

Table 5.4 Financial Forecast for Terminal Operation -- Sensitivity Analysis

(Unit: 1,000 Baht unless otherwise specified)

Port Terminal	Laem Chabang Container Terminal	Laem Chabang Break Bulk Terminal	Laem Chabang Coastal Shipping Terminal	Laem Chabang Tapioca Terminal	Laem Chabang Sugar/Molasses Terminal	Map Ta Phut Agri/Mineral Terminal	Songkhla 3 berths	Phuket 2 berths
Total Project Cost	1,354,776	925,498	588,724	525,595	511,328	1,952,214	1,872,674	684,605
Projected Cargo Volume in the 5th Year	20' Container 40,500 units 40' Container 17,250 units CFS 75,000 t	Rice Export 194,000 t Steel Import 96,000 t Other Import 18,000 t	Outward 91,700 t Inward 275,000 t	Tapioca Export 1,300,000 t	Sugar Export 550,000 t Molasses Export 230,000 t	Tapioca Export 607,000 t Grain Export 400,000 t Potash Export 1,250,000 t General Cargo Export 137,500 t General Cargo Import 137,500 t	Container 64,000 TEU CFS 10,600 t Bulk Export 173,000 t Bulk Import 50,000 t	Container 14,000 TEU CFS 1,400 t Bulk Export 185,000 t Coke Bulk Import 8,000 t Other Bulk Import 16,000 t
Operating Revenue in the 5th Year	112,650	25,748	20,198	45,500	32,150	120,714	62,623	19,919
Rent	50,177	34,389	21,805	19,466	18,938	72,304	69,358	25,356
Operating Cost in the 5th Year	86,932	64,910	45,818	40,315	35,566	102,401	108,771	50,365
Operating Profit in the 5th Year	25,718	-39,162	-25,619	5,185	-3,436	18,314	-46,143	-30,446
Income after tax in the 5th Year	23,257	-51,140	-33,559	8,616	1,020	16,421	-57,845	-40,591
Income after tax in the 26th Year	94,544	-451,722	-327,355	20,039	24,139	32,764	-429,088	-394,759
Long-Term Loan Balance in the 1st Year	135,371	36,767	38,099	162,771	126,703	36,951	89,487	47,940

Table 5.5 Profitability in the Fifth Year of Operation

Terminal	Income after Tax/Total Revenue	
	Base Case	Sensitivity Analysis
Laem Chabang container terminal	1.4%	20.6%
Laem Chabang break bulk terminal	-287.7%	-198.6%
Laem Chabang coastal shipping terminal	-240.1%	-166.2%
Laem Chabang tapioca terminal	2.3%	18.9%
Laem Chabang sugar/molasses terminal	-22.8%	3.2%
Map Ta Phut agri/mineral terminal	3.4%	13.6%
Songkhla 3 berths	-122.9%	-92.4%
Phuket 2 berths	-240.1%	-203.8%

5.6. These 22 companies include almost all the major companies which have some connection with port operation or cargo handling in Thailand. According to the replies, all the five joint ventures which showed interest in the port operation are companies with the majority of their shares owned by Thai nationals.

35. The 13 companies which replied are categorized by the size of their paid-up capital in Table 5.7.

#### Criteria for Potential Operators

36. It will be essential for prospective private companies to have a strong financial and technical background to act as a terminal operator. The financial conditions include a substantial sum of paid-up capital in order to borrow money or enjoy other credit facilities including bank guarantees and letters of credit, etc., for the operation of terminals. Although the minimum required amount of capital would be decided depending on the business conditions, it is suggested that it would be at least Baht 50 million. However, there is no suitable Thai company which has such capital as shown in Table 5.7 or sufficient technical experience.

37. In order to meet the financial conditions, one alternative is that more than two Thai companies form a joint venture. The second alternative is that a Thai company or some Thai companies form a joint venture with a foreign company. Under the second alternative, there is also the possibility that the minimum required percentage of Thai shares would be lowered from the majority to as low as 10 %.

38. As for the first alternative: A joint venture of more than two Thai companies may still lack technical and/or management skill. In that case, such a company or companies should form a joint venture with a foreign company which has experience in port operation, technical expertise and managerial skill in this field.

39. As for the second alternative: Provided that foreign companies do not have financial and technical problems, the only limitation is the alien

Table 5.6 Replies to the Questionnaire

	Questionnaires Sent	Number of replies	Breakdown				Number interested
			Shipping Agent	Transport Co.	Terminal Operator	Others	
Thai Co.	8	(3)	2 (2)	4 (1)	0 (0)	2 (0)	3
Joint Venture	11	(8)	11 (8)	0 (0)	0 (0)	0 (0)	5
Foreign Co.	3	(2)	1 (0)	0 (0)	2 (2)	0 (0)	2
Total	22	(13)	14 (10)	4 (1)	2 (2)	2 (0)	10

Note: Figures in parentheses show the number of firms which replied.

Table 5.7 Capital Amount of the Companies Concerned

	More than Baht 50 million	More than Baht 10 million	More than Baht 1 million	Less than Baht 1 million	Total
Thai Co.	0	3	0	0	3
Joint Venture	0	1	4	3	8
Foreign Co.	2	0	0	0	2
Total	2	4	4	3	13

business restrictions.

#### Legal Restrictions on Foreign Companies

40. If more than half of a company's shareholders are Thai nationals, and more than half of a company's shares are owned by Thai nationals, then the company does not fall under the Announcement of the National Executive Council Announcement No. 281 or the Alien Business Law (NEC 281). Such a company could be a terminal operator in Thailand without any of the restrictions which are applicable to foreign companies.

41. If at least half of a Thai corporation's shareholders are aliens, or at least half of its shares are owned by aliens, then such a corporation falls under NEC 281 and would be subject to all the restrictions which apply to foreign companies. Such a corporation falls within the definition of "Alien" or "Alien Business" under NEC 281; and it could not be a terminal operator in Thailand without an Alien Business License.

42. Even if a foreign company were a terminal operator and holding an Alien Business License, such a License would not apply to every activity involved in the operation of the port. Such a foreign company would, therefore, have to hire a sub-contractor for activities for which it did not have the requisite permission but which were covered under NEC 281 and/or were not subject to one of the exemptions or exceptions.

43. In any case, it is recommended that at least one of the major Thai partners should have some connection with port operation or cargo handling so that the company could benefit from technical transfer.

44. According to NEC 281 the businesses listed in Categories A and B are closed to aliens. An alien may be permitted to engage in Category B business only when it is promoted by BOI. An alien wishing to engage in business in Category C must get an "Alien Business License" from the Department of Commercial Registration, the Ministry of Commerce, prior to commencing business activities.

45. According to the Ministry of Commerce, the port related activities are categorized in Table 5.8, which is however given as reference only, and any alien must go through individual examinations on a case by case basis by the authorities concerned. If these restrictions are applied, aliens would be prohibited from engaging in longshoring business. If an alien is a terminal operator, this problem could be solved by entrusting these works to a Thai company. And if a foreign company intends to conduct longshoring, it would still be possible by formulating a joint venture with a Thai majority.

Table 5.8 Restrictions on Port Related Alien Business by NEC 281

Categorization	Eligible for Promotion by BOI	Not-Eligible for Promotion by BOI
Category A		Freight forwarder
	(Closed to aliens)	(Closed to aliens)
Category B	Warehousing; Water transportation	Longshoring; Inland trucking; Lighterage; Cold storage
	(Aliens are permitted to engage)	(Closed to aliens)
Category C	Crop drying and silo facilities; Container repairs, maintenance, refreshment and refurbishment	Stevedoring; Port and terminal operator; Loading and unloading facilities for sea transport
	(Aliens can engage with "Alien Business License")	(Aliens can engage with "Alien Business License")
No Category	---	Leasing (Not closed to aliens)

Source: Department of Commercial Registration, Ministry of Commerce

#### Strategies for New Port Development

46. In view of the result of the financial forecast for each terminal, concrete strategies for the new port development could be established considering management and administration systems suitable to Thailand as follows:

(1) Laem Chabang Container Terminals

47. The annual rent of each container terminal is estimated on a flat rent basis at Baht 50.2 million including terminal facility depreciation cost, maintenance and repair cost, and the administration cost of the port management body, but excluding public-use facility expenses. Terminal operating cost including equipment, personnel and other administrative cost is Baht 36.3 million/year in 1990 and it will rise to Baht 52.8 million/year when the cargo volume reaches 120 thousand TEU/year. Public-use facility expenses are assumed at Baht 15.1 million/year allocated for each terminal. Total expenses including the public-use facility cost and the non-operating cost are Baht 111.1 million/year. If the average charge for a container is Baht 1,502/TEU, the same as the PAT official tariff, the break-even point is approximately 74,000 TEU/year. This number will probably be realized within about five years assuming favorable growth of the Thai economy and the terminal operator's efforts.

48. Before reaching the break-even point, the operator's financial situation would be severe and the cumulative deficit would total around Baht 219 million in the fourth year with the rent including the public-use facility cost. But it is difficult to forecast the period and amount of deficit exactly because of many unforeseeable elements including the lessee's own efforts. These risks to the potential terminal operator could be overcome by offering a period of lease agreement of 10 to 15 years, because the lessee could be confident of an annual operating profit at least in the latter half of the lease period (Table 2.4 in Appendix II).

49. From the viewpoint of mere operational efficiency, it might indeed be argued that a single operator may operate the two container terminals at Laem Chabang Port for the purpose of unified control over the berths and container yards. However, such an operator, whether a shipping company, an

independent operator or other entity, could have effective monopoly power easily since the number of terminals will be very limited in Thailand over the study period. It would therefore be recommended to lease each container terminal to a separate operator in order to assure fair competition.

50. For the container terminal, there are four likely types of lessees as follows:

- i) A public or private independent operator
- ii) A consortium of shipping companies
- iii) A shipping company or its affiliated company with sub-users
- iv) A shipping company or its affiliated company with exclusive-use of terminals

The actual types of lessees will mostly depend on their business prospects. Aiming to minimize the total transportation cost, each shipping company will choose the most suitable type. Therefore, it is better to lease terminals to shipping companies if they express a desire, because the reduction of total transportation cost would be more important for the Thai economy in view of lowering export and import prices than higher usage of the terminals. The type of a lessee [ii)-iv)] should be left to the discretion of the shipping company or companies. At the Laem Chabang container terminals, it is quite likely that a shipping company or companies will want to function as the terminal operator. For the shipping companies which do not participate as terminal operator, there is always the possibility to become sub-users at any terminal, and ultimately the break bulk terminal will offer service to such users.

51. How a container terminal is to be used should be stipulated in each lease agreement; exclusive-use, preferential use or "first come, first served" basis.

## (2) Laem Chabang Break Bulk and Coastal Shipping Terminals

52. The annual maximum capacities are calculated to be 440 thousand tons

for the break bulk terminal and 307 thousand tons for the coastal shipping terminal. If the same tariff as at PAT could be applied at Laem Chabang Port, the revenue is estimated at Baht 37.8 million/year and Baht 20.2 million/year respectively when the handling volume reaches the maximum level. Compared with the operating cost of Baht 33.1 million/year and the annual rent of Baht 49.4 million including public-use facility cost in the break bulk terminal, the maximum revenue of Baht 37.8 million/year covers only a part of the total cost. At the coastal shipping terminal the situation is so severe that the maximum revenue of Baht 20.2 million/year could not cover even the operating cost of Baht 24.0 million/year and it would be difficult for the operator to pay the terminal rent of Baht 31.6 million/year (including the public-use facility cost).

53. In an effort to reduce the operating cost, these two terminals, the break bulk terminal and coastal shipping terminal, could be operated by a single operator. The amount of reduction in operating cost is estimated at Baht 9.0 million/year. If it is not possible to find a private operator, the LUP system should be applied whereby the port management body takes charge of operating these facilities using some private cargo handling companies because service supply is ultimately the port management body's duty. Some number of containers will be handled at the break bulk terminal when container terminals are not available for any reason. Break bulk cargo service, however, must be provided whenever consignees require it. The provision of these services is an important part of the port operation.

54. These two berths will be used on "first come, first served" principle and the standard tariff system is to be made public for the convenience of users.

55. The modified turnkey method would be most appropriate owing to the following reasons if container terminals, the break bulk terminal, and the coastal shipping terminal at Laem Chabang Port are leased out under the LAQ system:

- i) It would be possible for the Government to utilize concessional loans extended by OECF for the construction of the infrastructure and superstructure of these terminals.

- ii) In these terminals the total amount of operation equipment is smaller and its life span is comparatively shorter. It is therefore not necessary to include such equipment in the lease. It is economical for the lessee to bring equipment already in his possession, if any, to the new terminals.

(3) Laem Chabang Tapioca and Sugar/Molasses Terminals

56. At the tapioca terminal the revenue of Baht 45.5 million/year could almost cover the operating cost of Baht 20.8 million/year and the terminal rent of Baht 29.7 million/year including public-use facility cost. At the sugar/molasses terminal the revenue of Baht 54.2 million/year would cover the operating cost of Baht 16.8 million/year and the terminal rent of Baht 25.8 million/year (including the public-use facility expenses) with a wider margin when the cargo volume reaches the maximum in 2014, the 25th year of operation. But it might in principle be possible to recover the construction cost by way of the terminal rent if the operator is able to attract more cargo specializing in specified commodities and relying on major exporters, and the situation might be improved in the long run owing to the superannuation of the facilities at neighboring private berths.

