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Kismayo Port Rehabilitation

Tariff Rate Structure Study
Final Report

Parsons Brinckerhoff International, Inc.
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EXECUTIVE SUMMARY

BACKGROUND

In July 1983, Parsons Brinckerhoff prepared a feasibility study report for rehabilitation of the Port of Kismayo, Somali Democratic Republic. A financial evaluation of the project concluded that port revenues would be insufficient to cover amortization. This Somali Port Tariff Rate Structure Study, carried out under a contract with the U.S. Agency for International Development, examines and analyzes the current fee schedules of the Somali Ports Authority (SPA), a government agency that sets tariffs for all Somali ports, and suggests a rate readjustment program to provide port revenues to cover operating costs plus amortization of present and planned port investments, maximizing benefits to port users. Since SPA fees apply to all Somali ports, the fees for Berbera and Mogadishu, in addition to those for Kismayo, were analyzed.

As part of the study, voluminous data were gathered on ships, cargo, and operations for all three ports. Information on SPA finances was obtained from SPA offices and supplemented with data from other government agencies and port users. The data were compiled, condensed, and analyzed, and form the basis for this study and its conclusions.

STUDY METHODOLOGY

The institutional context in which the SPA operates was examined first, along with its present financial position. Subsequently, the current SPA fee schedule was reviewed and compared with the fee schedules of other ports in the region--Djibouti and the East African ports of Mombasa and Dar-es-Salaam. In addition, interviews were conducted with ship agents, and shippers of bananas and livestock for export to obtain their views on fee levels charged by Somali ports, quality of services provided, and other items of concern to port users.

With this information on hand, the next step was to formulate port charges. From the national point of view, the most efficient basis for establishing port charges is that of marginal cost pricing where the fee level of the last unit of service produced is equal to the cost of producing it. In practice, this means setting fees equal to the financial cost. This cost-based method of port pricing, which is also recommended by the United Nations Conference on Trade and Development (UNCTAD), was adopted and used in the study, and the cost/revenue centers representing the various services rendered by the port were defined.

To provide input to the effort of formulating port charges, projections of cargo and ship calls were made and the costs and revenues for all three ports were calculated and projected to 1986, assuming that at that time the Berbera port extension, currently underway, and the Kismayo rehabilitation will have been capitalized.

In the financial analysis, the costs and revenues were brought together and distributed among the various cost/revenue centers to show whether and to what extent present fees and fee levels are sufficient or insufficient to cover costs by cost center, by port, and for all three ports together. This information was used to determine how the existing tariff structure should be readjusted, i.e., what port charges should be increased, left unchanged, or decreased to cover costs. Sensitivity tests were performed at three levels of cargo forecasts and pro forma financial statements were prepared. Finally, the current fee schedules were analyzed in terms of individual fees charged to ships and to cargo, and suggestions were developed for improvements.

STUDY FINDINGS

The major findings of the study are as follows:

1. Although the SPA sets and collects port tariffs, its financial autonomy is circumscribed by its dependency on the government in areas of decision-making and financing. Port tariffs received by the SPA are turned over to the government, which provides funds for port projects and investments. Thus, in its accounting procedures, the SPA does not amortize or revaluate its assets in a way that would adequately reflect their replacement value, nor are costs discriminated so that they could be related to specific port fees (Sections 2.2 and 3.6).

2. Following local currency devaluation in 1982, the fees in shillings increased about 34 percent, but dropped about 41 percent in dollars resulting in a significant decrease in total fees.

3. SPA charges to ships are the lowest of any regional port, except Djibouti. Charges to cargo are the lowest in the region except those to petroleum. On the other hand, shipping agency fees imposed by the Somali Shipping Agency (SSA) are the highest of any regional port. Also, there is no coordination between the SSA and SPA in relation to the levels of their respective charges. Even so, the combined charges are lower than such charges by other ports in the region (Section 2.4).

4. Port fees on major export products are low when compared with freight costs, varying between 2 and 4 percent for livestock and 7 percent for bananas. This suggests that small changes in port fees would have only a marginal impact on CIF prices and consequently on the competitiveness of export products (Section 2.5).

5. In 1977, the Price Waterhouse study report entitled "Cost Based Tariff Structure" proposed a new tariff structure, following the cost-based methodology. This included new tariff rates and a system of cost/revenue centers intended to facilitate future modifications to the tariff rates. The fee levels recommended by Price Waterhouse were not implemented because the SPA felt that they were too high. The cost-based tariff structure, the associated accounting procedures, and the asset revaluation system were also not implemented, due to lack of trained personnel. Thus, at present there is no data base available for determining and evaluating port charges.

6. Although the financial analysis showed a deficit at Kismayo port for 1984 (before capitalization of the Berbera and Kismayo projects), the surplus

created by Berbera and Mogadishu ports was sufficient to cover all costs at all three ports for that year, including present facility amortization, and yield a surplus of 11 percent (Section 3.7).

7. Present fee levels are not sufficient to cover the amortization costs of the Berbera extension and the Kismayo rehabilitation (Section 3.7). If port fees were not increased, this would result in a deficit for all three ports of 120 million shillings by 1986.

8. The cost center analysis showed that there was little relationship between costs of various services and current fees charged for them (Section 3.7).

9. Increasing fees at Berbera and Kismayo to amortize their own investments in 1986 would cause considerable strain since fee level increases of 84 and 407 percent, respectively, would be necessary. On the other hand, cross subsidization, i.e., inclusion of Mogadishu to amortize these investments, would mean only a 41 percent total fee increase for all ports (Section 3.7).

10. Sensitivity tests, summarized in the table below, showed that if cargo flow levels increased at all ports by 5, 2, and 8 percent annually, without a fee level increase, the SPA would break even with the cost of the new facilities in 1995, 2013, and 1991, respectively.

Annual Cargo Growth	Break-Even Year: With No Fee Increase	Break-Even Year: With 41% Fee Increase in 1986	% Increase Necessary in 1986
5%	1995	1986	41%
2%	2013	1989	47%
8%	1991	Before 1986	32%

The table also shows that if fees were increased 41 percent in 1986, the break-even year would be 1986, 1989, and before 1986 for annual cargo volume growths of 5, 2, and 8 percent, respectively. Conversely, fee increases of 41, 47, and 32 percent would be needed in 1986 for annual cargo volume growths of 5, 2, and 8 percent, respectively.

11. In analyzing the present tariff schedules, some of the bases for fee calculations were found not to be optimal, specifically those related to net registered tons (NRT) and length overall (LOA) for ship fees, and tons in some cases for equipment rental (Section 3.9).

12. Statistical information and records on port operations were found to be lacking or inadequate.

SUGGESTIONS FOR RATE READJUSTMENTS AND OTHER IMPROVEMENTS

The following are the suggestions for rate readjustments and other improvements by the SPA.

1. The SPA should follow the trend of ports in other countries and should price services based on the costs related to them, including asset

replacement. This can be accomplished through the implementation of the accounting procedures outlined by Price Waterhouse in connection with their 1977 study on "Cost Based Tariff Structure."

2. An amortization fund should be established and maintained by the SPA to assure that money is available when needed for the replacement of equipment and facilities (Section 3.6).

3. The income from fees today covers all current costs, including amortization and revaluation of present assets. Therefore, no across-the-board increase in general fee levels is necessary at this time. However, following the implementation of the cost-based tariff structure as mentioned in item 1, SPA port fees should be brought in line with costs--some by increasing, others by decreasing. This also applies to rental equipment fees which should reflect their true costs. For such fees, a series of increases are suggested for various types of equipment, specifically marine craft, cranes, forklifts, and cargo-handling gear (Section 3.7).

4. Present fee levels are not adequate to cover the amortization of the Berbera port extension and the Kismayo rehabilitation. Therefore, fees should be readjusted to cover these costs at the time of their capitalization. Calculations of projected costs and revenues suggest that an increase of 41 percent in income would be necessary in 1986. As the new facilities are quays used by both ships and cargo, the fee increase should be split between them by increasing both occupancy and wharfage charges, the latter represented by the harbor tax. These

matters should be discussed by the SPA with port users and the SSA to arrive at an equitable solution (Section 3.7).

5. A board should be established under the Ministry of Ports to review and coordinate fee levels, charges, and increases between the SPA and the SSA (Section 2.4).

6. In the future, fees should be maintained in accordance with cost increases by incorporating the impact of any future local currency devaluation in the cost of services provided, as well as that of inflation of local costs such as labor. Costs must be monitored continuously and increases implemented as appropriate. The different cost items to be monitored are discussed in Section 3.2 where the cost/revenues centers for cost-based tariffs are described.

7. As for the basis for charging fees (Section 3.9) the following are suggested:

   a. GRT should be used as a basis for ship charges, instead of NRT, to more accurately reflect the amount of services supplied by the port to each vessel.

   b. Berth occupancy charges should be changed from LOA to GRT to provide a more equitable basis. Based on this method, berth occupancy charges for vessels under 6000 GRT would remain equivalent to present charges based on LOA, while those for vessels over 6000 GRT would increase. This would result in a significant increase in fee revenues.

c. Equipment rental should be charged consistently on a time basis (day or hour) rather than per ton handled.

8. The SPA should take urgent measures to improve its data base for use in determining and evaluating port charges, especially those related to cargo handling, storage, and equipment utilization. Specifically, the following data should be maintained: pilots' logs; ship waiting time (demurrage); equipment utilization showing daily hours of operation by each piece of motorized equipment, including downtime for repairs; maintenance logs for each piece of equipment showing manhours for repair and value of parts used; labor hours of stevedores, quay, and warehouse gangs and tons of cargo handled; movement of cargo through sheds and open storage areas by type of cargo; rental equipment logs by type of equipment and number of billable hours.

1. INTRODUCTION

1.1 GENERAL

On January 1, 1983, the United States Agency for International Development (USAID) retained Parsons Brinckerhoff International (Parsons Brinckerhoff) for the rehabilitation design of the Port of Kismayo in the Somali Democratic Republic. The final feasibility study report of the port rehabilitation was submitted on July 31, 1983. As part of the study, a financial evaluation of the port rehabilitation was performed. The financial evaluation concluded that there was a serious problem of revenue shortfall for the projected amortization and financing of the Kismayo rehabilitation, as well as the amortization of existing facilities in Kismayo. This situation existed as a result of the failure to readjust port fees proportionally to the nearly 100 percent devaluation of the Somali shilling at the end of 1982. Some structural changes in the fee schedules had been implemented by the Somali Port Authority (SPA), but were insufficient to make up the difference lost to devaluation. The financial analysis in the feasibility study recommended that fees be raised in real (dollar) terms to the pre-devaluation level "through a surcharge per metric ton spread over all Somali ports, and/or direct Government subsidy. However, these possibilities would have to be analyzed in terms of projected resources and obligations of the Somali Port Authority."

As a condition for USAID financing of the Kismayo port rehabilitation, the contract between USAID and the Somali Government included a "CP" (condition precedent) requiring that a study of the Somali port tariff structure be undertaken. USAID officials were concerned that if the port tariffs were not raised, funds would not be available to replace the port's fixed assets at the end of their useful life and it would be necessary, once again, to seek extensive foreign financing.

As part of the scope of work in the final design contract signed between Parsons Brinckerhoff and USAID on November 22, 1983, a Tariff Rate Structure Study was included in the Contract scope of work.

After preliminary research in New York, the Parsons Brinckerhoff study team arrived in Mogadishu on December 1, 1983. The draft report was prepared and submitted to AID in Mogadishu in April 1984.

Figure 1-1 shows locations of Somali and other regional ports.

1.2 OBJECTIVE AND SCOPE

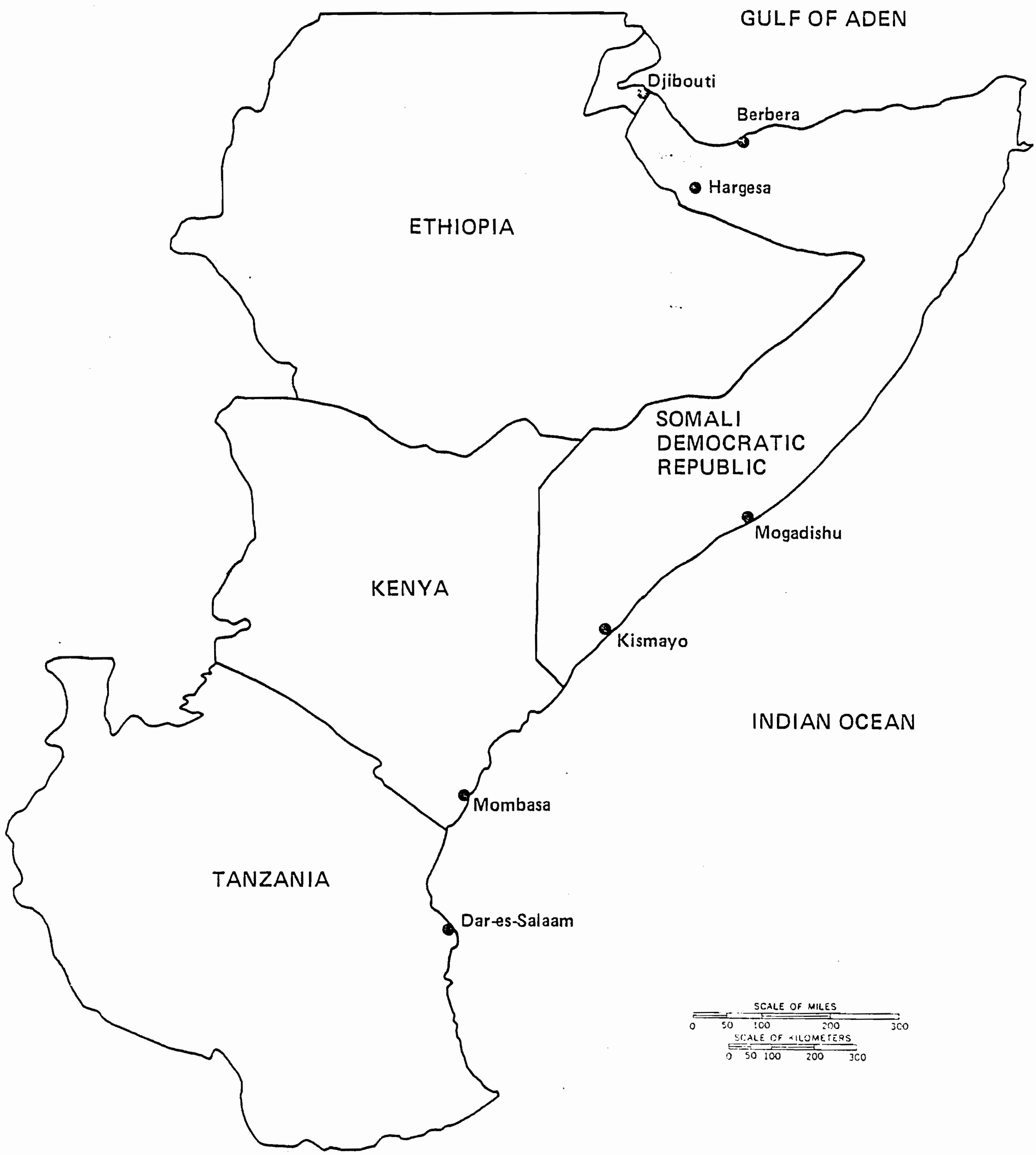
The purpose of the study, according to the Contract, is to "prepare and conduct a tariff rate structure study which will suggest a rate readjustment program maximizing port revenue in the light of import and export incentives."

The scope of work for the Tariff Rate Structure Study includes the following:

- Gathering necessary data on port fees and operation from ports in the Somali Democratic Republic as well as those in neighboring countries.

- Reviewing the accounts of each of the major Somali ports (Kismayo, Mogadishu, and Berbera) to provide a basis for determining the adequacy of port charges to cover costs at each port.

