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ARAB REPUBLIC OF EGYPT  
PORT SAID PORT EXPANSION AND REHABILITATION PROJECT  
STAFF APPRAISIAL

May 2, 1985

Projects Department  
Europe, Middle East and North Africa Regional Office

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## CURRENCY EQUIVALENTS

### Official Foreign Exchange Rate

1 Egyptian Pound (E£ )	=	US\$1.43
1 US Dollar (\$)	=	E£ 0.70

### Rate for Commercial Bank Transactions

1 Egyptian Pound (E£)	=	US\$0.80
1 US Dollar (US\$)	=	E£ 1.25

## FISCAL YEAR

July 1 to June 30

## WEIGHTS AND MEASURES

1 meter (m)	=	3.281 feet (ft)
1 kilometer (km)	=	0.621 miles (mi)
1 metric ton (ton)	=	0.984 long ton (lg ton)
1 liter (ltr)	=	0.264 US Gallons (G)

## ABBREVIATIONS AND ACRONYMS

APA	=	Alexandria Port Authority
CAO	=	Central Accounting Organization
CLUC	=	Canal Loading and Unloading Company
CTOC	=	Port Said Port Container Terminal Operating Company
ER	=	Egyptian Railways
GCSW	=	General Company for Silos and Warehousing
NTS	=	National Transport Study
POMT	=	Public Organization for Maritime Transport
PSPA	=	Port Said Port Authority
RBA	=	Roads and Bridges Authority
SCA	=	Suez Canal Authority
TPA	=	Transport Planning Authority

ARAB REPUBLIC OF EGYPT  
STAFF APPRAISAL REPORT OF  
PORT SAID PORT EXPANSION AND  
REHABILITATION PROJECT

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MAP IBRD No. 18621 - Arab Republic of Egypt  
MAP IBRD No. 18622R - Port Said Port

ARAB REPUBLIC OF EGYPT

PORT SAID PORT EXPANSION AND  
REHABILITATION PROJECT

Loan and Project Summary

Borrower: Port Said Port Authority - PSPA  
Guarantor: Arab Republic of Egypt  
Amount: US\$37 million equivalent  
Terms: 20 years, including 5 years of grace, at the standard variable interest rate.

Project Description: The project will assist the Government in the rehabilitation of the port of Port Said and will support the objectives of the National Transport Plan. It will strengthen the Port Said Port Authority and improve port operations and maintenance. The project would finance: construction of a berth to handle general cargo traffic; rehabilitation of existing port facilities; mobile cargo handling equipment; and two gantry cranes for handling containers. In addition, technical assistance would be provided for project preparation and supervision and for improving port operations and management.

Estimated Costs

	<u>US\$ Million (mid-1985 prices)</u>		
	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
Civil Works	9.9	16.8	26.7
Handling Equipment	0.1	9.1	9.2
Technical Assistance	<u>1.0</u>	<u>1.3</u>	<u>2.3</u>
<u>Total Base Cost</u>	11.0	27.2	38.2
Physical Contingencies	1.4	3.7	5.1
Price Contingencies	2.2	6.1	8.3
<b>TOTAL COST</b>	<u>14.6</u>	<u>37.0</u>	<u>51.6</u>

These estimates are net of taxes and custom duties.

Financing Plan

	US\$ Million		
	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
IBRD Loan	-	37.0	37.0
Government	<u>14.6</u>	<u>-</u>	<u>14.6</u>
Total	<u>14.6</u>	<u>37.0</u>	<u>51.6</u>

Estimated Bank  
Loan Disbursements

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	FY85	FY86	FY87	FY88	FY89	FY90	FY91
Annual	0.3	4.3	4.8	13.2	7.9	4.8	1.7
Cumulative	0.3	4.6	9.4	22.6	30.5	35.3	37.0

Rate of Return: 22

Project Risks: No substantial risks are associated with the project.

Table 1.1: Transport Growth Rates in Egypt  
(In % per annum)

	<u>1969-1974</u>	<u>1975-1979</u>	<u>1979-1983</u>
1. Railways			
- Intercity passenger trips	7.3	1.4	8.6
- Freight movements	-1.4	1.1	4.4
2. Roads			
- Number of passenger cars	7.7	16.0	26.0
- Number of buses	8.4	10.0	12.7
- Number of trucks	8.6	25.0	23.6
- Consumption of gasoline	n.a.	13.5	16.5
- Consumption of diesel <sup>1/</sup>	n.a.	10.5	13.4
- Road traffic	8.0%(Est.)	12.0(Est/)	18.0(Est.)
3. Ports			
Total Dry Cargo	n.a.	22	14

1/ Includes uses other than on roads.

Source: NTS Phase II 1981 and NTS Phase III 1984.

## B. Transport Organization, Coordination and Planning

### Transport Organization and Coordination

1.05 At the national level, four principal government agencies are responsible for the transport sector: (i) the Ministry of Transport and Communications for main and secondary roads, railways and inland waterways; (ii) the Ministry of Maritime Transport for ports and shipping; (iii) the Ministry of Tourism and Civil Aviation for airports and aviation; and (iv) the Ministry of Petroleum for pipelines. Two other ministries also participate: the Ministry of Development, Housing and Land Reclamation in infrastructure investments in the Suez Canal zone, the Sinai and the western desert and in specific urban development projects; and the Ministry of Industry in industrial and mining projects, for the related transport facilities. Coordination among all related ministries is achieved through the office of the Deputy Prime Minister for Services where the major policy decisions are made. In principle, the existing organizational structure should make it possible to formulate coordinated investment and policy measures for the sector. However, the actual functioning system is hampered by the lack of clearly defined lines of communications to coordinate top-down decisions and bottom-up policy and investment proposals. The responsibility for the latter is shared by several government agencies without proper coordination. The existing structure needs to be reformed and streamlined. The Transport

## I. THE TRANSPORT SECTOR

### A. Economic Geography and the Transport System

1.01 Egypt has a land mass of about 1 million sq. km. However, most of its 43 million population and nearly all economic activity are confined to no more than 4% of this area, the remainder being desert and wasteland. The main active parts of the country are the 900 km long valley of the Nile, especially its Delta, the area adjacent to the Suez Canal, and small areas in both the eastern and western deserts. Nearly half of the population lives in urban centers, of which Cairo with about 10 million inhabitants (and accounting for about half of the nation's industrial output) and Alexandria at the western corner of the Delta with 2.6 million, are the largest.

1.02 The most important transport corridors in Egypt are Cairo - Alexandria, Cairo-Ismailia - Port Said and along the Nile. Other corridors lead to the Suez Canal from densely populated Delta areas, where agricultural development and its potential are considerable, and where urban development is giving rise to increasing intercity transport (Map IBRD 18621).

1.03 Egypt's diverse transport network is generally adequate in coverage, with road transport the dominant mode. The war years ending in 1973 left the transport system in a dilapidated state, both with regard to its physical assets and the organizations that are responsible for the sector. The main physical deficiencies have been: (i) in the railways, shortages of locomotives and rolling stock, (ii) congestion at all ports, (iii) poorly maintained road network with many road sections experiencing capacity constraints; and (iv) waterways which are also in poor condition and operate with an inadequate fleet. Since 1975, the Government has embarked on a program to correct some of these deficiencies. The program initially included funds for the most urgently needed rehabilitation works: railways and ports. In this endeavor the Bank Group played a part with two railway projects and a port project. Recently, rehabilitation and modernization of transport facilities are being carried out within a comprehensive plan which resulted from a National Transport Study (NTS) financed under the Bank's railway project. The transport plan has been incorporated in the current Five-Year Development Plan (para. 1.06).

1.04 Since 1975 demand for transport has increased dramatically: during the period 1975 - 1983, total port traffic increased by nearly three-fold; the number of trucks and buses increased at an average annual rate of about 25% and 10% respectively. Table 1.1 below shows growth rates for selected transport indicators. It is expected that in the coming years, although such quantum increases will not be maintained, transport demand will continue to grow at an average annual rate of about 8% in response to the anticipated economic growth and the increase in population. Despite development efforts since 1975, due to rapid increase in traffic, the principal physical deficiencies indicated in para. 1.03 persist. Government's current plans for the sector are described in more detail in paras. 1.06-1.09.

Planning Authority (TPA) within the Ministry of Transport could be a suitable focal point to improve communications and planning and coordination efforts. Also, the modal planning units need to be shored up to provide better bottom-up inputs for the planning process. This issue has been highlighted in the Bank report "Review of Public Sector Investment Program" and is being discussed with the Government.

#### The Transport Plan, 1983 - 1987

1.06 In 1976, the Government initiated a two-phased comprehensive National Transport Study (NTS), partially financed under the Bank's Second Railway Project (Loan 1098-EGT). The first phase was completed in 1977 and the second phase in March 1981. On the basis of the NTS Phase II, TPA prepared a Five-Year Transport Plan for 1983-87 which has been incorporated in the Government's National Development Plan for the same period. The Transport Plan has recently been updated based on findings of the NTS, Phase III, which was completed in June 1984 and Phase III findings indicate that traffic, particularly that of ports has been increasing more rapidly than projected earlier.

1.07 The current transport plan strategy aims at (a) increasing the foreign exchange earnings through improving cargo handling operations at ports, increasing the capacity of the Suez Canal, and providing increased pipeline capacity; (b) improving the utilization of existing facilities through better maintenance; and (c) improving the energy efficient and less costly transport modes, inland waterways and railways, to attract long-distance bulk cargo movements away from the road network. The Plan's allocation for the transport sector, including urban transport, is proportionally lower than in the past, about 17.6% of the total compared to 28.3% in the 1972/76 and 24.1% in 1977/82 plan periods. In terms of public sector investments, the Plan allocates about 22% (E£ 4.8 billion in 1982 prices) of the total to the transport sector compared to 29% in the 1977/82 period. The recent resource allocation to the sector, although lower than in the past when war damage and accumulated rehabilitation needs had to be addressed, appears to be adequate for the expected growth in demand (para. 1.04).

1.08 The modal allocation of investment funds among land transport modes heavily favors railways, E£ 1.5 billion or 44% of the total. This is high compared to the railway's share in total traffic, 6% for freight and 30% for passengers as well as their absorptive capacity. In contrast, the inland waterways which carry about the same ton/kms as railways is allocated only E£ 100 million. This amount is insufficient to upgrade and modernize the waterway system to ensure that this mode can play its proper role in the sector. The amount allocated to the road system, including funds for fleet renewal programs of public enterprises (E£ 775 million), also does not reflect its dominant role and the extent of rehabilitation works needed. However, the real constraint in the road sub-sector is also absorptive capacity of the Roads and Bridges Authority (RBA). During the first half of the Plan period the completion rate has been about 50% of the annual targets for the road rehabilitation program. This issue is being addressed under the Bank's Road

Maintenance Project (Loan 2330-EGT). The project includes funds to increase RBA's maintenance equipment and spare parts. In addition, the project aims to upgrade training capabilities of RBA to meet the increased needs of the routine maintenance programs. Resources allocated to the port sub-sector may need to be expanded if recent growth in traffic trends above the projected level are maintained (para. 1.06). Under the Plan, the first phase constructions of ports of El Dikheila, a Bank Project (Loan 2183-EGT) and Damietta has commenced. In addition, the Plan includes rehabilitation of ports of Port Said, including the proposed project, and Suez. The Plan allocates EE 130 million and EE 290 million to pipelines and civil aviation respectively.

1.09 A significant portion of total public sector investment in transport is earmarked for renewal of fleets and rehabilitation and maintenance of infrastructure. This is a correct strategy. However, dependence of public enterprises (which number forty-five) on Government for funds for renewal and expansion of their equipment places a heavy financial burden on public finances, mainly because the Plan does not adequately address the issue of transport pricing policies to initiate reforms which would reduce the dependence of public enterprises on public financing. In addition, institutional reforms are needed to increase the efficiency of transport public enterprises, i.e., establishing performance and financial targets and increasing management accountability. The problem is most acute in the case of the Egyptian Railways (ER). The public bus, trucking and barge companies earn adequate revenues to cover operating expenses. However, their net incomes would be negative if adequate depreciation allowances were provided and if gasoil prices were not subsidized. Ports, in general, earn adequate revenues to cover their cost of operations and to generate a satisfactory return on their assets. The issue of public transport enterprise finances has been highlighted in the Bank report "Review of Public Sector Investment Program" and will be discussed with the Government. In addition, the Bank has proposed to Government a comprehensive study on the performance of public enterprises. Within the scope of this work some of the more important transport public entities will be reviewed in detail and policy recommendations will be made.

#### Transport Constraints

1.10 The main constraint in the sector is the weakness of the various transport agencies, especially in planning and operational activities. All transport authorities are confined by restrictive civil service regulations and suffer from low salary structures and limited career development opportunities. In the case of Port Said Port Authority (PSPA), which is a relatively new entity, these problems are very acute and the authority is operating under a shortage of qualified staff. Under the proposed project the Bank and PSPA agreed on a training program to alleviate this situation (see paras. 2.17-2.18). In addition, the authority is introducing a supplementary bonus system similar to other agencies to bolster its staffing and technical and managerial capabilities.

1.11 The choice of transport mode is free in Egypt. However, the railways cannot meet all of the demand for long-distance transport of bulk commodities

mainly because of operational deficiencies which often result in irregular scheduling and long delays in deliveries. Public sector bus and trucking companies are not competitive, because their services are poor and freight is being diverted to private truckers while intercity taxi services have been able to cut substantially into the passenger market of public bus service and of the railways in some cases, even though both bus and railway tariffs are held low.

1.12 Transport accounts for 30% of domestic petroleum consumption. In recent years, the Government has raised the domestic price for premium gasoline gradually, but at the current level of E£ 0.15 per liter is still below its economic cost (based on February 1983 prices of US\$27.5 per barrel for Egyptian crude). Moreover, gas oil prices at E£ 0.03 per liter are well below economic cost of about E£ 0.18 per liter. The implicit economic subsidy on gas oil is a continuing burden on the economy, in particular for the mobilization of resources for investment. The Government intends to reduce and eventually stabilize the level of the implicit economic subsidy to transport users, although the price distortions from different subsidies throughout the economy make the achievement of this goal a difficult task.

1.13 Bank strategy in the sector is to support Government efforts in developing an efficient and balanced transport system to meet the current and anticipated needs of the growing economy and population. It aims at: (a) eliminating the backlog of maintenance and rehabilitation of physical facilities within the framework of the NTS; (b) moving toward a rational allocation of traffic among alternative modes through rehabilitation and modernization of inland waterways and railways; (c) increasing the net foreign exchange earnings through modernization of port facilities and expansion of the Suez Canal; (d) addressing policy issues, within the NTS, to enhance the efficiency of the sector; and (e) improving institutions, both at modal and sectoral levels, through training, organizational and operational reforms.

### C. Previous Transport Projects

1.14 The Bank Group has made one IDA Credit and eight Bank loans to assist the rehabilitation of transport facilities in Egypt. Loan 243-EGT of 1959 (for US\$56.5 million) repaid in 1974, Loan 1064-EGT of 1974 (for US\$50 million) and Loan 1482-EGT of 1977 (for US\$100 million) successfully supported the development of the Suez Canal. The canal is a profitable international transport facility whose development and operations are considered separately from the rest of the Egyptian transport system. The projects were closed in September 1982 and December 1983 respectively; a combined Project Completion Report was issued in June 1984.

1.15 IDA Credit 284-EGT of 1972 (for US\$30 million) and Loan 1098-EGT of 1975 (for US\$35 million) provided support for ER's 1971-1977 rehabilitation and modernization program. The first Railway Credit was eventually closed on June 30, 1980. The second Railway Project which had strong institution-building objectives and financed the National Transport Study, suffered a setback when ER's operating and financial conditions deteriorated. A shortage of qualified staff and tariffs below cost continue to be the main

problems of the ER. The projects were closed in June 1980 and June 1981 respectively; a combined Project Completion Report was issued in March 1983.

1.16 Loan 1239-EGT of 1976 (for US\$45.0 million) helped to finance the rehabilitation of Alexandria port. The project included a comprehensive study of Alexandria Port Authority's (APA) management, organization and finances. Execution of the project has been delayed, partly due to delays in contract award for civil works in what was the Bank's first involvement in Egypt's port sector. Project design since appraisal has been modified to cater for containers; construction was completed early in 1984 providing much needed relief for growing containerized cargo movements. The project also included studies for bolstering the Port Authority's capabilities in management and operation. Some of the study recommendations have been implemented improving management's effectiveness and port productivity.

1.17 Loan 2183-EGT of 1982 (for US\$132.0 million) is designed to assist construction of a new port at El Dikheila (10 km west of the port of Alexandria). The project became effective in September 1983, and includes much needed facilities for containerized cargo and a jetty for the reinforcing bar mill which is under construction at El Dikheila. The project also provides for the continued modernization of Alexandria Port and its integration with El Dikheila Port and is expected to be completed by 1986. The project will also enable the Bank to continue its efforts in institution building and strengthening the transport agencies' planning capabilities. Initial delays in project implementation, largely due to the late signing of subsidiary agreements, have now been satisfactorily overcome. Project execution is underway and no further major difficulties are foreseen.

1.18 Loan 2176-EGT of 1982 (for US\$59.0 million), the greater Cairo Urban Development Project, aims at initiating a new approach to urban transport in greater Cairo based on low cost traffic engineering and management measures, at improving the efficiency of the public transport system and at strengthening institutional capabilities for urban planning, management and service delivery in the greater Cairo area. The loan became effective on February 16, 1983 and the start of implementation is satisfactory. Already a substantial portion of detailed designs have been completed, some of the key advisors have been appointed and procurement of some items has been initiated. The project is expected for completion in 1987.

1.19 Loan 2330-EGT (for US\$24.0 million) is to support the Government's efforts to improve the road sub-sector by emphasizing maintenance of the existing road network. The project includes a two-year road maintenance program, upgrading the RBA's training facilities and improvement of traffic safety and controls. The project also includes technical assistance to strengthen RBA's institutional capability through improved planning and staff training. The loan became effective on April 10, 1984 and project implementation is proceeding satisfactorily.

## II. PORTS AND PORT SAID PORT

### A. Port Traffic and Capacity

2.01 Egypt, at present, is mainly served by the Port of Alexandria and Port Said on the Mediterranean Coast. The ports of Suez and Safaga on the Red Sea Coast are relatively small, handling primarily specialized cargo and nominal amounts of other traffic. Alexandria is by far the largest port handling about 75% of the country's maritime traffic. Moreover, Alexandria and Port Said are the only ports providing diverse services in facilitating Egypt's foreign trade.

2.02 With the rapid growth in the economy, total tonnage handled (excluding petroleum products) in all ports increased nearly three times between 1975 and 1983 9.7 m ton in 1975, compared to 28.7 m ton in 1983. The Table below summarizes the growth in port traffic and Table 1 in Annex VII gives detailed port traffic for 1975 - 1983 period.

Table 2.1: Total Port Traffic for 1975-1982  
(1,000 tons)

<u>Year</u>	<u>Import</u>	<u>Export</u>	<u>Total</u>
1975	8,250	1,480	9,730
1978	14,600	1,340	15,940
1979	16,340	1,220	17,560
1980	19,530	1,600	21,130
1981	23,640	1,530	25,060
1982	23,470	1,700	25,170
1983	26,870	1,800	28,670

2.03 Parallel to trends in world shipping, Egypt's container traffic has also rapidly increased during recent years: 156,740 TEUs<sup>1/</sup> in 1983 compared to 124,360 in 1981. The current containerization penetration rate is about 25% for exports and 35% for imports. The ports of Alexandria and Port Said are the primary facilities for containerized cargo; Port of Suez, the only other port which currently handles containers, account for only 1.5% of the total. In terms of tonnage, the total volume of containerized cargo amounted to about 1.2 m ton in 1983. Table 2.2 below shows the recent growth in container traffic by ports.

<sup>1/</sup> Twenty-foot equivalent units.