57. The modified turnkey method would also be applied at these terminals. Independent terminal operators, traders or a consortium are potential lessees, and the leasing conditions might be attractive to them compared with private facilities investment. Loading towers, conveyors, pipelines, warehouses, tanks, etc. will have to be procured by a lessee, and could be a heavy and risky burden for the lessee. To lighten this burden a longer-term lease would be necessary, say, 25 to 30 years, almost equal to the lifetime of these additional facilities.

58. Another possible system is that the public sector would be the investor and lessor of these facilities just the same as the mooring facilities. If this were realized, the lessee's burden would be reduced due to lower interest costs and a longer period of repayment. Thus, the terminal might be made more attractive to potential lessees.

59. These terminals will be used principally on a "first come, first served" basis because unspecified users are expected although the variety of commodities is limited.

#### (4) Map Ta Phut Agri/Mineral Terminal

60. A lessee might have to procure ship loaders, belt conveyors and stacker/ reclaimers. But in the financial forecast in this Study it is presumed that the lessor would procure these special facilities and equipment and that the terminal rent would be proportionately increased. The modified turnkey method would also be applied in this case.

61. It would be difficult for the lessee to charge high handling fees in order to compete with the facilities in neighboring private berths, which are already depreciated to a considerable extent. The lessee may be unable to attract the targeted volume of cargo--tapioca, food grain, potash, general cargo, etc. The cargo volume for the factories in the hinterland is not expected to increase in the near future. The maximum revenue of Baht 120.7 million/year will be almost equal to the total cost of the terminal rent of Baht 90.6 million/year including the public-use facility cost and the operating cost of Baht 30.1 million/year. As most of the expected cargo depends on the actual development of the Map Ta Phut industrial area, further analysis should be based on the detailed program of implementation, including the kind of industries that will locate in the industrial area.

#### (5) Map Ta Phut Factory Berths

62. It would be reasonable for each factory to be responsible for the operation and maintenance of special equipment such as unloaders, belt conveyors, etc. Considering the different kinds of operation for each factory and the convenience of continuous operation from port terminal to factory, there is no advantage to have all the berths operated by one operator. The factories are, therefore, the only potential lessees, and it is better to offer almost the same period of lease as that of the land for the factories, around 30 years.

(6) Songkhla Port, and Phuket Port

63. As mentioned in Section D of Chapter III, the cargo movement at these ports initially will not be so high. If the tariff for cargo handling remains unchanged, it will be difficult to recover the construction cost by means of the terminal rent. Especially at Phuket Port, the maximum revenue could not even cover the operating cost other than the terminal rent in and after 2000.

64. As all berths at each port (three at Songkhla and two at Phuket) form a operational unit due to the layout of facilities, they will be leased to a single operator respectively, which would contribute to minimize the operating cost. However, it would be better to lease single berths to different operators in the future to assure fair competition when the berths are enlarged and the cargo volume increased.

65. One alternative to lighten the financial burden imposed on the lessee is to adopt the leasing of completed facilities method. In this case, it is essential for the lessor to procure the operation equipment in accordance with the intended operation system of the lessee. It would also be necessary to make a separate lease agreement to cover the equipment which has a shorter depreciation period than that of the terminal facilities. It should also be noted that the economic merit of the lease is not so conspicuous for equipment with a shorter life span. If a prospective lessee is not found, another solution is to introduce the LUP system.

66. The berths at Songkhla and Phuket Ports will be used on a "first come, first served" basis.

67. In spite of every effort to improve port operators' finances, it would be difficult to operate these ports on a self-supporting basis. Cooperation among the central government, local governments and public organizations is the only effective counter-measure, as mentioned in Section D of Chapter III. The Government is required to assist in the field of finance, technical aspects and coordination with other government agencies in charge of national projects aiming at regional economic growth.

### Privatization of Ancillary Activities

68. The following port activities are carried out by the public sector as shown in Fig. 5.1. Privatization of these activities could also be considered.

#### i) Pilotage

HD is now in charge of the pilotage in Bangkok Port and Sattahip Commercial Port areas and the pilots are ex-officers of the Royal Thai Navy(RTN). Pilotage will also be required in the new international port areas, but it is not yet practical to be privatized considering the difficulties in the provision of appropriate personnel with requisite experience from the private sector and the danger of a sudden change of the administrative structure. It is better for pilotage to be provided by HD at least for the moment.

#### ii) Tug and rope boat service

PAT is now in charge of tug service in the port area. Such tug service will also be necessary in the new international port areas. Tugboats are utilized not only for towage but also for such non-commercial activities at ports as fire fighting, search and rescue activities, and elimination of pollution under the control and order of the competent agencies. Therefore, tugboats and their operators have to stand by the action even when they do not engage in towage. Taking into consideration the necessity of considerable investment in purchasing tugboats, privatization may be difficult at the initial stage when demand is insufficient. Privatization of the rope boat service will also be difficult as the financial situation of service suppliers may be the same as that of the tug operators.

#### iii) Water and electricity supply

If the present water and electricity supply system is adopted in

the new international ports, port management bodies will buy water and electricity from state enterprises in charge of supply and re-sell to consumers inside the port areas utilizing pipes, cables and other necessary equipment installed by themselves. Consequently, possible privatization in this case will be for the port management body to lease pipes, cables and equipment and for a private firm to buy and re-sell water and electricity. Considering the presumably small amount of rent and inflexible buying price, privatization of these services would not be advantageous for both port management bodies and private firms because management bodies can more easily recover facility and equipment costs as a part of terminal rent and there is little space for private firms to increase their margin and realize a profit. If water is supplied to ships by barges, the operating condition would be severe because the water supply barges are too expensive.

iv) Communications

Telephone service in the port area is less suitable for privatization because the major part of this service has to depend on the Telephone Organization of Thailand. If privatization proceeds in this service in the port area, the business of the private firm would be limited only to the installation of telephone wires. Communications with ships utilizing VHF, UHF, etc. are necessary for the business of the port management bodies themselves such as giving or receiving information of berth usage conditions, assigned berths, expected time of ships' arrival, etc., and therefore, privatization in this field would be meaningless.

v) Cleaning of the port area and garbage collection

Cleaning of the port area and garbage collection are most efficiently carried out by single entities respectively. In this sense, either the port management body or a private company which is entrusted with these works by the management body is suited to

supply services. The latter may be advantageous because the merit of a private company can be utilized to a greater or lesser degree. However, it should be noted that the operating conditions of cleaning the water area are more severe due to the necessity of a large amount of investment in purchasing cleaning and garbage collection vessels.

vi) Search and rescue and marine pollution elimination

These are non-commercial activities usually carried out by tugboats and tug operators as explained in ii) above. These services are difficult to be privatized.

### C. Financial Aspects of New Port Management Bodies

#### Financial Management

69. The ideal system for the port management body is a self-supporting financial system, which aims at securing the independence of the body's activities and improving the managerial efficiency. This system, under which all the expenses incurred by the management body should be covered by its own income, involves an incentive to promote the rationalization of the port operation, resulting in the decrease of the operating cost, and possibly lower tariffs. However, at the new international ports, it will actually be difficult to apply the self-supporting system because revenues may not meet the expenses at least at the initial stage, and if this system is adopted strictly, the following disadvantages may be found:

- i) The level of the rent and charges of the new ports will tend to be high because of the high initial investment costs. As a result, the competitive power of the new ports would be relatively low.
- ii) If the new ports lose their competitive power and the financial situation of the management bodies is poor, the local regions could not expect positive effects from the port development, and the socioeconomic development of the regions would be hindered.
- iii) Due to the high port charges and rent, it would be difficult to implement the government policy of promoting export-oriented industrialization.

70. Ports bring about various benefits not only to direct users such as shipping companies, terminal operators and so forth, but also indirectly to the entire nation through functioning as gateways for foreign trade and promoting regional development. Therefore, it is considered rather reasonable that in addition to the direct users, common residents should share the costs via government subsidies. But it is difficult to measure exactly the level of benefit to the nation. Besides, it is considerably

difficult to determine the appropriate share of the burden between direct users and the government. It is required, however, to set a guideline for the government to share the costs in a systematic manner.

71. The systems of government cost sharing are classified as follows:

- i) The government regards ports as important and indispensable to the nation and, therefore, the deficit from port management could be completely covered by the government. In this case, the management bodies have less incentive to improve their own finances.
- ii) In case a fixed standard of cost sharing by the government is established, the government usually shares some part of the initial investment for the construction cost. This sort of cost sharing can lighten the burden of the huge initial investment. There are two main systems for fixing the share of expenses. One is to fix the ratio of the government subsidy according to the degree of public use of the facilities as well as the status of the ports. The other is for the government to bear the entire construction costs of certain facilities through giving subsidies or through carrying out construction, sometimes including maintenance and repairs, by itself. In both cases the port management bodies must bear all the remaining costs and thus some level of managerial discipline is realized.
- iii) In case there is a difference between the reasonably estimated revenue and the actual revenue, the fixed financial assistance by the government is established based on the projections. In case of the LAQ system, the rent is usually fixed for some period and thus there is no difference between projected and fixed income.

72. From the viewpoint of the financial management of port management bodies, there are two types of government cost sharing. One is the assistance to lighten the burden of the port management body during the initial construction stage through investment by the government or low interest or interest-free loans. The other is to ease the financial burden

after facilities are put into use. The first and third systems mentioned in Paragraph 71 above contribute to realize this effect, and even the second system has the same effect if the depreciation burden can be exempted to the extent of the equivalent value of the government assistance.

#### Financial Conditions of New Port Management Bodies

73. An outline of the projected financial situation of new international port management bodies and consideration on the necessity and effects of the government cost sharing or assistance are presented below.

##### (1) Laem Chabang Port

74. Judging from the financial analysis of lease terminals, the following points could be considered for the port management body:

- i) The management body may recover the necessary costs for the sugar/molasses and tapioca terminals including public-use facility expenses allocated to these terminals within a lease period of 25-30 years.
- ii) As container volume may grow rapidly and operators should pay a reasonable rent set on a cost basis, the operator is expected to gain some surplus even within a shorter lease period of around 15 years. Therefore, the port management body would be able to raise the rent at the renewal of the lease agreement.
- iii) On the contrary, the situation at the break bulk and coastal shipping terminals might be bad, and operators' revenue may only cover their operating costs with little surplus even when terminals are utilized to their full capacity. The port management body can hardly be expected to recover the necessary costs from the rent.

75. Considering the financial situation of the port management body during

one project cycle of 30 years, the loss from the break bulk and coastal terminals may be around Baht 2,162 million. If the unified operation of these two terminals is taken into consideration, a savings of approximately Baht 242 million is expected. Although it is difficult to forecast the possible increase rate of the container terminal rent, the increase of revenue may be at most Baht 1,200 million under a favorable situation for the management body. Consequently, an unrecoverable amount of about Baht 720 million will have to be subsidized by the Government, which is almost equivalent to the total land acquisition, reclamation and dredging costs.

76. If a subsidy is necessary, it might be better that the subsidy be given in the form of bearing the cost of the initial investment in land acquisition, reclamation and dredging, which is estimated as almost equal to the total loss over 30 years at Laem Chabang Port, for the following reasons:

- i) This method enables the government to fix the amount and timing of subsidization and the port management body to be financially independent after receiving an initial subsidy.
- ii) Dredged channels are not used exclusively by terminal operators and their customers. In many countries, even where the government does not give much financial assistance to port management bodies, like in the U.S.A., the dredging costs are partly or fully shared by the government.
- iii) Land is a non-depreciable property, and therefore the management body can naturally exempt the depreciation cost which will help ease its severe financial situation in the operational stage.

77. Reclamation and dredging costs usually comprise both foreign and local currency portions, but it might be complicated if the Government shares the foreign currency portion by taking a loan and retaining responsibility for the repayment and interest payment. Therefore, it would be reasonable for the Government to give an amount equivalent to the foreign currency funds in local currency.

## (2) Map Ta Phut Port

78. There are two kinds of berths at the port: the common-use berth and factory-use berths. The latter are utilized principally by factories themselves as a part of their production plants. Construction of factory berths by public sector entities utilizing loans with low interest rates, long repayment periods and longer grace periods might act as an incentive for factories through effectively lowering the berth rent.

79. As for the common-use berth, namely, the agri/mineral terminal, its cargo depends on the kinds and scale of factories which will actually locate at Map Ta Phut industrial area in the future, and therefore financial issues should be analyzed after the implementation program of the industrial area is formulated.

80. At both kinds of berths, financial assistance by the Government, for example subsidies for the construction of public-use facilities, would promote the location of factories because construction of the breakwater and navigation channel will be very costly at this port. A Government subsidy would certainly be effective in Thailand, as in other countries, for promoting the development of industries, especially of the basic industries for the nation.

## (3) Songkhla and Phuket Ports

81. Terminals at Songkhla and Phuket Ports may be operated by a single operator respectively, but their financial balance is likely to be negative due to the small cargo throughput. Therefore, it is assumed that port management bodies could recover only a small part of their necessary costs. In addition, the repayment of the loan from the Asian Development Bank already began last fiscal year, so the financial situation of the port management bodies will surely become very severe.

82. In order to relieve these financial difficulties, it may be helpful for the Government to execute at its own expense the maintenance and repairs of breakwaters, navigation channels, and navigation aids effectively utilizing the machines, equipment and workers of the Harbour

Department (HD) because these works, especially channel dredging at Songkhla Port, will be very costly.

83. Other costs are to be recovered by terminal rent as much as possible, but losses may be inevitable because the terminal rent must be set at a level which operators can pay. These losses should be borne by the Government in order to promote the development of both regions.