Figure 1-1. Ports Surveyed for the Port Tariff Study



- Analysis of the impact of port fees on Somali exports using data on FOB-CIF prices of the major Somali export products.

- Preparation of cargo forecasts for the Somali ports through 1986 based on available data.

- Forecast of income and costs for the SPA and its individual ports through 1986.

- Identification of revenue shortfalls at various levels of cargo forecasts.

- Testing existing tariffs against tariff practices in other ports.

- Comparison of SPA fee levels with those of neighboring ports.

- Determinaton of need for changes in port fee structure, including differential increases.

- Proposals for a series of across-the-board increases to overcome the projected revenue shortfalls.

- Evaluation of the effect of proposed rate increases on different levels of cargo forecasts.

- Preparation of pro forma financial statements for the SPA and Kismayo port separately to show the impact of the proposed increases at different levels of cargo forecasts.

- Preparation of draft and final study reports.

Section 2, Existing Conditions in Somali Ports, describes the institutional framework in which the Somali Port Authority functions and its implications on port finances and operations, both of which have a direct bearing on fees. The present fee schedules are summarized and discussed, and present fee levels compared with those existing previously. Present SPA fees and those of the Somali Shipping Agency (SSA) are compared with fees of ports in neighboring countries. The impact of fees on port users is analyzed, both quantitatively and qualitatively.

The actual calculation of port charges and their evaluation is undertaken in Section 3, Formulation of Cost-Based Port Charges. The theoretical framework for the proposed fee changes is established, including the financial and economic implications of port fee policy. The cost/revenue centers for a cost-based fee system are then outlined. The development of costs, revenues, resulting revenue shortfalls, suggestions for overall fee-level increases, and their evaluation under different cargo forecast assumptions are presented. The current charging methods and individual fee levels are reviewed and suggestions presented for changes in individual fees.

1.3 SOURCES OF DATA

Data necessary for the study were obtained from various sources. The SPA headquarters provided data on assets, annual financial statements, salary levels, and the operating plan and budget for the current fiscal year. The individual ports provided information on ship calls, characteristics of vessels, cargo volumes for past years, and port operating equipment. Information on port operations was obtained from direct observations and discussions with gang foremen and port officials. Opinions on fee levels, methods of charging, and other related aspects were obtained through interviews with port managers and SPA officials in the finance and planning sections as well as agents for various shipping lines and officials of the SSA.

The Ministry of Planning provided data on the costs of future port improvements and on some aspects of import and export projections. Further information on exports was obtained through interviews with livestock and banana shippers.

Finally, the 1977 Price Waterhouse study report, "A Cost Based Tariff Structure," for the SPA was reviewed.

2. EXISTING CONDITIONS IN SOMALI PORTS

2.1 ORGANIZATION AND RESPONSIBILITIES OF THE SOMALI PORT AUTHORITY

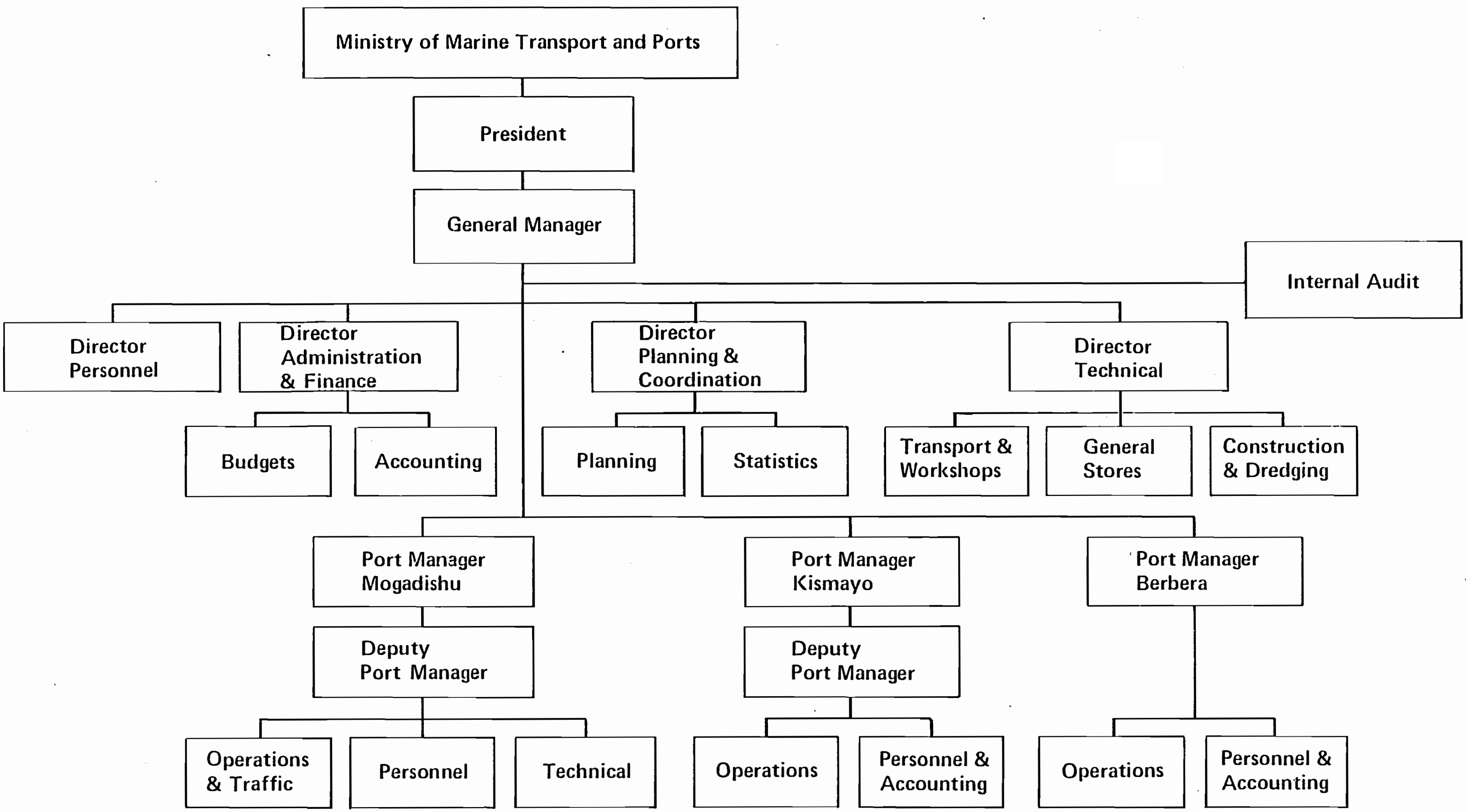
The Somali Port Authority (SPA) was created on January 7, 1973 by Government Law No. 1 Article 3, paragraph 3, as an agency of the Ministry of Ports for the purpose of administering Somali ports.

Its responsibilities include:

(1) the construction and maintenance of ports and channels,
(2) the purchase and repair of cargo-handling equipment,
(3) planning of port administration and facilities,
(4) setting tariffs for services, both those performed for ships and those for cargo,
(5) cargo handling and stevedoring and collecting fees therefor,
(6) custody of goods and storage, and
(7) security for ports.

The SPA headquarters is located at the Old Port in Mogadishu, and houses departments of finance, engineering, personnel, and planning. The SPA organization chart is shown in Figure 2-1. Reporting directly to the Director General are the managers of the three main Somali ports at Mogadishu, Kismayo, and Berbera. Each port has its own accounting and operating sections. Responsibilities for cargo handling, stevedoring, custody, storage of goods, and security, as well as the repair of cargo-handling equipment and port maintenance, are delegated to the individual ports. Construction,

Figure 2-1. Somali Port Authority — Organization Chart



purchasing, planning, and setting tariffs are reserved to the SPA head office. The existing organization chart for the Port of Kismayo is presented in Figure 2-2.

In practice, the SPA has limited freedom to exercise its responsibilities. The purchase of equipment, particularly that involving foreign currency remittances, is handled through the Ministry of Ports. Construction of port facilities comes under the Ministry of Public Works. Modifications of port fees have to be approved by the Ministry of Ports.

The ship charges in US dollars are collected by the Somali Shipping Agency (SSA), the national forwarding and shipping agent,* in the following manner: before a ship arrives, the SSA presents its estimate of the ship charges to the ship owners, in practice overestimated by 10 to 50 percent, to be paid in advance. When the ship is in port, the SSA receives requests for and keeps track of the services actually supplied to the ship during its stay. The costs of these services are reported to the SPA port management. The SSA submits an invoice for the actual services rendered to the ship owners who

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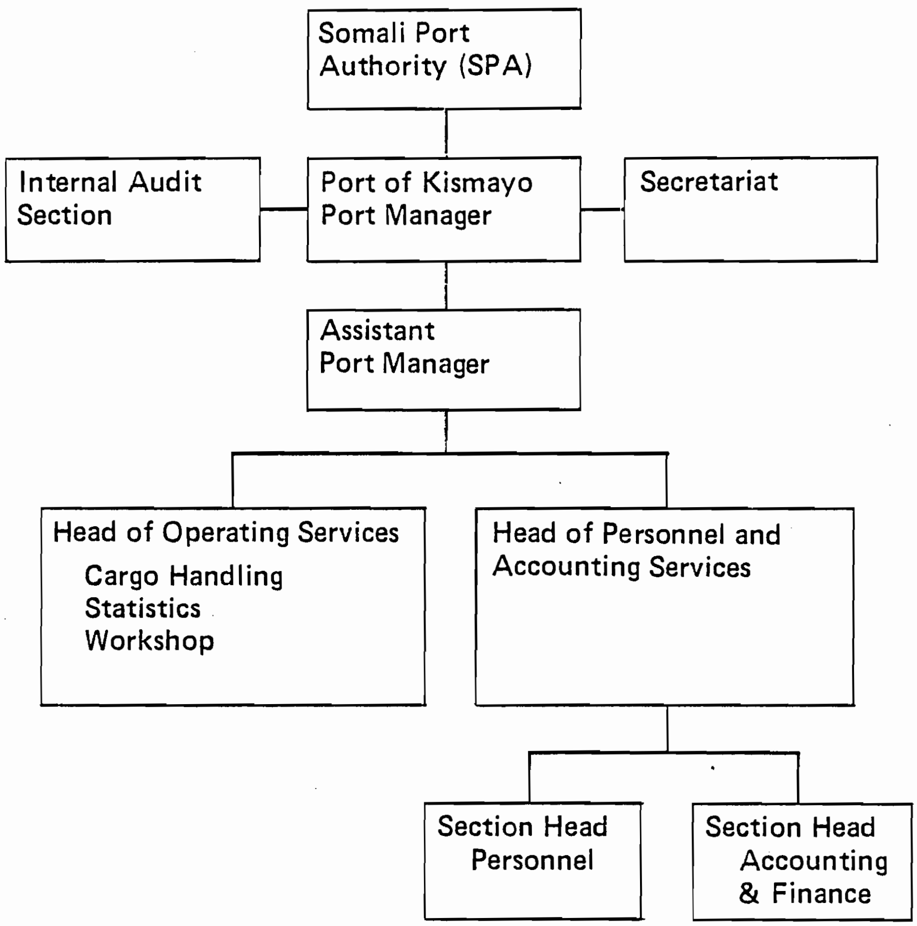
*The Somali Shipping Agency was established in 1968 as a government shipping agent replacing private agencies in providing services to shipping companies and vessels. Like the SPA, the SSA is subordinated to the Ministry of Ports.

The SSA's responsibilities include:

(1) supplying communications for ship owners and receivers, and making bookings;
(2) treating claims against and protecting cargo;
(3) delivering cargo manifest to customs and harbor master;
(4) acting as broker between cargo owners and customs;
(5) keeping consignment records;
(6) billing ship and cargo charges, including freight commission; and
(7) attending to crew problems.

Figure 2-2. Port of Kismayo — Organization Chart



receive a refund or pay the difference, depending on whether the actual services supplied cost less or more than the SSA estimate. After presenting the invoice, the SSA credits the SPA with the invoice amount in Somali shillings.

The fee for cargo handling and equipment rental is calculated and charged directly by the SPA to the cargo owners, who pay the amount in Somali shillings upon presentation of the invoice.

Unlike many other port authorities, the SPA is not financially autonomous; it is, for all intents and purposes, another government agency. The autonomy is circumscribed by its dependency on the government in areas of investment decision-making and finances. Since port investments are provided by the central government, the SPA is not required to replace its assets. This has serious financial implications as will be shown later.

2.2 FINANCIAL OBJECTIVES AND CONSTRAINTS

The financial position and objectives of the SPA are linked to the financial objectives and constraints of the ports; namely, cost coverage, governmental constraints, liquidity constraints, utilization of assets, and establishing reserves. These are discussed in the following paragraphs with reference to Table 2-1, which presents a summary of the SPA profit and loss statement for 1982, the last year for which the statement is available.

TABLE 2-1. SUMMARY OF SPA FINANCIAL POSITION AS OF DECEMBER 31, 1982 IN (000) SOMALI SHILLINGS

INCOME	AMOUNT	% GROSS INCOME
1. Charges on Ships	22 158	14.5
2. Other Maritime	1 043	0.7
3. Harbor Tax	27 014	17.7
4. Stevedoring	14 755	9.7
5. Shore Handling	44 251	29.0
6. Other Cargo Charges**	43 030	28.2
7. Interest Income	171	.1
GROSS INCOME	152 422	
Expenditures		
1. Salaries	9 292	6.1
2. Day Employees (stevedoring, dockers)	25 157	16.5
3. Other Payroll	2 490	1.6
4. Utilities, Consumables	17 882	11.7
5. Depreciation	15 995	10.5
TOTAL EXPENDITURES	70 816	
GROSS PROFIT	81 606	53.7
Administration	4 567	3.0
Financial Costs	2 943	1.9
NET BEFORE TAX	74 096	48.6
Turnover Tax*	37 048	24.3
Government Share*	22 229	14.6
Reward and Housing*	3 704	2.4
Investment*	11 114	7.2

*Percent of NBT established by law.

**Included are storage, equipment hire, cargo shifting, and port revenue.

2.2.1 Cost Coverage

Cost coverage means that the port must generate enough revenue through port charges to cover the operating expenses. As shown in Table 2-1, port charges levied by the SPA not only cover expenditures, including depreciation, but also yield a gross profit of 53.7 percent. Net before tax is as high as 48.6 percent of gross income.

2.2.2 Governmental Constraints

Governmental constraints concern the freedom granted to an individual port to determine its own charges. In Somalia, this power is vested in the SPA and not in the individual ports. However, since the Ministry of Ports must approve all rate increases and changes, the SPA's options in this area are limited. As previously mentioned, the purchase of equipment and investments must also be approved and funded through the Ministry of Ports and the Ministry of Finance. Construction must be approved and funded through the Ministry of Public Works.

2.2.3 Liquidity Constraints

Liquidity constraints mean that cash outflow should not exceed cash inflow. Due to high income relative to expenditures, the SPA is solvent. Since the government obtains loans for the port either directly, or through international lending agencies, the SPA is not required to amortize investments or cover interest costs on the loans. This is the government's responsibility.

2.2.4 Optimization of Asset Utilization

Optimization of asset utilization refers to the use of port fees to optimize the employment of port assets. This is accomplished, for instance, by lowering rates on under-utilized facilities and increasing rates on over-utilized ones. This aspect has not been given much attention by the SPA due to lack of a proper statistical base for determining the degree of asset utilization.

2.2.5 Establishing Reserves

The objective of establishing reserves is to cushion the port against falls in revenues and rises in costs due to changing economic conditions such as inflation or a fall in traffic, as well as against physical occurrences such as damage to assets and management mistakes. Since the SPA provides revenue for, and its costs are covered by, the government, it does not maintain reserves for obsolescence, for inflation of fixed asset replacement costs, or for financing future improvements. Reserves are currently limited to operational items, such as providing for bad debts. Thus, the financial objectives of the SPA are limited; the primary function of the SPA is to keep the ports in operation and provide revenue for the government.