Table 2.2: Container Traffic  
(in TEU)

	1981		1982		1983	
	Import	Export	Import	Export	Import	Export
Alexandria	50,295	34,903	51,517	35,963	67,624	45,018
Port Said	19,116	18,051	18,051	18,309	22,372	19,124
Suez	1,000	1,000	1,100	1,100	1,300	1,300
Total	70,411	53,954	70,668	55,372	91,296	65,442

2.04 The rapid growth in traffic has created serious congestion at all ports of the country. Particularly, Port of Alexandria and Port Said have been forced to operate well beyond their capacities. The problem is most acute at Port Said, where traffic increased from 2.8 m ton in 1978 to 5.2 m ton in 1983 (excluding petroleum). As a result, increasing volumes of traffic, including about 75% of general cargo, are being lightered: 1.3 m ton in 1982; 1.6 m ton in 1983; and 0.8 m ton during the first half of 1984 (for details see Tables 2 and 3, Annex VII). Currently, berths available for barge operations are saturated and the barge basin is fully congested with four five rows of barges waiting to be unloaded. Manoeuvring and at times, unloading of barges are carried out manually. This is a time consuming and costly operation, as evidenced by ship service-times for general cargo averaging about five days, which is excessive. Ship turn-around times, in some cases, are as much as 27 days.

#### Port Development Plan

2.05 The long-term solution to the port capacity problem has been formulated in the National Port Plan within the framework of the National Transport Study, Phase II completed in 1982. Recently, the study was updated (Phase III) and the findings indicate that the growth in traffic is ahead of earlier projections and that the proposed long-term port capacity expansion would be fully utilized earlier than anticipated previously. Under the Plan, the first phase development of El Dikheila Port, a Bank financed project (Loan 2183-EGT), has commenced. The project includes primarily a mineral jetty, two commercial quays (for container, general cargo and timber traffic) and other facilities and equipment. In addition, under the Plan construction of the first phase of Port of Damietta has started. When completed in early 1986, it will provide capacity for about 6.0 m ton primarily for grains, timber, general cargo and containers. The Plan also includes rehabilitation of Port Said and Port of Suez. Details of the National Port Plan are given in Annex VII.

#### B. Port Said Port

##### Port Facilities

2.06 Port Said port (Map IBRD 18622) was established in 1859 when the Suez

Canal was constructed. Located at the northern entrance to the canal, it enjoys a unique position in world shipping movements. Vessels bound for Europe, Asia, Africa and the Middle East pass the port every day. As the Suez Canal grew in importance, Port Said City and its port continued to prosper until the Canal was closed in 1967; the city started to decline and was evacuated in 1969. Port activities came to a complete stop until the Canal was reopened in 1975. The establishment of Free City status in 1976 and the two successive stages of widening and deepening the Canal, including construction of the Suez Canal Eastern by-pass 1/, and congestion at the Port of Alexandria resulted in an economic boom in the city and rapid increase in port traffic.

2.07 Existing port facilities are old and inadequate to meet the current level of traffic, which is increasing rapidly. Much of port traffic is being handled by barges commuting between ships moored on buoys located on the eastern bank of the Canal and shallow draft berths at Port Said port on the western bank. The only two deep water berths available (Sherif and Abbas) were constructed about 20 years ago. Sherif basin has a 520 m berth, 7.5 m deep, for supply goods, mainly maize, flour and sugar; Abbas basin has a 660 m berth 8.0 m deep for grain and cement in bulk. In addition, port facilities include a 1,125 m berth 3.0 m deep for oil tankers mooring on buoys in front of the berth; and a 300 m berth 3.0 m deep at Sherif and Arsenal basins for barge operations. The existing capacity is far short of the needs of the current level of traffic which reached 5.2 million tons in 1983<sup>2/</sup>; about 1.6 million ton had to be lightered. Under the ongoing rehabilitation program construction of a 345 m container terminal has recently commenced; it is scheduled for completion in late 1987.

2.08 Cargo handling equipment, owned and operated by the Canal Loading and Unloading Company (CLUC), includes 250 barges of 100 to 500 t capacity, 15 tug boats for towing barges, three mobile cranes 50 to 60 t capacity for handling heavy lifts, 19 cranes 10 t capacity (in addition to 13 being negotiated), one crane 28 t capacity and five forklift trucks 28 to 42 t capacity for handling containers, and 46 forklift trucks of two to five ton capacity. The above equipment is maintained adequately. In addition, there are 42 tractors and 85 trailers, mostly in moderate condition. The above equipment is adequate to meet actual and forecast traffic, except for the container berth under construction and the proposed multi-purpose berth under the proposed project.

2.09 PSPA is responsible for maintaining port facilities. However, since it is a newly created authority (see para. 2.10), its engineering department is not adequately staffed to ensure proper maintenance and to supervise work carried out by contractors. Based on agreement reached during negotiations,

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1/ The by-pass is a new exit to the Canal; it by-passes Port Said and joins the Canal 17 km south of Port Said. It was completed in 1980 and is being used for north-bound convoys. South bound convoys use Port Said entrance.

2/ Excluding petroleum.

PSPA will: (a) increase the number of its engineers to five civil engineers, two mechanical engineers and two electrical engineers before December 31, 1985; (b) prepare for Bank review a report on needed maintenance works by December 31, 1985 and complete such works by December 31, 1986; and (c) submit for Bank review at the end of each calendar year a report on maintenance works carried out during the year and their costs, as well as works scheduled for the next calendar year.

### C. Organization, Management and Staffing

#### General Organization

2.10 The Suez Canal Authority (SCA) had been responsible for port operations, maintenance and development until 1980, when Law No. 88 established the Port Said Port Authority (PSPA). It is a government entity under the Ministry of Maritime Transport with overall responsibility to develop, manage and maintain the facilities. Although PSPA is not directly involved in operations which are performed by other public enterprises, it has jurisdiction to supervise them with the exception of the operations of the SCA which is still responsible for control of ship movements, pilotage, towage and mooring services. The rationale for this arrangement is to ensure that convoys transiting the Suez Canal are not adversely affected by port operations. Coordination between PSPA and SCA is good.

2.11 Most cargo handling is carried out by the Canal Loading and Unloading Company (CLUC), a government owned enterprise, and integrated as per Law 97 of 1983 in the Public Organization for Maritime Transport (POMT), which has recently been created as a holding company under the Ministry of Maritime Transport<sup>1/</sup>. Two private enterprises licensed by the PSPA unload and bag imports of bulk cement and wheat. A new company, the Port Said Port Container Terminal Operating Company (CTOC), was recently created under POMT to operate the container terminal (para. 2.07) as well as the multi-purpose berth provided under the project. Previously, the responsibility for container traffic was split between CLUC (stevedoring) and four private enterprises (storage). CLUC and these four enterprises combined will each have a 30% participation in the new company's equity; PSPA will contribute the remaining 40%. A close working relationship exists between PSPA and CLUC to handle, in a coordinated manner, the day-to-day operation of the port as well as to plan future activities.

2.12 Storage is carried out by the General Company for Silos and Warehousing (GCSW), a public enterprise based in Cairo and active in all major Egyptian ports. GCSW enjoys a de facto monopoly in storage other than for sugar and supply commodities which are delivered directly to their final destinations. GCSW rents most of its warehouse facilities from PSPA, but also owns a few, including a recently constructed two-storey warehouse. Several public companies provide storage for refrigerated cargo. Coordination between CLUC and the storage companies is adequate.

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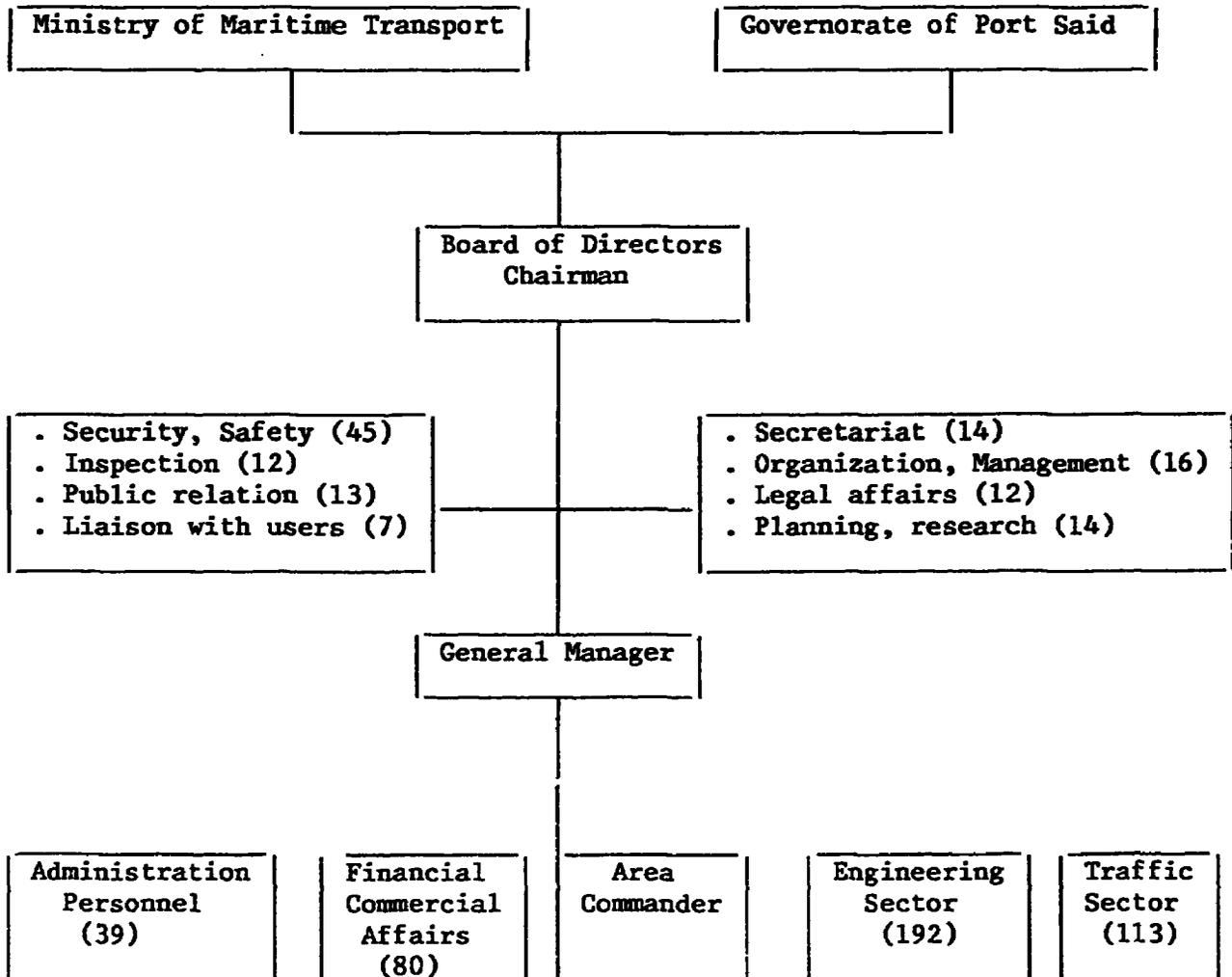
<sup>1/</sup> Under Law 97 (1983) POMT has the responsibility for creating, supervising and coordinating all public enterprise companies working in the maritime sector.

2.13 Port Said is a free port within a free trade zone; however, the movement of traffic to and from the port is still subject to customs control. The system is fairly flexible though partly responsible for the slow turnaround of general cargo in the port, i.e., about 25 days. PSPA is formulating a proposal to streamline custom procedures for container traffic, whereby it will be possible to carry out the inspection at destination. A committee will review the proposal and a decision is expected before completion of the container terminal. The Custom Authority also collects storage dues on behalf of the PSPA, retaining 10% as their commission. A new system will be developed, under the project, to enable PSPA to collect storage dues directly, which will not only increase the port authority's revenues, but also provide important information on storage patterns. Under an Action Plan agreed during negotiations PSPA will initiate studies to: (a) streamline custom procedures and (b) institute a new system for collection of storage dues.

Management Structure and Staffing

2.14 PSPA's organization chart is shown in Annex I(a) and (b) and summarized below:

Port Said Port Authority (PSPA)  
Organization Chart  
(Current Staffing shown within brackets)



2.15 PSPA organization, sanctioned by Decision No. 99 of 1982 issued by the Central Agency for Organization and Administration, is gradually being developed; many positions are still vacant. Total staff currently employed is 560, of which 429 are regular. PSPA, under the control of the central Agency for Organization and Administration is making efforts to increase its staff to a level adequate to run the port effectively. The basic organizational structure of PSPA is very similar to that of the Port of Alexandria; it is sound and well adapted to the needs of efficient port administration. The technical assistance component of the proposed project will help strengthen those departments which are not yet fully developed, especially the finance and traffic control sections. In addition, the project includes provisions for extensive training to bolster technical capabilities of PSPA in all areas (para. 3.05(e)). At present, administrative efficiency of the port authority is hampered by lack of adequate office space in one location, but a new office building is due for completion in June 1985.

2.16 PSPA's Board of Directors includes 22 members. Its Chairman is appointed by the Prime Minister. The other 21 members represent: (i) the Central Government including Customs Department (7), (ii) the Local Government (3), (iii) port operators and users (7), (iv) experts in port matters (3), and the SCA (1). The Board meets at least once a month; its decisions are subject to approval by the Minister of Maritime Transport. Decisions become effective 15 days after their communication to the Minister if no objection is raised. PSPA enjoys a reasonable degree of autonomy, especially in implementing its approved budget. PSPA's budget is included in the budget of the Government and its salaries are dictated by the public service salary structure. The overall organization of the port is good and PSPA's legal status is satisfactory; it provides adequate latitude for the authority to efficiently manage and operate the port. Port of Alexandria, the country's main port, operates satisfactorily under the same legal arrangements which were endorsed by the Bank under two previous loans for the ports of Alexandria and El Dikheila.

2.17 The traffic sector is subdivided into two branches: the ship traffic and the cargo traffic sections. The former mainly liaises with the SCA and the shipping agents to plan daily ship movements and allocate berthing places. It also keeps statistics on ships, enquires on maritime accidents and deals with safety matters regarding the movement of ships and barges at the port. The latter is responsible for licensing and supervising port operators. It coordinates the stevedoring and the warehousing activities and holds daily meetings with their representatives to allocate incoming cargo to the storage areas. It also enforces port regulations, monitors productivity in cargo handling, and keeps statistics on goods received at the port. The traffic department, at present, lacks adequate staffing and needs strengthening. Under an Action Plan agreed during negotiations PSPA will utilize the technical assistance component of the project to finance: (a) a training program to bolster its traffic department, and (b) consultancy services to improve port statistics and performance indicators.

2.18 The financial and commercial department operates without adequate staffing and expertise; only four of the seven divisions are currently in

existence. The inventory division also suffers from lack of staff. In particular, there is a need to develop expertise in the following areas: (i) budgetary control; (ii) cost accounting; (iii) internal auditing; (iv) management of cash and collection of revenues; and (v) management of stores. Under an Action Plan agreed during negotiations PSPA will utilize the technical assistance component of the proposed project to set up the missing divisions and sections, to determine their functions and responsibilities, and to recruit and train staff.

#### D. Training

2.19 PSPA carries out extensive training programs, either with in-house facilities or using specialized centers in Egypt, most of which are located in Alexandria. In FY 1982-83, 285 PSPA staff received training and 315 in FY 1983-84. The ratio of in-house to outside training is 37/63 for the two years on the average. These efforts helped the authority to expand its initial small nucleus of staff, formed by personnel previously employed in the Port Affairs Office of the Governorate. There is, however, still a need for further training especially in specialized areas such as management and operations, as provided under the proposed project.

#### E. Operations

2.20 Port operations are carried out under difficult conditions. Extensive use of lighterage results in the movement of large number of barges between ships, all moored on the eastern side of the Canal, and the berths; these movements are partially interrupted twice a day during the passage of convoys. The deep-water berthing facilities are inadequate; no more than 5 to 7 ships, depending on their size, can be accommodated simultaneously. Most port facilities need rehabilitation, the paving has deteriorated on the quay apron and in storage areas. Sheds and warehouses also require extensive repairs (para. 2.09). Severe congestion prevails in all parts of the port, especially at lighter berths, where aprons are clogged with stored goods and berths are often unavailable for unloading. All this is affecting productivity, which is very low at less than 200 tons per ship/day for conventional general cargo. The proposed project is designed to alleviate this situation.

2.21 Normal working hours from 8:00 a.m. to 8:00 p.m. can be extended until 12:00 p.m. For frozen goods, operations are conducted at night only. The dock labor force employed by CLUC is permanent and includes about 2,000 men. All services to ships, towage, pilotage and mooring are executed by the SCA in coordination with the traffic department of PSPA. This arrangement is satisfactory. Although cargo-handling equipment is well adapted in number and quality to port operation needs, at times unloading of the barges is carried out by hand due to severe congestion.

2.22 Inland transport linkage of the port is adequate mainly via the road network from Port Said to Ismailia, Cairo and to the Delta. The rail connection to the port area was discontinued after destruction of the Al-Raswah bridge near the city boundary, but a new bridge is under

construction; it is scheduled for completion by mid-1985. The availability of rail facilities will greatly improve cargo movement. The port is also served by inland waterway to Ismailia. These inland transport facilities will be sufficient to meet the future needs of port traffic (para. 4.06).

2.23 Port operations are divided into five independent subsystems:

- (a) A private company handles cement imported in bulk through a converted ship permanently anchored at Abbas Basin. Cement is transferred by conveyors to a silo where it is bagged automatically. Average productivity per day of service time is currently about 3,300 tons, 10% higher than in 1983 but is still relatively low.
- (b) Wheat in bulk is unloaded under a similar system operated by a subcontractor of CLUC. The average productivity over the first six months of 1984 reached the targeted rate of 4,000 tons per day of ship's operation at berth.
- (c) Currently, works are underway to construct a maize unloading and bagging system similar to the one used for wheat. The system consists of a 30,000 ton capacity warehouse and silos and an automatic bagging plant. Construction is well advanced and the converted ship is already at berth.
- (d) The remaining dry cargo is received at quays, directly from ships or through lighterage. All supply commodities in bags are loaded on trucks for direct delivery, but lack of readily available trucks frequently hampers unloading. Other goods are transferred by small trailers to the storage areas. The deteriorated paving does not allow extensive use of forklift trucks, and handling rates are low: on the average of about 20 tons per gang hour for bagged cargo, and 10 tons for other conventional cargoes. The efficiency of barge operations is affected by the slow rotation of barges because of the shortage of space at the lighter berths. Container handling operations, either at berth or by lighterage are quite inefficient. The ongoing construction of a specialized terminal will remedy this problem. The new container terminal will be operated by CIOC (para. 2.11). In addition to being responsible for all container handling operations on the container berth and in its stacking area, the company will be responsible for the provision and maintenance of the needed mobile container handling equipment (see para. 3.09). Annex II gives details of the main productivity indicators.
- (e) petroleum traffic, essentially for bunkering, is accommodated at specialized facilities operated by several public and private oil companies.

2.24 Overall port productivity is expected to increase as a result of improving and monitoring PSPA's maintenance ability under the proposed project (para. 2.09). Elimination of a portion of lighterage and further

mechanization will be instrumental in reducing costs of cargo handling operations. Additional gains in productivity are also possible through strengthening PSPA's capabilities in port operations and management. Technical assistance provided under the project is designed to achieve this objective, through studies and training, with a view to, (i) improve coordination of all entities operating in the port; (ii) define and enforce performance standards; (iii) update and develop port regulations in parallel with the ongoing modernization of port facilities; and (iv) monitor closely storage activities to accelerate turnaround of goods in the customs area and minimize the storage area occupied by damaged or discarded cargo, in accordance with time schedules incorporated in an Action Plan agreed during negotiations.

#### F. Budget, Tariffs, Accounts, Audit, Insurance

##### Budget

2.25 Governmental approval of PSPA's budget follows standard procedures for all publicly owned enterprises. After approval by the Board and the Minister of Maritime Transport, the draft budget is submitted to the Ministry of Finance for approval of recurrent expenditures and to the Ministry of Planning for approval of investments. The final budget has to be ratified by the People's Assembly as part of the overall government budget. All investments must be included in the Five-Year plan. A separate ratification by the Assembly is needed for foreign loans.