## D. Port Management Structure

### General

84. When considering the appropriate port management structure, there are three important factors to be taken into account as follows:

- i) Ownership of the port management body
- ii) Number of the ports to be governed by a single port management body
- iii) Preference between an existing or newly established body

### Ownership of the Port Management Body

85. Throughout the world, there are three basic types of port management body:

- i) Central government department or local government department
- ii) Autonomous body founded wholly or partly by the central government or local government(s)
- iii) Private firm

86. However, in the analysis of a suitable type of port management body for the new international ports in Thailand, the possibility of management by local government(s) may be ignored at least for the moment because the local governments do not have sufficient technical and financial capability to manage international ports at present. The other types of port management body are analyzed below.

87. Theoretically, a private firm may better meet users' needs and have flexibility and efficiency when conducting business. However, ports are essentially social infrastructures which contribute to the economic growth and social development of the nation through serving transport and trade activities and, therefore, the management of ports must be conducted from the viewpoint of effectively achieving the goal of national socioeconomic

development. With this in mind, if a private firm manages a port, it might have such disadvantages as follows:

Private firms generally refrain from new investment without a firm assurance of realizing a profit. Although this behavior can be considered positive as it avoids over-investment, it may also limit location and regional socioeconomic growth. As port development often serves as a catalyst for regional development, it is sometimes necessary to invest in facilities prior to real demand as part of the nation's economic policy. It is not reasonable to expect private firms, which must act to maximize profit, to invest in such a manner.

Furthermore, since port management business involves huge initial costs as well as special technical skills, it would be difficult in Thailand to find a suitable private sector entity to function as a port management body.

88. Other types of management all involve governmental participation. If a government department acts directly as a port management body, the following conditions should be observed:

- i) To flexibly meet the needs of users who conduct their business under changing market conditions
- ii) To have offices at the site in order to smoothly and adequately administer various port operations

89. The remaining option is a public corporation or joint venture similar to the existing state enterprises in Thailand. Although such public corporations theoretically have both the cost-consciousness and effective and flexible operations inherent in private companies and the fairness in conduct and pursuit of the public interest, the actual performance of such corporations does not always realize such merits. This point was already touched upon in Section G of Chapter IV and Section B of this Chapter. The problems with such bodies throughout the world include excessive reliance on the government, lack of discipline and excessive political intervention. Many nations including Japan, the U.K. and France are trying to privatize many fields of businesses which have been run by state enterprises for a long time, and the Thai Government is also pursuing a similar policy.

#### Number of Ports to be Governed by a Single Port Management Body

90. Reviewing the actual management systems in various nations, the number of port management bodies and the number of ports governed by a single port management body differ case by case, according to the specific background of each port and each nation (Table 5.9). However, gateway ports which are located near each other are very rarely managed by the same port management body. There are numerous gateway ports managed by separate bodies including Amsterdam/Rotterdam, Marseilles/Le Havre, London/Felixstowe/Southampton, Yokohama/Kobe and Sydney/Melbourne. So, in order to realize the full benefits of competition, it would be preferable to have separate management bodies for competing ports.

91. At present, there is virtually only one international port in Thailand, as Sattahip Commercial Port cannot be compared with Bangkok Port. Therefore, there are no problems concerning this matter at present, but the question of competition among ports versus monopolistic management will have to be resolved in the near future.

#### Preference between Existing and Newly Established Organizations

92. PAT presently operates Thailand's international trade ports, and has accumulated valuable experience and know-how from its long history. However, there are various questionable aspects of PAT's current operations as discussed elsewhere in this Report. Thus, although PAT's accumulated expertise would be valuable for the operation of the new international ports, it is important that the unfavorable practices currently observed at Bangkok Port should not be carried over to the new ports.

Table 5.9 Number of Major Ports and Types of Management Bodies

Area	Country	Number of Major Ports	Management Bodies * <sup>1</sup>
Asia	Indonesia	4	Plural
	Philippines	18	Single
	Malaysia	5	Plural
	Burma	4	Single
	Singapore	2	Single
	China	36	Central Government* <sup>2</sup>
	Hong Kong	1	Central Government
	South Korea	10	Central Government
Oceania	Papua New Guinea	15	Single
	Western Samoa	1	Central Government
Africa	Ivory Coast	2	Single
	Guinea	1	Single
	Kenya	1	Single
	Ghana	2	Single
	Liberia	1	Single
	Egypt	3	Plural
Central and South America	Argentina	18	Single
	Peru	8	Single
	Mexico	5	Central Government

Note: \*<sup>1</sup> "Plural" and "Single" indicate the number of independent port authorities.

\*<sup>2</sup> The Chinese Government is transferring many of the ports to local municipalities.

#### Port Management Body for the New International Ports

93. There is no clear-cut solution for choosing the management body for the new international ports. This question should be resolved by carefully considering the characteristics of each individual port.

(1) Laem Chabang Port

94. Laem Chabang Port will serve as the heart of the regional development of the Eastern Seaboard (ESB), and simultaneously as a commercial port for foreign trade and will thus compete with Bangkok Port on a limited basis. With this in mind, for the Laem Chabang Port management, the following points should be observed:

i) One of the major issues is to attract port users in competition with Bangkok Port, and therefore, flexible business execution is required.

ii) Because of the large scale of the port, the scope and volume of port business will be enormous.

Considering all these conditions, the Port of Laem Chabang should probably be managed by an autonomous body separated from the local and central administrative organs as well as from the existing port management body, namely PAT.

95. However, for the moment, the establishment of a new state enterprise is said to be difficult under the privatization policy of the Government. It may also be difficult at present for a private company to take over all the assets of the port and run the port without suffering from heavy losses. Because of the high initial costs, the utilization of an existing state enterprise (namely PAT) might be considered as a last resort. But due to the reasons given above, the management of Laem Chabang Port should be separated from that of Bangkok Port if at all possible.

(2) Map Ta Phut Port

96. For Map Ta Phut Port, the following points must be considered:

i) This port will be the first large scale industrial port in Thailand, and will consist of common-use quays and exclusive-use quays which will be closely related to individual factories.

ii) Public-use facilities including breakwaters, channels and basins

require a large initial investment, and their maintenance and the maintenance dredging will be very important.

- iii) The Industrial Estate Authority of Thailand (IEAT) under the Ministry of Industry is assigned to implement the total project, and has knowledge and experience in the management and operation of industrial estates but not of ports. IEAT will look after the management of the industrial estate.

97. As the major purpose of this port is first to support the development in the industrial estate, IEAT might be considered as an appropriate port management body. However, the port sector of IEAT should be left autonomous in port management as much as possible, because port services to be provided are not only for the industrial estate but also for other regional activities. Then, IEAT should establish a port department at its headquarters and a branch office in the port area. Naturally, the port management would be conducted under the uniform policy and planning system prepared by the core organization in the central government which will be responsible for port planning, development and operations at the national level. A foreign advisor could contribute to the effective management of the port, especially in its early stages. In order to achieve cost-effective port management, the financial accounts of the port sector in IEAT should be kept separately from that of the industrial estate.

### (3) Songkhla and Phuket Ports

98. For the first stage of the development of these ports, direct management by the Government is realistic and effective because of the following reasons:

- i) The management and operations would not be so big because the scale of the ports is small.
- ii) If the maintenance of channels and breakwaters is carried out by HD, the business of the port management bodies would be relatively simple.

- iii) Considering these conditions, it is not effective to establish new organizations at this stage.
- iv) The biggest problems of these ports are to generate demands for port use through executing related projects like those for industrial development, because an increase of the cargo volume of tin and rubber is not likely due to the unfavorable market conditions. For the solution of this problem, Government efforts are strongly required. However, Songkhla and Phuket Ports should have separate management and accounts in the Government as this system could increase the eagerness of local interests to promote the use of their own local ports and to improve the ports' financial situation. This kind of effort is necessary to attain the maximum benefits from Songkhla and Phuket Ports and to reach their development goals.

## E. Functions of New Port Management Bodies

99. Fundamental functions of the port management body are as mentioned in Paragraph 6 of this Chapter.

Other than those, the port management body sometimes takes on the following work:

ix) Terminal operations

x) Arranging facilities for governmental organizations, service suppliers and users such as office buildings, welfare facilities, medical care, etc.

### Maintenance and Utilization of Facilities

100. Breakwaters, channels, basins, navigation aids and roads are facilities commonly used by the customers of ports. Control of the use of such facilities is generally conducted by the port management body, excluding traffic control matters at some ports as mentioned in the next Sub-section. Maintenance and repairs of these facilities, designation of the use of basins, operation of light buoys, etc. come under the jurisdiction of the port management body, and the body collects dues or charges in order to compensate for the necessary expenses incurred in providing these services including depreciation costs. From the financial viewpoint, it must be kept in mind that these costs may be a heavy burden for new management bodies and the Government is required to assist them, but maintenance and repairs of these facilities should still be conducted by port management bodies. However, for the small ports of Songkhla and Phuket, it may be appropriate for HD to take the responsibility for maintenance and repairs of common facilities as provided in the Government budget.

### Control of Traffic within the Port

101. Control of traffic on water areas in Thailand, which includes directing and controlling the time and manner of vessels' entrance and clearance to/from ports and of anchoring or mooring, etc., is presently conducted by the Harbour Master who is an official of HD. But, there are two possible ways to carry out this work, namely, by a government official or by an official of the port management body. The former way is based on the consideration that the traffic control inside the port should basically be the same as that outside the port with some additional rules required by the high intensity of traffic, and should also be equal at all ports. The latter way is based on the consideration that the authority to maintain ports in good order should be vested in the body which is responsible for the management of the ports. The latter way is adopted in the Netherlands, Australia, New Zealand, etc., and the former way is taken in Thailand, Japan, the United States and so on. On the other hand, traffic control on land areas is the duty of the port management body.

#### Provision of Ancillary Services

102. The existing port management body provides to users such services as tug, rope boat, water supply, electricity supply, communications, cleaning of the port area, and garbage collection. New port management bodies will have to take charge of these tasks because of the reasons mentioned in Paragraph 68 of this Chapter. However, the following points should be borne in mind for Songkhla and Phuket Ports as these ports may each have one terminal operator:

- i) The port management bodies should procure tug and rope boats and lease them out to terminal operators at a reasonable price. Each terminal operator can easily conduct this business together with their other operations, and this arrangement also helps port management bodies enjoy cost savings.
- ii) The terminal operators can buy water, electricity and telephone services directly from the Provincial Water Works Authority, the Provincial Electricity Authority and TOT respectively. In this case, the port management bodies simply provide the facilities

for them.

- iii) Cleaning of the port area, at least the land area, can be conducted by terminal operators.

103. Other than the above-mentioned items, there are such services as pilotage, search and rescue, marine pollution prevention, etc. which are provided by governmental agencies. These services might also remain in the hands of the government because they are not commercial businesses and are not executed efficiently port by port. However, port management bodies would take partial charge of the actual search and rescue activities or elimination of pollution under the control and direction of the competent agency. Tugboats are usually utilized for these tasks, and therefore the terminal operators of Songkhla and Phuket Ports might take over these duties if they rent tugboats.

#### Terminal Operation

104. PAT executes not only port management but also terminal operation including longshoring on an exclusive basis. If the privatization of terminal operation proceeds, the port management body would have to take control of the following tasks:

- i) Selection of terminal operation system and the berth usage form
- ii) Decision of lease conditions including lease period and rent
- iii) Selection of lessees
- iv) Supervision of activities of terminal operators and service suppliers from the viewpoint of preserving facilities in good condition, securing maximum utilization of facilities and fairness of the service supply
- v) Coordination among individual terminal operations

105. Level of charges and unbiased supply of services are major points for the supervision of fairness. As for the charges, the approval system would differ by case. As charges are important measures for terminal operators to compete with each other, information on terminal charges is not always public knowledge. If a terminal is put into use for a specific user on an exclusive basis, charges between the terminal operator and the user need not be public. But if a terminal is operated on a "first come, first served" basis, charges should be open because every user has a right to be treated equally in terms of charges. If a terminal is operated on a preferential-use basis, charges for users without preference must be open but those for preferential-use need not necessarily be open. If the charges are open, there are three ways for the port management body to ensure that the level of charges is in the public interest: to authorize charges, to set guidelines, and to leave the judgment to the users. As for the manner of service supply, unfair treatment to some users might be a problem. This should be controlled by petitions of claims by users.

106. However, if there is no potential firm to rent and operate a terminal, the port management body will have to take the responsibility for direct operation. Although the physical service supply may be carried out by private firms, the management body should conduct the following tasks:

- i) Qualification of service suppliers
- ii) Decision of charges for the use of facilities
- iii) Assignment of berths, transit sheds, open storage, etc.
- iv) Coordination and supervision of activities

Among the planned terminals, the break bulk and coastal terminals at Laem Chabang Port have a comparatively high potential in this regard.

107. In both cases, the management body should carry out maintenance and repairs of terminal facilities to a greater or lesser degree. But, in case the terminals are leased out, at least repairs of damages caused by daily use can be entrusted to lessees.

#### Provision of Related Facilities

108. In relation to the various service supply activities, such services as the provision of office space and welfare facilities are usually provided by the port management body. The necessity for these services is stronger at Laem Chabang Port where the operation and service suppliers are expected to be active and numerous.

#### Port Sales Activities

109. Port sales of international ports in Thailand are not active at present. However, in the case of new ports, port sales activities will be necessary for the purpose of attracting users particularly at the initial stage. Ports grow primarily from the effort of terminal operators, but port sales activities by the port management body are also important.

#### Restriction of Port Area Use

110. All water areas are publicly used in principle. This means that the usage of water areas should be strictly based on the public interest. Very often, this signifies the common use of water areas under some control by public authorities, such as navigation control, and exclusive or preferential-use of water areas might be admitted only when it is in line with the public interest.