2.3 FEE SCHEDULES - HISTORY AND CURRENT STATUS

The only previous study and major revision of the tariff structure of the SPA was prepared by Price Waterhouse in 1976-77. In reviewing the existing tariffs, Price Waterhouse found that most of the rates had been unaltered since their publication in 1970, and that some rates had been established as far back as 1962. As a result, there was little correlation between the tariffs and the actual cost of the services being provided. Additional problems were encountered in the billing because other government agencies were also charging and collecting various port fees over which the SPA had no control.

To improve the situation, Price Waterhouse proposed a new tariff structure following the methodology of cost-based tariffs outlined in the United Nations Conference on Trade and Development (UNCTAD) 1976 report on port fees. Price Waterhouse calculated new tariff rates based on the SPA 1977 budget adjusted for reevaluated assets, a 5 percent return on the amortized investment, and projected cargo volumes. They developed a system of costs and revenue centers to facilitate future revision of the tariff rates and prepared an implementation schedule along with procedures for long-term monitoring and revision. Several members of the SPA accounting department were trained in its use.

In accordance with the Price Waterhouse study, the fee schedules, the fee categories, and the changing bases were adapted to the recommended format. However, the fee levels suggested by Price Waterhouse were not implemented, because the Somali authorities felt that they were too high when compared to other regional ports. The cost-based tariff structure system, the accounting procedures, and the asset revaluation methodology were not implemented due to lack of trained personnel.

The fee structure recommended by Price Waterhouse and implemented by the SPA is presented in Table 2-2. For each fee, the table describes briefly what the charge covers, the unit which forms the basis for the charge (such as per day,

TABLE 2-2. SUMMARY OF CURRENT SPA FEES

SPA CHARGES TO SHIP

TYPE OF CHARGE	NATURE OF CHARGE	CHARGING BASE	BASIC UNIT	CHARGING SYSTEM
Pilotage	For piloting ship	Per ship GRT single charge when entering & when leaving	GRT	Six tariffs between 2000 GRT and 10000+. Compulsory for all except ships under 200T, fishing boats, dhows, warships. Ships moving within harbor charged. Half of extra charge for pilot detention waived, if in port interest.
Towage	For towing ship	Per ship single charge. For each tug upon entering, leaving and shifting	ship size NRT	Table graduated according to NRT. Same for all ports. Compulsory for all ships except warships, dhows, ships under 200T, fishing boats. Ship moving in harbor, one-half rate; if in port interest, waived.
Entrance Fee, Port Dues	For entering harbor	Per ship, as single charge upon entering	ship size NRT	Table graduated according to ship size. Different for each port. One-half rate charged to Somali government ships, and ships in for repairs. Emergency entrance charged 25 percent rate for time greater than 12 hours. Passengers and mail exempted, as are warships.
Berthing or Mooring	For placing ship at berth	Per ship, entering and leaving port	ship size NRT	Table graduated according to ship size. Same for all ports. Ship moving in harbor charged one-half rate. If in interest of port, no charge made.
Berth Occupancy	Occupation of berth by ship	Per day, per meter, per ship	Meter LOA	One rate same for all ports. Warships exempt for 24 hrs.

TABLE 2-2. SUMMARY OF CURRENT SPA FEES (Continued)

CHARGES TO CARGO

TYPE OF CHARGE	NATURE OF CHARGE	CHARGING BASE	BASIC UNIT	CHARGING SYSTEM
Shore Handling	For moving cargo from quay to storage	Tons except animals, & kind of cargo, rounded upward to nearest ton	Tons/ animal	Charge is by ton by product, except animals, which is per head. Five categories of weight cargo. Goods causing damage charged 20 percent more. Weight rounded up to nearest ton. Thirty percent more for timber not in bundles; 5 percent discount for timber. Three percent discount for goods on pallets and in bags. Four percent discount for goods in containers. Forty percent rebate given if all goods are on one B/L.
Stevedoring	Removing cargo from or placing on ship	Same as shore handling	Tons/ animal	Rates same for all ports, by type of product. Overtime rates are charged.
Fixed Cranes	For use of fixed cranes, or mobile cranes used as quay cranes	By the hour, type of cranes	Hour	Charge by hour and for class of crane capacity, from 3000T. to Jumbo. Hourly rates same for all ports. Payment made after each working day.
Mobiles Cranes	For use of mobile cranes	By ton and by hour	Tons Hours	Two different sets of charges, for use in harbor and out of harbor. In port by ton, out of port by hour.
Forklift	Use of forklift	By ton & hour	Ton Hour	Two rates used for tons & other for hours. In port charged by ton of cargo, out of port by hour, but only day light hours.
Tractors & trailers	Use of tractors & trailers	By ton & by hour	Ton Hour	Two rates - by ton in harbor, by hour out of harbor. Two kinds of trailers - 20T and less than 20T. Same for all ports.
Cargo handling gear	Use of rope sling, wire, pallet, chain	Working day	Day	Rates same for all ports.
Tugs motor boats	Use of same inside and outside harbor	Day, hour	Day Hour	Tugs and motor boats charged by hour. Other boats by day. Rates for tugs for emergency use outside harbor. Same rates for all ports.

TABLE 2-2. SUMMARY OF CURRENT SPA FEES (Continued)

CHARGES TO CARGO

TYPE OF CHARGE	NATURE OF CHARGE	CHARGING BASE	BASIC UNIT	CHARGING SYSTEM
Storage area, Sheds	For keeping Cargo, export & import, in port area	Per day for each 100 kg.	Day	Three rates, for 1st 10 days, 2nd 10 days and thereafter, inside shed and both imports and exports exemptied for for first 5 days.
Loading/ unloading of heavy lifts	Unloading of cars, lorries tractors, cranes, bulldozers	Per day/unit	Unit	Handling of all movable equipment is charged depending on size of equipment; same for all ports.
Boat Rental	Rental of launch	By trip	Trip	All ports charge the same rate for this service.
Charges on liquid bulk cargos	For loading & un-loading petroleum and molasses	100 Kg.	100 kg.	Oil unloading more expensive than load-ing, but is the same for all ports.

hour, gross registered ton), and the charging system indicating how the fee is charged, who is exempted, and which ports have the same fee levels.

By the end of 1982 when the Somali shilling was devalued nearly 100 percent, the SPA revised the fees and issued a new schedule on December 15, 1982. A number of innovative changes, in addition to rate increases, were made. These included rounding weight charges for cargo from the nearest 100 kg upward to the nearest 1,000 kg, charges for mobile cranes and forklifts, and others. At the time, no detailed estimate of costs for each category was made.

Table 2-3 shows the resulting percentage change increases in each category for ship and cargo charges in Somali shillings and US dollars, the latter taking into consideration the difference between the exchange rate of 7.647 at the time of the 1982 devaluation, and 17.38 in January 1984. Changes in fee levels varied considerably from one category to the next. For example, port dues and entrance fees at Mogadishu and Kismayo remained unchanged from 1977 rates since the SPA did not believe that the traffic would bear higher fees at these ports. At Berbera, port dues and entrance fees were decreased by one-third since at that port initial investments were much lower. Moorage and pilotage charges were increased to compensate for devaluation and inflation, especially that related to equipment costs. Towage and occupancy charges were increased in Somali shillings, but not enough to offset devaluation. Shore handling of animals was decreased from 1977 rates for Mogadishu and Kismayo as the result of a government commission study of the cost of animal exports and an effort to stimulate exports by lowering costs to exporters. This decrease was partially offset by increases at Berbera, both for shore handling and stevedoring of animals.

TABLE 2-3. SUMMARY OF TARIFF RATE CHANGES 1983

Charges to Ships 1977 vs 1984 in Percent of Change

SHIP SIZE	PORT DUES						ENTRANCE		MOORING		TOWAGE		PILOT		OCCUPANCY	
	Mogadishu		Berbera		Kismayo		All Ports		All Ports		All Ports		All Ports		All Ports	
NRT	US$	SoSh	US$	SoSh	US$	SoSh	US$	SoSh	US$	SoSh	US$	SoSh	US$	SoSh	US$	SoSh
1- 2000	(42%)	33%	(70%)	(33%)	(56%)	0%	(56%)	0%	17%	166%	(42%)	33%	(12%)	100%	(45%)	25%
2001- 4000	(34%)	50%	(70%)	(33%)	(56%)	0%	(56%)	0%	33%	200%	(45%)	25%	17%	166%	(45%)	25%
4001- 6000	(56%)	0	(70%)	(33%)	(56%)	0%	(56%)	0%	3%	120%	(47%)	20%	10%	150%	(45%)	25%
6001- 8000	(56%)	0	(72%)	(38%)	(56%)	0%	(56%)	0%	46%	233%	(49%)	16%	6%	140%	(45%)	25%
8001-10000	(56%)	0	(74%)	(40%)	(56%)	0%	(56%)	0%	50%	242%	(50%)	14%	3%	133%	(45%)	25%
10000+	(56%)	0	(79%)	(53%)	(56%)	0%	(56%)	0%	54%	250%	(50%)	13%	(12%)	100%	(45%)	25%

TABLE 2-3. SUMMARY OF TARIFF RATE CHANGES 1983 (Continued)

Charges to Ships 1977 vs 1984 in Percent of Change

CARGO HANDLING	SHORE HANDLING				STEVEDORING					
PRODUCT	LOAD		UNLOAD		MOGADISHU		BERBERA		KISMAYO	
	US$	SoSh	US$	SoSh	US$	SoSh	US$	SoSh	US$	SoSh
General Imports (Avg.)			(49%)	15%	10%	150%	10%	150%	10%	150%
Cement			(45%)	26%	10%	150%	10%	150%	10%	150%
Dangerous Materials		0	(56%)	0	(30%)	60%	(30%)	60%	(30%)	60%
Canned Meat	(49%)	16%		--	10%	150%	10%	150%	10%	150%
Camel *	(69%)	(20%) *		--	(42%)	33%	(27%)	66%	(42%)	33%
Cattle *	(68%)	(27%) *		--	(47%)	20%	(38%)	40%	(47%)	20%
Goats *	(70%)	(33%) *		--	(34%)	50%	(34%)	50%	(34%)	50%
Banana		100%		--						
General Export (Avg.)	(45%)	24%		--	10%	150%	10%	150%	10%	150%
Vehicle to 600 Kg			14%	160%		--		--		--
600- 1000 Kg			(34%)	50%		--		--		--
1000-15000 Kg			(31%)	56%		--		--		--
15000-20000 Kg			(34%)	50%		--		--		--
20000 Kg			(38%)	41%		--		--		--

EQUIPMENT RENTAL		US$	SoSh
Cranes -	3000 Kg	(34%)	50%
	5000 Kg	(38%)	40%
	10000 Kg	(42%)	33%
	15000 Kg	(45%)	25%
	15000 Kg	(30%)	60%
	Jumbo	(34%)	50%
Forklift Inside		(10%)	150%
Tractors		(38%)	42%
Trailors			1200%
Tugs		(45%)	25%
Launches		(9%)	108%
Storage			0

* Berbera +17% 27% 33% respectively

An additional comparison of the 1977 and 1982 schedules, showing charges to general cargo ships, is given in Table 2-4. Here, the fees for a general cargo vessel with characteristics shown in Table 2-5 are calculated using both fee schedules and the changes compared in shillings and in dollars. The table shows that while fees in shillings increased 33.9 percent, in dollars they decreased 41.1 percent.

It is to be noted that immediately following the 1982 devaluation, the SSA increased its rate schedules significantly without having consulted the SPA. Even though the SPA had been authorized by the government to increase fees proportionally to the devaluation, the SPA felt that because SSA fees were already so high, also increasing the SPA fees would create problems with shippers and ship owners. As a result, the SPA implemented the maximum fee increases it felt it could justify under the circumstances, which were less than the devaluation.

2.4 COMPARISON OF PORT CHARGES IN THE REGION

Port fee levels are constrained significantly by fees charged at other ports in the same region. There may be competition between ports, particularly if they have overlapping areas of influence. Fee levels may be set based on what "the traffic can bear." Shippers and ship owners who operate in several ports can compare charges and service at various ports. Even though they can pass on costs to cargo owners and through them to consumers, ship owners are quick to point out that "port A" is more expensive than "port B." Ship owners, charterers, and shippers can sometimes take their business elsewhere.

TABLE 2-4. COMPARISON OF SHIP CHARGES BEFORE AND AFTER INCREASES, FOR GENERAL CARGO - MOGADISHU IN SO.SH

FEE	1977 SCHEDULE	1983 SCHEDULE	% INCREASE
Dues	So.Sh 2000	So.Sh 3000	
Entrance	10000	10000	
Mooring	1500	2000	
Occupancy	18200	22750	
Pilot	3290	7900	
Towage	8000	10000	
Anchorage	2249	2249	
Stevedor	29876	74690	
Shore Handling	117370	149380	
Storage	71702	71702	
TOTAL	264 187	353 671	33.9%
÷ Exchange Rate	7.649	17.38	
=	US$ 34539	US$ 20349	
÷ Tons	2134	2134	
=	US$ 16.18/ton	US$ 9.53/ton	(41.1%)

TABLE 2-5. SHIP CHARACTERISTICS FOR FEE COMPARISON

Product	General Cargo	Livestock	Petroleum	Cement
GRT	6 583	6 298	17 177	5 723
NRT	3 749	3 716	10 465	3 416
LOA	130	132	166	116
Average Days at Berth	7	3	3	11
Cargo in Tons	2 134	380	13 040	6 616

These factors are seen in relation to Somali ports. Competition is keen between Berbera and Djibouti. Even though Hargesa, the second largest Somali city, is separated from Djibouti by more than 300 km of desert and mountains traversed by mere tracks, merchants in Hargesa prefer to bring bulk items (such as rice and flour) by truck from Djibouti over such terrain, rather than through Berbera, which is linked to Hargesa by 150 km of good asphalt highway. When asked why, several truckers replied that it was "cheaper," though none could give exact details of what it was that made the difference.