2.26 More flexibility exists in budget execution than in its preparation. PSPA's Chairman has the authority to reallocate funds between categories within a chapter, however, transfers between chapters require approval by the Ministry of Finance and the People's Assembly. Financing of the investments is secured through the Investment Bank. The budget for capital expenses is submitted to that Bank at the beginning of each year and funds are disbursed according to quarterly applications sent by PSPA.

##### Tariffs

2.27 Port and mooring dues are common to all Egyptian ports and established by law. Although storage charges apply only to Port Said, they are still subject to approval by the Ministry of Finance. Similarly, all charges on floating crafts, barges and cranes are established by the Ministry of Maritime Transport. Other tariffs are set by PSPA's Board of Directors, in particular, land leases granted on an annual basis are regularly updated by a special committee within the PSPA. The existing system is not fully satisfactory; although it provides adequate latitude for PSPA to raise charges to cover its total costs, PSPA lacks an adequate cost accounting system at present, to maintain a cost-based tariff structure for port charges specific to Port Said. Under the technical assistance component of the proposed project studies will be initiated to set up a cost accounting system and to formulate a revised pricing scheme (see para. 5.19). Agreement has been reached with PSPA during negotiations that it will undertake studies required

to implement a cost related tariff system for the port of Port Said in accordance with the time schedule incorporated in the Action Plan.

### Accounts

2.28 Accounting is based on the Egyptian Uniform Accounting System. The accounting division has a staff of 35, of which 15 are qualified accountants. Accounts are kept by hand; they are timely and orderly. Transactions are successively recorded in various books of prime entry specialized according to their general nature and in intermediary books corresponding to the budget classifications. Altogether, the system is satisfactory and maintains good accountability. Annual financial statements consist of a balance sheet, a statement of income and a statement of sources and uses of funds, plus additional tables detailing some accounts. Because the financial and commercial departments are not yet fully developed, financial reporting including analysis of actual data for internal management purpose is not yet effective. This shortcoming will be addressed by the technical assistance proposed under the project.

### Auditing

2.29 As other Egyptian port authorities, the PSPA's accounts are audited by the Central Accounting Organization (CAO), an independent government agency created in 1942 for verification of government accounts. The 1962 nationalization extended CAO's role to commercial and industrial undertakings. There are two departments, one to monitor the engineering aspects of execution of planned investments, the other to audit the financial statements of the public sector entities. Within the latter, there is a specialized branch based in Alexandria dealing with the maritime sector. CAO is well organized and its staff competent. Audit is performed by a team led by a senior auditor, a position requiring at least 12-year experience. The auditing process includes on the spot investigations, a mid-year review, and a verification of the final statements to be submitted by the public entities not later than October 1 of each year. Within a statutory two-month period, conclusions of the audit are communicated to entities concerned which have normally one month to carry out the corrections recommended by CAO. The final audited financial statements are sent to the Ministry of Finance. An agreement has been reached during negotiations with PSPA that a copy of the audit report and the management letter issued by CAO be sent to the Bank not later than six months after the end of each fiscal year.

### Insurance

2.30 PSPA's assets are not insured as is the case with all government-owned assets. The practice is that the Government will compensate PSPA for any damage incurred, which is acceptable.

### III. THE PROJECT

#### A. Background and Master Plan

3.01 The proposed project is based on several port development studies carried out recently by internationally recognized consulting firms as well as by local authorities (see Annex XIII for Documents kept in Project File).

3.02 The Higher Board For Egyptian Ports, headed by the Prime Minister, decided in late 1983 to adopt the master plan for Port Said Port recommended by PSPA's consultants in 1982. The plan will be implemented in stages, with the first phase already underway, involving construction of a 345 m container berth (paras. 2.21 and 3.07). The proposed project would constitute the second phase of the master plan involving mainly the construction of a 250 m multi-purpose berth, adjacent to the container terminal being built under phase one. The limited size of the proposed project appropriately reflects budgetary constraints. Government intends to continue further port development during the next plan period.

#### B. Project Objectives

3.03 The proposed project will be instrumental in assisting the Government to develop a sound port administrative structure. As PSPA has a short history, Bank participation in the rehabilitation of Port Said port offers an opportunity to put the port administration on sound basis and maintains a constructive Bank presence in the national transport development plan. The main objectives are summarized as follows:

- (a) to reduce excessive utilization of barges commuting between general cargo ships mooring on buoys located near the eastern bank of the Suez Canal and the shallow draft berths at Port Said port on the western bank, by providing an additional multi-purpose deep water berth. Such existing barge operations are expensive, time consuming, inefficient and hinder navigation in the Canal.
- (b) to increase port productivity by rehabilitating existing port facilities;
- (c) to improve the efficiency of port operations by providing modern cargo handling equipment; and
- (c) to strengthen PSPA's management including budgetary control, planning, cost accounting, and internal audit through technical assistance and staff training.

3.04 The project components have been prepared on the basis of detailed analysis of existing facilities and operations and the immediate future requirements. The new facilities and equipment will be suitable for modern port operations and cargo handling techniques. Also the proposed training program will help increase cargo handling productivity, reduce ship-waiting

times and damage to cargo, and improve PSPA's maintenance capabilities.

### C. Project Description

3.05 The proposed project (Map IBRD 18622) includes:

- (a) construction of a multi-purpose berth 250 m long and 12 m deep including dredging, transit shed and support facilities mainly to handle general cargo traffic;
- (b) rehabilitation of existing port facilities including quay fenders, electrical system and cathodic protection;
- (c) provision of mobile cargo handling equipment to handle general cargo traffic on the above mentioned berth;
- (d) provision of two gantry cranes 35 t capacity for handling containers; and
- (e) technical assistance to PSPA for: (i) preparation of the project, under PPF advance (ii) supervision of civil works and equipment purchase; and (iii) improvement of port operation and financial management (including budgetary control, internal audit, cost accounting and pricing) through consultancy services and training.

Details are in Annex III.

### D. Engineering Aspects

3.06 Port Said port is protected from the predominant westerly and north westerly winds. Tidal range barely exceeds 30 cm thus causing a weak current of not more than 0.5 knot. Soil condition is known to be weak; it is mainly of layers of medium to stiff silt deposits. Sand strata are located at about 40 m below sea level necessitating the use of piles about 50 m long. Elaborate soil investigation has been carried out and preliminary engineering has been prepared. The berth design takes into consideration, among other factors, the effect of ships passaging through the canal on vessels using the proposed berth. Rock suitable for buildings and side slope protection has to be brought by barges from Suez, about 160 km distance.

3.07 The proposed multi-purpose berth will be a continuation of the container berth now under construction and is on the same alignment (para. 3.02). It will have a depth of 12 m<sup>1/</sup>, with the possibility of dredging to 14 m in future when needed. Container crane rails will be extended from the container berth to the proposed berth so that the two cranes provided under the project can be used by both berths. The estimated capacity per crane is

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1/ Depth of water as given in this report is with reference to MLW. Tide range is about 0.3 m.

47,000 containers per year. Given the traffic projections, configuration of vessels bringing containers, and the composition of container sizes by 1990, 70,000 container moves will be needed. This number is expected to increase to about 100,000 by 1995. Therefore the two cranes provided under the project will be adequate during the initial stages of the project.

3.08 Rehabilitation of existing port facilities is urgently needed. Fenders in front of the steel sheet piling deep water berths, as well as their cathodic protection, have been destroyed and need to be replaced to avoid eminent collapse. The electrical system has to be improved to allow for a adequate port operations during the night. PSPA contracted a local contractor to rehabilitate the paved and open storage areas. The Bank will follow up the maintenance of port facilities to ensure its adequacy (para. 2.09).

3.09 Equipment needed for handling and stacking containers on the container berth will be provided by the newly created Container Terminal Operating Company (CTOC), (paras. 2.21). The equipment is expected to include mainly straddle carriers, forklifts, tractors and trailers. Under the Guarantee Agreement, the Government will cause CTOC to acquire before June 30, 1987 container handling equipment in adequate numbers and capacities that would ensure efficient operations on the container terminal. Mobile cargo handling equipment needed to operate the proposed multi-purpose berth will be provided under the project (para. 3.14 and Annex III). The number and capacity of this equipment have been assessed taking into consideration the tonnage and type of cargo expected to be handled on the proposed berth (Table 3, Annex VII). The proposed list of equipment has been agreed upon with PSPA.

3.10 The land needed for the proposed project is still occupied by two oil distributing companies providing bunkering to ships and petroleum products to local markets. The land is leased from PSPA. According to the Lease Agreement, PSPA is required to give one year notice to the lessees to vacate the land. PSPA already notified the two companies to vacate the land before July 1, 1985. A decision has been taken to move all oil distributing companies from the western to the eastern bank of the Suez Canal. However, the land needed for each of them has not yet been allocated by the SCA. One of the two companies has already removed some oil tanks and other facilities in 1983 to allow the construction of the container berth to proceed. Complete evacuation and availability of the land needed for the project is a condition of loan effectiveness.

#### E. Project Cost Estimate

3.11 The total cost of the project is estimated at US\$ 51.6 million equivalent, of which US\$ 37.0 million (71.7%) is in foreign currency. Summary of the cost estimate is given below and details are given in Annex IV.

	— EF million —			US mil. Equiv.			% of Total Base Cost
	Local	Foreign	Total	Local	Foreign	Total	
A. Civil Works	12.375	21.000	33.375	9.90	16.80	26.70	69
B. Equipment	0.125	11.375	11.500	0.10	9.10	9.20	24
C. Technical Assistance /a	1.250	1.625	2.875	1.00	1.30	2.30	7
Total Base Cost /b	13.750	34.000	47.750	11.00	27.20	38.20	100
D. Physi. Contingencies /c	1.750	4.625	6.375	1.40	3.70	5.10	13
E. Price Contingencies /d	5.875	14.750	20.625	2.20	6.10	8.30	22
Total Project Cost	21.375	53.375	74.750	14.60	37.00	51.60	135

/a Including project preparation (US\$0.5 million) provided by an advance from the PPF.

/b At mid-1985 prices and based on a rate of exchange of US\$1 = E£1.25.

/c 15% on civil works and 10% on equipment and technical assistance.

/d Price contingencies, when base cost is expressed in US\$ equivalent, have been estimated assuming annual price increases of 5% for 1985, 7.5% for 1986 and 8% for 1987 to 1990; and when expressed in E£, 16% for 1985, 14% for 1986 and 12% for 1987 to 1990.

3.12 Cost estimate for civil works and equipment are based on international prices for similar works and equipment and recently executed port projects in Egypt updated to June 1985, in particular the container berth now under construction in Port Said port. Imported materials and equipment for the project are exempt from customs duties; this has been confirmed during negotiations. Estimates for technical assistance are based on an average of US\$8,000 per man month, of which 40 to 50% is in local currency depending on expected participation of local consulting firms as well as local salaries and subsistence. Cost estimate for project preparation is based on actual contract signed with the engineering consulting firm. Supervision is estimated to require 100 man month for the whole period of project implementation. The port operation specialist is needed for 18 months, financial management and port tariff study would require about 80 man month, and training abroad is estimated to cost about US\$200,000 equivalent (40 man month). Physical contingencies of 15% on civil works is considered appropriate coverage for the assessed risks mainly because tender documents are not yet available, together with 10% on equipment and technical assistance. Annual price contingencies have been provided for all project items as follows for costs estimated in E£ and in US\$, reflecting trends from documented sources:

Calendar year	1985	1986	1987	1988	1989	1990
Egyptian Pound	16%	14%	12%	12%	12%	12%
US Dollar	5%	7.5%	8%	8%	8%	8%

## F. Project Financing and Disbursement

3.13 The proposed project is included in the current Five-Year Development Plan (1983-1987) which allocates EE 45 million to both the ongoing container berth and the proposed multi-purpose berth. The proposed Bank loan of US\$37 million will be made to PSPA to cover the foreign exchange cost, while PSPA will secure all local funds mainly through loans from Egypt's Investment Bank. Because implementation of the proposed project will extend beyond the current Development Plan period, PSPA undertook to ask the Ministry of Planning to allocate adequate local funds in the next Plan period (1987-92) to allow for completion of the works. Assurance has been obtained from the Government during negotiations that it will cause to provide all local funds necessary to complete the proposed project on schedule.

3.14 The two container cranes provided under the project will be transferred to the Container Terminal Operating Company (CTOC) as PSPA's contribution in the company's equity capital (para. 2.11). The mobile cargo handling equipment provided under the project will be either leased to CTOC or transferred to it as an additional contribution by PSPA in CTOC's equity capital. Agreement has been reached with PSPA during negotiations that it will enter into an agreement with CTOC acceptable to the Bank that would ensure that CTOC will: (a) operate and maintain the container cranes and the mobile cargo handling equipment efficiently and provide adequate insurance and renewals thereof; (b) not transfer or dispose of the cranes and equipment without the approval of the Bank and PSPA; and (c) earn appropriate rate of return on its invested capital. Signing of the above agreement will be a condition of disbursement of loan proceeds for the cranes and equipment.

3.15 Disbursement from the loan (US\$37 million equivalent) will be on the following basis:

- (a) 62% of total expenditures on berth construction including dredging, transit shed and support facilities (US\$20.3 million equivalent);
- (b) 72% of total expenditures on rehabilitation works (US\$ 2.8 million equivalent);
- (c) 100% of the foreign exchange costs for the two container cranes and mobile cargo handling equipment (US\$12.0 million equivalent); and
- (d) 100% of the foreign exchange costs of technical assistance and staff training (US\$1.9 million equivalent).

3.16 Estimated schedule of loan disbursement is given in Annex V; it differs slightly from the profile for the EMENA Region's past port projects, mainly because an advance payment of 20% of civil works' cost will be paid to the contractor upon contract signature. In addition, the project is simple and no unusual problems are expected, especially since a similar berth is being constructed in the same vicinity. The six-year period for loan disbursement compares reasonably with the Bank experience in the EMENA Region where 95% of the amount of previous loans or credits for port projects was disbursed in six years on average.

### G. Project Implementation and Procurement

3.17 The project is being prepared by qualified consultants accepted by the Bank under agreed terms of reference. Soil investigation at the site of the proposed multi-purpose berth as well as final engineering thereof have been satisfactorily completed. Consultants' work is financed by an advance of US\$500,000 from the Project Preparation Facility.

3.18 It is expected that all civil works related to the multi-purpose berth be awarded to the same contractor. PSPA will be responsible for project implementation and has agreed that: (a) all contracts under the project will be awarded on the basis of international competitive bidding in accordance with Bank Guidelines; (b) all civil works construction and equipment purchase will be supervised by independent consultants acceptable to the Bank under agreed terms of reference; and (c) all consultants and experts for technical assistance will be recruited in accordance with Bank Guidelines under agreed terms of reference. The above mentioned agreements have been confirmed during negotiations. Agreements have been reached with PSPA during negotiations that it will: (a) assign by September 30, 1985 qualified engineers in adequate number to be agreed with the Bank to work as counterparts to the supervision consultants; (b) establish by December 31, 1985 a Project Unit headed by a Project Manager and consisting of qualified staff in adequate number to coordinate the implementation of the project, review and process tender documents, arrange for procurement, prepare progress reports and implement the training program; and (c) prepare and submit by December 31, 1985 to the Bank for its approval a training program and thereafter carryout such program in accordance with a timetable satisfactory to the Bank.

3.19 The Bank assisted PSPA prepare terms of reference for: (a) supervision of civil works construction and equipment purchase; and (b) technical assistance and training. Agreements have been reached with PSPA during negotiations that it will employ, on terms and conditions satisfactory to the Bank: (a) a port operations expert by December 31, 1985 for a period of 18 months; and (b) financial management consultants by December 31, 1985 for a period of 24 months (para. 3.05 (d)).

3.20 Construction is expected to start in mid 1986 and be completed in mid 1990. The critical path program for project implementation (Annex VI) has been discussed with PSPA and confirmed during negotiations. Under an Action Plan agreed during negotiations, PSPA will prepare quarterly progress reports as well as a completion report, in such details as will be agreed with the Bank. The format of the progress reports was discussed during negotiations.

### H. Impact on Environment and Employment

3.21 No significant environmental impact is expected on the city of Port Said or its port as a result of the project since all proposed improvements are confined to minor expansion of existing facilities that have operated in the same location for several years.

3.22 The project will generate employment opportunities during the construction stage for some 300 skilled and unskilled labor. On completion of the project a wide range of additional jobs would be created totalling about 100, ranging from port labor to skilled and semi-skilled workers in the operation and maintenance of the facilities to be provided under the project. The decrease in labor force as a result of reduction in barge operations will be offset by the additional labor needed to operate the proposed multi-purpose berth.

#### IV. ECONOMIC EVALUATION

##### A. Traffic Projections

4.01 Traffic projections used in the economic evaluation are arrived at by allocating the total forecast traffic to all ports on the basis of regional analysis of demand and supply conditions of major commodity groups, in a manner which minimizes land transport costs. Projections for total port traffic are, in turn, based on estimates of future domestic production and consumption of major commodity or commodity groups, and macro-economic relationships. The allocation of total traffic among ports takes into account on-going constructions at El Dikheila and Damietta. In addition, it is assumed that second stage developments at El Dikheila and Damietta would be carried out in accordance with the master plans; their implementation is to take place in the 1990's when the need arises. Therefore, traffic projections for Port Said incorporate assumptions least favorable to the port.

##### Projections for Total Port Traffic

4.02 The rapid growth in the economy and the resulting quantum increase in Egypt's maritime traffic, which occurred during the recent years, are expected to continue in the future although at a somewhat reduced pace. Imports will account for a predominant portion of the total traffic. Egypt's traditional exports, fresh fruits, vegetables and other agricultural commodities will remain relatively stable until about 1987 at 1.7 million tons and then show a modest increase to reach 2.3 million tons in year 2000 - petroleum excluded. Among the major imports, grains, particularly wheat, will continue to increase reaching 6.0 million tons in 1987 and 9.4 million tons in year 2000. Similarly, maize imports are expected to reach 1.6 million tons in 1987 and increase to 3.2 million tons in year 2000. Cement will continue to be an important commodity in port traffic. The estimated figure for 1987 is 6.0 million tons. Since Egypt is expected to increase domestic production of cement in the 1990's, cement port traffic will gradually decline to 3.2 million tons by 2000. Among other major import items, sugar will continue to grow at moderate rates, reaching 0.8 million tons in 1987 and 1.2 million tons in year 2000. Flour imports are likely to increase over the forecast period and reach 1.5 million tons in 1987 and 2.0 million tons in 2000. Imports of timber and timber products are projected to increase rapidly and reach 1.5 million tons in 1987 and about 3.4 million tons in year 2000. In the case of other commodities, which are for the most part in the category of general cargo, the traffic volume is expected to increase at an annual average rate of 5%, which is considerably below the growth rate experienced recently. Port traffic projections are summarized below and discussed in detail in Annex VII.

Table 4.1: Total Port Traffic Projections <sup>1/</sup>  
(1,000 tons)

	Actual		Forecast			
	1982	1983	1987	1990	1995	2000
<b>IMPORTS</b>						
Supply Commodities <sup>/2</sup>	7,130	8,110	9,940	10,650	12,650	14,860
Dry Bulk <sup>/3</sup>	9,630	11,170	10,700	10,930	13,370	17,500
Special Cargo <sup>/4</sup>	2,295	2,500	2,740	3,370	4,170	4,830
General <sup>/5</sup>	4,415	5,090	5,920	7,030	8,850	11,190
<b>TOTAL</b>	<b>23,470</b>	<b>26,870</b>	<b>29,300</b>	<b>31,980</b>	<b>39,040</b>	<b>48,380</b>
<b>EXPORTS</b> <sup>/6</sup>	<b>1,700</b>	<b>1,800</b>	<b>2,000</b>	<b>1,980</b>	<b>2,170</b>	<b>2,320</b>
<b>GRAND TOTAL</b>	<b>25,170</b>	<b>28,670</b>	<b>31,300</b>	<b>33,960</b>	<b>41,210</b>	<b>50,700</b>

<sup>/1</sup> Petroleum products are excluded.

<sup>/2</sup> Includes wheat, flour, maize, beans/lentils and tea.