111. As for the land area, land facing the water area is valuable and precious just because of its location where access to the water area is exclusively enjoyed by the occupier of the land. In many European countries, the entire waterfront is regarded as public property under the principle of public domain. In Thailand, the usage of waterfront and water areas by the private sector is permitted subject to certain restrictions by public authorities in strict consideration of the balance between public benefit and loss.

112. For effectiveness of port activities, a minimum water area, including areas to be used for ship operations such as basins, entrance channels,

etc. and areas necessary for safe ship operations like a buffer zone for oil loading facilities and to secure the stability of port facilities should be placed under the exclusive jurisdiction of the port, and land areas necessary for port activities should preferably be owned by the port management body, but sometimes by the terminal operator, to assure exclusive usage. Additionally, around those exclusively used areas, some activities may affect the effectiveness and safety of the port, and it is necessary for the port management body to retain some sort of administrative control over such areas.

113. Ports expand in accordance with their growth, and the future land and water use should be considered in the long-term port development plan. Within the areas where future expansion is planned, harmful conduct like construction not following the port development plan should be strictly prohibited to assure smooth expansion. Thus, the port area includes both land and water areas where the port authority exercises administrative control.

The port area includes:

- i) The areas where port facilities are located
- ii) The areas mainly used for port activities and the adjacent areas such as channels and basins and the primary movement area of cargo and passengers on land
- iii) The necessary area for the activities which strongly relate to the port, including land for port related businesses, inland depots, linking transportation facilities, export processing zones, and land for port-oriented industry, but excluding areas developed by other public bodies concurrently with the port development project

114. Permanent and temporary encroachment on water areas, such as land reclamation, construction and similar works is generally controlled on the basis of the Navigation in Thai Waters Act, but in the port area additional items from the viewpoint of harmony with present and future port activity

should be taken into consideration. Basically all reclamation and construction must be a part of the port development plan.

115. Private port facilities which make use of waterfront lines and water areas by constructing and using the facilities, while contributing to the distribution of cargo, affect the public interest:

- i) They exclude potential usage of occupied land and waterfront.
- ii) They increase the burden on maritime traffic.
- iii) They also increase the infrastructural burden on roads, water supply, electricity, communications and so on.

As for facilities within the port area, the port management body must supervise new construction as well as improvements and changes of usage. From this viewpoint, in the case that private facilities are operated in areas adjacent to the ports, these areas would be better to be included in the port area, for example, the Ko Sichang and Si Racha area in the Laem Chabang Port area. Outside of any port areas, at the same time, all port facilities along waterways are better to be regulated by unified plans provisionally called "Channel Development Plans". This should be studied further.

#### Port Development Plans

116. Planning and implementing port development plans is a major concern of the port management body. These activities include:

- i) Study for the planning
- ii) Formulation of the plan
- iii) Fund raising
- iv) Detailed design
- v) Construction and acquisition of facilities and equipment

As the plan should be formulated in conformity with governmental policy,

the individual port development plans are finally fixed subject to Cabinet's approval. However, the timing of the implementation may better be left to the port management body because the demands and needs are best known by the management body. If the port management body requires a governmental subsidy, the Government should retain control through various measures such as approval of budget or investment plans.

## **F. Relation between the Government and Port Management Bodies**

117. One of the major objectives of privatization is to improve efficiency utilizing the flexibility of the private sector and, therefore, the port management body should avoid excessive interference. It may be better for the port management body to allow lessees of terminals and service suppliers to conduct their business as freely as possible. In the same sense the Government should let the port management body execute its tasks as freely as possible because the port management body takes the primary responsibility for the operation of the port.

118. However, the Government should retain minimum power to control the activities of the port management body in order to secure continuous management and to effectively achieve its policies.

### Government's Roles

119. Government participation in port management and operation is very common around the world, because of:

- i) The importance of ports in national development and security;
- ii) Giving priority to port facilities at waterfronts and coastal areas; and
- iii) Assuring fair operation based on the public interest.

120. The important function of the port plan is to show the fundamental policy concerning the port development, management and operation. Every government has an essential concern with ports not only because the performance of ports greatly affects the region's prosperity but also the nation's socioeconomic development and security. Considering the small number of ports in Thailand including those to be developed, and the relatively limited experience and capability of bodies other than the Government of Thailand, the authority to decide the port plan should best

be vested in the Government.

121. Decisions on the definite structure for various aspect of ports should also be made by the Government, because these matters are the first and fundamental step to realize the fundamental policy. This includes among others the assignment of Government institutions for port administration, the establishment of port management bodies and the fixing of their duties and authorities.

122. In the course of routine management and operation, some administrative matters are so important that the Government should participate directly in these decisions. These matters should be carefully selected based on the following items:

- i) Relation to the fundamental policy of the Government
- ii) Need for the Government assistance (both technical and financial)
- iii) Restriction on the rights of groups or individuals

However, it should be borne in mind that the Government's intervention in the activities of port management bodies may reduce efficiency, so the degree and subject of the Government participation should be limited in the interest of maintaining the autonomy of port management bodies.

123. An outline of port administrative matters which may possibly be conducted by the Government is presented below:

Provision of fundamental organs	<ul style="list-style-type: none"><li>o Enactment of legal instruments</li><li>o Assignment of Government institutions</li></ul>
Decision of fundamental policy	<ul style="list-style-type: none"><li>o Decision of national port development plan</li><li>o Approval of individual port development plans</li></ul>
Coordination among Government Agencies	
Support of implementation of development	<ul style="list-style-type: none"><li>o Provision of annual national budget</li><li>o Introduction of foreign loans</li><li>o Construction of some</li></ul>

	important facilities
Supervision of port management bodies	<ul style="list-style-type: none"> <li>o Designation and support to establish port management bodies</li> <li>o Fixing port areas</li> </ul>
Supervision of management and operation performance	<ul style="list-style-type: none"> <li>o Overseeing budget, account, investment, price fixing and other business matters</li> <li>o Provision of necessary guidelines and standards for management and operation</li> <li>o Assistance to supply required services such as pilot, search and rescue, etc.</li> </ul>
Preparation of basic information	<ul style="list-style-type: none"> <li>o Collecting port statistics and conducting or arranging research</li> <li>o Execution of surveys to assist in determining fundamental policy and to provide guidelines, etc.</li> </ul>

124. The outline above suggests areas which the Government of Thailand might consider. However, the role of the Government varies from nation to nation and even in one given nation it may make a change along with change of the environment such as the growth of a port management body. The next paragraph is an explanation of the main items in which the Government should participate.

125. Examples of the Government participation are as follows:

#### (1) Planning Port Development

Port development should be planned and executed taking into consideration the interests of the State and the region because ports contribute to the socioeconomic development of regions and the nation as follows:

- i) Regional development is a real and tangible economic benefit of port development projects, i.e., ports promote the location of port-oriented industries, increase job opportunities through the location of port-oriented industries and the multiplier effect, increase the regional population through the growth of economic activities, accelerate decentralization through the growth of

regional society, and contribute to the social and economic development of the nation as a whole.

- ii) As far as cargo transportation is concerned, the beneficiaries of ports seem to be limited only to relevant service suppliers such as shipping companies, cargo handlers and land transporters. However, actual beneficiaries also include shippers and consignees. Port service suppliers contribute to efficient utilization of ports with their special assets, knowledge and experience, and all citizens may be able to enjoy price reduction of goods and market expansion through the smooth flow of commodities and transport cost reduction. Thus, ports benefit all citizens, even though the direct users are limited only to certain enterprises. Ports make it possible to encourage economic growth through this process.
- iii) If a nation neglects to develop ports, she must then use some ports under the control of other nations and entrust her major trade routes to foreign concerns. Even though the international situation is presently stable, ports still have strategic value as there is always a possibility that foreign trade routes might be interrupted accidentally or intentionally. Thus, it is said that a major port within the national territory of a country is the best possible guarantee of economic and even political independence.
- iv) It may be preferable for individual port development plans to be formulated by each management body to secure sensitivity to local needs. However, considering the importance of port development to the national socioeconomic development and security, the Government should inspect and approve individual port development plans so as to maintain the conformity of such plans with its overall policies. In the case of PAT, the development of new ports requires the Cabinet's approval of the plan and the expansion or improvement of existing ports are governed through the approval of the capital budget and loans.

## (2) Fixing and Changing the Port Area

The advisability of fixing port areas is already mentioned in detail in Section E of this Chapter. However, the powers of port management bodies over the other entities have to be confined to the minimum extent necessary since they restrict the activities and rights of other persons. Also they may conflict with the jurisdiction of other governmental organizations such as urban planning groups. In this context, the port areas should also be limited to the minimum, and the Government should oversee the drafts of port areas made by port management bodies. The port area of the existing international ports is defined by Royal Decrees. However, in case of small ports owned by the public sector, such as those with few mooring facilities along rivers or coasts, fixing of port areas is not always necessary.

## (3) Terminal Operation Matters

As PAT is a monopolistic terminal operator at the existing international ports, only the termination of business requires the Cabinet's approval and the charges are regulated to follow the guidelines set by the Cabinet. Presumably the privatization of terminal operation will proceed at the new international ports and in these cases the port management body will select the terminal operators or oversee their performances as already mentioned in Paragraphs 104 and 106 of Section E, Chapter V. It is clear that the Government, while observing the principle laid down in Paragraph 118, should conduct some form of supervision on the following matters which may have particular importance for public interest:

- i) Decision of terminal operation system: LAQ or LUP

(For LAQ System)

- ii) Decision of lease conditions including lease period and berth usage form

iii) Decision of terminal rent

iv) Selection of lessees

(For LUP System)

v) Qualification criteria for service suppliers

vi) Decision of charges

- o Item i) is placed under the guidance of the Government because the final decision depends on the existence or nonexistence of the potential lessee which can be judged more properly by a body which knows the local conditions. The method was adopted in the trial of the privatization of terminal operation at Sattahip Commercial Port, in which the Government gave general guidance.
- o Items ii), iii) and iv) deal with selection of terminal operators which are very important in relation to the activities of shipping companies, shippers, consignees, etc., and they should be carefully selected by the port management bodies. Furthermore, in many cases terminals are constructed with the financial assistance of the central government and under these circumstances the government should intervene in the port management bodies' work with respect to selection of terminal operators, however, the items and extent of the intervention should be carefully considered.
- o Items ii) and iii) concern the general lease conditions in broad terms, and these may well be under the approval of the Government, while original drafts should be formulated by the port management bodies which have local knowledge.
- o So far as item iv), which is the actual decision of terminal operators, is concerned, in view of assuring flexible and quick activities it would be better to leave port management bodies to choose terminal operators at their own discretion. However, at the very initial stages when they lack knowledge and experience, some kind of the Government advice might be useful.
- o Item v) which is the qualification of major service suppliers is usually required under the LUP system in order to maintain good

services. At present, PAT allows private companies to participate in stevedoring works and checks their qualifications, but the criteria are decided by the Government via Ministerial Regulation. It may be advisable to follow this system in general to keep up service levels and qualifications by using a form of guidelines.

- o Concerning the last item, PAT has the obligation to follow the guidelines (upper and lower limit) set by the Government. This may effectively prevent monopolistically high charges or discounts if there is only a single port management body. However, when new international ports are open, and competition occurs, then stringent Governmental interference may not be wise. On the other hand, the users' interest should also be safeguarded by some formula. Among many ways to reconcile the interests of users and suppliers one means appears in Sect. 23 of the Draft Instrument (Appendix V). In this case the Government acts as the arbitration machinery for consumers' grievances.

#### (4) Financial Matters

The Government holds the authority to check all the financial performance of port management bodies, because the Government is ultimately responsible for keeping port services at an adequate level. Among many financial matters, increase or decrease of capital in any form is the most important matter because the capital is the basis of the bodies' existence. Investment, loans and important contracts are the major financial decisions which may affect the financial management and situation of bodies. These decisions are generally subject to Government approval. To gain general information concerning the financial situation of port management bodies, the bodies are required to submit budget and financial reports annually to the central government.

The Government's participation in financial matters is relatively strong if the port management body is a state enterprise because the Government not only has a great concern with such important matters mentioned above, but also is ultimately responsible for the operating accounts, that is, the Government has a duty to make up

any deficits. As capital investment and subsidy for the operational deficit are given utilizing revenues of the Treasury, the major sources of which are taxes and duties, the Government has the duty to fairly and effectively use such funds. Therefore, the supervision and control over the financial management by the Government becomes even stronger.

126. The overall supervision over port management is recommended to be in the hands of the Minister of Communications. Therefore, the major aspects of the above subjects will be decided by the Minister without going up to the Cabinet level, which would hinder the quick solution of matters. However, i) the decision of the national port development plan, and ii) the designation of the port management body should be dealt with by the Cabinet because these items determine the definite direction of the port in terms of management and development. The fixing of port areas might also require decision at the Cabinet level since this involves possible conflict with the jurisdictions of many governmental organizations.

## VI. New Schemes for Administration and Management of Port

### A. Governmental Organization for the Administration of Ports

1. At present, port planning is conducted by various government institutions on a port by port basis, and the daily management and operation of international ports is exclusively conducted by the Port Authority of Thailand (PAT) with little participation from other government institutions.

2. As there are presently only two international ports and one large port management body, the present system, while not ideal, may have been functional in the past. However, as Thailand is rapidly expanding its port infrastructure, a new administrative structure will be necessary to promote the orderly development of additional international ports.

#### MOC's Role

3. The Study Team proposes that the development of the port sector should take place under a uniform port policy. All planning and development should be consistent with a clearly defined national port policy, and there should be a central organization within the Thai Government which is responsible for the coordination of port planning and development.