To quantify the difference between Somali and other regional ports, visits were made to Mombasa, Dar es Salaam, and Djibouti to obtain data on fee schedules. To establish a uniform basis for comparison, four kinds of vessels were chosen with the same characteristics as the average vessels that frequent Mogadishu port. With the assistance of shipping agency personnel, each ship was "run" through the fee schedules at each port. Since most fees are identical for all Somali ports, Mogadishu was used for comparison. In spite of considerable differences among ports in practice and organization, and consequently in methods of charging fees as well as fee structure, the results -- summarized in Table 2-6 -- are instructive. The conclusions are as follows:

(1) Ship charges at Mogadishu are nearly three times higher than at Djibouti. Ship charges at Mombasa and Dar es Salaam are more than twice those at Mogadishu. The rates are higher in these East African ports because of recent rate increases. At Mombasa the rates were increased to cover the cost of new quay cranes. The port of Dar es Salaam, which traditionally follows the rate structure of Mombasa, increased its rates in February

TABLE 2-6. COMPARISON OF FEES AT AREA PORTS - CHARGES IN US$

GENERAL CARGO IMPORTS

Fee Category	Mogadishu General Cargo	Djibouti General Cargo	Mombassa General Cargo	Dar es Salaam General Cargo
1. SHIP CHARGES				
Navigational Aids, Entrance	575	21	252	278
Pilotage	454	142	668	558
Port Dues	173	310	613	653
Towage	575	234	1 353	1 561
Mooring	115	70	168	198
Berth Occupancy	1 309	438	3 694	4 616
Cleaning	--	8	74	87
Health Clearance	--	13	--	--
Anchorage Fees .6 (NRT)	129	--	--	--
Sub-Total Ship Charges	$ 3 330	$ 1 236	6 822	7 951
Percent of Mogadishu	100%	37.1%	204.9%	238.7%
Cost Per Ton	$ 1.56	0.60	3.19	3.72
2. CARGO CHARGES				
Stevedoring on Board	4 297	17 072	10 826	10 062
Shore Handling	8 594	14 475	5 492	8 685
Storage	4 125	in shore handling	16 884	29 494
Sub-Total Cargo Charges	$17 016	$31 547	33 202	48 241
Percent of Mogadishu	100%	179.7%	195.1%	283.5%
Cost Per Ton	$ 8.22	14.78	15.56	22.61
3. TOTAL PORT CHARGES	$20 346	$32 783	40 024	56 192
Percent of Mogadishu	100%	157.0%	196.7%	276.2%
Cost per Ton	$ 9.78	$ 15.38	18.75	26.33
4. SHIPPING AGENCY FEES	$ 6 094	$ 3 714	2 120	2 120
Cost Per Ton	$ 2.85	$ 1.72	0.99	0.99
5. GRAND TOTAL-AGENCY + PORT FEES	$26 440	$36 497	$42 144	$58 312
Cost Per Ton	$ 12.63	$ 17.10	$19.74	$27.32

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TABLE 2-6. COMPARISON OF FEES AT AREA PORTS - CHARGES IN US$ (Continued)

LIVESTOCK EXPORTS

Fee Category	Mogadishu Livestock	Djibouti Livestock	Mombasa Livestock	Dar es Salaam Livestock
1. SHIP CHARGES				
Navigational Aids, Entrance	575	21	241	266
Pilotage	435	137	639	532
Port Dues	173	205	347	358
Towage	575	234	1 353	1 561
Mooring	115	70	168	198
Berth Occupancy	570	255	1 607	2 009
Cleaning	--	8	31	38
Health Clearance	--	13	--	--
Anchorage Fees	129	--	--	--
Sub-Total Ship Charges	$ 2 572	$ 943	4 386	4 962
Percent of Mogadishu	100%	36.75%	170.5%	192.9%
Cost Per Ton	6.76	2.48	11.54	13.06
2. CARGO CHARGES				
Stevedoring on Board	852	4 373	12 732	10 798
Shore Handling	572	--	8 807	7 073
Storage	--	--	--	--
Sub-Total Cargo Charges	$ 1 424	4, 373	21 539	17 871
Percent of Mogadishu	100%	307.0%	1512.6%	1254.9%
Cost Per Ton	$ 3.74	11.51	56.68	47.03
3. TOTAL PORT CHARGES	$ 3 996	5 316	25 925	22 833
Percent of Mogadishu	100%	133.0%	648.8%	571.4%
Cost per Ton	$ 10.50	13.99	68.22	60.09
4. SHIPPING AGENCY FEES	$ 3 722	2 000	1 280	1 280
Cost Per Ton	$ 9.79	5.26	3.37	3.37
5. GRAND TOTAL-AGENCY + PORT FEES	$ 7 718	$ 7 316	27 205	24 113
Cost Per Ton	$ 20.69	19.25	71.59	63.46

TABLE 2-6. COMPARISON OF FEES AT AREA PORTS - CHARGES IN US$ (Continued)

CEMENT IMPORTS

Fee Category	Somalia Cement	Djibouti Cement	Mombassa Cement	Dar es Salaam Cement
1. SHIP CHARGES				
Navigational Aids, Entrance	1 151	21	219	242
Pilotage	329	124	580	483
Port Dues	173	343	751	810
Towage	575	234	1 353	1 561
Mooring	92	70	168	198
Berth Occupancy	1 835	530	5 179	6 473
Cleaning	--	8	116	138
Health Clearance	--	13	--	--
Anchorage Fees	118	--	--	--
Sub-Total Ship Charges	$ 4 273	$ 1 343	8 366	9 905
Percent of Mogadishu	100%	31.4%	195.7%	231.8%
Cost Per Ton	.64	0.20	1.26	1.50
2. CARGO CHARGES				
Stevedoring on Board	13 323	56 236	33 566	31 197
Shore Handling	23 982	44 875	16 884	24 204
Storage	--	--	--	--
Sub-Total Cargo Charges	$37 305	101 111	50 450	55 401
Percent of Mogadishu	100%	271.0%	135.2%	148.5%
Cost Per Ton	$ 5.64	15.28	7.63	8.37
3. TOTAL PORT CHARGES	$41 578	102 454	58 816	65 306
Percent of Mogadishu	100%	246.4%	141.5%	157.1%
Cost per Ton	$ 6.28	15.48	8.89	9.87
4. SHIPPING AGENCY FEES	$ 8 516	5 429	2 960	2 960
Cost Per Ton	$ 1.28	.82	.45	.45
5. GRAND TOTAL-AGENCY + PORT FEES	$50 094	107 883	61 776	68 266
Cost Per Ton	$ 7.56	16.30	9.34	10.32

TABLE 2-6. COMPARISON OF FEES AT AREA PORTS - CHARGES IN US$ (Continued)

PETROLEUM IMPORTS

Fee Category	Somalia Petroleum	Djibouti Petroleum	Mombassa Petroleum	Dar es Salaam Petroleum
1. SHIP CHARGES				
Navigational Aids, Entrance	2 014	21	839	928
Pilotage	2 021	577	2 228	1 860
Port Dues	460	753	1 196	1 250
Towage	1 035	234	2 206	1 561
Mooring	161	70	168	198
Berth Occupancy	716	888	2 021	2 526
Cleaning	--	8	31	38
Health Clearance	--	13	--	--
Anchorage Fees	361	--	--	--
Sub-Total Ship Charges	$ 6 768	$ 2 564	8 689	8 361
Percent of Mogadishu	100%	37.8%	128.3%	123.5%
Cost Per Ton	.52	0.19	0.67	0.64
2. CARGO CHARGES				
Stevedoring on Board	--	--	--	--
Shore Handling	3 751	--	--	--
Storage	--	--	--	--
Sub-Total Cargo Charges	$ 3 751	--	--	--
Percent of Mogadishu	100%	--	--	--
Cost Per Ton	$ 0.28	--	--	--
3. TOTAL PORT CHARGES	$10 519	2 564	8 689	8 361
Percent of Mogadishu	100%	24.4%	82.6%	79.5%
Cost per Ton	$ 0.80	0.19	0.67	0.64
4. SHIPPING AGENCY FEES	$11 423	1 257	1 045	1 045
Cost Per Ton	$ .88	.10	.08	.08
5. GRAND TOTAL-AGENCY + PORT FEES	$21 942	3 821	9 734	9 406
Cost Per Ton	$ 1.68	0.29	0.75	0.72

1984. As shown in Table 2-6, these two ports charge similar fees on most items.

(2) Cargo charges vary considerably according to the type of cargo handled. For all cargo, except petroleum, Mogadishu has the lowest rate. For livestock, Djibouti charges 3 times the Mogadishu rate; Dar es Salaam and Mombasa 12 and 15 times, respectively, the Mogadishu rate. Of course, the Somalis are more dependent on livestock exports than the East African countries and Djibouti. At Mogadishu a small handling fee is charged which is not found at the other ports. Cargo charges in Djibouti are US $8.00 per ton, compared to US $2.00 in Mogadishu, because of the strong stevedoring union SOMAD. Storage charges in East Africa are very high compared to those at Mogadishu. In Dar es Salaam, storage charges are progressive, and only three free days of storage are allowed compared to five in Mogadishu. On the other hand, while Mogadishu storage charges are the same for import or export cargo, in East Africa export cargo has lower rates and more than double the free time is allowed for export cargo.

Table 2-6 does not show wharfage charges, which in Somali ports and East Africa are collected ad valorem. In both East African ports, wharfage charges are currently 1.5 percent for imports and 1 percent for exports; in Somali ports 3 percent for both imports and exports.

(3) Except for petroleum, total port charges -- ship plus cargo -- are less in Mogadishu than in any other port visited.

(4) The gap in total charges is narrowed considerably when shipping agency fees are added to port charges. SSA fees have been and continue to be the highest shipping agency fees of any regional port, irrespective of the kind of cargo, and in some cases are equal to or greater than total SPA port charges. High agency fees cause ill will among port users because they in no way reflect the cost of agency services, especially when compared with fixed facilities and services furnished by the port. The Somali situation is complex because the SSA can increase fees without consulting the SPA. Even though both the SSA and SPA report to the Ministry of Ports, it has been stated by the SPA that there is no coordination between SPA and SSA fees. The foregoing problem could probably be solved without loss of income by increasing port fees while decreasing agency fees proportionally. A schedule of SSA fees is included in Appendix A.

(5) Due to recent fee increases at East African ports, the overall Somali port charges are lower than those at other area ports. Therefore, increases in SPA charges could probably be implemented without unduly straining relationships with shippers, providing the shipping agency fees are not further increased.

2.5 PORT USER BENEFITS

The port users -- ship and cargo owners -- place an important indirect constraint on port fees. These users must be satisfied that they are receiving a fair value in services rendered for the port fees charged. During the course of this study, interviews were held with the agents of various shipping lines, cargo owners, shippers (principally livestock dealers), and representatives of the SSA.

The reaction of all persons interviewed was largely negative. Among the comments, the following were universal:

(1) All users felt that fee levels, including those of the SSA, were high when compared to other ports in the region, such as Djibouti, Jeddah, Abu Dhabi, and East Africa.

(2) All felt that fees were too high for the services actually provided by the ports. Some recounted stories of tugs and pilots arriving late; equipment, such as forklifts, although requested was not made available because it was broken or being used elsewhere. Also, frequently additional money had to be paid to obtain services such as stevedoring and shore handling.

(3) There were many complaints by shipping lines about the slowness of the bureaucratic processes in both the ports and the SSA in billing, especially with regard to refunds of port disbursement fees which are paid in advance. There were cases of funds being held for up to two years before being refunded. In some cases, such refunds were made after the Somali shilling had been devalued.

Apparently liners fare better than charter cargo vessels because their regular dealings with officials allow them to work out their own long-term arrangements.

With regard to comments received from those interviewed, while SSA fees are indeed high compared with the other ports in the region, the combined SSA plus SPA port fees are no longer higher than those in other East African ports because of the recent fee increases there. In fact, present fees in dollars are 40 percent lower than in 1982 (see Table 2-4). However, the operational and bureaucratic problems previously mentioned were acknowledged by both SSA and SPA officials.

Do existing Somali port fees, in fact, have a negative impact on trade, particularly exports? A case in point is that of livestock. The current price in Mogadishu for a sheep or goat for export is SoSh 655 (US $38). Shipping rates for sheep from Mogadishu and Kismayo to Jeddah are US $13 per head, and from Berbera US $6. The rates for cows and camels are six and ten times higher, respectively, for purposes of calculation. The Government fixes the cost and freight (C & F) value on the bill of lading as US $40 or US $42 per sheep or sheep equivalent, which is nearly equal to the FOB price. However, the Government allows the livestock exporters to sell the sheep in Jeddah for US $65, and deposit the difference over the official C & F value ($25 or $23) in a foreign account.

Using data from Table 2-6, total charges to ship an animal from Mogadishu to Jeddah are compared in the following chart with the fee per animal charged at Mogadishu. As can be seen, the impact of port fees is relatively small.

Animal	Freight/Animal	Port Fees/Animal	Percentage
Camel	US $230	US $4.65	3.6
Cattle	$ 78	$2.31	3.0
Sheep/Goats	$ 13	$0.32	2.5

A more serious problem for Somali exporters is the current ban on animal shipments to Saudi Arabia due to alleged disease among Somali animals. In addition, sheep are now being brought from Australia to Jeddah at a C & F of $39 per head. Whether the quality of Somali sheep is high enough to maintain its market share remains to be seen, even if Saudi Arabia lifts the current ban on Somali imports. There are other problems, such as government exchange rate policy and local inflation. To its credit, the government has made efforts to lower costs to livestock shippers by reducing municipal transit taxes and export taxes. Port shore handling and stevedore charges have also been cut (paragraph 2.4). Thus, port fees appear to be only a small part of the total problem. It is difficult to see how livestock export volumes could be greatly impacted from increases in current port fee levels.

The impact of present port fees on banana exports is likewise very small. The cost of port fees on banana exports is estimated at US $8.23 per ton, compared with 1983 FOB Mogadishu prices of US $280 and freight rates of US $120 per ton. This amounts to 3 percent of FOB and 7 percent of freight. Italian consortiums are investing heavily in expanding banana production in the Shebelli and Juba river areas. Banana export is not such a marginal operation that port fees would have a significant impact on export volumes.

While the operation of the Somali port system is not very favorable from the point of view of its users, it appears that fee levels per se are not a major factor in the costs of Somali exports. One ship's agent interviewed said he would be happy to pay higher fees if the services for which they were charged were provided more efficiently. Another said he would be willing to pay a surcharge earmarked for port improvements. What both authorities and users agree upon is that the quality of port services is very low compared with charges for them. Thus, the problem from the users' standpoint is not so much the level of fees as the quality of the services provided.

3. FORMULATION OF COST-BASED PORT CHARGES

3.1 PRELIMINARY CONSIDERATIONS

Ports form a link in a chain whereby goods are transferred from water to land transport modes and vice versa. They require sizable investments in breakwaters, quays, buildings, and equipment, and incur significant operating costs. Ports benefit their users through the services offered and the degree of efficiency with which services are provided.

Port services fall into two categories: those furnished to ships and those related to cargo handling. Each service has specific costs associated with it, such as facilities, equipment, and labor needed to perform the service. In addition, there are administrative and overhead costs that are not specifically related to any one service.

One of the principal economic objectives of port pricing is the efficient use of resources to keep down the overall cost of providing the services. Port efficiency must be considered in terms of its immediate area of influence and its relation to the national economy. For instance, low fees at one port may benefit local users but at the same time may draw customers from another national port, making costs relatively higher to the remaining users of that facility.

A second economic objective of port pricing is to make sure that the benefits generated by a port accrue to the national economy. Assuming that a port is economically feasible, there will be an excess of benefits over the costs of providing the port services to users. The difference between total benefits and port fees is called the net benefit. At one extreme, the government may try to increase the net benefit to users by providing port services below cost through subsidization. In that case, both economic objectives are jeopardized; underpricing of services creates excess demand at the underpriced facilities and inefficient use of port facilities as a whole, thus raising costs to users. (Quay cranes and storage sheds, for example, are frequently underpriced.) A subsidy may benefit foreign port users, such as ship owners, particularly if freight rates do not reflect the lower fees. If subsidies are used, they should be well documented and provisions should be made for their withdrawal, or else they become permanent features maintained by and for the benefit of special interest groups.

At the other extreme, if the port has a monopoly position and is facing a freely competitive market for its services, it can charge as much as the market can bear where its profit is maximized, thus usurping the benefits (consumer's surplus) derived by port users from the use of the port. Profit maximization is also inefficient economically because price exceeds marginal cost, causing resources to be misallocated in the production of other goods and services in the national economy. Also, price of exports will reflect the higher fees doubly through higher input prices and costs of exporting. As the international demand curve for agricultural produce such as livestock and bananas is quite elastic, a small increase in price may mean a proportionally greater loss of market share externally and consequent contraction of export production, depending on the relationship between port fees and final market price. As discussed in paragraph 2.5, in the case of Somali exports this effect would be minimal.

Thus, from the national point of view, the most efficient basis for port pricing is that of marginal cost pricing where the fee level of the last unit of service produced is equal to the cost of producing it. In practice, this cost-based method means setting fees equal to their financial cost. In the analysis made as part of this study, marginal cost pricing was used to determine to what extent current fee levels cover costs at each port.

Financial costs of Somali ports to be covered by fees are as follows:

(1) financial costs of the SPA, including operating costs and amortization;

(2) a return on investment equal to the opportunity cost of capital invested elsewhere;

(3) reserves to cover expected price increases in replacement of existing assets.