<sup>/3</sup> Includes cement, coal fertilizer, timber, ores pellets, scrap iron.

<sup>/4</sup> Includes cotton/cotton products, rice, sugar, pulp/paper, steel/machinery.

<sup>/5</sup> Includes, fruits/vegetables, meat/fish/poultry, dairy products, chemicals and others

<sup>/6</sup> Fruits/vegetables, cotton, phosphate, and others.

#### Containerized Cargo Traffic Projections

4.03 Among Egypt's exports about 90% of agricultural products and foodstuffs, 100% of the consumer goods, 75% of machinery and equipment, and 50% of semi-finished products and raw materials are suitable for container transport. At present, the average container penetration rate is 25%. This rate is expected to increase to 55% by year 2000. Among imports all consumer goods, about 60% of food items and semi-finished goods, and 45% of machinery and equipment are containerizable. The present container penetration rate of 35%, is expected to reach 75% by year 2000. On this basis, by 1987, about 0.4 million tons of the projected 1.7 million tons of exports will be shipped in containers, about 0.55 million ton in 1995 and 0.6 million ton in year 2000. The containerized import traffic will reach 2.2 million tons in 1987, about 3.6 million tons in 1995 and 4.8 million ton in year 2000. Table 5 in Annex VII shows the details of containerized traffic.

#### B. Allocation of Total Traffic Among Ports

4.04 The allocation of traffic among all ports assumes that all on-going and future expansions at Damietta and El Dikheila ports would be carried out

and that the ports of Suez and Safaga would be rehabilitated and modernized (para. 4.01). These planned developments will have a bearing on Port Said traffic. Damietta is likely to absorb a predominant portion of the expected growth in general cargo traffic. In addition, the planned modern port and storage facilities for wheat at Damietta, Safaga, and Suez would mean that wheat imports handled at Port Said will decline. As noted earlier, with the growth of domestic production, the cement traffic will decline in all ports (para. 4.02).

4.05 In the fully developed port sub-sector, Port Said port will primarily serve the three governorates located within its hinterland: Port Said, Ismailia and Sharkia. These governorates will have a combined population of over 4.6 million in 1990 and 5.4 million in year 2000. In addition, the port is an integral part of the Government's policy to develop Port Said as a free trade zone. Within this area a Public Industrial Free Zone (92 Ha) has been established for promoting international joint ventures. Since its inception, The Free Zone Authority has approved about 100 projects including 26 industrial enterprises with total employment for about 4,000 workers. Within the free city various commercial enterprises, warehousing, refrigerated stores, national and international banks have been established. Furthermore, Port Said has always been an active port prior to 1976 (when the port was closed) and has long experience and tradition in serving the shipping trade; several well-established insurance, shipping and maritime related enterprises are available. Last but not least, because of its ideal location, Port Said has a great potential as a transshipment point which in the traffic forecasts has not been taken into account. Moreover, in view of its excellent land transport links, Port Said will also continue to serve some traffic destined to the greater Cairo area. This, combined with its long experience and well-established banking, insurance and maritime services, will make Port Said highly competitive for traffic destined to the Cairo and Delta areas.

4.06 Table below shows Port Said traffic for the years 1990 and 2000. The future traffic allocation among all ports is shown in Tables 6 and 7 in Annex VII.

Table 4.2: Port Said Traffic for 1990 and 2000  
( '000 tons )

	<u>1990</u>	<u>2000</u>
Cement	900	200
Wheat	600	500
Maize	1,000	1,000
Flour	500	500
Sugar	450	350
Steel	150	250
Meat/Fish/Poultry	200	200
Other	<u>1,050</u>	<u>1,600</u>
Total	<u>4,850</u>	<u>4,600</u>

Containerized Cargo

4.07 The origin-destination pattern for containerized cargo is based on the general cargo flows determined in accordance with least transport cost, taking into account the expected capacity at each port. Table 4.3 below indicates the distribution of container traffic among all ports for the years 1990 and 2000.

Table 4.3: Distribution of Container Traffic  
Among Egypt's Ports  
(in TEU)

<u>Ports</u>	<u>1990</u>	<u>2000</u>
Alexandria	150,000	160,000
Dikheila	80,000	110,000
Damietta	90,000	330,000
Port Said	75,000	150,000
Suez/Safaga	<u>5,200</u>	<u>5,200</u>
Total	400,200	755,200

Source: "Inland Transport of containers in Egypt".  
A report by DHV, Consulting Engineers,  
Holland and Pacer Consultants, Cairo.

C. Economic Rate of Return

Project Benefits

4.08 Principal benefits of the project include: (a) reduction in ship turnaround time; (b) reduction in cargo handling costs; (c) reduction in damage to cargo; and (d) direct savings in freight charges. The project will also generate foreign exchange earnings from transshipment, but these benefits have not been included in the rate of return calculations because of the uncertainties surrounding the future volume of this traffic. Moreover, by reducing barge congestion the project will generate benefits for vessels and traffic using the port and for convoys using the Suez Canal. These benefits have also not been included in the rate of return calculations, because they are difficult to quantify.

4.09 Project benefits have been quantified by comparing conditions which would prevail under "without the project" situation with those "with the project". The "without the project" situation is defined as the existing facilities as well as the 345 m container berth under construction. Quantification of benefits is confined only to the traffic which will be handled at the proposed multi-purpose berth.

4.10 Ship-time savings attributable to the project are estimated on the basis of (i) the average load per vessel, 1,000 t; (ii) the average cargo handling productivity at anchor, 190 t per day compared to the productivity at berth, 700 t per day; (iii) the average ship size, 10,000 dwt; and (iv) the cost per ship/day, based on the weighted average of the annualized resale value plus operating costs (75%) and the sinking fund plus operating costs, (25%). In the following rate of return calculations, only 65% of these savings have been taken into account based on Egypt capturing: (i) the totality of savings according to Egyptian owned vessels (accounting for about 15%) and in charter trade; and (ii) 50% of the savings accruing to liner vessels.

4.11 Reductions in cargo handlings costs and benefits resulting from reduction in damage to cargo are limited only to that portion of the traffic which will be handled at the project berth. Elimination of lighterage operations is estimated to reduce damage to cargo by only 3%. Savings in freight rate reductions resulting from elimination of transshipment cost are confined to container traffic handled at the project berth. At present, containers are brought to Port Said by feeder vessels from Cyprus and Greece. Far Eastern liners through the Suez Canal will be able to berth, after completion of the project, at Port Said and will thereby avoid the transshipment of containers by feeder vessels. Because project benefits do not rest on growth in traffic, their level remains the same throughout the analysis period.

#### Project Costs

4.12 The economic costs of the project include investments required for the multi-purpose berth and cargo handling equipment. Cost estimates exclude taxes and custom duties on imported items and are based on border prices of major tradeable items. Costs are expressed in 1985 prices, and exclude price contingencies, but include physical contingencies.

Economic Return and Sensitivity Analysis

4.13 A summary of cost and benefit streams is shown below in Table 4.4.

**Table 4.4: Economic Benefit and Cost Streams**  
(in 1985 prices, US\$ million)

Year	Costs		Benefits				Total
	Investment	Maintenance & Renewals	Ship Time Savings	Cargo Handling Cost Savings	Savings on Damage to Cargo	Freight Cost Savings	
1986	9.00	-	-	-	-	-	-
1987	15.00	-	-	-	-	-	-
1988	10.00	-	-	-	-	-	-
1989	6.00	-	-	-	-	-	-
1990	-	0.2	5.3	2.5	2.7	3.3	13.8
1991	-	0.2	5.3	2.5	2.7	3.3	13.8
1992	-	0.2	5.3	2.5	2.7	3.3	13.8
1993	-	0.3	5.3	2.5	2.7	3.3	13.8
1994	-	0.3	5.3	2.5	2.7	3.3	13.8
1995	-	1.9	5.3	2.5	2.7	3.3	13.8
1996	-	0.4	5.3	2.5	2.7	3.3	13.8
1997	-	0.4	5.3	2.5	2.7	3.3	13.8
1998	-	0.4	5.3	2.5	2.7	3.3	13.8
1999	-	0.4	5.3	2.5	2.7	3.3	13.8
2000	-	2.7	5.3	2.5	2.7	3.3	13.8
2001	-	0.4	5.3	2.5	2.7	3.3	13.8
2002	-	0.4	5.3	2.5	2.7	3.3	13.8
2003	-	0.4	5.3	2.5	2.7	3.3	13.8
2004	-	0.5	5.3	2.5	2.7	3.3	13.8
2005	-	3.2	5.3	2.5	2.7	3.3	13.8

4.14 The project yields a satisfactory rate of return about 22%. The first year rate of return from the project at 12% discount rate is also estimated to be above 21%, indicating that the proposed project is timely and much needed.

4.15 The high rates of return indicate the project's urgency. The economic rate of return was tested for its sensitivity to variations in the cost and benefit parameters as shown below:

	<u>Rate of Return</u>
a) 10% increase in costs	20.5%
b) 20% increase in costs	19.0%
c) 10% reduction in benefits	20.3%
d) 20% reduction in benefits	18.3%
e) Combined (a) and (c)	18.7%
f) Combined (b) and (d)	15.2%

### Risks

4.16 Risks associated with short-falls in forecast traffic are considered to be negligible. This is due to the fact that the estimated benefits do not depend on growth in traffic. Instead, they result from a reduction of only 30% in total lighterage operations. A short fall in the forecast traffic to be handled at the proposed multi-purpose berth would only come about if there is a sharp decline in the total port traffic. This is highly unlikely. The port of Port Said serves three important Governorates as well as the Free Trade and Free Industrial Zones (para. 4.05). Despite this, however, the economic rate of return was tested for its sensitivity to such an unlikely event. A 30% reduction in the traffic to be handled at the proposed multi-purpose berth (this is equivalent to a reduction of about 1.4 million tons in the current level of port traffic) would reduce the rate of return to about 15% which is satisfactory.

4.17 Risks associated with increases in project costs over and above those already dealt with in the foregoing sensitivity analysis are considered unlikely, since cost estimates are based on contract prices for ongoing construction of the container terminal and the proposed project is an extension of this terminal to be constructed on similar type of soil. The design and competitive supply procedures envisaged for procurement of project items may even result in more advantageous prices.

4.18 The result of the economic evaluation was tested for sensitivity to delays; the results are acceptable: a one-year delay reduces the rate of return to 19.2%, two-year delay to 16.8% and three-year delay to 14.7%.

V. FINANCIAL EVALUATION

A. Introduction

5.01 PSPA obtained most of its revenues in its first year from rentals and storage dues, but since then has progressively diversified its revenue base. This trend is likely to continue with two major new developments: (i) leasing of gantry cranes and other cargo handling equipment; and (ii) the development of dues paying operations at quay. Current revenues are adequate and the financial position of PSPA is expected to remain strong.

5.02 The financial responsibilities of PSPA are dictated by law governing all state public authorities. Accordingly, all surplus achieved by the authority is transferred to the Government, while Government would cover deficit, if any. Funds needed for major investments raised through local and foreign borrowings are repaid by funds either from depreciation or received from the Government. The interest charges are deducted from the yearly operating surplus which the Government receives from PSPA.

B. Past Performance and Present Financial Situation

5.03 PSPA's income statements for fiscal years 1981-82 through 1983-84 show very high operating ratios and rates of return. This is partly due to the inadequate valuation of port assets, but it does indicate that PSPA is financially healthy.

Table 5. 1: PSPA's Income Statement <sup>1/</sup>  
(in '000 EE)

	<u>1981-82</u>	<u>1982-83</u>	<u>1983-84</u> <sup>2/</sup>
Operating revenues	7,677	7,209	8,221
Operating costs			
Working expenses	538	1,109	1,304
Depreciation	<u>22</u>	<u>87</u>	<u>224</u>
Sub total	560	1,196	1,528
Operating income	7,117	6,013	6,693
Non-operating income	37	192	151
Less:			
Interest	-	155	708
Surplus to Government	7,154	6,050	6,136
<u>Indicators</u>			
Operating ratio	13.7	6.0	5.4
Return on Net Fixed Assets in use	115.6%	96.5%	101.4%

1/ Fiscal Year, July 1 - June 30

2/ Not audited as yet.

5.04 PSPA's total operating revenues increased from EE 7.7 million in its inception year to EE 8.2 million in 1983-84, an increase of about 7% in two years, whereas total traffic grew by about 20% over the same period. The lag in revenues was mainly due to a 75% tariff exemption granted to staple food imports in 1983. At the same time Law No. 24 of September 1983, applicable to all ports, enabled PSPA to earn in 1983-84 about EE 3.0 million from ship dues inexistent before. The current structure of revenues is more diversified and, therefore, sounder than during the first years of the port authority, when most revenues accrued from storage dues. Presently, a substantial share of revenues is derived from tariffs specific to Port Said which are set either by the Board or by the Ministry of Maritime Transport. Annex VIII shows the distribution of revenues by sources.

5.05 The 142% increase of working expenses (Table 5.1) over the last three years reflects the progressive increase in the number of staff within the agreed organizational structure. To a lesser extent, it was influenced by increased maintenance works. In addition, PSPA is now required to pay the Customs Department a 10% commission collected on storage dues. Depreciation charges also increased about 10 times to reach EE 0.2 million in 1983-84, mainly due to the addition of new assets. The depreciation of assets received from the Suez Canal Authority, except the sheds and warehouses, is still limited to a temporary 0.5% rate pending their revaluation after which normal rates will apply. The non-operating section includes mainly interest: (i) earned by the PSPA on Bank's deposits; and (ii) paid to service PSPA's debts.

5.06 The PSPA's balance sheets for the three fiscal years under review are summarized below, and given in detail in Annex IX.

Table 5.2: PSPA's Balance Sheet  
(in EE 1,000)

	<u>1981-82</u>	<u>1982-83</u>	<u>1983-84</u>
Current assets	4,870	3,183	6,846
Work in progress	527	4,619	10,397
Net fixed assets	6,186	6,427	6,751
Investments			120
<b>Total assets</b>	<b>11,583</b>	<b>14,229</b>	<b>24,114</b>
Current liabilities	4,446	3,237	6,616
Loans	1,310	5,156	11,659
Equity	5,827	5,836	5,839
<b>Total liabilities</b>	<b>11,583</b>	<b>14,229</b>	<b>24,114</b>

5.07 The growth in current assets is primarily the result of a rapid increase in receivables, from EE 0.6 million in 1981-82 to 3.9 million in

1983-84. More than EE 1.0 million is long overdue as rent on land leased from PSPA. The lessees are reluctant to pay the lease amount because (i) there is uncertainty over the ownership of land located on the Canal's east bank; and (ii) PSPA has increased rents charged after it took the land from SCA raising opposition from the tenants. A dated covenant has been introduced in the Guarantee Agreement for the Government to help resolve the matter not later than December 31, 1985. Other receivables indicate an average collection period of about 4 months, which is too long and revenue collection need to be improved, including changes in the payment systems and a better follow up of unpaid invoices. Under an Action Plan agreed during negotiations PSPA will submit to the Bank measures, including timing for their implementation, to reach not later than December 31, 1987 the objective of a 60-day average period for revenue collection, and settlement of outstanding amount.

5.08 Net fixed assets rose by about EE 0.6 million during 1981-1984. Assets initially received from the SCA amounted to EE 5.9 million. Some others were progressively released by SCA and incorporated in PSPA's accounts at their book value. Minor investments in buildings and equipment were also added to the assets. The current net value of fixed assets, about EE 7 million, is substantially understated, in part because land transferred to PSPA is given no value. Presidential Decree No. 565 of 1980 stated in Article 8 that "a presidential decree shall be issued to define the assets of the Authority... and such assets shall be valued by a committee". Under an Action Plan agreed during negotiations, PSPA will revalue its assets not later than December 31, 1986 and incorporate their new values in its books by March 1987.

5.09 The Port Authority's net fixed assets remained relatively stable over the years, whereas outstanding debts increased from EE 1.3 million in 1981-82 to 11.7 million in 1983-84, due to the rehabilitation program including the ongoing construction of the container berth. About EE 8.1 million of the total debt is owed to local lenders. In addition, PSPA has obtained letters of credit amounting to some EE 3.5 million for supply of steel to be used in the construction of the container berth to be covered by a US\$10.2 million equivalent loan obtained from the Norwegian Government still to be ratified by the People's Assembly.

### C. Prospects and Financial Projection.

#### General

5.10 The financial projections cover the 1985-1992 period. Though overall traffic is expected to remain stable, PSPA should be able to maintain a sound financial position because general cargo traffic, which is the most lucrative activity, will continue to increase. The expected decrease in traffic will be mainly in bulk cargo likely to shift to other ports. PSPA will collect revenues in relation to its ongoing development including, in addition, to normal port dues: (i) rentals for the new container terminal and multi-purpose berth; and (ii) charges for the use of the Bank financed equipment.

5.11 The financial objective set for the PSPA is to generate each year enough internal funds to cover all expenses related to operations, including

administration and proper maintenance, working capital needs, the debt service requirements and to contribute to no less than 35% of the average capital expenditures incurred that year and the next three following years. This was agreed during negotiations.

#### Investment Program and Financing of the Project

5.12 PSPA's planned investments over the 1985-90 period amount to some E£ 93.1 million distributed as follows: (i) the multipurpose terminal and the Bank-financed equipment - E£ 74.8 million; (ii) the container terminal - E£ 16.0 million; and (iii) other investments for limited rehabilitation and renewal of existing port assets - E£ 2.3 million. Loans contracted locally are equivalent to E£ 34.5 million, of which E£ 26.4 million will be disbursed during the period 1985 to 1990. Withdrawals from the Norwegian loan over the same period amount to E£ 7.5 million. The Bank loan for a total of US\$37 million is equivalent to some E£ 53.4 million. The balance of funds needed, about E£ 5.8 million, will be met from depreciation.

5.13 The detailed sources of funds specifically needed to finance the Bank project are given below:

Bank Loan:	E£ 53.4 million
Local Loan	E£ 17.9 million
Depreciation:	E£ <u>3.5</u> million
Total	74.8 million

The outstanding foreign loans are revalued each year in accordance with the differentials of local and international inflation. The corresponding financial losses are treated as deferred charges and amortized over the repayment periods of the foreign loans. The initial revaluation of the port assets and the new investments will result in higher depreciation and therefore greater amounts will be available to finance new investments, subject to prior approval by the Ministry of Planning.

5.14 The IBRD loan and the local loan have periods of grace respectively of five and four years. The Norwegian loan has a period of grace which coincides with the construction period. The loans bear interest as follows: (i) 8.5% for local loans; (ii) 9.75% for the Norwegian loan; and (iii) 9.3% for the Bank loan. They are to be repaid in 16, 10 and 15 annuities, respectively. The loan repayments made by Government are added to equity. The studies and expert services are classified as start-up costs depreciated over six years. The projections also assume that the outstanding accounts receivable are settled (see para. 5.07).

#### Financial Forecasts

5.15 The future balance sheet is summarized in Table 5.3 below and shown in greater detail in Annex X. The debt equity ratio increases from 27/73 in 1985 to 58/42 in 1992, peaking at 65/35 in 1990. The capital structure remains satisfactory throughout the period and PSPA could proceed with some additional investments if needed without impairing its financial situation

under existing tariffs. The current ratio (current assets/current liabilities) remains around 1.2 from 1985 to 1989 rising quickly thereafter to each 3.3 in 1992 with substantial cash accumulated through depreciation. Those internal resources will be readily available to finance the second phase of the Port Said Port development currently envisaged but not integrated yet in this financial projection.

