection (2) of Section 19.

Sect.19 (Governmental Supervision) 24/

- (1) The Minister shall have powers and duties generally to supervise the affairs of the port authorities, and for such purposes may require the port authorities to furnish facts, explanations, views or opinions.
- (2) The port authorities of Category A, B and C ports shall obtain approval from the Minister before proceeding with the following matters:
 - (i) ceasing to operate berths,
 - (ii) disposal or sale of immovable property,
 - (iii) putting to let, leasing, hiring or renting immovable property at a cost exceeding Baht [] million per year,
 - (iv) expenditures exceeding Baht [] million on any one occasion,
 - (v) borrowings or loans exceeding Baht [] million on any one occasion,
 - (vi) issuing bonds,
 - (vii) increasing or reducing the capital, and
 - (viii) for Category A and B ports, election or appointment of the chairman and members of the board, the president, the secretaries-general or other high-ranking officials.
- (3) The port authorities of Category A, B and C ports 25/ shall make annual budgets classifying the Investment Account and the Operating Account. The annual budgets of both accounts shall be submitted to the Minister for his reference.
- (4) The port authorities shall submit to the Minister an annual report which shall include, inter alia, the summary of the business of the authorities for the passing year, the statement of policy and the future plan and scheme of the work.

Sect.20 (Accounts and Audits)

- (1) The port authorities of Category A, B [and C] ports shall prepare regular financial statements in accordance with the guidelines laid down by the Minister pursuant to the provisions of the paragraph (i), subsection (c) of this Section.

- (2) Every year the port authorities of Category A, B [and C] ports shall appoint one or more external auditors to inspect and certify their accounts. When appointing external auditors, the port authorities shall file the names and curricula vitae of the auditors with the Minister.
- (3) The external auditors shall be entitled to examine all accounting records and all documents of the port authorities, and for the purpose of the audit shall have the power to question the chairmen, members of the boards, presidents, the secretaries-general and other officials of the port authorities.
- (4) The external auditors shall submit the result of their audit to the Minister.

Sect.21 (Personnel Matters)

- (1) Matters concerning termination of employment and pecuniary remuneration of the chairmen, members of the boards, presidents, the secretaries-general and other high-ranking officials of the port authorities of Category A, B [and C] ports shall be decided by the Minister.
- (2) Matters concerning employment, appointment, termination of employment, pecuniary remuneration, welfare, punishment and petitions of the personnel of the port authorities of Category A, B [and C] ports shall be specified in the regulations of the port authority in accordance with the guidelines of the Minister pursuant to the provisions of paragraph (v), subsection (c) of Section 8.
- (3) All the persons who immediately before the appointed day were employees in the relevant organizations as provided for in subsection (1) of Section 17, shall be transferred to the port authorities and shall be deemed to have been appointed by the port authorities as employees.
- (4) All the persons so transferred shall retain any accrued rights, including rights to leave and payment or pension, as if they had remained as employees of the relevant organizations.

Part V Consultative Port Users Groups

Sect.22 (Consultative Port Users Groups) 26/

- (1) Such port users as specified below may organize consultative port users groups (hereinafter cited as the "groups") to be registered with the port authority of each port

- shipping industry, shippers, forwarders, stevedoring industry, customs brokers, longshoreman's industry, terminal operators, shipbuilders and industries whose equipment are located within the port area.

The Chamber of Commerce of each area may also join the groups.

- (2) All kinds of industries as specified in subsection (1) of this Section shall be represented by the groups.

Members of the groups shall decide the rules of procedure and elect their chairmen and other officials by majority votes. When the chairmen and officials take office, their names shall be registered with the port authorities.

Sect.23 (Claims)

- (1) The groups may file with their port authorities any claims in respect of charges, fees, dues, rents or any other moneys levied by the port authorities (hereinafter cited as the "tariff").

Upon receipt of a claim, the port authorities shall take such measures as lowering the tariff in respect of the claim, or where they find it impossible or inappropriate to do so, they shall reply why no action shall be taken.

If a group is not satisfied with the measures or the reply of its port authority, it may lodge its petition to the Minister.

- (2) Upon receipt of the petition, the Minister may request the Commission to examine the claim of the group and the measures or reply of the port authority, and to make recommendations thereon.
- (3) In order to fulfill the duties provided for in subsection (2) of this Section, the Commission may appoint a number of qualified members by virtue of subsection (1) of Section 5 to establish the ad hoc group of experts for claims (hereinafter cited as the "ad hoc group").
- (4) The ad hoc group shall elect its chairman by majority vote. The provisions of the Section 6 are, mutatis mutandis, applied to the

meetings of the ad hoc group.