3.2 COST-REVENUE CENTERS

Cost-based port pricing necessitates the establishment of cost-revenue centers which permit the management of fees by relating the fee level to the costs of providing the service for which the fee is charged. The Price Waterhouse study on SPA fees suggested a series of revenue centers and their related costs to establish cost-based port charges. This method, which is basically the same as that suggested by the United Nations, was adopted with a few modifications, as a basis for the cost-revenue centers used in this study.

3.2.1 Cost Centers Related to Charges to Ships

1. Port Dues Cost Center

This cost center includes all costs associated with the harbor master's office; 50 percent of port facilities not charged in a specific tariff; and 50 percent of the administration of the port. The other 50 percent in both cases goes to the wharfage cost center.

Harbor Master's Office

(1) Payroll costs

(2) Amortization of premises occupied and ship/shore communications equipment (including provision for replacement)

(3) Maintenance labor and materials of premises occupied

Fifty Percent of General Port Facilities Not Charged in a Specific Tariff

For example, roads, canteen, religious and training centers, boundary fencing.

(4) Payroll costs of ancillary employees, such as road sweepers and security staff

(5) Amortization of facilities (including provision for replacement)

(6) Operating supplies and services such as electricity and gas

(7) Port maintenance labor and materials (including spares)

Fifty Percent of Administration of Port

(8) Payroll costs of administrative staff at port and at headquarters, such as accountants and engineers

(9) Amortization of facilities occupied (including provision for replacement).

2. Entrance and Anchorage Cost Center

This cost center includes fixed facilities necessary for the entrance of ships into the harbor.

Lights, Buoys, Boats, Workshops

(1) Maintenance labor and materials (including spares)

(2) Amortization (including provision for replacement)

(3) Operating supplies such as fuel

Dredging

(4) Payroll cost of dredge operators and supervisors

(5) Dredge maintenance labor and materials including spares

(6) Amortization (including provision for replacement)

Initial Channel Dredging

(7) Amortization (provision calculated for replacement)

Breakwater and Harbor Protection

(8) Amortization (including provision for replacement)

(9) Breakwater maintenance, both labor and materials.

3. <u>Pilotage Cost Center</u>

Costs of guiding the ship to and from the anchorage to the berth.

(1) Payroll costs for pilots and supervision

(2) Payroll costs for crew of pilot boats

(3) Operating cost of pilot boats (such as fuel and maintenance)

(4) Amortization of pilot boats (including provision for replacement).

4. <u>Towage Cost Center</u>

Towage consists of the use of tugs to bring the ship to and from the anchorage to the berth.

(1) Payroll costs for tug crews and supervision

(2) Depreciation of tugs (including provision for replacement)

(3) Operating supplies for tugs (such as fuel and ropes)

(4) Maintenance labor and materials (including spares).

5. <u>Mooring Cost Center</u>

Costs of tying the ship in the berth.

(1) Payroll costs for line handlers

(2) Cost of operating, amortizing, and maintaining any equipment used.

6. <u>Occupancy Cost Center</u>

Occupancy is the cost of the ship's use of the quay. For calculation purposes, half of the cost of the quay is charged to ships and half to cargo in wharfage (cost center 9). Ships are charged 50 percent of:

(1) Amortization of quay (including provision for replacement)

(2) Maintenance labor and materials.

3.2.2 Cost Centers Related to Charges to Cargo

7. <u>Cargo Handling on Board Cost Center</u>

Cargo handling on board consists of moving the cargo to and from the hold of the ship to the quay. The expense may be incurred either by the ship or cargo owner depending on the contract.

(1) Payroll costs for stevedores, tallymen, winchmen, and their supervisors

(2) Services and operating supplies (such as slings and ropes).

8. Shore Cargo Handling Cost Center

Shore handling includes the cost of moving the cargo from the quay to the storage shed or storage area. It includes shore gangs, cargo handling equipment, and operators.

(1) Payroll costs for laborers and drivers of mechanized equipment (such as forklift trucks and mobile cranes)

(2) Amortization of equipment used (including provision for replacment)

(3) Operating supplies (such as fuel)

(4) Maintenance labor and materials (including spare parts).

9. Wharfage Cost Center

Wharfage consists of 50 percent of the costs incurred for the use of the quay by cargo, not charged to ships under occupancy (cost center 6). Also included are overhead and administration costs not charged to ships under port dues (cost center 1). In Somalia, wharfage is covered by the harbor tax which is charged ad valorem on cargo as it passes through customs. Costs covered by wharfage are 50 percent of the following:

Port Facilities Not Charged in a Special Tariff

For example, roads, canteen, religious and training centers, boundary fencing.

(1) Payroll costs for ancillary employees such as road sweepers and security staff

(2) Amortization of facilities (including provision for replacement)

(3) Operating supplies and services (such as electricity and gas)

(4) Maintenance labor and materials (including spares).

Administration of Port

(5) Payroll costs for administration staff at port and at headquarters (such as accountants and engineers)

(6) Amortization of facilities occupied (including provision for replacement).

Quay

(7) Amortization of quay (including provision for replacement)

(8) Maintenace labor and materials.

10. Storage Cost Center

Storage includes the cost of maintaining, running, and amortizing storage sheds and open areas where goods can be left and protected while customs formalities are in process.

(1) Payroll costs of operations and supervision personnel engaged in registration, stacking, re-stacking, and surveillance

(2) Amortization of buildings, paved areas, and equipment used for temporary storage (including provison for replacement)

(3) Maintenance labor and materials (including spares).

The various costs are apportioned to each of the foregoing cost/revenue centers by port in paragraph 3.8.

3.3 DATA ON SHIPS, CARGO, FACILITIES, AND EQUIPMENT

To formulate a basis for the structuring of port fees, it was necessary to construct a profile of the number, sizes and kinds of ships that utilize the port facilities; types of cargo; and data on the facilities and equipment. To obtain these data, visits were made by the Parsons Brinckerhoff study team to the ports of Kismayo, Berbera, and Mogadishu. At each port the pilot's log, bills of lading, and other sources were used to compile data for each ship: gross and net registered tonnage (GRT, NRT), length overall (LOA); type and size of each cargo; type of vessel; and number of days at berth. Data were also sought on pieces of cargo-handling equipment, their number, condition, and utilization.

The quality of records varied considerably from port to port, and the records were often incomplete or nonexistent. For example, the pilot's logs at Berbera and Kismayo were poorly maintained with much data missing (such as cargo tons and ship specifications). Days at berth were not recorded in the log at Berbera and this information had to be found vessel by vessel in the ship account files. Cargo data were located only in the bills of lading and other documents, such as invoices. Data on equipment utilization at Berbera and Kismayo were nonexistent. At Berbera, no one could say what pieces of equipment were available for use. In spite of these problems, the quantity of data gathered was voluminous. Data from 1,125 ship calls at the three ports for 1982 and 1983 were recorded, organized, and summarized. In addition, much information was obtained on equipment, cargo volumes, and port operations.

The ship and cargo data obtained from each port were separated into five basic categories:

1. General cargo included bagged, Ro/Ro, and containerized cargo, both imported and exported. Volumes of exported general cargo, consisting of hides, gum, fish, and canned meat, were too small to consider separately and are included as part of imported cargo. Unfortunately, the data available did not allow for a more detailed breakdown.

2. Livestock included exports of camels, sheep, goats, and cattle.

3. Banana cargo consisted of exports of that product from Mogadishu and Kismayo.

4. Petroleum included not only imports but exports of bunker oil from the Mogadishu refinery.

5. Cement imports were separated from general cargo and consisted of shipments of cement in bags.

The ship and cargo data for each port are summarized in Tables 3-1, 3-2, and 3-3. In the tables, ship data for each cargo type were broken down into net registered tons (NRT) categories as found in the present fee schedules. The number of ships in each NRT category appears next with percentage of total vessels in that cargo category. Average/class summarizes the average characteristics of ships in each NRT class with respect to NRT, length overall (LOA), size of cargo carried in tons, and average days at berth. GRT refers to the average gross registered tonnage of vessels within brackets of 1-2000, 2001-4000, 4000-6000, etc. tons and the percent of total ships of each cargo type with GRT in that bracket. For example, in Mogadishu the average GRT for ships with 1-2000 GRT was 750, representing 18 percent of the total number of general cargo ships. The weighted average ship indicates the average characteristics of vessels in each cargo class -- NRT, LOA, days at berth, cargo size, and GRT.

3.4 CARGO PROJECTIONS

To determine how the present and proposed port fees would function over a period of time, especially in covering amortization of new investments such as the Kismayo port rehabilitation and the quay extension in Berbera, it was necessary to formulate projections of income and costs through 1986, which for

TABLE 3-1. MOGADISHU PORT - SUMMARY SHIP DATA FOR 1982 AND 1983

Class of Ship NRT	1-2000				2001-4000				4001-6000				6001-8000				8001-10000				10000 +			
PRODUCT	NRT	LOA	Cargo	Days	NRT	LOA	Cargo	Days	NRT	LOA	Cargo	Days	NRT	LOA	Cargo	Days	NRT	LOA	Cargo	Days	NRT	LOA	Cargo	Days
1. General Cargo																								
Number of Ships		94	26%			111	31%			77	21%			53	15%			23	6%			2	1%	
Average/Class	750	82	1172	7	2997	141	1617	3	5050	149	3215	9	6293	145	3187	8	8615	172	2053	6	10400	174	5211	6
GRT	750	18%			2753	9%			5051	12%			7124	22%			9473	25%			11860	14%		
Weighted Ave Ships	3749	130	2134	7																				
GRT	6583																							
2. Livestock Export																								
Number of Ships		9	22%			17	41%			12	29%			3	7%			---				---		
Average/Class	530	70	251	3	3579	142	384	3	5811	167	455	3	6540	154	520	4								
GRT	763	16%			2562	2%			5685	16%			6371	31%			9260	35%				---		
Weighted Ave Ships	3726	132	380	3																				
GRT	6298																							
3. Banana Export																								
Number of Ships		11	21%			31	58%			10	19%			1	2%									
Average/Class	1236	98	1056	6	2916	132	1169	3	4649	150	1142	3	6971	152	1221	2								
GRT	1026	4%			3013	30%			5157	21%			7032	32%			9425	13%						
Weigthed Ave Ship	2973	129	1141	3.4																				
GRT	5503																							
4. Petroleum Import																								
Numer of Ships		1	3%			8	22%			---				6	17%			3	8%			18	50%	
Average/Class	1803	108	2906	1	2482	117	3235	2		---			7398	164	5884	2	8938	166	17448	2	15825	191	19691	4
GRT					3325	10%			4918	14%				---				---			21961	76%		
Weighted Ave Ship	10465	166	13040	3																				
GRT	17711																							
5. Cement Import																								
Number of Ships		6	40%			1	2%			4	27%			4	27%									
Average/Class	793	69	1520	6	2431	112	6000	2	4568	145	7867	21	6370	156	13050	11								
GRT	1170	33%			2408	7%			4319	7%			7686	7%			9408	46%						
Weighted Ave Ship	3416	116	6616	11																				
GRT	5723																							

TABLE 3-2. BERBERA PORT - SUMMARY SHIP DATA FOR 1982 AND 1983

Class of Ship NRT	1-2000				2001-4000				4001-6000				6001-8000				8001-10000				10000 +			
PRODUCT	NRT	LOA	Cargo	Days	NRT	LOA	Cargo	Days	NRT	LOA	Cargo	Days	NRT	LOA	Cargo	Days	NRT	LOA	Cargo	Days	NRT	LOA	Cargo	Days
1. General Cargo																								
Number of Ships		81 54%				38 25%				15 10%				12 8%				4 3%				---		
Average/Class	687	85	346	4	2584	113	767	4	5137	148	4003	9	6661	151	3231	9	8252	185	1207	6		---		
GRT	807	39%			3625	29%			4804	6%			6626	8%			9137	10%			11810	8%		
Weighted Ave Ship	2314	106	1073	5																				
GRT	4042																							
2. Livestock Export																								
Number of Ships		125 78%				17 11%				16 20%				2 1%										
Average/Class	1120	99	387	2	3248	134	506	2	5307	135	539	1.4	6255	156	589	1		---				---		
GRT	1095	33%			2993	47%			5430	6%			6574	5%			8894	7%			11354	2%		
Weighted Ave Ship	1825	107	411	2																				
GRT	2944																							
3. Petroleum Import																								
Number of Ships						2 28%				---				2 28%				1 16%				2 28%		
Average/Class		---			2880	135	3990	2		---			7637	165	4445	1.5	8810	169	6992	2	12675	172	6462	1.5
GRT		---				---			4856	29%				---				---			17525	71%		
Weighted Ave Ship	7901	158	5590	2																				
GRT	13851																							
4. Cement Import																								
Number of Ship		1 20%								2 40%				2 40%				---				---		
Average/Class	1457	76	500	7		---			4546	145	10204	13	6884	148	11000	17		---				---		
GRT	2465	20%				---				---			7534	20%			8850	40%			10721	20%		
Weighted Ave Ship	4863	132	8582	13																				
GRT	7684																							

TABLE 3-3. KISMAYO PORT - SUMMARY SHIP DATA FOR 1982 AND 1983

Class of Ship NRT	1-2000	2001-4000	4001-6000	6001-8000	8001-10000	10000 +
PRODUCT	NRT LOA Cargo Days	NRT LOA Cargo Days	NRT LOA Cargo Days	NRT LOA Cargo Days	NRT LOA Cargo Days	NRT LOA Cargo Days
1. General Cargo						
Number of Ships	11 26%	14 33%	12 29%	5 12%	---	---
Average/Class	145 43 285 5	3307 148 985 5	5225 148 879 5	6764 149 1716 5		
GRT	257 28%	---	5578 16%	7097 22%	9038 25%	10792 9%
Weighted Ave Ship	3455 121 859 5					
GRT	5756					
2. Livestock Export						
Number of Ships	7 23%	12 39%	11 35%	1 3%		
Average/Class	1121 93 378 3	3385 141 577 3	5362 152 613 3	7005 143 550 3	---	---
GRT	1428 16%	3634 6%	4946 6%	6230 30%	9144 42%	
Weighted Ave Ship	3665 135 544 3					
GRT	6452					
3. Banana Export						
Number of Ships	9 17%	32 62%	9 17%	2 4%	---	---
Average/Class	1328 104 668 4	2791 128 933 4	4335 150 1110 4	6484 150 661 4		
GRT		2956 38%	5116 19%	6743 31%	9258 12%	---
Weighted Ave Ship	2952 109 907 4					
GRT	5296					
4. Petroleum Import						
Number of Ships	2 15%	2 15%	1 8%	5 38%	---	3 24%
Average/Class	642 75 1963 2	2202 108 1003 2	5465 154 1994 2	7648 165 1381 2		12207 171 1940 2
GRT	1238 16%	3620 16%	---	---	9996 7%	16340 61%
Weighted Ave Ship	6616 143 1757 2					
GRT	11444					
5. Cement Import						
Number of Ships	4 80%	---	1 20%	---	---	---
Average/Class	383 58 377 6	---	5132 150 1512 6	---	---	---
GRT	548 80%	---	---	---	8669 20%	---
Weighted Ave Ship	1333 77 607 6					
GRT	2172					

the purpose of the study was assumed to be the year for the completion of the Kismayo port rehabilitation. To estimate costs and revenues, ship call forecasts were made.

Obtaining projections of cargo movement in the various Somali ports to 1986 proved to be a problem. The SPA Planning Department has an estimate for each port for 1984, but not beyond. The Ministry of National Planning had estimates of balance of payments through 1986,* but little in the area of volume projections. Forecasts prepared for the Mogadishu banana pier were outdated.