Table 5.3: PSPA Summary Balance Sheet  
(in E£ '000)

	1985	1986	1987	1988	1989	1990	1991	1992
Current Assets	3,591	3,581	3,075	4,666	4,063	6,627	9,325	14,035
Less								
Current Liabilities	3,053	3,039	2,597	3,973	3,092	4,433	3,304	4,294
Net Fixed Assets	47,137	46,798	46,422	71,875	70,904	130,164	127,666	125,298
Work in Progress	13,451	36,413	64,530	43,746	59,577	-	-	-
Investments	480	480	480	12,480	12,480	12,480	12,480	12,480
Deferred Charges	281	1,282	2,593	4,180	6,150	8,391	10,048	11,577
Start-up Costs	-	-	-	-	-	1,500	1,200	900
<b>Total Capital Used</b>	<b>61,887</b>	<b>85,515</b>	<b>114,503</b>	<b>132,974</b>	<b>150,082</b>	<b>154,819</b>	<b>157,415</b>	<b>159,996</b>
Represented by								
Equity	45,002	45,172	45,342	47,503	50,842	54,238	59,714	67,422
Long Term Loans	16,885	40,343	69,161	85,471	99,241	100,581	97,701	92,574
<b>Indicators</b>								
Current Ratio	1.2	1.2	1.2	1.2	1.3	1.5	2.8	3.3
Debt Service Coverage	5.9	3.6	2.3	1.5	1.3	1.5	1.4	1.4
Debt Equity Ratio	27/73	47/53	60/40	64/36	66/34	65/35	62/38	58/42

1/ The revalued amount of fixed assets as of January 1, 1985 is taken at E£ 44.5 million.

5.16 The future income statement is also summarized below and shown in detail in Annex XI. The operating revenues in 1985 will be raised to E£ 10.7 million as a result of tariff increases which became effective in January 1985. The expected additional revenue from the new tariffs is estimated at some E£ 3 million. The projection assumes that all tariffs except the storage dues applicable to supply commodities would be adjusted each year starting 1986 to offset inflation. Projected revenues incorporate no other tariff increases as the above adjustments alone would secure the financial viability of PSPA. PSPA's revenues include the dividend to be received from CTOC from 1988 onward and calculated as 10% of its investment or E£1.2 million per year (see para. 2.11). This objective was discussed during negotiations and it was agreed that the overall financial structure of CTOC be established with due consideration to PSPA's interest as its shareholder and that CTOC shall earn revenues adequate to realize an appropriate rate of return on its invested capital. In view of the good profitability of the public entities in the port sub-sector, the risks of CTOC not paying adequate dividends to PSPA are small

and should they materialize, they would not substantially affect the financial status of PSPA since lowering its dividend by 50% would reduce its 1988 income by about 10% only.

Table 5.4: PSPA Summary Income Statement  
(in EE '000)

	1985	1986	1987	1988	1989	1990	1991	1992
Operating Revenues	10,756	12,292	13,828	16,778	18,439	22,814	25,404	28,073
Working Expenses	1,238	1,353	1,769	2,570	2,938	5,181	5,782	6,469
Depreciation	<u>678</u>	<u>714</u>	<u>751</u>	<u>1,262</u>	<u>1,615</u>	<u>2,942</u>	<u>4,537</u>	<u>4,721</u>
Operating Surplus	8,840	10,225	11,308	12,946	13,886	14,691	15,085	16,883
Interest on LT debt	<u>1,450</u>	<u>2,886</u>	<u>5,144</u>	<u>7,071</u>	<u>8,221</u>	<u>8,694</u>	<u>8,523</u>	<u>8,062</u>
Income to Govt.	7,391	7,339	6,164	5,875	5,665	5,997	6,562	8,821
<b>Indicators</b>								
Operating Ratio	0.18	0.17	0.18	0.22	0.25	0.36	0.41	0.40
Return on								
- Net Fixed Assets								
(NFA) in Use	18.7	21.8	23.4	21.9	19.5	14.6	11.7	13.3
- NFA + Investment	18.6	21.6	24.0	19.7	16.6	13.0	10.7	12.1

1/ Rate of return calculated on the average net fixed assets in use.

5.17 The major objective is to generate enough cash from operations to ensure that no burden is put on the Government's budget to finance port investments and to service the related debt. A debt limitation covenant included in the Loan Agreement fits well a situation where practically all investments are financed through loans. According to this covenant, PSPA shall not incur any further debt without the agreement of the Bank unless its net revenues for the fiscal year preceding the date of such incurrence or for a later period of 12 consecutive months ending prior of such incurrence, whichever is the greater, shall not be less than 1.3 times the maximum debt service requirements for any succeeding fiscal year.

5.18 The above defined covenant will inter alia ensure that enough funds are available to cover normal maintenance. The latter will be further specified in a supplemental letter to the Loan Agreement fixing for each category of port assets a standard coefficient through which to calculate the budget allocation to the maintenance program for any succeeding fiscal year.

### Tariffs

5.19 Without cost accounting, PSPA's pricing of its services is necessarily tentative. The existing tariff structure which is conducive to the profitability of the port authority, does not, in a major way, conflict with sound pricing principles. However, the technical assistance under the project will address this matter. The future cost accounting system will be such as to: (i) facilitate the comparison between revenues generated by the nationwide

tariffs and their corresponding cost centers; and (ii) maintain all tariffs specific to Port Said in relation to the costs of services provided. Under an Action Plan agreed during negotiations, PSPA will take all measures to set up a cost accounting system following which cost related tariffs will be introduced. Such requirements are extended to the major port operators, CLUC, GCSW and CTOC, and it was agreed during negotiations that the Government would assist PSPA to initiate pricing studies to serve as a basis for its proposals concerning the adoption of cost based tariffs by those three enterprises.

5.20 Cargo handling on the multi-purpose berth will be the responsibility of CTOC under the existing organization which is satisfactory. The projection assumes that the area used for storage will be rented by CTOC. The rental will cover the operating and maintenance costs, depreciation plus a 10% return on the net fixed assets. The cargo handling equipment other than the gantry cranes will be hired by CTOC at rates covering depreciation plus a 10% return on the capital invested. Maintenance will be covered by CTOC.

5.21 During negotiations it has been agreed that the lease terms would be subject to prior review and approval by the Bank on the basis of the above defined principles.

**VI. AGREEMENTS REACHED AND RECOMMENDATIONS**

**6.01 Confirmation has been obtained from PSPA during negotiations that:**

- (a) customs duties will not be levied on imported materials or equipment for the project (para. 3.12);**
- (b) all contracts under the project will be awarded on the basis of international competitive bidding in accordance with Bank Guidelines for Procurement (para. 3.18);**
- (c) all civil works construction and equipment purchase will be supervised by independent consultants acceptable to the Bank under terms of reference agreed with the Bank (para. 3.18);**
- (d) all consultants and experts for technical assistance and studies will be recruited in accordance with Bank Guidelines for Employment of Consultants under terms of reference agreed with the Bank (para. 3.18); and**
- (e) it agrees to project implementation schedule (para. 3.20).**

**6.02 Agreements have been reached with the Government and PSPA during negotiations that:**

- (a) PSPA will implement the agreed Action Plan (Annex XIV);**
- (b) PSPA will: (i) increase the number of its engineers to five civil engineers, two mechanical engineers and two electrical engineers before December 31, 1985; (ii) prepare for Bank review a report on needed maintenance works by December 31, 1985 and complete such works by December 31, 1986; and (iii) submit for Bank review at the end of each calendar year a report on maintenance works carried out during the year and their costs, as well as works scheduled for the next calendar year (para. 2.09);**
- (c) PSPA will undertake studies required to implement a cost related tariff system (para. 2.27);**
- (d) the audited financial statements will be submitted to the Bank within six months after the end of each fiscal year, together with the audit report and the accompanying management letter (para. 2.29);**
- (e) the agreement between PSPA and CTOC for the use, operation and maintenance of the container terminal, the multi-purpose berth and the cargo handling equipment provided under the project will be agreed with the Bank, and should ensure that CTOC will earn an appropriate rate of return on its invested capital. Signing of the above agreement will be a condition of disbursement of loan proceeds for the cranes and equipment (paras. 3.14, 5.16 and 5.21);**

- (f) the Government will help PSPA to settle the issue of land ownership not later than December 31, 1985, to recuperate the related arrears and take measures by December 1987 to settle outstanding accounts within 60 days of billing date (para. 5.07);
- (g) PSPA will revalue its assets not later than December 31, 1986 and incorporate their new values by March 1987 (para. 5.08);
- (h) PSPA will generate each year enough internal funds to cover all cash expenses and to contribute to no less than 35% of the average capital expenditures incurred that year and the next three following years (para. 5.11);
- (i) PSPA will not incur any further debt unless its net revenues for the fiscal year preceding the date of such incurrence or for a later period of 12 consecutive months ending prior of such incurrence whichever is the greater shall not be less than 1.3 times the maximum debt service requirements for any succeeding fiscal year (para. 5.17).

6.03 Assurance has been obtained from the Government during negotiations that:

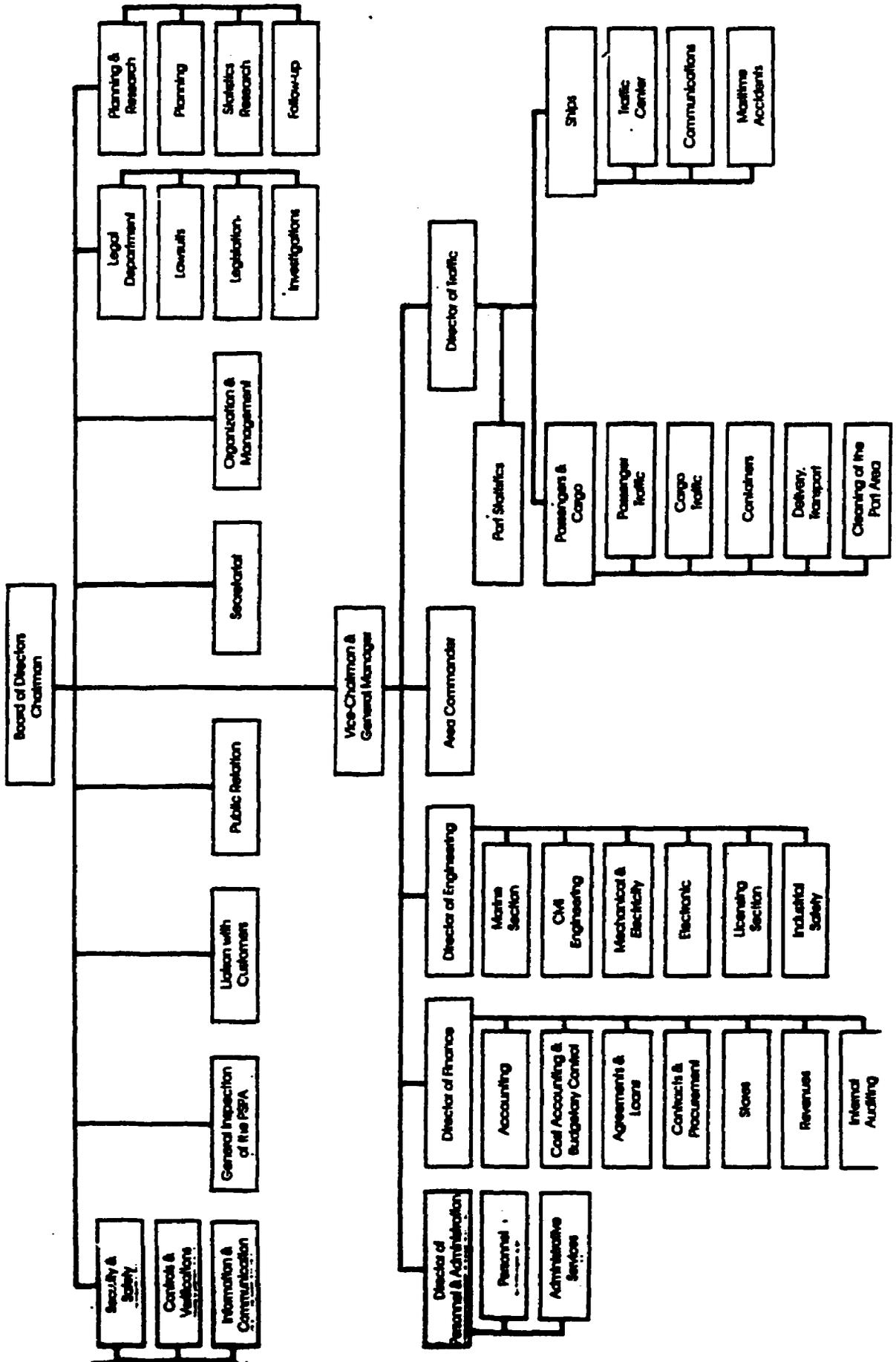
- (a) all necessary steps will be taken to provide all local funds necessary to complete the project on schedule (para. 3.13); and
- (b) it will cause CTOC to acquire before June 30, 1987 container handling equipment in adequate numbers and capacities that would ensure efficient operation of the container terminal now under construction (para. 3.09).

6.04 Complete evacuation and availability of the land needed for the project should be a condition of loan effectiveness (para. 3.10).

6.05 Subject to the above, the proposed project provides a suitable basis for a Bank loan to PSPA of US\$37.0 million equivalent.

STAFF APPRAISAL REPORT OF  
PORT SAID PORT EXPANSION AND REHABILITATION PROJECT

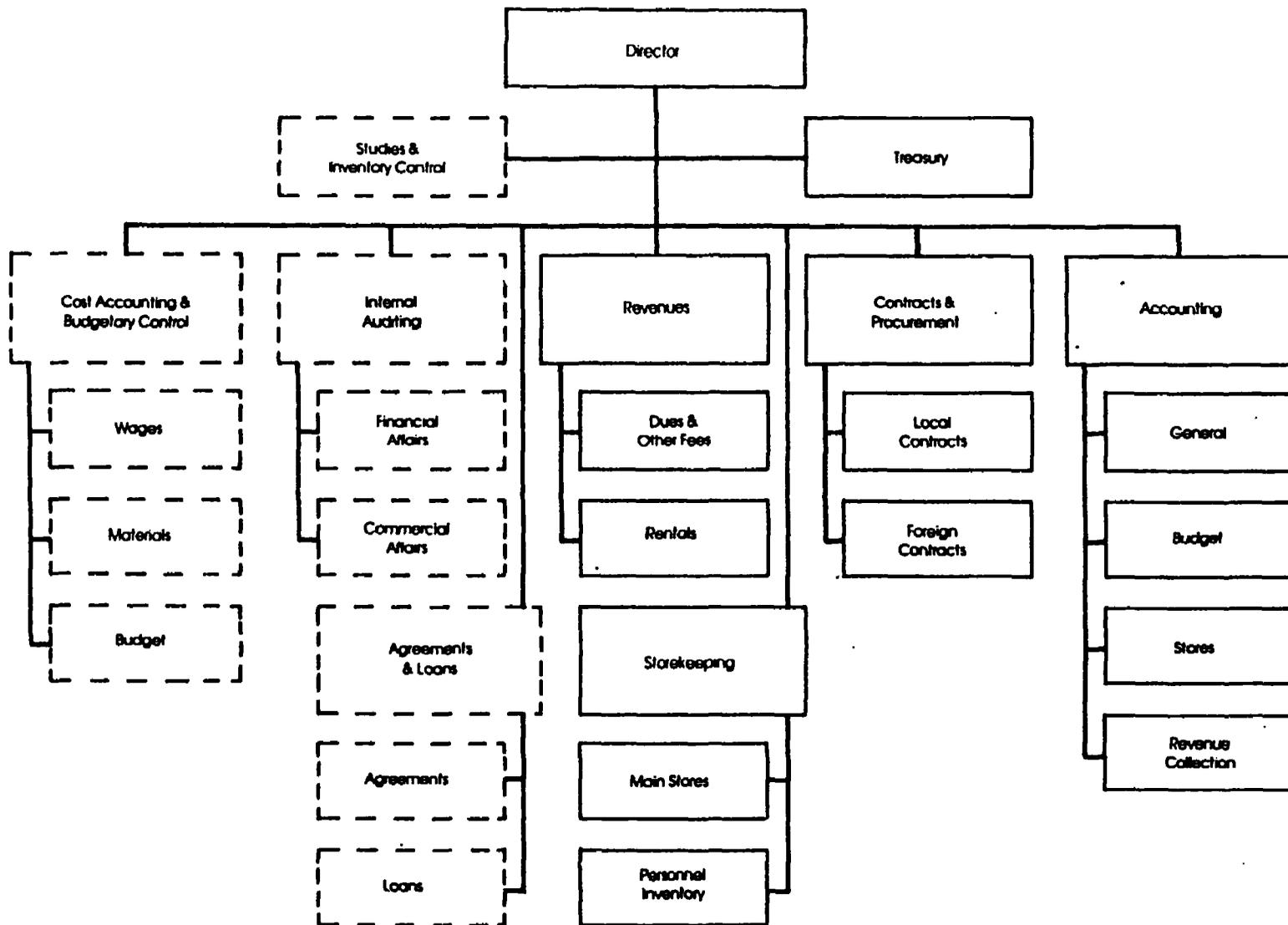
ORGANIZATION OF PSPA



ARAB REPUBLIC OF EGYPT

STAFF APPRAISAL REPORT OF  
PORT SAID PORT EXPANSION AND REHABILITATION PROJECT

ORGANIZATION OF PSPA'S FINANCIAL AND COMMERCIAL DEPARTMENT



Legend

--- Divisions Still to be Created

ARAB REPUBLIC OF EGYPT

STAFF APPRAISAL REPORT OF

PORT SAID PORT-EXPANSION AND REHABILITATION PROJECT

Port Performance Indicators: 1983 and 6 months of 1984

<u>Traffic items</u>	<u>Average waiting time (days)</u>		<u>Average service time (days)</u>		<u>Average cargo per vessel (tons)</u>		<u>Tons handled per day of service time</u>		<u>Average number of ships per month</u>	
	<u>1983</u>	<u>1984</u>	<u>1983</u>	<u>1984</u>	<u>1983</u>	<u>1984</u>	<u>1983</u>	<u>1984</u>	<u>1983</u>	<u>1984</u>
Wheat in bulk	3.4	3.6	10.1	9.8	30498	38653	3018	3914	3	3
Flour in bags	2.8	2.3	13.8	7.3	11315	9262	820	1259	4	5
Corn in bulk	3.7	5.0	26.8	17.4	25100	17697	936	1016	1	2
Sugar in bags	2.5	2.9	14.0	14.3	11020	10986	784	765	3	2
Frozen meat	2.0	3.0	8.3	5.7	3467	2053	416	360	2	3
Frozen chicken	2.2	2.2	9.1	7.6	4337	3670	475	481	1	1
Frozen fish	2.9	6.8	6.6	5.9	1731	1739	263	294	3	4
General cargo	1.6	1.7	4.1	3.8	705	740	172	193	34	38
Containerized cargo	1.4	1.1	2.0	2.1	741	757	367	369	22	24
Cement in bulk	4.8	4.0	9.8	9.3	12155	13271	1225	1441	11	10
Iron and steel	4.3	6.5	12.0	13.3	5436	6003	451	450	2	2

ARAB REPUBLIC OF EGYPT

STAFF APPRAISAL REPORT OF

PORT SAID PORT EXPANSION AND  
REHABILITATION PROJECT

Details of Project Description

A. Civil Works

The project is mainly the construction of a multi-purpose berth 250 m long and 12 m deep. The berth design allows for dredging up to 14 m in front of the berth in the future, if needed. Since the soil condition at the location of the berth is known to be weak, consisting mainly of layers of medium to stiff silt deposits over a sand strata located at about 40 m below MWL, the least cost solution for berth structure is expected to be a reinforced concrete deck supported by steel piles penetrating about 5 m into the sand strata.

The berth will be fitted with appropriate fenders and bollards. The design of the berth as well as its fenders and bollards will take into consideration the live loads caused by the container cranes and the mobile cargo handling equipment as well as the effect of ships passing through the Canal, in particular, on container handling operations.

The berth will be provided with adequate support facilities including a transit shed, electricity, fresh water, drainage system as well as rails for container cranes on the same alignment and of the same type as those provided on the adjacent container berth.

Rehabilitation of existing port facilities will mainly include purchase and installation of fenders for all deep-water berths, provision and installation of cathodic protection for the above mentioned berths, improvement of the electrical system, and purchase and installation of sub-stations needed for the operation of the container cranes.

B. Cargo Handling Equipment

Two container cranes 35 t capacity each will be provided under the project. Contract award is scheduled for January 1986 to ensure availability of the cranes at the time the container berth is ready for operation (fall 1987).