4. Ports are a crucial part of the transport sector, and carefully planned port development can play a key role in regional and national socioeconomic development. Port administration must consider both ports' primary role as the link between maritime and land transport and their secondary role as a catalyst for economic growth. Among the various governmental bodies which are concerned with port administration in Thailand, the Ministry of Communications (MOC) should play the central role for administering and managing ports and port development.

5. Although several ministries will continue to be concerned with port

development, MOC is best situated to take the initiative as the leading ministry in this regard. Port development planning must be carefully coordinated with the development plans for other transport sectors and with national and regional economic development plans, and MOC should be given responsibility for the coordination and overall administration of the nation's ports.

6. Based on close coordination with the National Economic and Social Development Board (NESDB), which is the agency in charge of the National Economic and Social Development Plans, MOC should oversee the entire field of port development and administration, and should set fundamental port policy while seeking the advice of other ministries and agencies which will continue to exercise authority in fields closely related to operations and planning such as finance, state property and customs.

#### Core Organization

7. To execute this overall supervision of the nation's ports, it is necessary to establish a "core organization" within MOC which would be directly responsible for port planning, administration and development.

8. The Government functions which would be conducted for port planning, administration and development are outlined in Paragraph 123 of Section F, Chapter V, and detailed explanations are given for some items in Paragraph 125 of the said Section. The core organization would be responsible for drafting and initiating almost all those items which appear in that Paragraph with the close cooperation of the National Port Commission which is described below.

9. Following are detailed explanations concerning the major duties of the Core Organization:

- i) Preparing port development policy and strategy

A National Port Development Plan should be drafted in conformity with the policy of the National Economic and Social Development

Plan. The core organization should have sufficient funding and authority to carry out the various surveys and technical investigations which will be necessary to put together a comprehensive plan for the administration and development of the nation's ports. The core organization should prepare a draft of the national port development plan.

ii) Drafting and inspecting individual port development plans

As individual port management bodies have the greatest knowledge of their own ports, whenever possible, it is best to let the individual authorities draft their own port development plans based on their experience from the day to day management of their own ports. The experts of the core organization could assist these bodies in their planning efforts if necessary. The organization would also be responsible for inspecting the plans drafted by the individual port bodies prior to their submission to the Minister and the Cabinet for approval. For other port management bodies which do not have the requisite expertise for drafting port development plans, the core organization itself would draw up the individual port development plans in consultation with the local administrators.

iii) Supporting local port management bodies

In general, the core organization should support the local port authorities in every way, and this is considered in more detail in subsequent sections. As many new port management authorities may be established in Thailand, these individual bodies will require the advice of the port experts in the core organization concerning all aspects of port planning, development and administration. Overall, the core organization should serve as a resource to assist the local bodies, and provisions should be made to ensure that the local bodies have free access to the expertise of the port experts at the Ministry.

The support of the core organization may be especially important at the initial stages of the individual port authorities. The establishment of individual port management bodies must ultimately be approved by the Cabinet. However, the core organi-

zation will be required to act as a central supporter, and often as a leader of the new bodies throughout the initial stages. Under certain conditions, the core organization may have to temporarily act as a local port management body directly. New local bodies will certainly need the support of the core organization in defining the limits of their port areas, which involves resolution of conflicting interests, preparation of requests for financial assistance, especially for essential infrastructures, and technical advice for planning and construction works.

iv) Supervising port management and operation

In general, the central government should refrain from interfering with the day to day operations of the individual ports. However, daily port operations must be consistent with regional and national port and economic plans. An adequate balance must be struck between maintaining conformity with national goals and realizing efficient management and operations at the local level. This is especially important considering the Government's policy to promote privatization.

The individual port management bodies will probably require more guidance from the core organization concerning port management and operations in their early stages than they will later on. In general, the core organization will probably have to prepare guidelines and standards for port management including the standardization of budgetary and statistical procedures, and will also conduct various research and give overall advice to the Minister of Communications.

Support System for Port Administration

10. A timely and adequate decision-making procedure is essential for effective port management and operations. However, proper administrative decisions require sound judgment based on a wide range of information and knowledge. Compared with the management of the other public sector projects such as roads, railways, dams, etc., the supervision of ports is

extremely complicated and requires systematic organization and advice from experts in several fields including economics, management, civil engineering, geology, hydrology, computer programming and urban planning.

11. Also port administration should be coordinated with other governmental agencies because port activities have wide and complicated features. In order to fulfill both conditions it may be useful that experts and representative of agencies in the following fields get together in one forum and discuss wide ranging matters concerning ports:

- |                                     |  |
|-------------------------------------|--|
| o Budget                            | o Local administration                     |
| o Customs                           | o Environmental protection                 |
| o National and regional development | o Marine transport                         |
| o Industrial development            | o Civil engineering                        |
| o Promotion of exports              | o Business (industry, trade and transport) |

12. It seems that this forum should take the form of a National Port Commission to utilize the knowledge of various experts in the public and private sectors. The commission should probably be formed after holding preliminary discussions with various ministries and agencies, and should probably include experts from academia and from the private sector along with public sector employees. The balance of representation on the committee will largely depend on the balance of relevant expertise in the various ministries and in the non-governmental sector.

13. However, political factors must also be taken into consideration. Those agencies and interests with the power to affect the implementation of the recommendations of the commission should be well-represented to ensure the effectiveness of the commission, and it seems that the committee system in Thailand generally functions very well in this regard. Optimistically, the commission should be in an ideal position to offer advice to the responsible organizations as the committee's recommendations will be based on the highest level of expertise from both the public and the private sectors. Overall, the commission should help to promote well-coordinated action by the various ministries which will naturally retain control over various spheres which are closely related to port development and

operations.

#### National Port Commission

14. Assuming that the Minister of Communications is given the authority to oversee the overall national port development and operations as proposed above, the National Port Commission will influence the policy decisions of the Minister of Communications and the Cabinet.

15. The National Port Commission will consider various matters which are of vital importance to the development of the nation's ports which require careful consideration by the Minister of Communications. These matters would include:

- i) The National Port Development Plan,
- ii) Individual Port Development Plans,
- iii) The structure of new Port Management Bodies, and
- iv) The definition of individual port areas.

The National Port Commission would essentially review drafts prepared by the core organization, local port management bodies and other groups, and submit revised drafts to the Minister for his approval. Some of these items should then be submitted to the Cabinet.

16. Additionally, the Minister would be free to ask the advice of the National Port Commission on any matter relating to the development, management, supervision, coordination and planning of ports and harbors, as necessary. Such items might include guidelines and standards concerning the following items:

- o Budget and accounting systems
- o Port tariff system
- o Operations system for port facilities
- o Measures towards privatization
- o Port sales (promotion of the use of port facilities)
- o Preservation of the environment and port safety

- o Training of port managers and workers
- o Engineering standards for construction works
- o Research and statistical systems

17. The National Port Commission should also give advice to the Minister concerning final settlement of disputes between port users and port management bodies. Since strict neutrality is indispensable for such mediation, the National Port Commission, which would comprise qualified members of various fields, would be the most suitable forum to resolve such disputes. Overall, the core organization should act as the secretariat of the National Port Commission.

#### Candidates for the Core Organization

18. There are various organizations which could function as the core organization within MOC. Following is a brief review of the four organization within MOC which are presently concerned with the planning and administration of ports.

#### OPS

19. The Office of the Permanent Secretary (OPS) of MOC consists of six divisions including the Planning Division and the Transport and Communications Economic Division, and is responsible for all kinds of traffic and for formulating the fundamental policy of the comprehensive transportation system of Thailand. Their main jobs are i) project evaluation for highways, railways, land, water, marine and air transport, ii) consideration of the plans and budgets of departments and state enterprises under the Ministry, iii) transport marketing including the consideration of the service fees of state enterprises, iv) data collection, and v) studying and analyzing various transportation matters concerning transportation systems, taxation and so on.

20. The daily administration of an individual transport sector is outside the responsibility of OPS except for big projects which require wide

coordination among transport sectors or among related sectors of various ministries. However, OPS' advice to the individual departments of MOC in charge of each transport sector is valuable, as OPS workers are accustomed to examining items from the viewpoint of nationwide transport development including the effects of development on economic growth. Although the required expertise for the core organization is not the same as that of type expected in OPS, their experiences and knowledge are most useful.

#### HD

21. The Harbour Department (HD) has mainly been concerned with port and harbor administration. Their knowledge about hydrographic conditions and construction in water areas is the best among the government organizations other than PAT. HD has the authority to control, supervise and administer works concerning water transport in general under the Navigation in Thai Waters Act, the Thai Vessels Act and the Act for the Prevention of Collisions at Sea, such as:

- i) Supervision of navigation and anchorage
- ii) Control of the utilization of water areas
- iii) Supervision of navigation channels and dredging
- iv) Supply of navigation aids
- v) Certification of seamen
- vi) Registration and inspection of vessels
- vii) Control of pilotage and pilots

However, within the Authority Area of PAT, dredging and navigation aids are provided by PAT. Sometimes HD also takes charge of the planning and construction of coastal ports and inland ports.

22. These duties are mainly concerned with securing safe navigation in public water areas and some of them are also closely related with ports, but HD is not really involved with port management except at some small inland ports, and therefore its knowledge about port management is not sufficient at present.

## OMPC

23. The Office of the Maritime Promotion Commission (OMPC) was established in 1979 as a department of MOC to perform functions provided for in the Maritime Promotion Act (MP Act) 1978 which aims at promoting Thai flag vessels. OMPC and the Maritime Promotion Commission (MPC) are intimately related. OMPC acts as the secretariat of MPC, but is not limited to this duty. MPC consists of members from various ministries, and their major duties are to give advice and submit recommendations to the Cabinet, so MPC is a kind of inter-ministry organization which coordinates among the ministries. The Minister of Communications is assigned as the chairman of MPC, and the Permanent Secretary of MOC is also specified as one of the Vice-Chairman. OMPC is placed under MOC by the MP Act and the Amendment of the Announcement of the Revolutionary Party No.216 dated the 29th September B.E.2515 (No.20) Act B.E. 2521. OMPC consists of five divisions. One of them, the Sea Transport Economic Division, is concerned with port development, and its duty is to study the activities of the shipping industry and identify future trends, to plan ahead to secure a larger share of the sea freight for Thai ships and to acquire new techniques in shipping from industrialized countries. MPC's duties concerning ports are specified in the MP Act as follows:

Section 11      The Commission shall have the following duties:

- (3) To make recommendations to the Cabinet, after consultations with other government units, be it central, provincial or local; government organizations or agencies, or State enterprises, on matters concerning the establishment, dissolution and amalgamation, separation, and discontinuation of any ports and port operations as well as the frameworks and plans for the expansion of, investment in, and development of ports and port operations, of government units, be it central, provincial or local; government organizations or agencies, or State enterprises;

This scope includes almost the entire scope of the proposed core

organization, subject to consultations with other government units. However until now, MPC's activity concerning port development has not been remarkable.

24. Under the MP Act and the Announcement of the Revolutionary Party No.58, the Minister of Communications has authority to require the registration of maritime operators, port operators and shipyard operators.

25. OMPC's major interest concerning ports is to promote the mercantile marine of Thailand under the MP Act, and accordingly ports are regarded as a component of marine transportation from the economic point of view. It is important to analyze ports in this way and OMPC's knowledge concerning international shipping has no equal in the Government. Ports have, however, many functions and roles in which OMPC has little interest. For example, ports can promote industrial location and development, and a wide, comprehensive viewpoint is necessary for the overall development and management of ports.

#### PAT

26. PAT is one of the state enterprises under MOC, and is the only agency which manages the existing international ports: Bangkok Port and Sattahip Commercial Port.

27. Of the existing agencies, PAT has the greatest knowledge of the day to day operation of ports, but even PAT plays a minor role in the field of port planning and development. PAT tends to hesitate to take on new port projects due to its financial constraints, and to pay little attention to the overall national port development. Thus, it would be difficult for PAT to act solely as the core organization. PAT's fundamental interest is the efficient management of ports, and the scope of the proposed core organization is much wider as it covers numerous fields outside of port operations. Therefore, based on the present situation, it seems better that PAT continues to refine its expertise in skillful port management and to leave the wider questions of fundamental port policy and planning to another organization.

### Short-term versus Long-term Measures

28. From the above analysis, it is very difficult to find a suitable agency to act as the Core Organization and, bearing in mind the duties of the proposed core organization, the establishment of a new organization would be ideal. However, the establishment of a new government organization in a short period of time would be very difficult, and the Government is presently required to deal with specific port matters on an urgent basis. Thus, it may be appropriate to organize a "project team" on a temporary basis and then to set about the establishment of the core organization on a step by step basis over time.

29. Thus, given the political realities, it seems necessary to establish a short-term administrative set-up as a step towards a more ideal, long-term administrative arrangement.

30. To review the previous discussion, the long-term arrangement would consist of a Core Organization and a National Port Commission both within MOC. Here, we suggest that the short-term system should consist of a Project Team and the existing MPC.

### Project Team

31. The Project Team should be established as soon as possible as a step towards realizing the long-term administrative structure. The Project Team will be an inter-agency group, but for convenience the Team will establish its office within OPS, because the duties of the new Team are generally consistent with the role of OPS, and it may be easiest to gather officials from various agencies under the umbrella of OPS.

32. Tentatively, the Team would consist of 10 officials: 4 from OPS, and 2 each from PAT, OMPC, and HD. Essentially, the four organizations would "second" their workers to the new Team. That is to say that the workers would be relieved of their present duties and would work full time for the Project Team, but that they would continue to receive their salaries from their original agencies.