As a result, the Parsons Brinckerhoff study team found it necessary to prepare its own forecasts based on the information currently available. The SPA Planning Department's estimate for 1984 was used as a basis to maintain consistency with SPA's plan. For imports of general cargo, petroleum, and cement, assumptions were taken from projections made by the Parsons Brinckerhoff study team for the Kismayo port rehabilitation feasibility study tempered by the recent National Planning estimate. Export projections of general cargo and bananas were increased on the same basis as imports, and petroleum exports from the Mogadishu refinery were kept constant. Livestock exports presented special problems due to import restrictions imposed by Saudi Arabia. In this case, the Ministry of National Planning assumptions were

*Ministry of National Planning. Development Strategy and Public Investment Programme 1984-1986. Sept. 1983, Mogadishu.

used, which forecast 2.5 percent yearly increases for cattle, sheep, and goats with camel exports constant. The resulting projections by each cargo category are shown in Tables 3-4, 3-5, and 3-6 for Mogadishu, Berbera, and Kismayo respectively.

The projections, which indicate the expected movement of each kind of cargo through each port, formed a basis for determining the number of ships that would visit each port to carry a given volume of each kind of cargo. By dividing the cargo projected for each year by the average cargo volume carried by a ship shown in Tables 3-1, 3-2, and 3-3, the number of ships that would visit each port in each of the three years was calculated. The results are shown in Table 3-7.

The calculations assume that through 1986 there would be little change in average size of ship cargoes and in ship characteristics. This assumption is reasonable, particularly since no significant trends were indicated in such data for 1982 and 1983.

3.5 PROJECTED REVENUE

To evaluate the general level of fees charged by the SPA, an estimate was made of the income that would be generated, assuming that the present fees and fee structure would remain constant through 1986. Comparison of the resulting income with fixed and variable costs projected over the same period is a reasonably accurate indication as to the adequacy of the existing fee levels as well as the performance of the cost/revenue centers.

TABLE 3-4. CARGO PROJECTIONS (TONS)
MOGADISHU 1982-1986

	1982 Actual	1983 Actual	1984 SPA Plan	1985 Projected	1986 Projected
IMPORTS	740518	529918	888300	935520	985901
General Cargo 4% Δ projected	386236	289260	438000	455520	473741
Petroleum 8% Δ projected	251400	138100	300000	324000	349920
Cement 4% Δ projected	91961	102558	150000	156000	162240
EXPORTS	81232	147184	166100	171520	177552
General Cargo 2% Δ projected	33829	16512	17000	18360	19830
Banana 10% Δ projected	32254	29848	40000	44000	48400
Livestock Plan projected	15149	4600	9000	9160	9322
Petroleum 0%	--	96224	100000	100000	100000

TABLE 3-5. CARGO PROJECTIONS (TONS)
BERBERA 1982-1986

	1982 Actual	1983 Actual	1984 SPA Plan	1985 Projected	1986 Projected
IMPORTS	153744	180554	354460	371038	388471
General Cargo 4% △ projected	109939	92128	234460	234838	253591
Petroleum 8% △ projected	24220	43944	60000	64800	69984
Cement 4% △ projected	19585	44482	60000	62400	64896
EXPORTS	39523	42359	62000	63395	64824
General Cargo 2% △ projected	272	19465	30000	30600	31212
Livestock Plan projected	39251	22894	32000	32795	33612

TABLE 3-6. CARGO PROJECTIONS (TONS)
KISMAYO 1982-1986

	1982 Actual	1983 Actual	1984 SPA Plan	1985 Projected	1986 Projected
IMPORTS	67773	41810	70750	74580	78642
General Cargo 4% Δ projected	26821	20528	41750	43420	45156
Petroleum 8% Δ projected	14418	18868	25000	27000	29160
Cement 4% Δ projected	26534	2414	4000	4160	4326
EXPORTS	58476	48830	63400	68664	75433
General Cargo 2% Δ projected	21694	2826	3900	3978	4057
Banana 10% Δ projected	23988	37746	50000	55000	60500
Livestock Plan projected	12794	8256	9500	9686	10876

TABLE 3-7. PROJECTED NUMBER OF SHIPS FOR EACH CARGO CLASS BY PORT/YEAR

	Average Cargo Size (Tons)	# Ships* 1984	# Ships 1985	# Ships 1986
MOGADISHU				
General (Imp. & Exp.)	2134	213	222	231
Petroleum (Imp. & Exp.)	13040	31	32	34
Cement	6616	23	24	25
Banana	1141	35	39	42
Livestock	380	24	24	25
TOTAL		326	341	357
KISMAYO				
General Cargo	859	53	55	57
Petroleum	1757	14	15	17
Cement	607	7	7	7
Banana	907	55	61	67
Livestock	544	17	18	20
TOTAL		146	156	168
BERBERA				
General Cargo	1073	246	256	265
Petroleum	5590	11	12	13
Cement	8582	7	7	7
Livestock	411	78	80	82
TOTAL		342	355	367
* Ships in 1983:				
Mogadishu	287			
Kismayo	82			
Berbera	186			

As previously described, fees to ships -- such as port dues, entrance, towage, pilotage, and mooring -- are charged according to NRT or GRT brackets. Therefore, in the calculations the rate in each bracket was weighted by the percentage of the total number of ships in each cargo category in each NRT or GRT bracket. The total of these gave the contribution to income to each fee for the ships carrying each kind of cargo. The income from each cargo category was then added to give the total income for each fee. In the case of moorage and pilotage, the rates were doubled since ships pay upon entering and leaving. Towage rates were multiplied by four, since two tugs are used when entering and leaving port. Berth occupancy revenue was calculated by taking the product of average LOA, days at berth, 25 shillings per meter, and the number of ships per year.

Stevedoring and shore handling incomes were calculated by multiplying the average size cargo in each cargo category by the rate per ton multiplied by the number of ships per year.

For other charges, namely storage, equipment use, the harbor tax, and other ship charges (such as hatch opening and closing, cargo shifting, water, and anchorage), no estimating base was available and the income projections from the SPA 1984 budget were used. For the years 1985 and 1986, these values were increased in accordance with the cargo projections. These calculations were repeated for each of the three Somali ports. Income data for each cargo type and by fee are shown in Tables 3-8, 3-9, and 3-10.

TABLE 3-8. INCOME - MOGADISHU PORT
1984-1986 BY FEE
SO.SH

FEE	PRODUCT	1984	1985	1986
Port Dues				
	Gen Cargo	1 154 460	1 203 240	1 252 020
	Livestock	131 040	131 040	136 500
	Petroleum	350 300	361 600	384 200
	Banana	113 050	125 970	135 660
	Cement	88 090	91 920	95 750
TOTAL		1 836 940	1 913 770	2 004 130
Entrance				
	Gen Cargo	4 707 300	4 906 200	5 105 100
	Livestock	495 600	495 600	516 250
	Petroleum	1 441 500	1 488 000	1 581 000
	Banana	390 250	434 850	468 300
	Cement	330 050	344 400	358 750
TOTAL		7 364 700	7 669 050	8 029 400
Mooring				
	Gen Cargo	399 588	416 472	433 356
	Livestock	44 832	44 832	46 700
	Petroleum	76 632	79 104	84 048
	Banana	58 800	65 520	70 560
	Cement	52 072	54 336	56 600
TOTAL		631 924	660 264	691 264
Occupancy				
	Gen Cargo	4 845 750	5 050 500	5 255 250
	Livestock	237 600	237 600	247 500
	Petroleum	385 950	398 400	423 300
	Banana	451 500	503 100	541 800
	Cement	733 700	765 600	797 500
TOTAL		6 654 500	6 955 200	7 265 350

TABLE 3-8. INCOME - MOGADISHU PORT
1984-1986 BY FEE (Continued)
SO.SH

FEE	PRODUCT	1984	1985	1986
Pilotage				
	Gen Cargo	1 545 201	1 610 490	1 675 782
	Livestock	166 570	166 570	173 510
	Petroleum	977 616	1 009 152	1 072 223
	Banana	198 768	221 485	238 522
	Cement	171 907	179 382	186 856
TOTAL		3 060 062	3 187 079	3 346 893
Towage				
	Gen Cargo	2 849 940	2 970 360	3 090 780
	Livestock	356 160	356 160	371 000
	Petroleum	840 100	867 200	921 400
	Banana	351 400	391 560	421 680
	Cement	239 669	250 080	260 500
TOTAL		4 637 260	4 835 360	5 065 360
Stevedoring				
	Gen Cargo	15 908 970	16 581 180	17 253 390
	Livestock	288 984	288 984	301 025
	Petroleum	---	---	---
	Banana	---	---	---
	Cement	5 325 880	5 557 440	5 789 000
TOTAL		21 523 834	22 427 604	23 343 415
Shore Handling				
	Gen Cargo	31 817 940	33 162 360	34 506 780
	Livestock	197 424	197 424	205 650
	Petroleum	181 908	187 776	199 512
	Banana	3 194 800	3 559 920	3 833 760
	Cement	9 586 584	10 003 390	10 420 200
TOTAL		44 978 656	47 110 870	49 165 902

TABLE 3-9. INCOME - BERBERA PORT
1984-1986 BY FEE
SO.SH

FEE	PRODUCT	1984	1985	1986
Port Dues				
	Gen Cargo	496 920	517 120	535 300
	Livestock	113 100	116 000	118 900
	Petroleum	53 680	58 560	63 440
	Banana	---	---	---
	Cement	26 600	26 600	26 600
TOTAL		690 300	718 280	744 240
Entrance				
	Gen Cargo	548 580	570 880	590 950
	Livestock	118 170	121 200	124 230
	Petroleum	71 940	78 480	85 020
	Banana	---	---	---
	Cement	35 000	35 000	35 000
TOTAL		773 690	805 560	835 200
Mooring				
	Gen Cargo	339 480	353 280	365 700
	Livestock	97 344	99 840	102 336
	Petroleum	26 972	29 424	31 876
	Banana	---	---	---
	Cement	14 560	14 560	14 560
TOTAL		478 356	497 104	514 472
Occupancy				
	Gen Cargo	2 091 000	2 176 000	2 250 500
	Livestock	417 300	428 000	438 700
	Petroleum	86 900	94 800	102 700
	Banana	---	---	---
	Cement	300 300	300 300	300 300
TOTAL		2 895 500	2 999 100	3 092 200

TABLE 3-9. INCOME - BERBERA PORT
1984-1986 BY FEE (Continued)
SO.SH

FEE	PRODUCT	1984	1985	1986
Pilotage				
	Gen Cargo	807 397	840 219	869 757
	Livestock	174 061	178 524	182 987
	Petroleum	217 267	237 018	256 770
	Banana	---	---	---
	Cement	64 546	64 545	64 546
TOTAL		1 263 271	1 320 306	1 374 060
Towage				
	Gen Cargo	2 366 520	2 462 720	2 549 300
	Livestock	677 040	694 400	711 760
	Petroleum	157 520	171 840	186 160
	Banana	---	---	---
	Cement	84 000	84 000	84 000
TOTAL		3 285 080	3 412 960	3 531 220
Stevedoring				
	Gen Cargo	9 238 530	9 614 080	9 952 075
	Livestock	1 507 974	1 546 640	1 585 306
	Petroleum	N/A	N/A	N/A
	Banana	N/A	N/A	N/A
	Cement	2 102 590	2 102 590	2 102 590
TOTAL		12 849 094	13 263 310	13 639 971
Shore Handling				
	Gen Cargo	18 477 060	19 228 160	19 904 150
	Livestock	1 966 848	2 017 280	2 067 712
	Petroleum	307 450	335 400	363 350
	Banana	---	---	---
	Cement	3 784 662	3 784 662	3 784 662
TOTAL		24 536 020	25 365 502	26 119 874

TABLE 3-10. INCOME - KISMAYO PORT
1984-1986 BY FEE
SO.SH

FEE	PRODUCT	1984	1985	1986
Port Dues				
	Gen Cargo	381 600	396 000	410 400
	Livestock	114 750	121 500	135 000
	Petroleum	191 800	205 500	232 900
	Banana	349 800	387 960	426 120
	Cement	25 200	25 200	25 200
TOTAL		1 063 150	1 136 160	1 229 620
Entrance				
	Gen Cargo	601 550	624 250	646 950
	Livestock	185 300	196 200	218 000
	Petroleum	255 500	273 750	310 250
	Banana	522 000	634 400	696 800
	Cement	49 000	49 000	49 000
TOTAL		1 613 350	1 777 600	1 921 000
Mooring				
	Gen Cargo	93 916	97 460	101 004
	Livestock	32 368	34 272	38 080
	Petroleum	30 744	32 940	37 332
	Banana	91 740	101 748	111 756
	Cement	7 840	7 840	7 840
TOTAL		256 608	274 260	296 012
Occupancy				
	Gen Cargo	801 625	831 875	862 125
	Livestock	170 850	180 900	201 000
	Petroleum	100 100	107 250	121 550
	Banana	709 500	786 900	864 300
	Cement	80 850	80 850	80 850
TOTAL		1 862 925	1 987 775	2 129 825

TABLE 3-10. INCOME - KISMAYO PORT
1984-1986 BY FEE (Continued)
SO.SH

FEE	PRODUCT	1984	1985	1986
Pilotage				
	Gen Cargo	270 290	280 490	290 689
	Livestock	116 923	123 800	137 556
	Petroleum	202 833	217 321	246 299
	Banana	251 374	278 797	306 220
	Cement	9 122	9 122	9 122
TOTAL		850 542	909 532	989 886
Towage				
	Gen Cargo	558 620	579 700	600 780
	Livestock	176 120	186 480	207 200
	Petroleum	186 200	199 500	226 100
	Banana	558 800	619 760	680 720
	Cement	61 600	61 600	61 600
TOTAL		1 541 340	1 647 040	1 776 400
Stevedoring				
	Gen Cargo	1 593 443	1 653 575	1 713 705
	Livestock	320 178	339 012	376 680
	Petroleum	N/A	N/A	N/A
	Banana	N/A	N/A	N/A
	Cement	92 365	92 365	92 365
TOTAL		2 005 986	2 084 952	1 182 750
Shore Handling				
	Gen Cargo	3 186 890	3 307 150	3 427 410
	Livestock	251 440	269 400	305 320
	Petroleum	12 306	13 185	14 943
	Banana	2 939 200	3 259 840	3 580 480
	Cement	166 257	166 257	166 257
TOTAL		6 556 093	7 015 832	7 494 410

An additional item of SPA income is the harbor tax. This is an ad valorem tax paid in customs and credited to the SPA. Nominally, it covers wharfage, although it is not based on wharfage costs but is calculated as 3 percent of the value declared in customs for both import and export cargo. The amount is substantial, earning 27 million shillings in 1982, or 17 percent of total income (see Table 2-1).

3.6 OPERATING COSTS AND OVERHEAD

Operating cost calculations were made for four basic elements: fixed labor costs, variable labor costs, variable equipment operating costs, and overhead. The methodology used in the calculation of each of these is as follows.

Fixed labor costs are salaries and welfare for the permanent staff of each port. To form a basis for projections, a list of the principal staff positions, the number of people in each, and the total monthly salary paid to each labor category was provided by the SPA. An estimate of the percentage of social benefits was obtained through the 1984 SPA budget. Next, the monthly salaries including social benefits were distributed through the cost/revenue centers, and multiplied by 12 to arrive at yearly figures. Estimates for 1985 and 1986 assumed an annual increase including inflation and new hirings of 12.2 percent, equivalent to the change from 1982 to 1983. This assumption may in fact be conservative. The results of the calculations are shown in Tables 3-11, 3-12, and 3-13 for Mogadishu, Berbera, and Kismayo respectively.