Mobile cargo handling equipment provided under the project are needed to ensure efficient operations at the proposed multi-purpose berth. These include two forklift trucks 40 t capacity for containers, two mobile cranes

20 t capacity and two mobile cranes 10 t capacity, two forklift trucks 10 t capacity, eight forklift trucks 4 t capacity, six forklift trucks 2 1/2 t capacity, five tractors, and 15 trailers 20 to 35 t capacity. Contracts will include spare parts for three years' use. Contract award for the above equipment is scheduled for January 1989 to ensure their availability at the time the multi-purpose berth is ready for operations (mid 1989).

C. Technical Assistance

- (a) consulting services for project preparation;
- (b) consulting services for supervision of construction and acquisition of equipment;
- (c) Port Operations: a port operation expert to: (i) devise and install efficient port operation and cargo handling procedures; (ii) train permanent port staff and, where necessary, casual port labor, in these procedures and in equipment operation; and (iii) prepare necessary documentation (in conjunction with the management consultants, see (d) below);
- (d) Management Services: management consultants to undertake the following tasks:
  - (i) review the present financial accounting system and ensure its compliance with the national accounts code and international standards;
  - (ii) devise a cost accounting system, integrated with the financial accounts, and based upon the tariff structure, which will provide adequate costing data to enable management to make timely decisions regarding port tariff rates;
  - (iii) establish budget preparation and control systems;
  - (iv) establish effective internal control and audit systems;
  - (v) prepare necessary manuals on (i) to (v) above; and
  - (vi) help in recruiting necessary additional staff and undertake the training of all staff in their respective areas, and assist management in the use of all above mentioned systems.

ARAB REPUBLIC OF EGYPT  
STAFF APPRAISAL REPORT OF  
PORT SAID PORT EXPANSION AND  
REHABILITATION PROJECT

Details of Project Cost Estimate /1

	<u>Local</u>	<u>Foreign</u>	<u>Total</u>	<u>Local</u>	<u>Foreign</u>	<u>Total</u>	<u>% of Total</u>
	- - - - E£ million - - - -			- - - - US\$ million - - - -			<u>Base Cost</u>
<b>A. <u>Civil Works</u></b>							
1. Berth Construction	7.750	14.125	21.875	6.20	11.30	17.50	46
2. Dredging	1.375	1.375	2.750	1.10	1.10	2.20	6
3. Transit Shed	1.000	1.500	2.500	0.80	1.20	2.00	5
4. Support Facilities /2	1.250	1.500	2.750	1.00	1.20	2.20	6
5. Rehabilitation	1.000	2.500	3.500	0.80	2.00	2.80	7
<b>B. <u>Cargo Handling Equipment</u></b>							
6. Two Container Cranes	0.125	8.625	8.750	0.10	6.90	7.00	18
7. Mobile Equipment	-	2.750	2.750	-	2.20	2.20	6
<b>C. <u>Technical Assistance</u></b>							
8. Project Preparation	0.250	0.375	0.625	0.20	0.30	0.50	1
8. Construction Supervision	0.500	0.500	1.000	0.40	0.40	0.80	2
10. Port Operations & Management /3	0.500	0.750	1.250	0.40	0.60	1.00	3
Sub-total 1 to 10 (Base Cost) /4	<u>13.750</u>	<u>34.000</u>	<u>47.750</u>	<u>11.00</u>	<u>27.20</u>	<u>38.20</u>	<u>100</u>
<b>D. <u>Physical Contingencies</u> /5</b>	1.750	4.625	6.375	1.40	3.70	5.10	13
<b>E. <u>Price Contingencies</u> /6</b>	5.875	14.750	20.625	2.20	6.10	8.30	22
Total Contingencies	<u>7.625</u>	<u>19.375</u>	<u>27.000</u>	<u>3.60</u>	<u>9.80</u>	<u>13.40</u>	<u>35</u>
Total Project Cost	<u>21.375</u>	<u>53.375</u>	<u>74.750</u>	<u>14.60</u>	<u>37.00</u>	<u>51.60</u>	<u>135</u>

/1 No customs duties. The project is exempt from customs duties on imported material and equipment.

/2 Including buildings, paving and utilities (water, electricity and drainage).

/3 Including training.

/4 At mid-1985 prices and based on a rate of exchange of US\$1 = E£ 1.25.

/5 15% on civil works and 10% on equipment and technical assistance.

/6 Price contingencies, when base cost is expressed in US\$ equivalent, have been estimated assuming annual price increases of 5% for 1985, 7.5% for 1986 and 8% for 1987 to 1990, and when expressed in E£, 16% for 1985, 14% for 1986 and 12% for 1987 to 1990.

Source: Bank Staff  
April 1985

**ARAB REPUBLIC OF EGYPT  
STAFF APPRAISAL REPORT OF  
PORT SAID PORT EXPANSION AND  
REHABILITATION PROJECT**

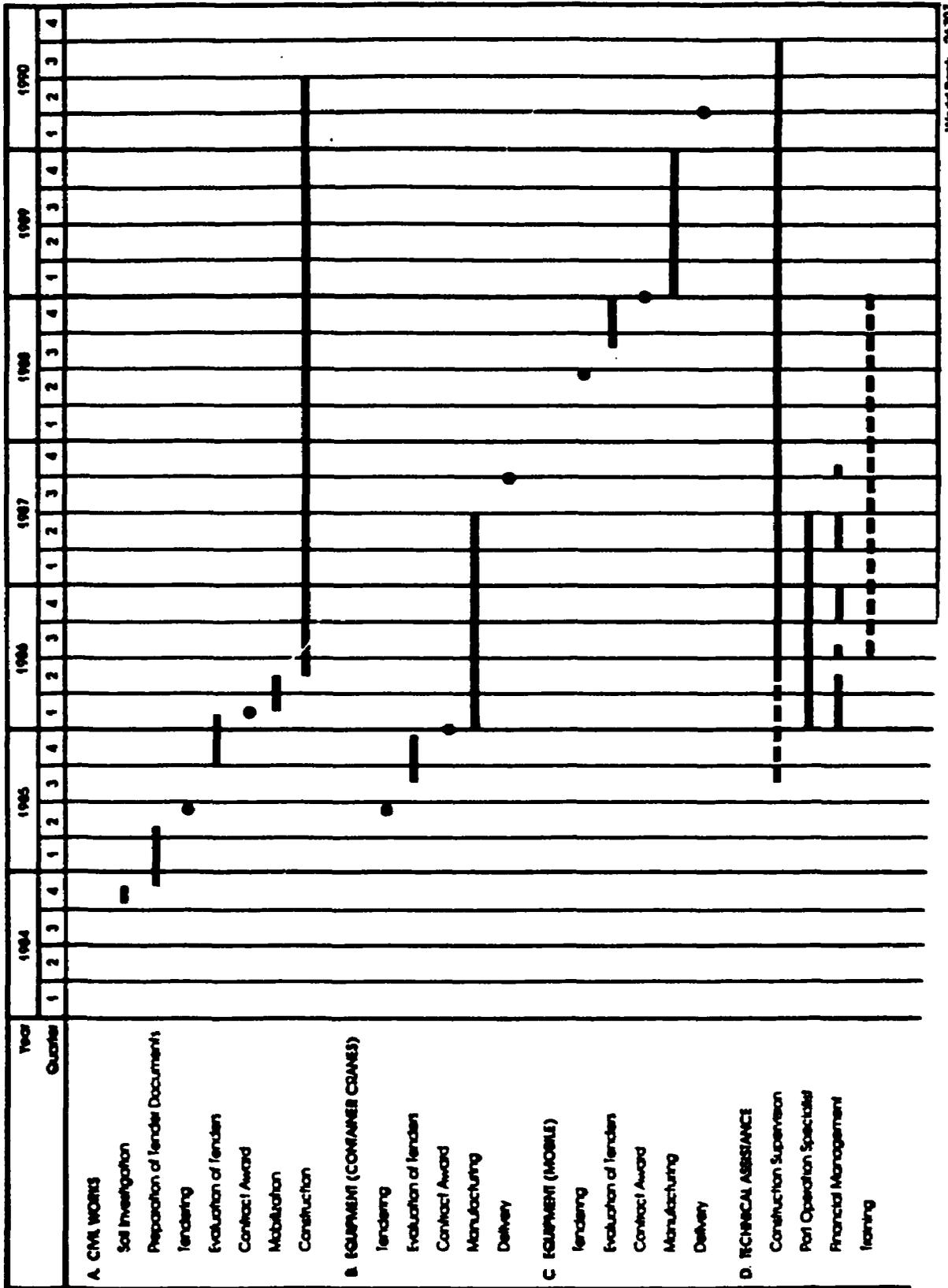
**Estimated Schedule of Loan Disbursement**  
(US\$ million)

<u>Bank Fiscal Year and Quarter</u>	<u>Quarter</u>	<u>Cumulative</u>
<u>1984/1985, Quarter ending</u>		
December 31, 1984	0.04	0.04
March 31, 1985	0.07	0.11
June 30, 1985	0.18	0.29
<u>1985/1986, Quarter ending</u>		
September 30, 1985	0.11	0.40
December 31, 1985	0.10	0.50 <sup>1/</sup>
March 31, 1986	3.00	3.00
June 30, 1986	1.60	4.60
<u>1986/1987, Quarter ending</u>		
September 30, 1986	0.83	5.43
December 31, 1986	0.93	6.36
March 31, 1987	1.28	7.64
June 30, 1987	1.76	9.40
<u>1987/1988, Quarter ending</u>		
September 30, 1987	1.96	11.36
December 31, 1987	7.13	18.49
March 31, 1988	2.05	20.54
June 30, 1988	2.11	22.65
<u>1988/1989, Quarter ending</u>		
September 30, 1988	1.93	24.58
December 31, 1988	1.85	26.43
March 31, 1989	2.81	29.24
June 30, 1989	1.29	30.53
<u>1989/1990, Quarter ending</u>		
September 30, 1989	1.16	31.69
December 31, 1989	1.13	32.82
March 31, 1990	1.31	34.13
June 30, 1990	1.19	35.32
<u>1990/1991, Quarter ending</u>		
September 30, 1990	0.64	35.96
December 31, 1990	0.56	36.52
March 31, 1991	0.30	36.82
June 30, 1991	0.18	37.00

1/ Advance from the Project Preparation Facility

Source: Bank Staff  
April 1985

**ARAB REPUBLIC OF EGYPT**  
**STAFF APPRAISAL REPORT OF**  
**PORT SAID PORT EXPANSION AND REHABILITATION PROJECT**  
**SCHEDULE OF IMPLEMENTATION**



ARAB REPUBLIC OF EGYPT

STAFF APPRAISAL REPORT OF

PORT SAID PORT EXPANSION AND  
REHABILITATION PROJECT

Ports and Port Traffic: Present  
Conditions and Future Plans and Forecasts

A. Recent Developments

1. Egypt is mainly served by the ports of Alexandria and Port Said on the Mediterranean Coast. Ports of Suez and Safaga on the Red Sea Coast handle primarily specialized cargo and nominal amounts of other traffic. Alexandria is by far the largest port handling about 75% of the country's maritime traffic. Moreover, Alexandria and Port Said are only ports providing diverse services in facilitating Egypt's foreign trade. During recent years because of the severe congestion at Alexandria, considerable general cargo traffic and supply goods had to be diverted to Port Said.

2. Over the last five years Egypt has achieved a relatively rapid economic growth: GDP increased at an average rate of about 10% per year, as important strides were made in industrialization. Parallel to these developments, the introduction of an "open-door" policy and the liberalization of the external trade and payment system has led to quantum increases in port traffic (see Table 1 below).

3. The increase in port traffic has almost exclusively been in imports; exports have remained relatively stable and in some cases, have declined due to increased domestic demand. Of the 28.7 million tons of cargo handled (excluding petroleum) in 1983, about 26.8 million represented imports. Within this group about 70% of the traffic consisted of a few major commodities or commodity groups. These, in terms of relative importance, are grains/flour 8.0 million tons, cement 7.5 million tons, coal 1.3 million tons, timber 1.3 million tons, fertilizer 3 million tons. Other import items of some importance were alumina, sugar, edible oils, steel and a variety of manufactured consumer and producer goods.

4. Traditionally, a predominant portion of Egypt's exports consisted of agricultural products, mainly fresh fruits, potatoes, onions and cotton. Exports of manufactured products, primarily textile yarns and fabrics, represented only a small portion, about 300,000 tons, of the total export volume of 1.8 million tons in 1983. Other exports, molasses, salt and phosphate are shipped through special handling facilities.

5. Although a predominant portion of total port traffic is handled at Alexandria, the volume of cargo at Port Said has been steadily increasing during recent years (see Table 2 below). Port Said traffic has also become diversified: the port is now a major facility for bulk cargo (wheat, cement and maize) as well as for conventional general cargo and containers. The port

Table 1: Total Imports and Exports Through Egyptian Ports  
(in '000 T)

	---- 1975 ----		---- 1978 ----		---- 1979 ----		---- 1980 ----		---- 1981 ----		---- 1982 ----	
	Import	Export										
<b>DRY BULK</b>												
1. Grains	3,247	-	5,844	-	5,255	-	6,129	-	7,047	-	6,949	-
- Wheat	(2,431)	-	(4,044)	-	(3,621)	(10)	(4,508)	-	(4,236)	-	(4,227)	-
- Maize (corn)	( 422)	-	( 840)	-	( 487)	-	( 750)	-	(1,325)	-	(1,391)	-
- Flour	( 394)	-	( 960)	-	(1,147)	-	( 871)	-	1,486	-	(1,331)	-
2. Phosphate	-	115	-	54	-	80	-	139	20	178	-	303
3. Coal/Coke	1,153	-	920	-	1,190	-	1,343	9	1,347	8	1,213	-
4. Iron Oxide (ores/pyrites)	64	-	240	-	207	11	247	28	290	7	163	5
5. Bauxite and Alumina	-	-	(247)	-	(211)	-	(247)	-	(261)	-	(266)	-
6. Oament	236	97	1,690	28	3,505	12	3,845	-	5,153	2	6,528	1
7. Fertilizer	459	30	1,118	25	663	11	611	1	951	-	235	2
8. Salt, Sulphur, Sodium, Manganese	84	-	47	159	137	28	100	49	48	14	-	2
<b>Total 1 - 8</b>	<b>5,243</b>	<b>242</b>	<b>10,106</b>	<b>266</b>	<b>11,168</b>	<b>162</b>	<b>12,522</b>	<b>326</b>	<b>15,117</b>	<b>209</b>	<b>15,354</b>	<b>313</b>
9. Cotton and Cotton Products	-	211	29	225	-	83	-	187	-	123	-	144
10. Rice	-	151	-	144	-	76	155	192	-	107	5	31
11. Sugar	149	117	362	45	398	27	473	7	654	28	731	-
12. Paper (pulp)	227	-	193	-	91	-	64	-	78	-	28	-
<b>Total 9 - 12</b>	<b>376</b>	<b>479</b>	<b>584</b>	<b>414</b>	<b>489</b>	<b>186</b>	<b>692</b>	<b>386</b>	<b>732</b>	<b>258</b>	<b>764</b>	<b>175</b>
<b>SPECIAL CARGO</b>												
13. Timber	352	-	667	-	489	-	1,101	-	1,004	-	1,065	-
14. Iron and Steel Products	591	-	-	-	738	-	1,062	17	769	6	907	1
15. Heavy Equipment and Cars	216	-	-	-	282	-	429	31	246	34	253	24
<b>Total 13 - 15</b>	<b>1,159</b>	<b>43</b>	<b>1,383</b>	<b>57</b>	<b>1,509</b>	<b>53</b>	<b>2,592</b>	<b>48</b>	<b>2,019</b>	<b>40</b>	<b>2,225</b>	<b>25</b>
<b>Total Dry Bulk and Special Cargo</b>	<b>6,778</b>	<b>764</b>	<b>12,073</b>	<b>737</b>	<b>13,166</b>	<b>411</b>	<b>15,806</b>	<b>660</b>	<b>17,868</b>	<b>507</b>	<b>18,343</b>	<b>513</b>
<b>GENERAL CARGO</b>												
1. Oil and Grease	-	-	72	-	-	-	31	-	314	-	304	-
2. Food and Agricultural Goods	489	476	735/2	375/1	381	244	416	344	822	178	570	341
3. Containerized Cargo	-	-	-	-	-	-	1,201	187	1,299	227	1,038	201
4. Other General Cargo	-	-	-	-	-	-	2,074	410	3,339	620	3,160	594
<b>Total General Cargo</b>	<b>1,472</b>	<b>717</b>	<b>2,525</b>	<b>602</b>	<b>3,178</b>	<b>819</b>	<b>3,722</b>	<b>941</b>	<b>5,744</b>	<b>1,025</b>	<b>5,072</b>	<b>1,136</b>
<b>Grand Total</b>	<b>8,250</b>	<b>1,481</b>	<b>14,598</b>	<b>1,339</b>	<b>16,344</b>	<b>1,220</b>	<b>19,528</b>	<b>1,601</b>	<b>23,642</b>	<b>1,532</b>	<b>23,415</b>	<b>1,649</b>

/1 Including Molasses (114,000 T)

/2 Including Oils and Fats

Source: The General Technical Secretariate of the  
Ministry of Maritime Transport

is operating well above its capacity; a large volume of cargo is lightered (see Table 3). Traffic at ports of Suez and Safaga, at present, is to a large extent limited to special cargo: wheat, alumina and fertilizer.

Table 2: Port Said Port Traffic 1978 - 1983  
(in 1,000 tons)

	<u>Imports</u>	<u>Exports</u>	<u>Total</u>
1978	2,575	290	2,865
1979	3,068	144	3,212
1980	3,470	726	4,196
1981	3,762	983	4,745
1982	4,882	687	5,569 <sup>/1</sup>
1983	5,406	659	6,065 <sup>/1</sup>

<sup>/1</sup> Including oil traffic (1.05 m ton in 1982,  
1.01 m ton in 1983)

Table 3: Volume of Lightered Traffic by Commodities at Port Said  
(1,000 t)

	----- 1982 -----		----- 1983 -----		----- 1984 <sup>/1</sup> -----	
	Total	Lightered	Total	Lightered	Total	Lightered
<b>IMPORTS</b>						
Wheat	1,064	34	1,189	45	618	-
Flour	446	189	554	237	287	49
Maize	291	13	276	18	212	56
Sugar	348	97	441	165	154	110
Meat	46	36	83	23	41	26
Poultry	28	33	35	19	29	19
Fish	44	5	64	-	38	4
Other Gen. Cargo	265	200	284	240	169	134
Containers	170	22	193	45	109	27
Cement	1,579	583	1,615	654	823	313
Steel	81	63	152	139	72	73
Petroleum	520	-	520	-	291	-
<b>TOTAL</b>	<b>4,882</b>	<b>1,275</b>	<b>5,406</b>	<b>1,585</b>	<b>2,844</b>	<b>811</b>
<b>EXPORTS</b>						
Petroleum	532	-	495	-	232	-
Fruits/Vegetables	92	-	99	-	59	-
Salt	2	-	-	-	3	-
General Cargo	12	-	13	-	9	-
Containers	49	-	52	-	36	-
<b>TOTAL</b>	<b>687</b>	<b>25</b>	<b>659</b>	<b>40</b>	<b>339</b>	<b>20</b>
<b>GRAND TOTAL</b>	<b>5,569</b>	<b>1,300</b>	<b>6,065</b>	<b>1,625</b>	<b>3,183</b>	<b>831</b>

<sup>/1</sup> First Six-month

## B. Future Prospects

6. While it is not expected that the rather high rate of growth in imports during the last four years will be sustained for long, a moderate rate of growth in the economy and therefore in port traffic is expected based on planned specific investments and favorable general economic trends. The basic assumptions and principles which underlie some of the major commodity forecasts are discussed below:

### General Cargo

7. In parallel with the expected increase in income at an average annual rate of 7%, imports of general cargo are forecast to increase at about 5.0% per annum after 1985. It must be noted that this is well below the rate of increase (8.0%) during recent years and therefore, must be regarded as a conservative estimate. General cargo exports, on the other hand, are expected to stabilize at the current level until about 1986 and then to increase at a moderate rate.