- (5) Where the Minister finds the tariff is unduly high, he shall order the port authority to rectify it.
- (6) Whenever the Committee, the sub-committees and the ad hoc groups examine the claim or make recommendations thereon pursuant to the provisions of this [Instrument], the members of the Committee, the sub-committees and the ad hoc groups under any of the following conditions are prohibited from participating in the concerned meetings:
 - (i) board members, employees and shareholders holding more than []% of the total capital of entities which bring forward the claim or have an interest in the claim; and
 - (ii) persons who are having or have had interest in the port authority which is the defendant of the claim. 27/
- (7) Upon the request of the groups, the port authorities shall furnish information concerning their conduct of business, financial situation, future development plans, or any other materials in so far as the port authorities deem that the release of such information shall not hinder their activities.

Part VI Miscellaneous

Sect.24 (Penalties)

-- There shall be provisions of prohibition and penalties for the purpose of enforcement of this Instrument --

Sect.25 (Transitional Period)

- (1) Pending the transfer of the assets, liabilities and employees by virtue of subsection (1) of Section 17 and subsection (3) and (4) of Section 21, the relevant authorities shall continue their existing operations until such date as the Minister announces in the Government Gazette that the transfer shall take place.
- (2) The persons appointed by the Minister pursuant to subsection (4) of Section 12 may employ deputies and acquire offices so as to prepare for the establishment of appropriate bodies to act as port authorities.

- (3) All the costs or the preparation for the establishment of the port authorities shall be borne by the State.
- (4) The provision of subsection (1) of this Section are, mutatis mutandis, applied to the cases as provided for in subsection (2) of this Section.

Sect.26 (Repeal and Amendment of Other Acts)

-- For the purpose of this Instrument, certain provisions for the repeal or amendment of existing legal instruments are required. While this question should be looked into in more depth, some points may be raised immediately, namely:

- (1) Recommendation to the Cabinet on matters concerning the establishment, dissolution, etc. of ports and port operations, and concerning plans for investment in ports or port operations as provided for in the Maritime Promotion Act Sect.12 (3) should rather be placed under the jurisdiction of the Minister and the National Port Commission.
- (2) The Port Authority of Thailand Act should be reviewed with the view to reduce the intervention of the Cabinet to a minimum.
- (3) The relevant provisions of the instruments concerning town planning should be reviewed so that port authorities can take the initiative in port-related town planning, and the Instrument should include the provisions for consultation and adjustment.

The Schedule

Classification of Ports

Category	Name of Ports
A	Bangkok Port, [Sattahip Commercial Port], Laem Chabang Port, Map Ta Phut Port
B	Songkhla Port, Phuket Port
C	Ban Don Port, Nakhon Sawan Port, Ta Phan Hin Port - to be completed -
D	Ko Sichang, Si Racha - to be completed -

Footnotes

1/ In considering a new legal instrument, the legislators may be troubled with conflict or duplication between laws. While there are many ways to overcome this problem, the generally adopted way is that if any provision of one law is inconsistent with the provision of another, the most recent law shall prevail against all the previous instruments. But in this particular case, apprehension is felt that the proposed instrument may not be deliberated thoroughly if the draft goes too far beyond the existing legal system in relation to ports. In order to reconcile this law with the present legal system, existing laws, in particular the PAT Act, should remain in effect as far as possible. With this in mind the draft admits that existing laws should prevail over this instrument.

2/ In the "Definition of Key Words" Annex 5 of Minutes of Meeting for Technical Cooperation on the Study dated on November 21, 1985, ports in Thailand are defined as follows:-

The word "ports in Thailand" consists of International Ports, Coastal Ports, River Ports and Major Private Terminals.

International Ports consist of the following six (6) ports: Bangkok Port, Sattahip Commercial Port, Laem Chabang Port, Map Ta Phut Port, Songkhla Port and Phuket Port.

Coastal Ports consist of fourteen (14) ports such as Ban Don Port, etc.

River Ports consist of Nakhon Sawan Port and Ta Phan Hin Port. Major Private Terminals mean major facilities along coasts and rivers such as Ko Sichang, Si Racha, Mah Boon Krong, Tha Rua and Ayutthaya.