TABLE 3-11. FIXED LABOR COSTS - MOGADISHU PORT
IN SO.SH

POSTION	COST CENTER ALLOCATION	SALARY/ MONTH	SOCIAL BENEFITS	ANNUAL SALARIES AND BENEFITS		
				1984	1985	1986
Chief Pilot	Dues	2665	(x 1.831	58,569	65,746	73,802
Port Managers	Shore Cargo	6040	x 12 months	132,742	149,007	167,266
Accountant	Shore Cargo	1620	= 21.977)	35,603	39,966	44,862
Clerks	Shore Cargo	18517		406,951	456,817	512,793
Pilot	Pilotage	6625		145,599	163,440	183,467
Tug Master	Towage	9732		213,882	240,090	269,510
Crewmen	Towage	34920		767,442	861,461	967,042
Line Winch Holders	Mooring	11030		242,408	272,112	305,455
Foreman	Mooring	1270		27,911	31,331	35,120
Quay Maintenance	Occupancy	4841		106,391	119,428	134,062
Port Maint. Foremen	Shore Cargo	1688		37,097	41,643	46,745
Port Maint. Workers	Shore Cargo	25147		552,560	620,268	696,223
Equip. Operators	Shore Cargo	27660		607,888	682,375	765,990
Mechanic Foreman	Shore Cargo	11000		241,748	271,371	304,623
Mechanics	Shore Cargo	28639		629,403	706,527	793,102
Stevedor Supervisor	Ship Cargo	26770		588,329	660,420	741,345
Stevedor Foreman	Ship Cargo	1412		31,032	34,835	39,103
Storage Shed	Storage	36033		791,903	888,939	997,865
TOTAL		73844		1.622,884	1.821,744	2.044,972

TABLE 3-12. FIXED LABOR COSTS - BERBERA PORT
IN SO.SH

POSTION	COST CENTER ALLOCATION	SALARY/ MONTH	SOCIAL BENEFITS	ANNUAL SALARIES AND BENEFITS		
				1984	1985	1986
Chief Pilot	Dues	2859	23.322 (Welfare x 12 months)	66,678	74,813	83,940
Port Managers	Shore Cargo	3522		82,140	92,161	103,405
Accountant	Shore Cargo	1580		36,848	41,343	46,387
Clerks	Shore Cargo	9348		218,014	244,612	272,454
Pilot	Pilotage	4525		105,532	118,407	132,852
Tug Master	Towage	7140		166,519	186,834	209,628
Crewmen	Towage	21732		506,834	568,668	638,045
Line Winch Holders	Mooring	4050		94,454	105,977	118,906
Foreman	Mooring	1530		35,683	40,036	44,921
Quay Maintenance	Occupancy	7441		173,539	194,711	218,465
Port Maint. Foremen	Shore Cargo	1180		27,520	30,877	34,644
Port Maint. Workers	Shore Cargo	11214		261,533	293,440	329,240
Equip. Operators	Shore Cargo	11507		268,366	301,106	337,841
Mechanic Foreman	Shore Cargo	1673		39,018	43,778	49,119
Mechanics	Shore Cargo	22987		536,103	601,507	674,891
Stevedor Supervisor	Ship Cargo	2520		58,771	65,941	73,986
Stevedor Foreman	Ship Cargo	1488		34,703	38,937	43,687
Storage Shed	Storage	4072		94,967	106,553	119,552
TOTAL		120368		2.807,222	3.149,701	3.533,963

TABLE 3-13. FIXED LABOR COSTS - KISMAYO PORT
IN SO.SH

POSTION	COST CENTER ALLOCATION	SALARY/ MONTH	SOCIAL BENEFITS	ANNUAL SALARIES AND BENEFITS		
				1984	1985	1986
Chief Pilot	Dues	2566	25.0107	64,177	72,007	80,972
Port Managers	Shore Cargo	2520	(Welfare	63,027	70,716	79,343
Accountant	Shore Cargo	1320	x 12 months)	33,014	37,042	41,561
Clerks	Shore Cargo	5128		128,505	144,183	161,773
Pilot	Pilotage	2120		53,023	59,492	66,750
Tug Master	Towage	3132		78,334	87,891	98,614
Crewmen	Towage	5600		140,060	157,147	176,319
Line Winch Holders	Mooring	9060		226,597	254,242	285,260
Foreman	Mooring	1270		31,764	35,639	39,987
Quay Maintenance	Occupancy	4287		107,221	120,302	134,979
Port Maint. Foremen	Shore Cargo	1500		37,516	42,093	47,228
Port Maint. Workers	Shore Cargo	6470		161,819	181,561	203,711
Equip. Operators	Shore Cargo	3680		92,040	103,269	115,868
Mechanic Foreman	Shore Cargo	1500		37,516	42,093	47,228
Mechanics	Shore Cargo	8290		207,339	232,634	261,015
Stevedor Supervisor	Ship Cargo	5140		128,555	144,239	161,836
Stevedor Foreman	Ship Cargo	1500		37,516	42,093	47,228
Storage Shed	Storage	5287		132,231	148,363	166,463
TOTAL		70380		1.760,254	1.975,006	2.216,135

Variable labor costs consist of the costs of stevedoring on board a vessel, paid according to the number of tons handled and the kind of cargo. Since there were significant discrepancies between the SPA 1984 budget and the calculations based on tons forecast by the SPA multiplied by the rates, the higher SPA 1984 budget figures were used. The budgeted income for 1984 was then divided by the SPA cargo forecast excluding petroleum for that year, and the resulting rate per ton was multiplied by the projected cargo to derive variable labor costs for 1985 and 1986. Mogadishu port expenses also included stevedore and overhead costs from Merca.* The results are shown in Table 3-14.

Variable equipment operating costs comprise fuel and maintenance for cargo handling equipment and tugs. Fuel consumption and maintenance estimates were developed after consultation with manufacturers of equipment similar to that used in the Somali ports, and were converted to local currency. The next step related operating cost to tons of cargo handled. Unfortunately, the ports do not keep records of equipment running time per day. The only information available was a daily tally of equipment available and working in Mogadishu port for the years 1982 and 1983. At the suggestion of the port manager, each piece of equipment was assumed to work 12 hours each day it was running. From these daily records, the data were reworked and consolidated to give average running hours per year for each piece of equipment for the two years.

*The situation of Merca port is unique. Located 110 km south of Mogadishu, it was used to load bananas by lighter. Although the port is no longer in operation, it maintains offices, staff, and stevedores. Whenever there are banana vessels at Mogadishu to be loaded, staff and stevedores come from Merca to do the job. Fees from the banana boats and cargo handling are paid to Merca with Mogadishu port providing free a berth, pilot, and tugs.

TABLE 3-14. VARIABLE LABOR COSTS
IN SO.SH

		.1984	.1985	.1986
MOGADISHU	27.50/per ton			
	Tons*	654.400	683.040	713.533
	Cost	18.014.400	18.802.805	19.622.158
KISMAYO	26/per ton			
	Tons*	109.150	116.244	124.915
	Cost	2.837.900	3.022.344	3.247.790
BERBERA	17/per ton			
	Tons*	356.460	369.633	383.311
	Cost	6.059.820	6.283.761	6.516.287

* Not including petroleum shipments.

Next, the hours were multiplied by the cost per hour and divided by tons of general cargo. The resulting rate of 6.63 shillings per ton of general cargo was then multiplied by the general cargo volumes in each port to derive the total maintenance and fuel costs for each year for each port. It should be noted that the foregoing methodology assumes the same mix of equipment, labor/equipment ratio, and maintenance practices in all ports. Since equipment utilization data were lacking for Berbera and Kismayo, the Mogadishu assumptions were used, which are believed to be reasonable for all ports. Equipment is rarely used for cement and bananas because they are taken to and removed from the ship directly by the trucks that transport them to and from the port. Livestock are herded to the ship's side for loading. However, general cargo is nearly always taken to cargo sheds or container yards to await customs processing and requires the use of shore handling equipment.

3.7 AMORTIZATION AND REVALUATION OF ASSETS BY PORT

The asset records of the Somali Port Authority were the basic source of data for the amortization costs by port. In 1977, all of the assets then in existence had been revaluated during the Price Waterhouse study and the values had been entered on cards. Unfortunately, this card file had not been maintained and no revaluation of assets had taken place since, mainly due to staffing problems. For some years, assets had not been entered.

For calculation purposes, the value of assets that would be in existence during the years 1984, 1985, and 1986 was obtained as follows. In addition to the SPA asset records, the SPA 1984 budget was used for values added in that year. For estimates of major projects not yet completed, the Government Planning Office provided a copy of their plan for Funding of Public Investment through 1986, which is summarized in Table 3-15.

Expected investment in cargo-handling equipment for 1985-1986 was not available, except for an estimate made for Kismayo port by Parsons Brinckerhoff. The assets by port were then distributed among the cost centers defined by the different port fees, by year of capitalization, life, and gross book value (GBV) in Somali shillings.

The GBV figures were then amortized assuming an interest of 7.5 percent which was a weighted average of the interest paid on one year deposits in Somali banks between 1979 and 1983. During this time, rates increased from 5.5 percent in 1979 to 9.5 percent in 1982. Where they differed, the amortization periods were changed to conform with the schedule of average asset lives prepared by Price Waterhouse. The yearly amortization was summed for each cost/revenue center and then for each port. Amortization of SPA headquarters was distributed among the ports in accordance with the percent of total cargo movement through each port in the 1984 SPA plan.

Since SPA assets had not been revalued since 1977, it was necessary to update them to reflect present replacement costs. As an approximation, an index was constructed based on the US capital goods index* to revalue the assets to 1984. Since SPA finances are reflected in Somali shillings, a second index was constructed based on the shilling/dollar exchange rate so that the

*From International Financial Statistics, 1983.

TABLE 3-15. SCHEDULE OF MAJOR INFRASTRUCTURE PROJECTS INCLUDED IN STUDY*

(In Millions of US$)

	1982	1983	1984	1985	1986	Total
Kismayo Port Rehabilitation	--	--	6.0	14.5	21.5	42.0
Berbera Port Extension	--	9.0	21.0	10.0	--	40.0
Mogadishu Port Extension	4.9	2.0	1.4	1.7	--	10.0

*SOURCE: National Planning Ministry

NOTE: According to the Somali government plan, the Kismayo rehabilitation was assumed to be capitalized by 1986. These assumptions were maintained in the study even though capitalization is, in fact, scheduled to take place in 1987.

shilling revaluation would reflect the dollar equivalents. For the years 1984 through 1986, it was assumed that the dollar/shilling exchange rate would remain constant at 17.38 and that inflation in US dollars would continue at 5 percent annually. The indexes are shown in Table 3-16. To account for price increases during the years 1984 through 1986, an annuity was calculated based on the revalued gross book value, assuming 5 percent annual inflation and 7.5 percent interest to be used as a reserve for replacement to cover price increases in shillings. This annuity was calculated for each asset and added to the amortization to obtain total amortization plus reserve for revaluation. The relevant values for all the assets under a given cost center as defined in paragraph 3.2 were summed and the totals entered in the line "Amortization" of Tables 3-17, 3-18, and 3-19.

3.8 FINANCIAL ANALYSIS

3.8.1 Financial Results

The financial results of the present fee structure are shown in Tables 3-17, 3-18, and 3-19 for Mogadishu, Berbera, and Kismayo respectively. Costs and revenues have been distributed among the various cost centers in accordance with the criteria outlined in paragraph 3.2. The costs for miscellaneous ship charges and equipment are not shown separately, but are included in the other cost centers. However, revenues for these items are shown separately. Totals in each category are given for the years 1984, 1985, and 1986. Below the total cost for each year is income from fees, harbor tax, and the difference between costs and revenues.

TABLE 3-16. INFLATION-REVALUATION INDEX

For : From:	1977	1978	1979	1980	1981	1982	1983	1984
1977	1.00	1.076	1.205	1.378	1.511	1.573	1.636	1.701
1978		1.000						1.581
1979			1.000		N/A			1.412
1980				1.000				1.234
1981					1.000			1.125
1982						1.000		1.081
1983							1.000	1.040
1984								1.000

US $ INFLATION + SO.SH. DEVALUATION

For : From:	1977	1978	1979	1980	1981	1982	1983	1984
1977	1.000	1.076	1.205	1.378	1.511	2.129	3.951	4.702
1978		1.000						4.370
1979			1.000		N/A			3.902
1980				1.000				3.413
1981					1.000			3.110
1982						1.000		2.208
1983							1.000	1.190
1984								1.000

TABLE 3-17. FINANCIAL RESULTS - MOGADISHU NEW PORT: DISTRIBUTION OF VARIABLE AND FIXED COST TO COST CENTERS IN SO.SH

COST CENTER		PORT DUES	ENTRANCE	TOWAGE	PILOTAGE	OCCUPANCY	MOORING	STEVEDORING
1984								
Labor Costs	- Fixed	58 569	--	981 324	145 599	106 391	270 319	619 361
	Variable	--	--	--	--	--	--	18 014 400 **
Equipment	- Fixed	20 000	--	3 046 000	403 000	--	--	--
	Variable	--	--	1 659 992	276 654	--	--	--
Facility/Amortization		1 135 250	1 071 000	--	--	8 834 500	--	--
Overhead/Distribution		9 243 250	--	--	--	--	--	--
TOTAL COST		10 457 069	1 071 000	5 687 316	825 253	8 940 891	270 319	18 633 761
Fee Income & Harbor Tax		1 836 940	7 364 700	4 637 260	3 060 062	6 654 500	631 924	21 523 834
Surplus/Deficit		(8 620 129)	6 293 700	(1 050 056)	2 234 809	(2 286 391)	361 605	2 890 073
% of Income		(469%)	85%	(.23%)	73%	(34%)	57%	13%
1985								
Labor Costs	- Fixed	65 746	--	1 101 551	163 440	119 428	303 443	695 255
	Variable	--	--	--	--	--	--	18 802 805 **
Equipment	- Fixed	20 000	--	3 046 000	50 000	--	--	--
	Variable	--	--	1 736 372	289 384	--	--	--
Facility/Amortization		2 221 500	1 071 000	--	--	10 304 500	--	--
Overhead/Distribution		10 352 440	--	--	--	--	--	--
TOTAL COST		12 659 686	1 071 000	5 883 923	502 824	10 423 928	303 443	19 498 060
Fee Income & Harbor Tax		1 913 770	7 669 050	4 835 360	3 187 079	6 955 200	660 264	22 427 604
Surplus/Deficit		(10 745 916)	6 598 050	(1 048 563)	2 684 255	(3 468 728)	356 821	2 929 544
% of Income		(561%)	86%	(22%)	84%	(50%)	54%	13%
1986								
Labor Costs	- Fixed	73 802	--	1 236 552	183 467	134 062	340 625	780 448
	Variable	--	--	--	--	--	--	19 622 158 **
Equipment	- Fixed	--	--	3 046 000	50 000	--	--	--
	Variable	--	--	1 817 844	302 912	--	--	--
Facility/Amortization		2 221 250	1 071 000	--	--	10 304 500	--	--
Overhead/Distribution		11 594 733	--	--	--	--	--	--
TOTAL COST		13 889 785	1 071 000	6 100 396	536 379	10 438 562	340 625	20 402 606
Fee Income & Harbor Tax		2 004 130	8 029 400	5 065 360	3 346 893	7 265 350	691 264	23 343 415
Surplus/Deficit		(11 885 655)	6 958 400	(1 035 036)	2 810 514	(3 173 212)	350 639	2 940 809
% of Income		(593%)	87%	(20%)	84%	(44%)	41%	13%

* SPA Plan
**Includes Merca Port

TABLE 3-17. FINANCIAL RESULTS - MOGADISHU NEW PORT: DISTRIBUTION OF VARIABLE AND FIXED COST TO COST CENTERS IN SO.SH (Continued)