33. The operating budget of the Team, including such items as rent and office expenses, would be provided by OPS. The proposed duties of the Project Team would include the following:

- i) To make a "scenario" to establish a new port administration system, including the preparation of new Acts
- ii) To make the first National Port Development Plan
- iii) To prepare the sectoral plan of the port sector for the National Economic and Social Development Plan
- iv) To arrange the management system of new international ports, such as:
  - o Designating the port management bodies and drafting organizational structure
  - o Making schedules for the establishment of these organizations
  - o Drafting necessary regulations and requests for government assistance, etc.
  - o Acting as a temporary port management body until the establishment of permanent bodies
- v) To make standards for individual port development plans, statistics, technical requirements, etc.
- vi) To make guidelines for the training of laborers, the maintenance of port facilities, etc.
- vii) To conduct surveys and studies in order to carry out the above tasks

34. The main purpose of the Team is to ensure that the Government

maintains a uniform port policy at all the ministries and agencies which have statutory authority over matters related to port operations and planning until such time as a Core Organization can be established on a permanent basis.

35. The leader for the Team will be a section chief level member from the Economic Division or the Planning Division of OPS. Concerning personnel, it is highly advisable to include the Thai counterpart personnel of the present study on the Project Team. By utilizing younger officers and counterpart personnel, the team members will have more freedom to move towards the establishment of a permanent core organization which will, over time, take over some of the duties which are presently entrusted to the various agencies. It may also be necessary to have a few foreign advisors to make up for some weakness of the Team at the initial stage.

#### Use of Expertise and Coordination with other Ministries

36. Considering the scope of MPC's duties and close relations with MOC, it is practical for the Project Team to coordinate with various Ministries and obtain expert advice by using MPC to make a short-term system workable. The Team will submit their draft proposals to be deliberated to MPC via OMPC. However, considering the lack of expertise within MPC on certain matters such as port budget, engineering and management, the Team will have to rely on other outside experts as well.

#### Conclusion

37. There is no question that a long-term structure consisting of a National Port Commission and a Core Organization should be realized as soon as possible to afford the best possible development of Thailand's ports. However, due to the current political situation within the Thai Government, it seems impossible to establish a Core Organization at this time. Thus, the Study Team recommends that a Project Team should be established right away as a step towards the realization of the long-term structure, and that the Project Team should also serve as a forum for the development of a

timetable for the establishment of a permanent Core Organization and National Port Commission. The timetable should be worked out through discussions with all of the parties involved, taking into account that the present duties and knowledge of HD and OMPC are very close to those of the proposed core organization. The Project Team might also start the preparation of the legislative instruments which will be necessary to establish a permanent structure for the administration and development of ports.

## B. Port Planning System

### Importance of Port Planning

38. Careful port planning not only of new ports but also of expansion or rehabilitation of existing ports is essential, because port development is an important and precious strategy for national and regional development.

39. From the viewpoint of realizing the efficient investment of limited funds and also the efficient use of land and water areas, deep consideration and agreement among related bodies should be pursued in the process of port planning. A clear stipulation of planning systems and procedures is useful to avoid confusion and to show the Government's intention to the public.

### Planning System

40. The National Economic and Social Development Plan is the basic plan which shows the direction of the social and economic development of Thailand, including the fundamental policy of the transport sector and of regional development. The planning period is five years (so hereafter the plan is called the Five-Year Plan), but its content often shows future targets. This Five-Year Plan is prepared and published by NESDB with the approval of the Cabinet.

41. Based on the fundamental transport sector policy shown in the Five-Year Plan, a specialized comprehensive transport plan is formulated by MOC. This comprehensive transport plan includes basic policy concerning the role of transportation, the principle of the combination of various transport modes, the direction of the development of each mode, the framework of the management bodies responsible for each transport sector and the necessary measures to implement these plans and ideas.

42. Although the port development policy is included in the comprehensive

transport plan and the National Economic and Social Development Plan, these plans are not satisfactory because they show only the outline of the port development. Detailed planning which covers the full range of issues is essential to assure effective and timely development.

#### National Port Development Plan

43. A national port development plan should play an effective role in the following aspects of port development:

- i) To establish an efficient nationwide port system, which must be consistent with national policies on the overall transport system of the country;
- ii) To avoid the over-investment or duplication of port facilities which can result from excessive free competition among ports; and
- iii) To better coordinate port development with the national development policies of other sectors such as industry, mining, agriculture, fishery, etc.

44. There are normally two different time frames, namely, long-term and short-term planning. Although they are naturally linked with each other, the scope and nature of each planning frame are clearly different.

45. In the long-term plan, first the fundamental policy of port development (purpose, strategies) should be presented, and next the distribution and priority of port development including port administration and managerial and operational issues must be consolidated such as policy on privatization, finance and so on.

46. A short-term national port development plan which shows the development program of each port might be considered as a sectoral plan under the Five-Year Plan. It would be the guideline for the port investment and annual budgeting. Not only the short-term plan, but also the long-term plan must be well-coordinated with the Five-Year Plan, which

functions as the common source for national infrastructure development policy.

#### Individual Port Development Plans

47. The long-term individual port development plans or master plans must follow the National Port Development Plan. Normally these plans have a time frame of 10 to 20 years or more. Therefore, more emphasis is placed on what is desirable than on what the trends seem to show in the short term. The land and water area usages are the most vital features of the long-term plans. The long-term plans commonly include:

- i) Projected future social and economic situation
- ii) Purposes and targets of the port development
- iii) Rough physical plan
- iv) Outline of development schedule
- v) Necessary measures for the achievement of development goals

48. The long-term plans of individual ports may have special functions as follows:

- i) To promote the long-term port development with a clear concept and target
- ii) To provide the basis for the control of the activities of individuals and companies within and near the area
- iii) To encourage private investment in and near the port area by officially showing the Government's and port management body's intention to develop the port over the long-term
- iv) To ensure proper coordination with many related long-term

projects like highways, railways, irrigation works, industrial development, urban development and so on

49. In addition to these items, it becomes easy to periodically reexamine the plans according to changes of the social and economic situations, because the basic conditions and initial recognitions are clearly indicated in the plans.

50. The short-term plans are far more detailed in all technical aspects. They usually take the form of a feasibility study to determine the best way to satisfy particular requirements expected to arise within a time period of about 5 to 10 years. The short-term plans must be consistent with the master plans and must be considered as one step in the implementation of the master plans. The decisions of the short-term plans also show and fix the government's intention and will to proceed with orderly port development and to begin investment in port facilities.

#### Planning Procedure

51. The National Port Development Plan should be drafted by the Core Organization. The draft of the Plan will be submitted to the National Port Commission for deliberation, and then the Commission will make recommendation and submit them to the Minister of Communications. The Minister will then present the Plan to the Cabinet for approval.

52. The individual Port Development Plans might be drafted by port management bodies according to the framework shown in the National Port Development Plan. The drafts will be sent to the Core Organization. After reviewing, they will be submitted to the National Port Commission. The Commission will make a recommendation to the Minister for the final decision. Support activities of the Core Organization for port management bodies in this matter are mentioned in Section A of this Chapter.

#### Preparation of Port Plans

53. Thus, in order to ensure smooth port development, proper development plans for each of the major ports should be prepared on an urgent basis. As several ports are being developed simultaneously, it may be preferable to prepare standardized forms for the planning of each of the ports as a first step. The standardization of the port planning process will make it easier to prepare comprehensive development plans for each of the port projects, and will also make it easier for the Government to compare the merits of the proposed projects at the various ports. Thus, the preparation of a series of well-arranged forms or of some sort of port planning handbook would clearly benefit the Government of Thailand and promote the orderly development of the nation's ports.

54. The Thai Government has already decided to develop Songkhla, Phuket, Laem Chabang and Map Ta Phut Ports, and various port development plans have already been prepared. Naturally, it will be necessary to periodically review and revise these port plans based on the changing socioeconomic situation and changes in Government policy and in national port development plans.

### C. Organization of Port Management Bodies

#### Organization of a State Enterprise for the Management of Laem Chabang Port

55. If a new state enterprise is established for the management of Laem Chabang Port, certain changes should be made in the organizational structure as compared with PAT. The major points are the members of the Board and the establishment of a group of interested persons including representatives of port users.

##### (1) Board of Commissioners

56. The members of the Board of Commissioners should include individuals with expertise in the fields of ports, transportation, navigation, commerce, economics and finance. Additionally, the Board should include outstanding representatives of the local community to contribute their opinions concerning local matters. Experts on the promotion and development of industries should also serve on the Board. The Board should also include representatives of the branch offices of central government agencies such as the Harbour Master's Office and the Customs.

57. However, if it is not practical to allow outstanding local individuals to serve on the Board due to the legal restrictions on the number of Board members under the Act on Standard of Qualifications for Directors and Officials of State Enterprises B.E. 2518 (1975) which limits the number to eleven, another means for local participation in Board decisions will be necessary. Probably the best way to provide local interests with representation is via formulation of a group of local interests, which should be directly involved in the deliberations of the Board.

##### (2) Group of Local Interests

58. The members of the group would probably include various local interests such as: i) representatives of the local administrative organs such as governors of provinces, mayors of municipalities or the chiefs of

equivalent bodies, and ii) representatives of branch offices of the government such as the Harbour Master's Office, the Customs, etc.

59. Port users and local business circles will also have an interest in port management and operation, and as their opinions will be based on expert knowledge in the business field, they should also be represented in the group. Since the formulation of the group is an alternative to enlarged Board membership, the group should be invited to attend and express freely their views during the course of all meetings of the Board. So far as voting rights are concerned, the Study Team, while being aware of the legal difficulty, is strongly affirmative since local interests will play vital roles for the operation of the port.

### (3) Structural Differences of the Executive Organ

60. The administrative structure of the new port management body may have to be significantly different from the structure of PAT as terminal operations and longshoring works at this new port may very well be privatized. Thus, a new unit which will be responsible for the lease of terminals, the qualification and general supervision of terminal operation and service supply will become necessary to replace the operational units such as "Bangkok Port" and "Sattahip Commercial Port". Through the privatization of these activities, the new management bodies will be significantly smaller than PAT, and the total number of employees is estimated at about 70.

61. The provision of experienced staff will be a major issue for the new ports. Although PAT has nurtured port specialists and accumulated valuable know-how, it is hardly expected that existing PAT staff will exactly meet the requirements of the new ports. The majority of the staff of the new port management bodies will be new recruits, and the advice and coaching of foreign experts will be indispensable. However, after several years during which the foreign experts will support general port affairs, the Thai staff must become able to perform their duties with less assistance from the experts who will, at this time, mainly give advice concerning major problems to which the port may face for the first time. It should be a result of the keen efforts to transfer managerial know-how from the

experts to the Thai staff.

#### Branch Office of PAT for the Management of Laem Chabang Port

62. If PAT is assigned to manage Laem Chabang Port as mentioned in Section D of Chapter V, it will be necessary to establish a new branch office specifically responsible for the management of the new port. It is essential for the efficient operation of Laem Chabang Port that the branch responsible for management of the port be strictly separated from existing port management in terms of accounts, operations of facilities, and even welfare and promotion of personnel and workers. This is because, in order to achieve effective management at each port, the ports should compete with each other and furthermore unfavorable practices at existing ports should be avoided.

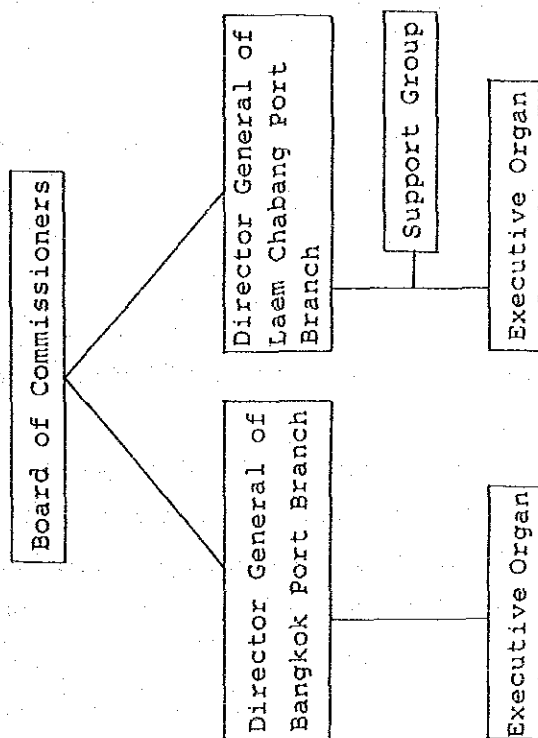
63. Figure 6.1 shows two alternative organizational structures which could meet this requirement, and effectively serve for the management of Laem Chabang Port. In both cases, the actual decision-making must be vested in the Director General or Sub-Board, and the Board of Commissioners will issue rules and regulations common to both ports under PAT jurisdiction (rules governing the performance of duties, and the disciplinary and penalty measures of the staff, etc.) and take care of general affairs.

64. In the case of alternative 1, the duties of the Director General will become very heavy and he can hardly be expected to bear all of them alone. An adequate support group will be required including members of a local interest group and other persons with equivalent experience and knowledge to the Board members.