Despite the above categorization, the draft classifies ports with a slight modification on the grounds that categories should be based upon the scale and function of ports rather than their location in order to determine the form of management and the relationship between port authorities and the Government.

However, there exist certain difficulties whether Bangkok Port (Klong Toei Wharves) is to be treated the same as other major international ports. Bangkok Port, which is located in the very heart of the metropolitan area and is of great importance to the nation from the economic, social and political points of view, is already operated by a statutory body. Although for Bangkok Port the scheme under the PAT Act should be maintained

as far as possible for the reasons given in footnote 1), it might not be appropriate from the point of view of deregulation for the other major international ports which are less important to come under a similar legal scheme particularly concerning the supervision by the central government. This matter should be looked into further. As for Sattahip Commercial Port, it is tentatively placed in Category A, only because it is presently managed by PAT. However, this point should be considered in future deliberations.

3/ In ports and channels, there are a certain number of facilities mainly used for fishing vessels. These include both public and private facilities. For the moment, those facilities enjoy effects of costly channel dredging without any financial contribution. In order to have owners of those facilities bear these recurrent costs, fishing ports may be included under Categories C and D. If it is the case, various questions will arise, e.g. which department has jurisdiction, mechanism to collect money for dredging, extent of control and so on. Depending upon the outcome of the deliberation on these points, the text may be amended accordingly.

4/ The establishment of a commission for making the draft of national port plans as well as acting as an advisory body in relation to port policy is recommended in the Study. This type of organization exists in many developed countries including Japan. However, the characteristics, members and terms of reference of these organizations vary from country to country.

UNCTAD urges the establishment of a national port authority with the main functions of coordination and regulation, and statutory powers including control of large investments, financial policy, tariff policy, labor policy, licensing, research and information ["Port Development" (TD/B/C.4/175/Rev.1) Chapt. 1 A paragraph 11. 4.12]. While the recommended functions of the authority are well taken, the idea that the authority should be separated from the ministries of the central government seems to be unrealistic in light of the prevailing practice in Thailand. The reason behind the proposal is to build up and maintain the capability needed and to allow a free interchange of ideas with many experts and interests involved, and although this intention may be appropriate in some future political and social climate, in Thailand, at least for the moment, it is

hard to think that an independent body is workable. The Maritime Promotion Commission consists of the Minister of Communications (the chairman), three Under-Secretaries and not more than four qualified members. Members of the National Environment Board include the Deputy Prime Minister, five Under-Secretaries and not more than five qualified members. There are also many other commissions consisting of minister-level and high-ranking officials. These bodies report to the Cabinet and the major part of their work is decided at the Cabinet level.

This draft instrument does not follow these examples, because the policy concerning planning and management of ports as well as mediation of claims requires expertise, and the greater part of such policy should be considered in a more routine and businesslike manner excluding political intervention as far as possible. Furthermore, since it is observed that expert knowledge including that of a number of specialists is being developed within and outside of the bureaucratic circle of Thailand, the time will come when the administrative practice can be changed so as to admit many policy decisions to be taken by the responsible administrators without going up to a very high level.

5/ It is difficult to determine the ideal tenure of office. If it is too short, members will not have sufficient time to carry out their work and continuity will be lost. On the other hand, with a longer term of office, there is a risk that the body may lose elasticity. In the draft a longer tenure is preferred bearing in mind that appointed members should concentrate their efforts without political interference. For the same reason, no provision in respect of dismissal is drafted.

6/ In order to deliberate in depth certain subjects which require special knowledge such as drawing up preliminary reports on guidelines and technical standards or appraising individual port plans, the sub-committee formula may be advisable. Seeking the opinions of experts in various fields as provided for in Sect. 9 (2) may be even more useful under this formula.

7/ The intention behind this Section is that the central government should not get into the day to day business of port management so that port authorities of a certain scale may remain autonomous for flexible and

efficient operation. With this in mind, the draft is designed so that the mandate of the Port Committee is limited to general plans or guidelines as far as possible.

8/ Throughout the world, there are many administrative commissions such as the Security and Exchange Commission, the Federal Maritime Commission and the Interstate Commerce Commission in the United States, the National Port Council and the Monopolies and Mergers Commission in Britain, and the Fair Trade Commissions in the U.S.A. and Japan. Many of the matters of this Section might finally be decided by commissions of such a nature if they exist. In Thailand, however, this kind of administration is not common.