### Cement

8. During the last few years due to the building boom in the country, cement consumption increased rather rapidly, about 12% per year. As a result, Egypt, which was a net exporter of cement, became a net importer after 1978. In 1980 about 3.8, in 1981 4.1 and in 1983 7.5 million tons of cement were imported to supplement the local production of about 4.0 million tons. Current plans indicate that the demand for cement will increase at a rate of 8.7% in the foreseeable future. At this rate, total cement consumption will reach 15.2 million tons in 1990 and over 25 million tons in year 2000. Efforts to increase domestic production are running into problems: in 1983, actual production was 4.0 million tons, about one-half of the planned output of 7.8 million tons. It is not expected that the planned target of 15.0 m ton of local production by 1987 will be achieved. At best, Egypt will double its output of cement by 1990 requiring imports in the range 4 - 5 million tons. With further increase in local production, cement imports will gradually decline during 1990s.

### Wheat/Flour

9. A strong increase in imports of food items in general and wheat, in particular, is expected in the future. The estimates based on population growth rate (2.6% per annum), per capita income growth (5% in urban areas, 2.8% in rural areas) and income elasticity of demand (0.13 among urban population and 0.54 rural population) indicate that demand will grow at an annual rate of 3.8% per year, that is 9.3 m tons in 1987 increasing to about 13.5 m tons in year 2000. On the assumption that winter crops will not encroach on wheat areas and that some of the recently reclaimed areas may yield additional wheat, the total domestic production will increase at a modest rate from 2.06 m ton in 1983 to about 2.3 m tons in year 2000. After allowing for seeding requirements and projected flour imports of 1.75 m tons, wheat imports will be likely to increase to 6.0 m tons in 1987 and 9.4 m tons in year 2000.

### Wood/Timber

10. All timber requirements and predominant portion of wood products are met by imports. This situation will not change in the future. It is estimated that demand for wood and timber will grow at about 9% per year in parallel with the growth in construction and in the demand for furniture. This gives rise to 1.0 million tons of imports in 1990 increasing to about 3.4 million tons in year 2000.

### Coal

11. Although coal deposits have been known to exist in Egypt, they have never been developed, as most are regarded as uneconomic. The most promising coal field is the Maghara deposits in Sinai with potential reserves of about 35 million tons. The coal is not of good quality and reserves are too small to justify development at this field. Therefore, Egypt will continue to rely on imports to meet its coal requirements. The availability of natural gas will limit the need for coal as a source of energy, in particular, for industrial usages. Based on the planned expansion of the domestic coke plants, the volume of imports is expected to reach to about 3.0 in year 2000. In addition, the current plans for construction of thermal power plants will require additional coal imports of about 5 million tons in year 2000. For this traffic special coal terminals are needed at power plant locations.

### Pellets

12. Demand for imported pellets and virtually all metal scrap will originate exclusively from the iron and steel complex at Dikheila. The initial demand for pellets is estimated to be about 100,000 tons increasing to 900,000 tons by year 2000.

### Maize

13. Domestic production of maize is currently about 3.1 million tons (net available amount for consumption is 2.9 million tons) and is expected to increase to about 4.0 million tons by year 2000. Consumption, on the other hand, in 1983 was some 4.6 million tons requiring 1.7 million tons of imports. Maize is primarily used for industrial products (starch, glucose and yeast), feeding animals and poultry and for human consumption. Industrial uses of maize will increase rapidly during the plan period - a new lactose factory is under construction at the city of 10th of Ramadan. Other uses of maize will also increase, parallel to population growth and growth in incomes, at moderate rates. As a result, Egypt will increasingly rely on imports, 2.4 million tons in 1990 and 3.2 million tons in year 2000.

### Meat/Poultry/Fish

14. It is expected that the current gap between domestic production and demand will widen in the future. Domestic production of meat is estimated to be about 350,000 tons in 1983. On the basis of historical figures, local production is expected to increase by about 2.5% per annum in the immediate future, i.e., reach 420,000 tons by year 1990. In the longer run domestic production could be increased somewhat more rapidly reaching about 670,000 ton

by year 2000. Assuming that controls over demand will continue in the analysis period there will be a gap between production and demand of about 260,000 tons in 1990 and 350,000 in 2000. In the case of fish and poultry, the gap between consumption and local production will similarly widen with the growth in population and imports are expected to reach about 190,000 tons in 1990 and 210,000 tons in 2000.

15. Table 4 below shows port traffic projections for 1987 - 2000.

#### Container Traffic

16. Forecasts for containerized cargo are based on four major subdivisions of total general cargo:

- A) Foodstuffs and Agricultural Products;
- B) Raw Materials and Semi-Finished Products;
- C) Consumer Goods;
- D) Machinery and Equipment.

17. In addition, for each of the commodities included in each of the subdivisions, the portion which is containerizable is estimated on the basis of currently prevailing practices. Table 5 shows the historic and forecast quantities of general cargo and the portion which is containerizable for selected years.

18. Table 5 above indicates that the present imbalance between imported and exported containerized cargo is likely to persist in the foreseeable future; there will be a considerable flow of empty containers. The rate of export containerization could be higher than forecast as low cost of using empty containers could encourage this mode. However, the effect of this is likely to be negligible and the total number of containers to be handled at Egyptian ports will not be affected. The number of "imported" containers is expected to reach about 400,000 TEU/year by 2000, implying a total throughput of 800,000 TEUS.

#### C. Port Expansion Plans

19. The Government recently adopted a long-term National Port Development Plan largely based on the recommendations of the National Transport Studies, Phase I and Phase II. The first five-year slice of the program is included in the current Five-Year Development Plan. Construction of ports of Damietta and El Dikheila are already underway. In accordance with the plan the rehabilitation of Port Said Port has also commenced. Details of the long-term National Port Development Plan are discussed below.

#### El Dikheila Port

20. El Dikheila lies about 10 km west of the Port of Alexandria. It possesses natural advantages as a port site; it is partially protected by a reef of rock outcrops which forms the core of the main breakwater. The first phase, a Bank project, Loan 2183-EGT, includes a mineral jetty for the steel plan, a 600 m long container quay and a 820 m quay for conventional general cargo and timber. Developments also include various cargo handling

Table 4: Port Traffic  
(in 1,000 t)

	Actual		Projections			
	1982	1983	1987	1990	1995	2000
<b>IMPORTS</b>						
Wheat <sup>1/</sup>	4,220	4,730	6,000	6,400	7,800	9,400
Flour <sup>1/</sup>	1,330	1,150	1,500	1,600	1,800	2,000
Maize <sup>1/</sup>	1,390	1,700	2,200	2,400	2,800	3,200
Beans/Lentils	120	70	160	160	160	160
Tea	70	70	80	90	90	100
<b>SUBTOTAL</b>	<b>7,130</b>	<b>8,110</b>	<b>9,940</b>	<b>10,650</b>	<b>12,650</b>	<b>14,860</b>
Cement <sup>2/</sup>	6,530	7,500	6,000	4,000	2,500	3,200
Coal <sup>2/</sup>	1,200	1,300	1,750	3,500	6,000	8,000
Fertiliser	240	240	80	80	60	30
Timber	1,060	1,300	1,800	2,000	2,700	3,400
Ores <sup>3/</sup>	500	680	800	900	1,250	1,600
Pellets	-	-	100	200	550	900
Scrap Iron	100	150	170	250	310	370
<b>SUBTOTAL</b>	<b>9,630</b>	<b>11,170</b>	<b>10,700</b>	<b>10,930</b>	<b>13,370</b>	<b>17,500</b>
Cotton Products	70	-	110	130	150	180
Rice	5	-	0	90	170	250
Sugar	730	-	800	850	1,000	1,200
Pulp/Paper	350	-	500	700	850	1,000
Steel/Equipment	1,140	-	1,330	1,600	2,000	2,200
<b>SUBTOTAL</b>	<b>2,295</b>	<b>2,500</b>	<b>2,740</b>	<b>3,370</b>	<b>4,170</b>	<b>4,830</b>
Fruits	50	-	80	90	110	120
Vegetables	30	-	30	30	35	40
Meat/Fish/Poultry	320	-	430	450	500	560
Dairy Products	100	-	130	160	210	270
Chemicals	235	-	250	300	400	500
Other Gen. Cargo	3,680	-	5,000	6,000	7,600	9,700
<b>SUBTOTAL</b>	<b>4,415</b>	<b>5,090</b>	<b>5,920</b>	<b>7,030</b>	<b>8,855</b>	<b>11,190</b>
<b>TOTAL IMPORTS</b>	<b>23,470</b>	<b>26,870</b>	<b>29,300</b>	<b>31,980</b>	<b>39,045</b>	<b>48,380</b>
<b>EXPORTS</b>						
Phosphate	300	300	350	360	380	400
Cotton & Products	150	-	230	200	200	200
Molasses	50	-	50	0	0	0
Fertiliser	-	-	160	150	150	150
Steel	-	-	100	100	100	150
Aluminium	-	-	100	70	50	40
Vegetables	-	-	260	200	140	80
Fruits	-	-	300	250	200	100
Other Gen. Cargo	1,200	1,500	450	650	950	1,200
<b>TOTAL EXPORTS</b>	<b>1,700</b>	<b>1,800</b>	<b>2,000</b>	<b>1,980</b>	<b>2,170</b>	<b>2,320</b>
<b>GRAND TOTAL</b>	<b>25,170</b>	<b>28,670</b>	<b>31,300</b>	<b>33,960</b>	<b>41,215</b>	<b>50,700</b>

- 1/ If domestic production falls short of expectations additional imports of about 1.0 m ton in 1990 and 1.5 m ton in 2000 will be needed.
- 2/ Delays in completion of cement plants will be likely to increase imports by about 2.0 m tons in 1990 and 2000.
- 3/ Includes coal supplies needed for the planned power generation plants. As these will require special terminal facilities, only the coking coal imports are allocated among existing ports, i.e., 1.6 m tons.
- 4/ Includes, pyrite, alumina, manganese, sulphur.

Table 5: Container Traffic  
(in 1,000 tons)

General Cargo Groups	% Contain- erizable	----- ACTUAL -----				----- FORECAST -----							
		----- 1978 ----- Total Volume	Contain- erizable	----- 1981 ----- Total Volume	Contain- erizable	----- 1987 ----- Total Volume	Contain- erizable	----- 1990 ----- Total Volume	Contain- erizable	----- 1995 ----- Total Volume	Contain- erizable	----- 2000 ----- Total Volume	Contain- erizable
<b>EXPORTS</b>													
A. Foodstuffs and Agr. Prods.	90	447	402	367	331	803	723	785	706	735	662	728	655
B. Raw Materials	48	127	61	147	72	422	203	436	209	460	220	490	235
C. Consumer Goods	100	81	81	71	71	169	169	169	169	168	168	168	168
D. Machinery, Equipment	75	6	4	1	1	14	10	14	10	14	10	14	10
<b>TOTAL</b>		<b>661</b>		<b>886</b>		<b>1,408</b>		<b>1,408</b>		<b>1,377</b>		<b>1,400</b>	
<b>TOTAL CONTAINERIZABLE</b>			<b>548</b>		<b>475</b>		<b>1,185</b>		<b>1,094</b>		<b>1,060</b>		<b>1,058</b>
<b>PENETRATION RATE (%)</b>			<b>25</b>		<b>25</b>		<b>35</b>		<b>40</b>		<b>50</b>		<b>55</b>
<b>CONTAINERIZED CARGO</b>			<b>137</b>		<b>119</b>		<b>387</b>		<b>428</b>		<b>530</b>		<b>582</b>
<b>IMPORTS</b>													
A. Foodstuffs and Agr. Prods.	63	759	478	1,438	907	2,353	1,482	2,675	1,685	3,210	2,022	4,148	2,608
B. Raw Materials	52	1,753	912	2,245	1,168	3,546	1,854	3,875	2,015	4,390	2,283	5,035	2,618
C. Consumer Goods	100	87	87	112	112	285	285	369	369	509	509	560	560
D. Machinery, Equipment	45	409	184	563	253	927	417	1,034	465	1,217	548	1,455	655
<b>TOTAL</b>		<b>3,008</b>		<b>4,358</b>		<b>7,131</b>		<b>7,953</b>		<b>9,326</b>		<b>11,190</b>	
<b>TOTAL CONTAINERIZABLE</b>			<b>1,661</b>		<b>2,440</b>		<b>4,038</b>		<b>4,534</b>		<b>5,362</b>		<b>6,441</b>
<b>PENETRATION RATE (%)</b>			<b>35</b>		<b>35</b>		<b>55</b>		<b>60</b>		<b>65</b>		<b>75</b>
<b>CONTAINERIZED CARGO</b>			<b>581</b>		<b>554</b>		<b>2,221</b>		<b>2,720</b>		<b>3,485</b>		<b>4,831</b>

equipment. The site is suitable for further expansion and the master plan, which has been approved by the Government, includes construction of additional general cargo facilities to meet the needs of the growing maritime traffic.

#### Damietta Port

21. The City of Damietta lies immediately west of the Damietta branch of the Nile River and is about 50 km west of Port Said and 150 km east of Alexandria. The site selected for the construction of the port is just west of the Damietta branch of the Nile. Phase I development of the port includes the construction of 12 berths with an average length of 250m. The access channel is designed for a depth of 15 m with berth depths varying from 14.5 m to 12 m. Of the 12 berths, two will be for grain imports with a silo capacity of 55,000 tons, three container and Ro/Ro berths and the remainder will be for conventional general cargo and break-bulk cargo. The construction of the first phase is to proceed in two stages: Stage I will include 6 berths and is planned for completion by 1986. The work on Stage II is planned to commence about the same time and expected to take a further two to three years. Phase I capacity is estimated to be around 6.0 million tons when completed. Phase II, which is expected to be implemented in 1990s will add a capacity of about 5.5 m tons.

#### Port of Suez

22. The Port of Suez is located at the northern shores of the Bay of Suez and at the southern end of the Suez Canal. It is approximately 135 km to Cairo. The port traditionally serves the eastern trade routes and is primarily used for wheat from Australia and some general cargo. Port Ibrahim and Adabiyah are the two principal facilities for cargo and passenger traffic. At Port Ibrahim, the total usable quay length is about 850 m with six berths. Water depth varies between 7 to 9 m. At Adabiyah, only about 300 m of quay, at present, is used for handling ships. The plans for rehabilitation works include three berths for passenger/cargo combination at Port Ibrahim and two berths for grain and three berths for general cargo at Adabiyah. The estimated capacity is about 3.0 million tons.

#### Safaga

23. Safaga is located in the center of Egypt's Red-Sea Coast and enjoys a large and well-protected harbour. The bay offers a considerable depth of water even at close distances to the shoreline. At present, the port consists of a 600 m quay with a depth of 10 m providing three berths for medium size ships. In addition, there is a lighter quay of 200 m long with a depth of 2.5 m and 115 m long 8.5 deep jetty for bulk phosphate. The plans are designed to improve the general cargo berths and to establish a grain berth. The phosphate jetty will also be improved. After the completion of rehabilitation works, Safaga will have a capacity of 2.0 m tons.

#### D. Allocation of Forecast Traffic by Ports

24. In terms of allocation of Egypt's maritime traffic among different ports, the distinction between the Mediterranean ports and the Red Sea ports is the most important. This distinction is, for the most part, dictated by

the overseas origins/destinations of the traffic. All eastbound traffic destined to or originating from Cairo, Middle and Upper Egypt is likely to be handled at the Red Sea ports of Suez and Safaga. In the case of such traffic, the hinterlands of the Mediterranean ports will be confined primarily to Alexandria, Damietta and Port Said governorates. In the case of westbound traffic, the entire country becomes the hinterland of the Mediterranean ports, depending on the trade-off between the additional inland transport costs and the extra sailing costs and canal charges. In any event, the volume of maritime traffic originating from or destined to Upper Egypt is not likely to be substantial.

25. Although Egypt has relatively strong trade relations with Far Eastern countries such as India, Japan, People's Republic of China and Taiwan, the greater part of its commercial relationships is with the Western countries. There are no indications suggesting that this pattern will change in the future. Therefore, the division of Egypt's total maritime traffic will likely remain in the ratio of 80 to 20 in favor of the westbound/originating traffic. In terms of traffic allocation between the Mediterranean ports, with the exception of the areas immediately adjacent to each port, inland transport costs do not play an important role. In this case, the availability of adequate port facilities and appropriate cargo-handling equipment is a more important factor in traffic allocation among ports. Similar observations also apply to the Red Sea ports.

#### Minerals and Coal

26. Coal traffic is presently handled at Alexandria where special unloading and storage facilities are available. The estimated capacity is about 3.5 million tons. Therefore, totality of coking coal imports will continue to be received at this port. Alumina will continue to be imported through Safaga where special unloading and storage facilities are available. The future of phosphate trade is uncertain; however, if and when the Abu Tartur deposits are developed, the export traffic, in all likelihood, will use Safaga. Imports of pellets will be handled at the new mineral jetty which is to be built at Dikheila. Coal needed for power plants will require special terminals at plant sites.

#### Wheat

27. Wheat is, at present, imported mostly in bulk. There are plans to upgrade the handling and storage facilities in existing ports and also to construct facilities in new ports, i.e., Damietta. In Alexandria, additional silo capacity is under construction. When completed Alexandria will be able to handle about 4.0 million tons of wheat. The first phase of Port of Damietta will have a special berth for wheat with an annual capacity of around 2 million tons. The Ports of Suez, Safaga and Port Said also have additional wheat-handling capacity of about 3.8 million tons. Therefore, the available capacity will be adequate to handle Egypt's wheat imports for some years to come, although an additional capacity may be required after 1995.

#### Timber

28. Historically, Alexandria has been the main port of entry for Egypt's

timber and wood imports. A special area in the port is reserved exclusively for this traffic and it is expected that bulk of this traffic will continue to be handled at Alexandria. The proposed Dikheila port project and Port of Damietta include special berths for timber to help ease the congested situation presently existing at the Port of Alexandria, and to facilitate the movement of expected growth in this traffic.

Other

29. Other commodities which assume some importance in Egypt's maritime traffic are cotton, salt, molasses and edible oils. Alexandria is the country's cotton trading center; all institutions involved in grading and preparing cotton for export are located in this area. Therefore, most of the cotton-related traffic will continue to use the port of Alexandria. Salt will continue to be shipped from Port Said, since salt works are located near the port. In molasses and edible oils, Alexandria will continue to be the major trading center and therefore will handle the bulk of this traffic.

30. Alexandria/Dikheila will remain to be the country's major port facility in general cargo. The availability of commercial institutions and shipping agents in this area will continue to attract traffic to this port. Much of the Delta area as well as Cairo region will continue to rely on Alexandria/Dikheila for most of its import requirements. Damietta port will gradually develop to be the second important port for general cargo. With the increase after 1990's to reach about 3.6 m tons. Port Said will also continue to play, particularly after the completion of the rehabilitation works, an important part in handling general cargo and containers. Tables 6 and 7 show the future traffic allocation among all ports for the years 1990 and 2000.

Table 6: Distribution of Traffic Among Ports for 1990  
( '000 tons)

	Alexand- ria, El Dikheila	Damietta	Port Said	Suez	Safaga	Total
Cement	2,700	200	900	200	-	4,000
Wheat	2,500	1,500	600	800	1,000	6,400
Maize	1,400	-	1,000	-	-	2,400
Flour	700	400	500	-	-	1,600
Timber	1,000	1,000	-	-	-	2,000
Sugar	250	50	450	100	-	850
Coal /1	1,600	-	-	-	-	1,600
Cotton	200	130	-	-	-	330
Ores	550	-	-	-	350	900
Pellets	200	-	-	-	-	200
Steel	800	650	150	-	-	1,600
Meat/Fish/Poultry	210	150	200	-	-	560
Other	5,270	2,400	1,050	750	150	9,620
Total	17,380	6,480	4,850	1,850	1,500	32,060

/1 Excludes 1.9 m ton of coal for power generation which will require a special terminal.