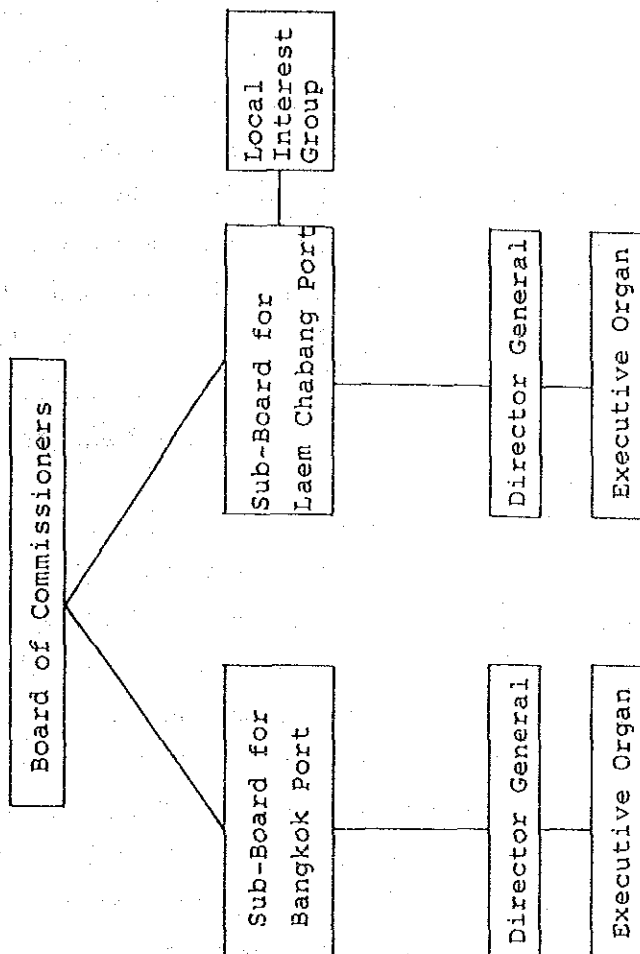
65. In the case of alternative 2, the decision-making will be done by individual Sub-Boards. Each Sub-Board should be comprised of different members so that the independence of each port is to be strictly secured and, therefore, the total number of Board members will increase remarkably. If such an increase of members will not be possible, a group of local interests as suggested in Paragraphs 58 and 59 of this Section may be a

Fig 6.1 Alternatives for Laem Chabang Branch Office of PAT

(Alternative 1)



(Alternative 2)



solution.

66. Comparing the two alternatives, the second one may be preferable because various interests which will surely conflict with each other may be more easily coordinated under the council system. However, in any case, there are a lot of questions to be solved before moving in either direction, especially concerning allotment of works and responsibilities between the Board of Commissioners and the Director General or Sub-Board.

#### IEAT for the Management of Map Ta Phut Port

67. This is the first experience for the Industrial Estate Authority of Thailand to manage a port. As the existing organization was formulated for the management and operation of general industrial estates and export processing zones, a new department, whose main office will be located at the site, in charge of the management of the Port will have to be established as noted in Section D of Chapter V. A group of local interests should also be formulated in order for the Director of the Port Department to gain adequate support for its decisions.

The tasks of the office will be as follows:

- o Formulation and implementation of the port development plan
- o Control of the use of the port area such as reclamation, construction, encroachment, etc.
- o Port sales activities
- o Terminal leasing including setting of lease conditions and rent, selection of lessees, collection of rent and check of the financial performance of lessees
- o Maintenance and utilization of common facilities such as breakwaters, channels, navigation aids, roads, etc. and collection of charges
- o Provision of services like tug services, utilities, etc. and collection of charges
- o Supervision of daily port activities

Necessary sections which will have offices within the headquarters are only those in charge of coordination with other departments.

68. Presuming that the physical works for the maintenance and repairs of common facilities, including maintenance dredging of channels and basins, may possibly be entrusted to private contractors, the number of workers is estimated as approximately 40 persons.

#### Management of Songkhla and Phuket Ports

69. As noted above, it may be effective for Songkhla and Phuket Ports to be managed by the Government during the early stages of their development. As the facilities are under the jurisdiction of the Ministry of Finance, which has little experience in port management, it might be better to formulate a committee comprising Government officials from relevant fields including budget, finance, national and regional development, local administration, navigation control, port planning and management and transport planning.

70. To retain the independence of each port, individual sub-committees should be established with government officials from the same fields as those for the parent committee, and naturally separate accounts should be kept to ensure the autonomy of finance. Local interests including representatives of local governments, local industrial circles and port users should be invited on an equal status to sub-committee members to ensure a general consensus on port policy and operations.

71. At the ports, local port offices should be established. The duties of these offices, with around 20 workers each, would include:

- i) Preparation and implementation of port development plans;
- ii) Control of the use of the port area including construction, reclamation, encroachment, etc.; and
- iii) Supervision of daily port activities.

## D. Finance and Tariff System

### Financial Principles

72. As already shown in Section C of Chapter V, it is considered very difficult in actuality for the port management body to adopt a self-supporting financial system, because the construction of ports requires a large amount of initial investment, and because the body will be obliged to bear a long-term financial burden for the repayment of loans. Therefore, it would be necessary for the Government to subsidize the port management body, and it is considered reasonable to set up a standard to assist, totally or partly, the cost of public-use facilities, based on the analysis in the previous chapter, and as shown by the trend at other ports throughout the world.

73. In respect of the management of assets, the standards presently in use in Thailand for depreciation of fixed assets seem to be short considering the actually useful period. Accordingly, it would be worth revising the depreciation standard. As the depreciation method for port facilities which require enormous amounts of investment, the straight-line method is considered to be more appropriate than the fixed percentage method. The assets of the port management body can be depreciated on an even basis annually over a comparatively long term under the former method, while an excessive financial burden is required in the initial stage under the latter method.

### Pricing Principles

74. Some port management bodies in the world supply cargo handling service directly by themselves. PAT is one such body, directly conducting longshoring works. Consequently, facility expenses related to cargo handling are recovered by various cargo handling charges together with the personnel, equipment and administrative costs required for longshoring. If the privatization of terminal operations proceeds, whether through the Lease-a-quay (LAQ) system or the License-to-use-port (LUP) system, the rent

or charges of management bodies will simply be those for facility use by private firms.

75. Under the LAQ system the rent is set to partly or fully recover the necessary costs of facilities which constitute a terminal. The main costs which must be recovered by the rent are administration cost, maintenance and repair cost, interest on loans and depreciation expenses, etc., and the equivalent of the cost of land is usually added. There are three systems for setting the rent, that is, the fixed rate, mini-max rate and the shared revenue system. The characteristics of these three systems are as follows:

i) Fixed rate (flat or upward rate) lease

The fixed rate is either a flat rate (a specified amount of rent for a specified period) or an upward rate (a fixed but increasing rate). Under this lease, especially under the flat rate lease, the agreement is stable for both parties and the incentive for the lessee is the biggest because the lessee can obtain revenue almost in proportion to throughput. It is therefore the most effective system to maximize throughput.

ii) Mini-max lease

The mini-max lease contains both a guarantee of minimum rent to the lessor and a lid on the maximum rent paid by the lessee. In this lease the lessee can obtain revenue in proportion to throughput after the throughput exceeds the maximum level. It is therefore a suitable system to increase throughput and also reduce the burden on the lessor.

iii) Shared revenue lease

This lease contains only a guarantee of minimum rent but no maximum. The sharing of the revenue between both parties is basically even. The incentive for the lessee is therefore the smallest with the smallest burden on the lessor.

The fixed rate rent would best contribute to the stability of revenue, followed by the mini-max rate and finally the shared revenue system. And the incentives for the lessee becomes weaker in just the same order. The

selection of the appropriate rent system would actually depend on consideration of the above-mentioned factors.

76. Under the LUP system, charges are generally established by each facility such as quays, transit sheds, open storages, etc. Rates are set per unit use (per GRT/day, per m<sup>2</sup>/day, etc.) based on an estimation of the use intensity of each facility. Therefore, revenues tend to be unstable due to the difference between the actual and estimated use intensity and the fluctuation of the former.

77. In respect of facilities used commonly by terminal users such as channels, breakwaters and roads, there are two options for charges under the LAQ system: The charge for the use of these facilities can be included in the terminal rent, or the charge can be levied separately. The former has such advantages as simplifying the tariff structure, but it involves technical difficulties in allocating costs fairly to individual terminals. Even when there is only a single terminal operator at a port, this method makes it difficult for the port management body to grasp the cost-revenue balance by facility and may weaken the incentive to attract users. Consequently, it would be desirable for the port management body to separate the charges for such facility use from terminal rent. These charges are generally calculated in many ports by dividing such facilities into two categories: facilities on the water area and those on land. The former costs are usually covered in the form of channel dues or harbor dues from shipping companies and the latter costs are covered by wharfage from shippers and consignees.

78. All of the above charges and rent are actually established in consideration not only of the need to recover the necessary costs but also of the need to maintain a competitive level with the rates at other neighboring ports, the bearing capacity of users, the needs for an adequate return on capital investment and the estimated financial situation of the port, etc. If the depreciation costs for the facilities which are constructed using financial assistance from the central government are excluded in the cost accounting, the charges and rent can be proportionately lowered.

### Accounting Principles

79. The system under which the income and expenses at multiple ports are summarized under one set of books is not only ineffective, but it also hinders general managerial efficiency. It is necessary for each port to keep independent accounts of its own financial condition in order to secure financial autonomy and soundness.

80. In respect of the auditing system in Thailand, internal audits have mainly been adopted so far. It is necessary for the port management body to simplify its accounting systems and to secure efficient and accurate accounting. It is appropriate to make use of external audits by independent organizations such as the Office of Auditor General of Thailand as carried out presently, in order to check improper and incorrect accounting.

81. It is necessary to consider discipline for the financial and accounting systems for port management bodies of international ports as follows:

- i) To place emphasis on marketing in order to grasp the needs of users and to increase income by attracting cargoes and ships to the port
- ii) To reduce costs such as internal expenses by improving administrative efficiency
- iii) To be flexible in the daily business with terminal operators in order to motivate improved operations
- iv) To make the best use of assets for the improvement of financial conditions as well as for the development of neighboring areas
- v) To set a long-term plan in order to cope with future changes and take measures in advance from a long-range view

## E. Terminal Operation System

### E-1 New International Ports

82. Most terminals at the new international ports are likely to be operated by private sector firms efficiently and profitably as in developed countries. However, it is indispensable for the Government or the related agencies to understand their terminal operation businesses and multiple services in order to manage new international ports smoothly. Details of the main businesses and the numbers of personnel and equipment are mentioned in Appendix III. A suggested idea concerning the main conditions of the terminal lease agreement is also attached in Appendix IV. The following factors are to be given special consideration at each port.

#### Laem Chabang Port

##### (1) Container Terminal

83. One container terminal should be operated by a single operator and the CFS operator in the container terminal is expected to be the same as the container terminal operator. The container terminal operation includes the following items:

##### i) Container ship operation

This involves loading and discharging work to and from container ships using gantry cranes. The ship's operation plan should be ready before the ship's arrival in order to realize efficient container handling.

##### ii) Container yard operation

This involves container storage and marshalling in the container yard in order to realize smooth loading and discharging from vessels and delivery and receiving of cargoes to and from consignees and shippers.

##### iii) Gate operation

The gate office is the transfer point of the responsibility for cargoes between shippers/consignees and shipping companies.

iv) CFS operation

The CFS operator is responsible for stuffing and unstuffing containers as well as receiving, delivering and storing break bulk cargoes.

v) Cargo documentation

The terminal office must prepare documents necessary for the smooth flow of cargoes and containers. Information and data from shipping companies, shippers/consignees and forwarding agents is to be distributed to every section of the terminal and the results of operations are to be distributed to the concerned parties.

vi) Maintenance and repairs

Mechanical difficulties and breakdowns of cargo handling equipment greatly decrease productivity. Containers should always be well maintained and kept in good condition to ensure safe and efficient cargo transportation. It is, therefore, imperative to establish a well-organized maintenance and repair section at the terminal.

(2) Break Bulk Terminal

84. The break bulk terminal is commonly designed to accommodate a variety of cargoes and the wharf areas are customarily built with large transit sheds just behind the apron. As for this terminal, however, the distance between the apron and the transit shed is quite long. Cargoes are to be transferred by trailers using pallets as much as possible. At the same time, containers may be handled at the wide open storage area behind the apron.

(3) Coastal Shipping Terminal

85. The loading/discharging to and from ships is carried out using mobile

cranes because coastal ships are not commonly equipped with the necessary ship gear.

(4) Break Bulk and Coastal Shipping Terminal

86. If these two terminals are operated by a single operator, it will be possible to realize a reduction of operating costs by reducing personnel and equipment.

(5) Tapioca Terminal

87. This kind of agri-bulk terminal is generally operated by a single operator who is entrusted by one or several traders or a consortium. The loading operation is consistently performed without distinction between stevedoring and longshoring.

(6) Sugar/Molasses Terminal

88. The handling of molasses is different from that of sugar. Molasses will be transported by pipelines from the storage tank to the cargo vessels.

Map Ta Phut Port

(1) NFC (National Fertilizer Corporation Ltd.) and NPC (National Petrochemical Corporation Ltd,) Terminal

89. Exclusive industrial berths function as part of production plants and are generally equipped with large cargo handling equipment to receive raw materials and load finished products. The entire cargo handling process is consistently performed by a single operator, the plant itself.

(2) Agri/Mineral Terminal

90. This is a bulk terminal to handle general cargoes as well as agricultural and mineral bulk. The handling of agricultural and mineral

bulk cargoes is performed in the same way as at the tapioca terminal by a single operator. As for general cargo operation, the operator provides delivery, receiving and storage service including longshoring but does not provide stevedoring.

#### Songkhla and Phuket Ports

91. Break bulk and containers are expected to be handled at both ports. It is required that each port be operated by a single operator respectively because of their characteristic layouts and the mixture of break bulk and container cargoes.

92. The stuffing and unstuffing of containers is to be carried out at the open storage areas behind the transit sheds.

93. A stacking area for containers is to be provided at a specific area. If the volume of empty containers reaches a sufficient level, a paved empty container depot should also be provided.