9/ While the UNCTAD paper (op. cit., paragraph 11) recommends a small-scale office for the national port authority, several alternatives are considered for the office in the Study. The text is drawn up based on the formula proposed in the Study for the final stage of reformation.

10/ The duties are limited to those assigned anew. However, if works with respect to dredging and hydrography which are conducted by HD or registration of port operators which are conducted by OMPC at the moment are transferred as suggested in the Study, the text should be amended accordingly.

11/ As is stated in the Study as well as in the UNCTAD paper (op. cit., paragraph 15), the term of port plans varies according to their goals, and therefore the term of the National Port Development Plan cannot always be equal to that of the National Economic and Social Development Plan (NESDP). Nevertheless, the target of the plan should be much along the lines of the NESDP, and figures used for the framework of the plan, e.g. the national income, price indices, the value and volume of foreign trade and the volume of transportation, should be taken from or be consistent with those projected in the NESDP.

12/ Opinions concerning connecting transport measures, projects concerning development of hinterlands or neighboring areas and some aspects of port management such as the form and extent of privatization may be included.

13/ At the initial stage of port development, it is not likely that there will be private firms capable of acting as port management bodies, since the firms would be required to tie up their limited financial resources for a long time because of the huge initial investment. In most cases, publicly owned entities or joint public-private groups may be designated as port management bodies. Or alternatively, by virtue of sub-section (4), an experienced person may be asked to establish a port authority. In this case, public funds would be used for the management of the port. However, theoretically there is no reason to exclude the private sector.

14/ There may be an opinion that it is premature for provincial governments to serve as port authorities since the provincial governments have little experience in operating ports. However, the experience of many other bodies which will be designated as port management bodies seem to be equally limited. Under these circumstances the governments of provinces in which the ports are located should, in most cases, be assigned to act as the port authorities. Nevertheless there may be few cases where, in the initial stage, bodies other than the provincial government will be more appropriate for port authorities. In order to provide for such cases, the following amendment might be made:

(2) "Category A and B" should be replaced by "Category A, B and C", and

(3) The entire subsection should be amended as follows:

The [Cabinet] shall, when designating the port authorities of Category C, consult with the governments of the provinces in which the ports are located.

15/ The PAT Act has provisions dealing with fixing its area (Sec. 8 of the Act). OPAT may exercise its power or fulfill its duty within this area [Sec. 9 (6)(7)(8)]. It is important to fix the port area not only because it denotes the boundary of jurisdiction in terms of powers or duties but also on the grounds that a port authority should conduct its business in conformity with its established policy and in a unified manner within the entire port area so that the port may fulfill its functions properly without undue omissions or redundancies.

With this in mind, the area of the Port of Bangkok seems to be too limited because all the private wharves and anchorages are technically outside of the port. The Authority is not only a mere operator but also in a sense an

administrative institution, and PAT cannot execute within the area now fixed all the administrative tasks which are the proper responsibility of the Authority.

16/ In certain ports of Category C and D which have very small traffic and thus very limited facilities, i.e. only one pier or one buoy, it would be better to dispense with determining the boundaries of the port area under the discretion of the Minister with the advice of the Port Commission.

17/ Since port authorities have the best knowledge of their ports, it is appropriate that the authorities should initiate the process of defining the port areas. Such initiatives from the port authorities should be duly considered. However, with a view to avoid arbitrary decisions, it would be advisable that the Minister, then the Cabinet guided by the Port Commission, inspect the drafts and make final decisions.

18/ There is a growing trend for port authorities around the world to acquire lands by means of purchase or reclamation in the vicinity of their central port areas which are used for shipping and cargo handling. These lands range from several hectares to some thousands of hectares and are not used for business directly connected to port operations. They are usually leased to industries and are used for factory sites for processing raw materials or half-finished goods, or processing for export (free trade zones). Lands are also acquired for various usages, e.g. to provide amenities for the community (waterfront parks), to build town facilities or public utilities (sewage plants, electric generation, gas storage, etc.) or even for public housing. These lands, although a less important feature for port operation than the central port area, may well be included in the port area, and thus are under consistent monitoring by the port authority. Such arrangements may be advisable for the following reasons:

- (1) If the land use nearby central port areas is disorderly, the navigation of ships or the handling of cargo in the port may be affected adversely,
- (2) Since the land which is adjacent to the waterfront is a limited and valuable resource, this land should be used for the public benefit and not be ill-used,
- (3) if the land is used deficiently by lessees who default on their

rental payments, it will be difficult for the port authority to earn sufficient revenue to recover its investment in the land.