Table 7: Distribution of Traffic Among Ports for 2000  
( '000 tons)

	Alexand- ria, El Dikheila	Damietta	Port Said	Suez	Safaga	Total
Cement	2,000	500	200	500	-	3,200
Wheat	3,000	3,000	500	1,000	1,900	9,400
Flour	600	600	500	-	300	2,000
Maize	1,000	1,200	1,000	-	-	3,200
Timber	2,000	1,400	-	-	-	3,400
Sugar	450	350	350	50	-	1,200
Coal	1,900	-	-	-	-	1,900 /1
Cotton	280	100	-	-	-	380
Ores	1,250	-	-	-	350	1,600
Pellets	900	-	-	-	-	900
Steel	2,000	370	250	100	-	2,720
Meat/Fish/Poultry	200	160	200	-	-	560
Other	<u>5,440</u>	<u>5,100</u>	<u>1,600</u>	<u>1,500</u>	<u>500</u>	<u>14,140</u>
Total	21,020	12,780	4,600	3,150	3,050	44,600

/1 Coal needed (6.1 m ton) for power generation will require a special terminal, therefore, this traffic is not allocated to existing port facilities.

31. Because of the long delays in expanding port capacity to handle the growing traffic, even with the assumption that all planned capacity expansions would be implemented on schedule, the nominal port capacity will be just adequate to meet the demand by about 1990. Equilibrium will be reached only after completion of the second stage of Phase I of Damietta. The projected growth in port traffic after 1990 will require implementation of the second phase developments both at Dikheila and Damietta and further rehabilitation of Port Said.

ARAB REPUBLIC OF EGYPT  
STAFF APPRAISAL REPORT OF  
PORT SAID PORT EXPANSION AND  
REHABILITATION PROJECT

Income Statement - Years ending June 30, 1982 through 1984  
(in EE 1000)

	<u>1982</u>	<u>1983</u>	<u>1984</u>
<u>Operating revenues</u>			
Ship dues	7.5	221.7	2981.4
Cement dues	744.6	640.1	888.1
Storage dues	6240.4	3242.8	1772.4
Leases	625.8	1483.1	1726.3
Hiring of equipment	-	5.4	17.4
Other revenues	54.3	806.1	795.7
Prior years adjustment	4.4	810.0	39.9
Subtotal	7677.0	7209.2	8221.2
<u>Operating costs</u>			
Consumables	30.9	48.1	69.3
Services	125.7	98.4	276.1
Labour costs	379.4	545.2	693.8
Others	2.7	327.3	188.5
Prior year adjustments	-	90.3	76.5
Subtotal	538.7	1109.3	1304.2
Depreciation	21.7	87.2	224.0
<u>Operating income</u>	7116.6	6012.7	6693.0
Net non-operating revenues	37.4	191.8	151.2
Interests on long-term debt	-	155.0	708.5
<u>Net income</u>	7154.0	6049.5	6135.7

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Balance Sheet - Years ending June 30, 1982 through 1984  
(in EE '000)

	<u>1982</u>	<u>1983</u>	<u>1984</u>
<u>Current assets</u>			
Cash	4252.1	1185.1	2904.9
Receivables	.5	1490.1	3552.9
Other debtors	613.2	492.7	361.1
Inventory	3.9	15.5	27.1
Subtotal	4869.7	3183.4	6846.0
<u>Net fixed assets</u>			
Gross value			
Land			
Constructions	5932.8	6164.5	6450.4
Equipment	109.9	125.7	162.7
Transport means	178.7	264.2	374.6
Miscellaneous	50.3	76.6	189.0
Subtotal	6271.7	6631.6	7176.7
Minus: depreciation	85.9	204.8	425.8
Net fixed assets	6185.8	6426.8	6750.9
<u>Work in progress</u>	527.2	4619.0	10396.8
<u>Investments</u>			120.0
<u>Total Assets</u>	<u>11582.7</u>	<u>14229.2</u>	<u>24113.7</u>
<u>Current liabilities</u>			
Payables	-	372.8	440.3
Other accounts	244.2	458.0	1349.7
Treasury account	4201.3	2406.1	4825.5
Subtotal	4445.5	3236.9	6615.5
<u>Loans</u>			
Local loans	1310.5	5156.5	8139.6
Foreign loans			3519.8
Subtotal	1310.5	5156.5	11659.4
<u>Equity</u>	5826.7	5835.8	5838.8
<u>Total liabilities</u>	<u>11582.7</u>	<u>14229.2</u>	<u>24113.7</u>





STAFF APPRAISAL REPORT

ANNEX XII

ARAB REPUBLIC OF EGYPT

PORT SAID PORT EXPANSION AND REHABILITATION PROJECT

Projected Cash Flow Statement

(Fiscal Year Starting July 1, Ending June 30)

	1985	1986	1987	1988	1989	1990	1991	1992
<b>SOURCES OF FUNDS</b>								
Operating Surplus	8.840	10.225	11.308	12.946	13.886	14.690	15.086	16.882
Depreciation & Amortization	0.678	0.714	0.751	1.262	1.615	2.943	4.537	4.721
Subtotal	9.518	10.939	12.059	14.208	15.501	17.633	19.623	21.603
Local Loans	1.800	9.490	6.670	5.682	2.786	0.000	0.000	0.000
IBRD Loan	0.625	7.933	19.621	10.988	12.084	2.167	0.000	0.000
Other Foreign Loans	0.905	5.204	1.386	0.000	0.000	0.000	0.000	0.000
Subtotal	3.330	22.627	27.677	16.670	14.870	2.167	0.000	0.000
Paid by Treasury	1.980	3.056	5.314	9.232	11.560	12.090	13.999	15.770
<b>TOTAL SOURCE</b>	<b>14.828</b>	<b>36.622</b>	<b>45.050</b>	<b>40.110</b>	<b>41.930</b>	<b>31.890</b>	<b>33.622</b>	<b>37.373</b>
<b>APPLICATION OF FUNDS</b>								
Participations	0.360							
IBRD Project	0.625	12.562	25.217	17.342	15.831	3.423		
Other Investments	3.075	10.775	3.275	0.375	0.375	0.375	0.800	1.000
Subtotal	4.060	23.337	28.492	17.717	16.206	3.798	0.800	1.000
Paid to Treasury	8.840	10.225	11.308	12.946	13.886	14.690	15.086	16.882
Debt Service								
Interest	1.450	2.886	5.144	7.071	8.221	8.694	8.523	8.062
Principal	0.170	0.170	0.170	2.161	3.339	3.396	5.476	7.708
Subtotal	1.620	3.056	5.314	9.232	11.560	12.090	13.999	15.770
Working Capital Increase/(Decrease)	1.440	0.272	0.707	-0.858	1.172	-0.432	1.495	-0.516
<b>TOTAL APPLICATION</b>	<b>15.960</b>	<b>36.890</b>	<b>45.821</b>	<b>39.037</b>	<b>42.824</b>	<b>30.146</b>	<b>31.380</b>	<b>33.136</b>
<b>VARIATION OF CASH</b>								
Cash - Beginning of Year	2.905	1.773	1.505	0.734	1.807	0.914	2.658	4.900
Cash - Incr/(Decr)	-1.132	-0.268	-0.771	1.073	-0.893	1.744	2.242	4.237
Cash - End of Year	1.773	1.505	0.734	1.807	0.914	2.658	4.900	9.137
<b>Debt Service Coverage</b>	<b>5.877</b>	<b>3.579</b>	<b>2.269</b>	<b>1.539</b>	<b>1.341</b>	<b>1.459</b>	<b>1.402</b>	<b>1.370</b>

ARAB REPUBLIC OF EGYPT  
STAFF APPRAISAL REPORT OF  
PORT SAID PORT EXPANSION AND  
REHABILITATION PROJECT

Documents Kept in Project File

1. Port Said Master Plan by Bullen and Partners (UK), 1976.
2. National Port Plan by the technical Committee on Ports (Egypt), 1976.
3. Port Said Port Development by Port of Marseilles Authority (France), 1979.
4. Port Development Policy by Frederic Harris (USA), 1979.
5. Design Criteria for Rehabilitation and Modernization of Port Said Port by PRC Harris, March 1980.
6. National Transport Study, Phase II and III by NEDECO (Holland) in Association with PACER (Egypt), 1981.
7. Port Said Container Terminal, Evaluation of Stability and Pile Design (four volumes) by Norconsult (Norway), October 1982.
8. Port Said Container Terminal Study by CE Maguier (USA), 1982.
9. New Port Development, Port Said, by Bullen and Partners (UK), 1982.
10. Brochure on Damietta Port, 1983.
11. Inland Transport of Containers in Egypt, Final Report, by PACER Consultants, Egypt, January 1984.
12. PRC's Technical Proposal, April 1984.
13. Contract between PSPA and PRC Engineering Inc. (UK) to Prepare Design and Tender Documents, September 17, 1984.
14. PRC's Inception Report, October 1984.
15. PRC's Report on Soil Conditions (two volumes), December 1984.
16. PRC's Final Soil Investigation Report, January 1985.
17. PRC's Interim Report (Preliminary Engineering, three volumes), January 1985.

18. PSPA's Annual Reports 1981, 1982 and 1983.
19. Ship Movement in Port Said Port, 1981, 1982 and 1983.
20. PSPA's Balance Sheets and Final Accounts 1981 to 1984.
21. CTOC's Balance Sheets and Final Accounts 1983 and 1984.
22. PSPA's Training Program 1984-1985.
23. PSPA's Assets.
24. PSPA's and CLUC's tariffs.
25. Traffic Statistics for the Ports of Port Said and Alexandria.
26. Law Creating PSPA 1980.
27. Law Governing Public Enterprises in Egypt 1983.
28. Law Creating the Public Organization for Maritime Transport (POMT), 1983.
29. Law Creating CTOC, 1984.

STAFF APPRAISAL REPORT

PORT SAID PORT EXPANSION AND REHABILITATION PROJECT

ACTION PLAN

The Borrower, with the assistance of the services of experts as required, shall carry out the following by the dates specified subject to any modifications which may be agreed upon from time to time between the Borrower and the Bank:

**I. Port Operations and Management**

- (a) Contract a port operations expert, by December 1985, to carry out a study of port operations and management, under terms of reference acceptable to the Bank.
- (b) Prepare, with the assistance of the port operations expert, an inception report specifying the organizational, operational and manpower requirements of the Borrower by December 1986.
- (c) Appoint staff required and initiate the training program approved by the Bank by June 1986.
- (d) Furnish to the Bank, by June 1986, copies of the expert's report making recommendations for a system of establishing port statistics and performance indicators.
- (e) Furnish to the Bank, by September 1986, copies of the expert's report reviewing cargo handling methods and making recommendations for improvements and the equipment required for the container terminal.
- (f) Implement, by January 1987, the recommendations of the study for the new system of establishing port statistics and performance indicators.
- (g) Furnish to the Bank, by February 1987, copies of the expert's report making recommendations for revisions to port operational and management regulations.
- (h) Furnish to the Bank, by June 1987, copies of the final expert's report containing a summary of the actions taken, the training provided and the results of the study.

**II. Financial Management**

- (a) Contract a financial expert, by December 1985, to carry out a study of the financial management of the Borrower, under terms of reference acceptable to the Bank.
- (b) Furnish to the Bank, by May 1986, copies of the report making recommendations on improvements to the Borrower's financial management systems and manpower requirements.

- (c) Review with the Bank, by June 1986, the recommendations made in the report referred to in II(b) above.
- (d) Finalize, by July 1986, an action program, acceptable to the Bank to implement the recommendations.
- (e) Recruit the staff required to operate the new system, by August 1986.
- (f) Implement the program, including training, by August 1986 and furnish to the Bank, by December 1987, a report summarizing the actions taken and the results of the program.

III. Customs Procedures and the Collection of Storage Dues

- (a) Make proposals to the Guarantor's Customs Department, by June 1987, on appropriate clearance procedures for containerized cargo.
- (b) Implement a system of direct collection of the Borrower's storage dues by June 1987.

IV. Revaluation of Port Assets and Settlement Arrears

- (a) Approval and incorporation of new values for assets by March 1987.
- (b) Prepare a plan to settle rent arrears and furnish such plan to the Bank by March 1987.
- (c) Take measures, by December 1987, to settle outstanding accounts within 60 days of billing date.

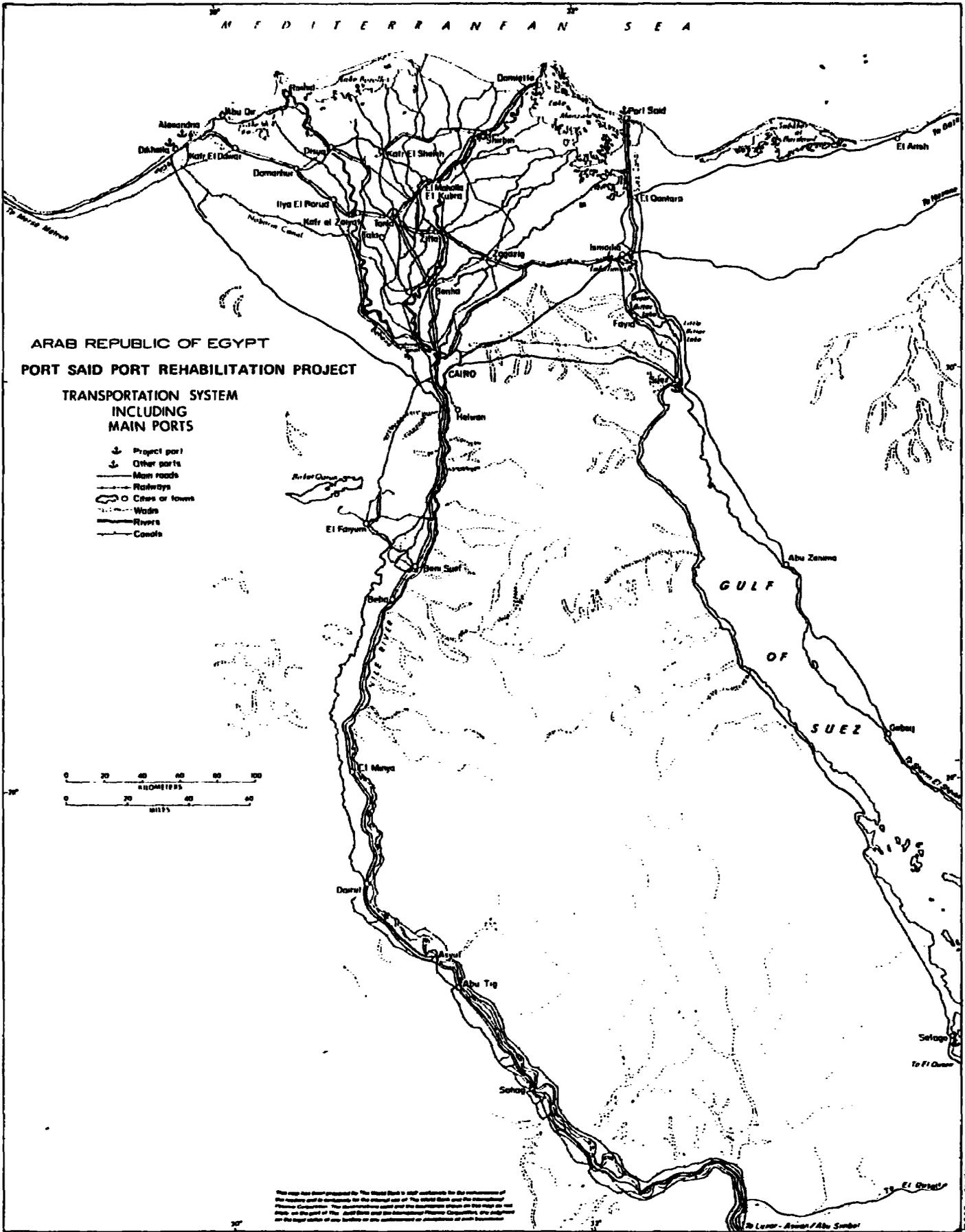
V. Cost Accounting

- (a) Contract the services of an expert in cost accounting, by June 1986, to carry out the study on the cost accounting system of the Borrower, under terms of reference acceptable to the Bank.
- (b) Furnish to the Bank, by August 1986, copies of the expert's report making recommendations on necessary changes and improvements to the Borrower's cost accounting system and proposed manpower requirements.
- (c) Review with the Bank, by December 1986, the recommendations made in the report referred to in IV (b) above.
- (d) Finalize, by March 1987, an action program, acceptable to the Bank, to implement the recommendations.

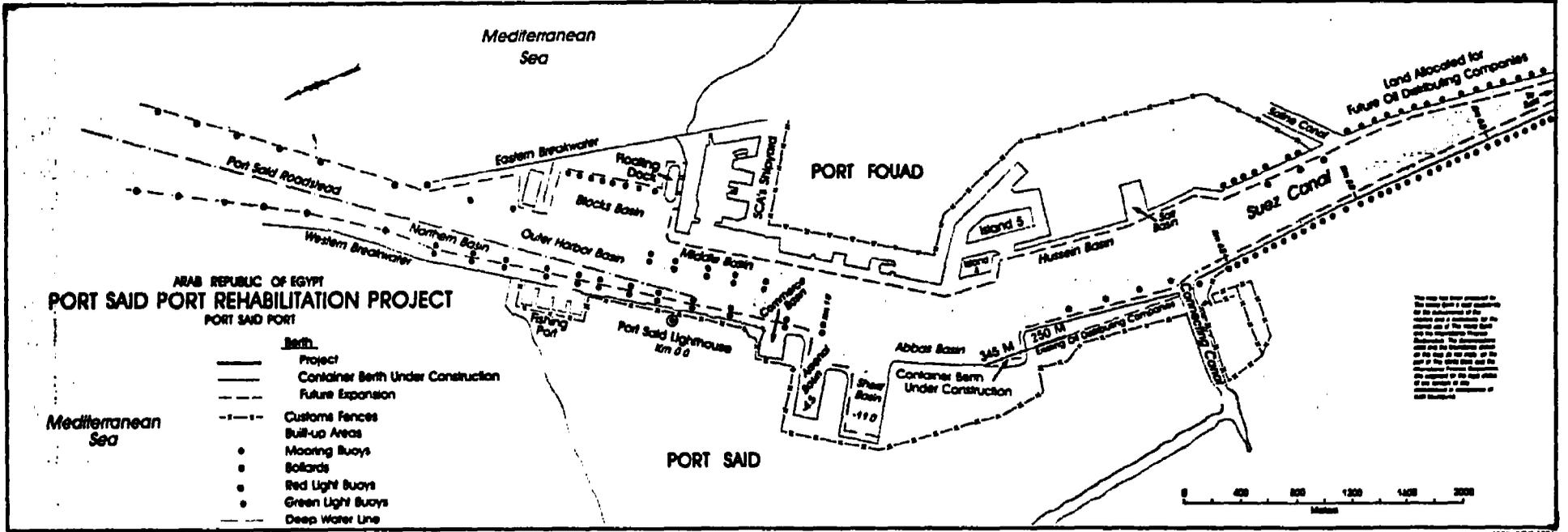
- (e) Recruit the staff required to operate the new system and implement the recommendations including the training program by September 1987.
- (f) Furnish to the Bank, by December 1987, copies of the final report by the cost accounting expert containing a summary of the actions taken by the Borrower to implement an appropriate cost accounting system.

**VI. Tariffs**

- (a) Contract a port pricing expert, by December 1987, to carry out the tariff study, under terms of reference acceptable to the Bank.
- (b) Furnish to the Bank for its comment, by September 1988, the expert's draft report making recommendations for a cost-based tariff system including the structure and level of the proposed tariffs, and storage charges, the method of collection and proposals for the application of a cost-based tariff system to other publicly owned entities providing cargo handling and storage services at the Port of Port Said.
- (c) Discuss with the Bank, by October 1988, the proposals for a system of cost-based tariffs and any other recommendations made by the expert.
- (d) Prepare and furnish to the Bank, by December 1988, proposals and measures for the implementation of a system of cost-based tariffs.
- (e) Implement the cost-based tariff system for the Borrower by February 1989.



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This map was prepared by the Survey Department of the Ministry of Public Works and Urban Planning, Port Said, in cooperation with the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA). The map shows the proposed rehabilitation project and the existing port facilities. It is intended for use as a reference for the project and is not to be used for any other purpose without the permission of the Ministry of Public Works and Urban Planning.