94. As for Phuket Port, it may be necessary to consider possible ship calls by large passenger ships.

#### **E-2 Bangkok and Sattahip Commercial Ports**

95. If PAT still persists in retaining the principle that the shoreside cargo handling at Klong Toei Wharves is to be exclusively conducted using equipment, laborers and drivers owned and employed by PAT, the following matters should be improved.

#### Container Cargo Handling

96. Firstly, in order to control the actual container handling of the transtainer operation at East Quay, it is assumed that PAT must establish a new integrated operational section, which will be responsible for the

control of daily operations including six transtainers, trailers and chassis movement. Secondly, with regard to expanding the import and export CFS, PAT has to transfer necessary officers, clerks and laborers from the Transit Shed Division to the Container Division.

97. Rearrangement of the PAT Port Area should be examined as follows:

i) Provision of a marshalling yard for export containers

It should be understood that PAT has to provide an export marshalling yard which will be used on a common basis in order to carry out efficient shipside container loading. The export marshalling yard is a place where export containers are stacked, in advance, in accordance with a loading sequence which is planned considering the destination, size and weight of containers to be loaded. Of course, the export marshalling yard should not be fixedly allocated to shipping companies or their agents but be entirely used for preparation of a loading sequence for incoming ships. As the storage capacity of the export marshalling yard is limited, it is important to restrict the admission of containers to prevent the misuse of the marshalling yard as a storage area. For this purpose it would be reasonable to use the areas just behind the berths of East Quay where the transtainer operation is currently performed.

ii) Installation of an export CFS

It is strongly required that an export CFS, which may be used as a common facility, be newly installed behind the container yard in the PAT Port Area. At the same time, PAT should strictly ban the stuffing work presently carried out inside each container yard.

iii) The facilities at West Quay and conversion into an import CFS

A CFS for import cargo be additionally provided at West Quay after the disposal of unused facilities which are located in the second and third rows behind the nine transit sheds.

iv) Change of the yard allotment method

In order to avoid the current chaotic situation in the PAT Port Area, a tentative policy to levy space rental fees based on the actual area instead of storage rent is suggested for the moment so that the shipping companies or their agents would be forced to use their allotted yard areas efficiently. The allotted yard areas, which should be marked with distinct lines in order to readjust boundaries, should normally be leased out as a block in accordance with the companies' requirements. The yard areas for the small and medium size shipping companies or their agents, however, should be leased to groups of firms.

v) Enforcement of traffic control

In order to prohibit private vehicles except cargo handling equipment from entering the PAT Port Area, parking areas for private vehicles should be provided outside the gate posts. PAT should provide free circuit bus service within the PAT Port Area operated by PAT and even the movement of cargo handling equipment should be strictly controlled and traffic regulations should be strictly enforced.

98. Loading/discharging to and from ships using gantry cranes is both reliable and efficient. Therefore, PAT should install gantry cranes at East Quay as soon as possible. As for the container handling equipment, PAT should increase the number of top lifters, tractors and chassis, etc.

99. In order to enjoy the merits of door to door service of FCL containerization to the utmost, the following items should be considered immediately:

i) To dissolve ETO's monopoly on carrying cargo out of the PAT Port Area so that customers can freely enjoy commercial rates on truckage

ii) To reduce ETO's trailer rate to equal to or less than the truck rate

iii) To simplify customs inspection procedures and to adopt a new

inspection system for regular shippers and importers, and to permit overland bonded transportation on regular export/import cargo from and to bonded areas

- iv) To revise the rules of the Land Traffic Acts concerning the hours and routes of heavy vehicles such as trailers in the Bangkok Metropolitan Area

#### Conventional Berths

100. Shipping companies' liability for cargoes carried by conventional vessels should end when the cargoes are free of the ship's tackle. In accordance with international trade rules and customs, PAT should take responsibility for discharged goods up to and inside the shed.

101. With regard to the long distance for transferring iron and steel goods and the recent decrease of these imports, PAT should consider converting the present handling area for these goods into a container stacking area. Imported iron and steel goods could then be stored in transit sheds or in a new long steel storage area inside the PAT Port Area.

102. Taking into account the low utilization rate and the substantial maintenance costs, the total number of wharf cranes should be reduced to an appropriate level by retiring older cranes.

#### Other Improvements

103. PAT should review the present durable years of old cargo handling equipment in the light of the actual breakdown ratio in order to meet users' demands.

104. PAT should reexamine the storage capacity of the overtime warehouse and expand its space if necessary. In the light of the rapid increase of container volume, PAT has to rearrange the PAT Port Area so that more space can be provided for container handling as mentioned before. In this sense,

it is suggested that PAT removes some of the warehouses for the long-dwelling cargoes to outside of the Customs fence as bonded areas and to use more of the limited space within the fence for the handling of container cargoes.

### **E-3 Training System**

#### Necessity of Training

105. The maritime transport system of Thailand is rapidly changing as evidenced by the sudden increase of container cargoes at Bangkok Port. The shift from conventional cargoes to container cargoes is accompanied by the introduction of large-scale handling equipment. Although one of the main advantages of containerization is the reduction of cargo damage, the sudden introduction of container handling may actually result in a temporary increase in cargo damage during the transitional period. In order for Bangkok Port to realize an excellent level of service and to remain competitive with neighboring ports, it is crucial to increase cargo handling efficiency through the systematic training of port workers. Along with the transfer of workers from conventional cargo handling to the handling of container cargoes at Bangkok, it is essential that the workers should be given thorough training in the use of container handling equipment to ensure a high level of productivity and to minimize cargo damage.

#### Training at Bangkok Port

106. Although training courses are provided for PAT personnel at the Personnel Development Centre (PDC), there is no training center for private companies' port workers. Given the current situation in Thailand, it should be understood that it is presently extremely difficult for private sector firms to establish and manage a new training center due to a shortage of competent staff, support equipment and money. However, some private companies naturally perform on-the-job training. It is obvious that a significant part of the cargo handling within the PAT Port

Area is actually conducted by private companies, and PAT should oversee the qualifications of these companies and their employees. Therefore, PAT should function as a parent body and execute training of all port workers within the PAT Port Area. However, PDC's existing facilities, equipment and some training courses especially those concerning container terminal operation are not satisfactory. Consequently, PDC should be expanded in terms of the scale of facilities, kind and number of equipment and competent staff in order to give adequate training. Thus, PDC will be able to cope with the requirement for training skilled port laborers including those who will work under modernized operation systems.

#### Training at Laem Chabang Port

107. The container terminal at Laem Chabang Port will be the first such modern, large-scale terminal in Thailand. As the initial container volume is expected to rapidly increase, the terminal operator will have to secure trained personnel on an urgent basis. The following measures should be taken, but all of the trainees will be required to have a basic understanding of the English language, which is the language common to the shipping and port industries.

- i) To invite foreign experts who have extensive experience and can teach local workers to operate and maintain equipment. Training will have to begin about six months before the terminal operations begin. Ample foreign experts should be assigned to several sections after the terminal operations start and continue to perform on-the-job training for at least three years. This method is especially effective for mechanics and the operators of gantry cranes, transtainers and top lifters, etc.
- ii) To select several suitable candidates and send them overseas to take training courses about six months before the terminal operations begin. This method is most effective for the managers of each section, ship planners, maintenance engineers and computer operators, who will all require a comparatively high level

of technical knowledge in their respective fields, and effective for the operators of gantry cranes and transtainers.

- iii) To employ some experienced foreign persons who can instruct Thai staff through working together on a daily basis. Although this method is effective for every type of job, at least a general manager of directors, a documentation manager, a ship planner and a chief engineer should be considered at the initial stage.

#### Training at Songkhla and Phuket Ports

108. As the container handling operation is presently carried out using the method of container transshipment by self-sustained barges in both ports, a certain number of workers with the required skill are already available. It should be understood, however, that their skill as well their number will not be sufficient when the actual operations start. It would be appropriate to procure necessary personnel who have practical experience from Bangkok Port. Although it is important to make an effort to train port workers in a systematic way, it is better to take the following measures on an "on-the-job training" basis due to the small cargo volume in the initial stage:

- i) To train port workers at a part of the open storage, setting up a special training course to practice forklift, top lifter and mobile crane operation
- ii) To train port workers (including stevedore laborers) on ships which are actually berthing to practice basic cargo handling using ship gear if the ships' captains approve
- iii) To invite experts from Bangkok Port to instruct workers in the operation and maintenance of equipment

## F. Legal Aspects

109. Among the legal instruments which are classified at many levels, the following are those closely dealing with ports:

Port Authority of Thailand Act,  
Maritime Promotion Act,  
Navigation in Thai Waters Act,  
Prevention of Collision of Ship Act,  
Announcement of the Revolutionary Party No.50,  
and various Royal Decrees, Ministerial Regulations, and Notifications thereof.

110. These instruments cover various aspects of ports and navigation such as matters in respect of the Port Authority of Thailand, registration of terminal operators, safety of navigation, the restriction of activities harmful to safe passage, and preservation of the environment in Thai waters. The following items may also be appropriate for being prescribed in a legal instrument, preferably in the form of an Act:

- i) Matters relating to national and individual port planning;
- ii) Concerning the National Port Commission, major items of the organization, rules of procedures for meetings, terms of reference and definition of the secretariat;
- iii) Matters relating to port management bodies other than PAT, including provisions concerning port areas;
- iv) Relationships between either central or local government and port management bodies (stress should be placed on minimizing government intervention) ; and
- v) The machinery and the procedure of settling disputes between port users and port management bodies and other suppliers of facilities or services.

111. In addition to the above, it may be advisable to mention two points. The first is the preservation of the marine environment and the promotion of maritime safety. Rules for maintaining and improving maritime safety and the quality of marine environment are laid down in various instruments developed by international fora. As Thailand is likely to ratify many of these instruments along with the development of the merchant fleet in the future, studies should be initiated right away, because port management is inevitably involved, particularly in the context of "port state control" and provision of reception facilities of oil residues and other harmful substances. At present these tasks have already been taken up by the Harbour Department to some extent, but due to future development, the Harbour Department will become overburdened.

112. The second point is that meaning of the term "harbour master" in Thailand is different from that recognized internationally. Internationally a "harbour master" is a person who is responsible for directing and controlling the time and manner in which vessels enter or leave port, anchor or moor, take in or discharge cargoes, or conduct any other activities within his port. On the other hand, the term "Harbour Master" as used in the "Navigation in Thai Waters Act" indicates the Director General or Acting Director General of the Harbour Department, or any person appointed by the Minister of Communications. Under Thai law the duties of the Harbour Master are i) to enforce navigational laws, ii) to take care of waterways so as to maintain safe and smooth navigation, iii) to inspect vessels and instigate legal action when necessary against masters or other responsible persons who violate navigational laws. That is to say, the term used in this country is much wider than that used internationally. In order to avoid unnecessary confusion, a proper harbour master regime should be enhanced. Moreover, a change in the administrative structure might become necessary if, as pointed out in Paragraph 101 of Section E, Chapter V, the work of the harbour master, in a narrow sense, is done locally.

113. A new demarcation of the responsibilities of the organizations concerned should be considered not only from the point of view of the National Port Commission and the Core Organization but also in the context of Paragraphs 111 and 112 above. The clear definition of the jurisdiction

of the various organizations should be taken up at the earliest possible time since a lot of work will be involved.

114. It is said that the legislative process in Thailand normally takes a long time. It is a very complicated procedure having many stages. First a draft is prepared by the legal section of the department concerned and then passed on to the Director General of the department for approval. Then it is transmitted to the Cabinet through the Minister concerned. If the matter is not exceptionally urgent, it might be delayed for a year or two. The Cabinet approves the draft in principle, and the draft is then forwarded to the Juridical Council which reviews the draft in detail in consultation with the Ministry concerned and may amend certain provisions. After that the revised draft is sent back to the Cabinet for its proposal to the Parliament. In the Parliament the draft is first deliberated by an appropriate standing or ad hoc committee as determined by the House Coordination Committee. Following the committee stage, it is placed before the full House of Representatives for a vote. If it passes, it is sent to the Senate and after passing the Senate it is forwarded to the King for his signature. After all these procedures have been completed, the new law is promulgated by publication in the Government Gazette. In view of the above situation, it may be advisable that at an early stage the matters taken up in this Report be handled within the existing legal framework and that some of the items such as the National Port Commission might be dealt with initially under a cabinet order, since enactment of a new legal instrument may not be concluded before the start of operation at Laem Chabang Port scheduled for 1990.

115. Having said that, as noted in Paragraph 110, there remain many items which would better be dealt with in legal instruments. Moreover, enactment of a law means not only to prescribe rights and duties, to establish and define the structure of organizations and to clarify relations among organizations and between the private and public sectors, but to clearly declare Government policy. Therefore, it is recommended that a review of the existing laws governing ports and harbors and preparation of a new instrument to be enacted in the form of a parliamentary act should be started as soon as possible.

116. There are two basic approaches of spelling out provisions dealing with public assets such as ports, namely British/U.S. practice and the Continental practice. While the former tends to prescribe items in great detail, the latter defines merely the fundamental issues, leaving the details to regulations, orders and notices. The legislative practice in both Thailand and Japan follows the latter approach which is preferable because it is more flexible. Under this practice, all the newly prescribed items could be covered within a single composite instrument which will give to the general public a clear picture of all aspects of port administration.

117. A draft legal instrument is attached as Appendix V. Although this text is only a preliminary one, and thus is not exhaustive and should be added to or amended as necessary, it may prove useful to show a rough idea as to how the proposed legal instrument may be spelled out.