19/ The purpose of this section is to clarify the general principles which should be observed by port authorities. A declaration of the principles is already contained in Section 6 of the PAT Act. However, it would be appropriate to draft the principles in wider terms as are found in certain countries' port legislation. The draft text was taken from the legislative instruments of Nigeria and Melbourne with some modification [see pp.150-151, Port Administration and Management by J-G Beaudelaire (I.A. P.H. 1987)].

20/ Following the global practice, if the works of the harbor master in the narrow sense as explained in the Study are conducted by divisions of the port authorities, this paragraph will be applied.

21/ This provision is taken from the Port of Cotonou Constitution (cited in Beaudelaire op.cit.). The purpose of the provision is not to preclude the choice that the port authority itself may engage in cargo handling under certain circumstances, but this type of provision may also be useful if the port authority carries out such ancillary services as towage, bunkering or water supply which no private firms are interested in providing during the early stages of the port development.

22/ A provision in respect of the reserve fund appears in Section 18 of the PAT Act. However, in the case of Category C ports, since their scale is small and they are operated by local governments which may have sufficient means to cope with contingencies, reserve funds for such ports may not be necessary. In the case of Category D ports, their scale is relatively small and more consideration is needed to determine whether or not the provision should be applied.

23/ This section provides for governmental contribution toward investment in port assets on the grounds that port authorities may not be able to bear the huge expenditure for construction of port infrastructures. And it may also be noted that by limiting governmental subsidies to such expenditures, port authorities would be compelled to balance their operating accounts. Having said that, in some ports of Category B there might be a case where

it would be difficult to earn enough revenue to meet the operating costs. To cope with such a case, the central government could contribute to the operating cost by providing a subsidy for certain works such as dredging channels, undertaking major repair works of port facilities and so on.

Following is the provision:

- (3) The State may, according to the guidelines prepared by the Minister pursuant to the provisions of paragraph (vii), subsection (c) of Section 8, provide grants to the port authorities toward the cost of maintenance, repairs, management or operation.

24/ The local situation in respect of political, social, economic and even cultural circumstances may determine the extent to which the central government should exercise control or supervision over the activities of port authorities. Until now in Thailand, control over port authorities, especially over the Port Authority of Thailand, has been more detailed than is common in developed countries. Furthermore, the power to control the matters of the Authority as well as other state enterprises is to a large extent in the hands of the Cabinet. As soon as circumstances permit, the central government should proceed to reduce its control and intervention so that the port authorities may become more autonomous and thus more active.

Bearing in mind the above observation, in the draft the governmental intervention concerning port management is reduced to a minimum and the Minister of Communications has, in some cases, following the guidelines laid down with the advice of the Port Commission, major power to control the ports of certain categories, while the present statute in respect of PAT remains unchanged taking into account the fact that all the state enterprises are regulated by similar provisions. In this context, in cases where state enterprises become port authorities, at the present stage, more governmental intervention concerning such matters as investment, issuance of by-laws and fixing of remuneration will be required.

However, it is desirable that if the general climate becomes favorable, the extent and procedure of the governmental intervention over PAT and other state enterprises acting as port authorities should be diminished so as to permit them to act more freely.

25/ It is felt that Category D ports should be treated differently from other ports in terms of relations with the government. Should private

ports be controlled beyond requiring registration with MPC as under existing law? And if this is the case, to what extent? And by which institution--the central government or local governments? These matters should be looked into further, particularly bearing in mind the equitable treatment of terminal operators which will come according to privatization and the control of private firms in general.

26/ There are a variety of means to establish a formula for balancing the interests of the users and suppliers of public utilities. The most popular solution throughout the world is to appoint one or more representatives of various groups of users as members of the board of the port authority. This type of solution, however, may not be popular in Thailand.

The provisions in the draft Instrument are similar to the formula for dealing with consumers' grievances usually adopted in developed nations. While the group of users which is a statutory body is entitled to make strong petition to the port authority, still they cannot participate in the process of determining the port charges. This kind of solution might be a compromise between the request for strong participation on the one hand and the paternalistic approach on the other.

27/ In order to maintain neutrality while acting as a mediator, the Port Commission and its subsidiary bodies should exclude members with a vested interest from participation in the arbitration of individual disputes.

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