COST CENTER		SHORE HANDLING	WHARFAGE	STORAGE	MISC SHIP CHARGES	EQUIPMENT RENTAL	TOTAL
1984							
Labor Costs	- Fixed	3 675 010**	--	791 903	--	--	6 648 476
	Variable	--	--	--	--	--	18 014 400
Equipment	- Fixed	13 930 000	--	--	--	--	17 405 000
	Variable	3 303 300	--	--	--	--	5 239 946
Facility/Amortization		--	9 969 750	2 060 000	--	--	23 070 500
Overhead/Distribution		--	9 243 250	--	--	--	18 486 500
TOTAL COST		20 914 310	19 213 000	2 851 903	--	--	88 864 822
Fee Income & Harbor Tax		44 978 656	16 000 000*	20 000 000*	620 000*	3 300 000*	114 607 876
Surplus/Deficit		24 064 346	(3 213 000)	17 148 097	620 000	3 300 000	41 743 054
% of Income		53%	(20%)	85%	--	--	32%
1985							
Labor Costs	- Fixed	4 124 776**	--	888 939	--	--	7 462 578
	Variable	--	--	--	--	--	18 802 805
Equipment	- Fixed	5 669 000	12 526 000	--	--	--	8 785 000
	Variable	3 439 788	--	--	--	--	5 465 544
Facility/Amortization		--	12 526 000	2 060 000	--	--	28 183 000
Overhead/Distribution		--	10 352 440	--	--	--	20 704 880
TOTAL COST		13 233 564	22 878 440	2 948 939	--	--	89 403 807
Fee Income & Harbor Tax		47 110 870	16 640 000	20 800 000	643 560	3 432 000	136 274 757
Surplus/Deficit		33 877 306	(6 238 440)	17 851 061	643 560	3 432 000	46 870 950
% of Income		72%	(37%)	85%	--	--	34%
1986							
Labor Costs	- Fixed	4 629 586**	--	997 865	--	--	8 376 407
	Variable	--	--	--	--	--	19 622 158
Equipment	- Fixed	5 511 000	--	--	--	--	8 607 000
	Variable	3 583 325	--	--	--	--	5 704 081
Facility/Amortization		--	12 525 750	2 060 000	--	--	28 182 500
Overhead/Distribution		--	11 594 733	--	--	--	23 189 466
TOTAL COST		13 723 911	24 120 483	3 057 865	--	--	93 681 612
Fee Income & Harbor Tax		49 165 902	17 305 600	21 632 000	668 015	3 569 280	142 086 609
Surplus/Deficit		35 441 991	(6 814 883)	18 574 135	668 015	3 569 280	48 404 997
% of Income		72%	(39%)	86%	--	--	34%

* SPA Plan
** Includes Merca Port

TABLE 3-18. FINANCIAL RESULTS - BERBERA PORT: DISTRIBUTION OF VARIABLE AND FIXED COST TO COST CENTERS IN SO.SH

COST CENTER	PORT DUES	ENTRANCE	TOWAGE	PILOTAGE	OCCUPANCY	MOORING	STEVEDORING
1984							
Labor Costs - Fixed	66 678	--	673 353	105 532	173 539	130 137	93 474
Variable	--	--	--	--	--	--	6 059 820
Equipment Costs - Fixed	--	--	817 000	14 000	--	--	--
Variable	--	--	316 692	105 458	--	--	--
Facility Amortization	3 011 500	--	--	--	8 575 500	--	--
Overhead/Distribution	3 200 946	--	--	--	--	--	--
TOTAL COSTS	6 279 124	--	1 807 045	224 990	8 749 039	130 137	6 156 294
Fee Income & Harbor Tax	690 300	773 690	3 285 080	1 263 271	2 895 500	478 356	12 845 090
Surplus/Deficit	(5 588 824)	773 690	1 478 035	1 038 281	(5 853 539)	348 219	6 688 796
% of Income	(809%)	100%	44%	82%	(102%)	73%	52%
1985							
Labor Costs - Fixed	74 813	--	755 502	118 407	194 711	146 013	104 878
Variable	--	--	--	--	--	--	6 283 761
Equipment Costs - Fixed	--	--	817 000	14 000	--	--	--
Variable	--	--	328 730	109 467	--	--	--
Facility Amortization	2 988 500	--	--	--	42 936 000	--	--
Overhead/Distribution	3 585 059	--	--	--	--	--	--
TOTAL COSTS	6 648 372	--	1 901 232	241 874	43 130 711	146 013	6 388 639
Fee Income & Harbor Tax	718 280	805 560	3 412 960	1 320 306	2 999 100	497 104	13 263 310
Surplus/Deficit	(5 930 092)	805 560	1 511 728	1 078 432	(40 131 611)	351 091	6 874 671
% of Income	(826%)	100%	44%	81%	(1338%)	71%	52%
1986							
Labor Costs - Fixed	83 940	--	847 673	132 852	218 465	163 827	117 673
Variable	--	--	--	--	--	--	6 516 287
Equipment Costs - Fixed	--	--	817 000	14 000	--	--	--
Variable	--	--	339842	113167	--	--	--
Facility Amortization	2 814 500	--	--	--	42 936 000	--	--
Overhead/Distribution	4 015 266	--	--	--		--	--
TOTAL COSTS	6 913 706	--	2 004 515	260 019	43 154 465	163 827	6 633 960
Fee Income & Harbor Tax	744 240	835 200	3 531 220	1 374 060	3 092 200	514 472	13 639 971
Surplus/Deficit	(6 169 466)	835 200	1 526 705	1 114 041	(40 062 265)	350 645	7 006 011
% of Income	(829%)	100%	43%	81%	(1296%)	68%	51%

* SPA Plan

TABLE 3-18. FINANCIAL RESULTS - BERBERA PORT: DISTRIBUTION OF VARIABLE AND FIXED COST TO COST CENTERS IN SO.SH (Continued)

COST CENTER			SHORE HANDLING	WHARFAGE	STORAGE	OTHER SHIP CHARGES	EQUIPMENT RENTAL	TOTAL
1984	Labor Costs	- Fixed	1 469 542	--	94 967	--	--	2 807 222
		Variable	--	--	--	--	--	6 059 820
	Equipment	- Fixed	3 121 000	--	--	--	--	3 952 000
		Variable	1 919 979	--	--	--	--	2 342 129
	Facility Amortization		--	11 587 000	529 000	--	--	23 703 000
	Overhead/Distribution		--	3 200 945	--	--	--	6 401 890
TOTAL	COST		6 510 521	14 787 945	623 967	--	--	45 269 062
	Fee Income & Harbor Tax		24 536 020	8 000 000	4 000 000*	190 000*	1 020 000*	59 977 309
	Surplus/Deficit		18 025 499	(6 787 945)	3 376 033	190 000	1 020 000	14 708 245
	% of Income		73%	(84%)	84%	--	--	25%
1985	Labor Costs	- Fixed	1 648 824	--	106 553	--	--	3 149 701
		Variable	--	--	--	--	--	6 283 761
	Equipment	- Fixed	2 069 000	--	--	--	--	2 900 000
		Variable	1 992 420	--	--	--	--	2 430 617
	Facility Amortization		--	45 924 500	529 000	--	--	92 378 000
	Overhead/Distribution		--	3 585 059	--	--	--	7 170 118
TOTAL	COST		5 710 244	49 509 559	635 553	--	--	114 312 197
	Fee Income & Harbor Tax		25 365 502	8 320 000	4 160 000	197 220	1 060 800	62 120 142
	Surplus/Deficit		19 655 258	(41 489 559)	3 524 447	197 220	1 060 800	(52 192 055)
	% of Income		77%	(495%)	85%	--	--	(84%)
1986	Labor Costs	- Fixed	1 815 337	--	119 552	--	--	3 499 319
		Variable	--	--	--	--	--	6 516 287
	Equipment	- Fixed	2 069 000	--	--	--	--	2 900 000
		Variable	2 067 670	--	--	--	--	2 520 679
	Facility Amortization		--	45 750 500	529 000	--	--	92 030 000
	Overhead/Distribution		--	4 015 266	--	--	--	8 030 532
TOTAL	COST		5 952 007	49 765 766	648 552	--	--	115 496 817
	Fee Income & Harbor Tax		26 119 874	8 652 800	4 326 400	204 714	1 103 232	64 138 383
	Surplus/Deficit		20 167 867	(41 112 966)	3 677 848	204 714	1 103 232	(51 358 434)
	% of Income		77%	(475%)	85%	--	--	(80%)

* SPA Plan

TABLE 3-19. FINANCIAL RESULTS - KISMAYO PORT: DISTRIBUTION OF VARIABLE AND FIXED COST TO COST CENTERS IN SO.SH

COST CENTER	PORT DUES	ENTRANCE	TOWAGE	PILOTAGE	OCCUPANCY	MOORING	STEVEDORING
1984							
Labor Costs - Fixed	64 177	--	218 394	53 023	107 221	258 361	166 071
Variable	--	--	--	--	--	--	2 837 900
Equipment Costs - Fixed	--	--	3 324 000	47 000	--	--	--
Variable	--	--	743 432	123 900	--	--	--
Facility Amortization	3 306 500	14 435 000	--	--	6 617 000	--	--
Overhead	1 387 772	--	--	--	--	--	--
TOTAL COST	4 758 449	14 435 000	4 285 826	223 923	6 724 221	258 361	3 003 971
Fee Income & Harbor Tax	1 063 150	1 663 350	1 541 340	850 542	1 862 925	256 608	2 005 986
Surplus/Deficit	(3 695 299)	(12 771 650)	(2 744 486)	626 619	(4 861 296)	(1 753)	(997 985)
% of Income	(347%)	(768%)	(178%)	73%	(161%)	(.7%)	(50%)
1985							
Labor Costs - Fixed	72 007	--	245 038	59 492	120 303	289 881	186 332
Variable	--	--	--	--	--	--	3 022 344
Equipment Costs - Fixed	--	--	970 000	47 000	--	--	--
Variable	--	--	794 352	132 339	--	--	--
Facility Amortization	3 154 500	14 435 000	--	--	17 187 500	--	--
Overhead	1 554 304	--	--	--	--	--	--
TOTAL COST	4 780 811	14 435 000	2 009 390	238 831	17 307 802	289 881	3 208 676
Fee Income & Harbor Tax	1 136 160	1 777 600	1 647 040	909 532	1 987 775	274 260	2 084 952
Surplus/Deficit	(3 644 651)	(12 657 400)	(362 350)	670 701	(15 320 027)	(15 621)	(1 123 724)
% of Income	(321%)	(712%)	(22%)	74%	(771%)	(6%)	(53%)
1986							
Labor Costs - Fixed	80 972	--	274 933	66 750	134 979	325 247	209 064
Variable	--	--	--	--	--	--	3 247 790
Equipment Costs - Fixed	--	--	970 000	47 000	--	--	--
Variable	--	--	855 456	142 519	--	--	--
Facility Amortization	4 242 000	16 691 000	--	--	34 375 000	--	--
Overhead	1 740 821	--	--	--	--	--	--
TOTAL COST	6 063 793	16 691 000	2 100 389	256 269	34 509 979	325 247	3 456 854
Fee Income & Harbor Tax	1 229 620	1 921 000	1 776 400	989 886	2 129 825	296 012	2 182 750
Surplus/Deficit	(4 834 173)	(14 770 000)	(323 989)	733 617	(32 380 154)	(29 235)	(1 274 104)
% of Income	(393%)	(769%)	(18%)	74%	(1520%)	(10%)	(58%)

TABLE 3-19. FINANCIAL RESULTS - KISMAYO PORT: DISTRIBUTION OF VARIABLE AND FIXED COST TO COST CENTERS IN SO.SH (Continued)

COST CENTER		SHORE HANDLING	WHARFAGE	STORAGE	OTHER SHIP CHARGES	EQUIPMENT USE/RENTAL	TOTAL
1984							
Labor Costs	- Fixed	760 776	--	132 231	--	--	1 760 254
	Variable	--	--	--	--	--	2 837 900
Equipment	- Fixed	1 857 000	--	--	--	--	5 228 000
	Variable	331 419	--	--	--	--	1 198 751
Facility Amortization		--	9 923 500	2 060 000	--	--	36 342 000
Overhead		--	1 387 772	--	--	--	2 775 544
TOTAL COST		2 949 195	11 311 272	2 192 231	--	--	50 142 449
Fee Income & Harbor Tax		6 556 093	2 000 000*	1 000 000*	210 000*	670 000*	19 679 994
Surplus/Deficit		3 606 898	(9 311 272)	(1 192 231)	210 000	670 000	(30 462 455)
% of Income		55%	(465%)	(119%)	--	--	(155%)
1985							
Labor Costs	- Fixed	853 591	--	148 363	--	--	1 975 006
	Variable	--	--	--	--	--	3 022 344
Equipment	- Fixed	1 492 000	--	--	--	--	2 509 000
	Variable	344 110	--	--	--	--	1 270 801
Facility Amortization		--	20 342 000	2 060 000	--	--	57 179 000
Overhead		--	1 554 304	--	--	--	3 108 609
TOTAL COST		2 689 701	21 896 304	2 208 363	--	--	69 064 760
Fee Income & Harbor Tax		7 015 832	2 080 000	1 040 000	217 000	696 800	20 866 952
Surplus/Deficit		4 326 131	(19 816 304)	(1 168 363)	217 000	696 800	(48 197 808)
% of Income		61%	(953%)	(112%)	--	--	
1986							
Labor Costs	- Fixed	957 727	--	166 463	--	--	2 216 135
	Variable	--	--	--	--	--	3 247 790
Equipment	- Fixed	5 216 000	--	--	--	--	6 233 000
	Variable	357 286	--	--	--	--	1 355 261
Facility Amortization		--	38 617 000	2 060 000	--	--	95 985 000
Overhead		--	1 740 821	--	--	--	3 481 642
TOTAL COST		6 531 013	40 357 821	2 226 463	--	--	112 518 828
Fee Income & Harbor Tax		7 494 410	2 163 200	1 081 600	226 000	724 672	22 215 375
Surplus/Deficit		963 397	(38 194 621)	(1 145 863)	226 000	724 672	(90 303 453)
% of Income		13%	(1765%)	(106%)	--	--	

* SPA Plan

In comparing the three ports for 1984, the last "normal" year before the impacts of the Berbera port expansion and the Kismayo rehabilitation, Mogadishu and Berbera show surpluses in each cost center, with the exception of occupancy, port dues, wharfage, and, in the case of Mogadishu, towage. Occupancy costs are high because they include half the amortization of quays in both ports. Towage in Mogadishu is negative due to the much greater tug effort required in getting ships in and out because of strong currents, winds, and high seas. With its better natural protection, Berbera harbor is easier to enter and leave and tugs are often not required even for large vessels. Ship income is generally lower in Berbera, even though a like number of calls is projected for each port, because smaller sized ships with smaller cargoes call there. Port dues are low relative to the overhead costs. The same is true with wharfage, indicating that the harbor tax recovered in customs is not sufficient to cover 50 percent of quay costs and overhead charged to cargo. However, income from shore handling is more than sufficient to cover the difference.

Under "Surplus/Deficit," the surplus as a "percent of total income" is given for each cost center. This indicates the comparative "profitability" of each center. Several items become apparent immediately. First, the most "profitable" fees are entrance, storage, and pilotage. Since it is a natural harbor, Berbera has no dredging and breakwater costs. Mogadishu has a breakwater, but no dredging. Navigation aids are minimal in both cases; their costs are not discriminated in SPA records. Storage fees appear to yield good income compared with labor and amortization costs of the sheds. Pilotage fees are similar to towage, but the pilotage costs are far less since they include only the pilots, boat crew, and boat.

Finally, in spite of the negative cost centers, the overall results for both Mogadishu and Berbera are positive, with surpluses of 32 percent and 25 percent, respectively, over costs for 1984.

Kismayo port in 1984 is another matter. With the exception of port dues and pilotage, all other cost centers are negative. The problem with Kismayo is unique among the Somali ports -- a combination of high infrastructure cost and low traffic volumes. In spite of Kismayo having the highest tariff rates for port dues (from double to triple those of Mogadishu), in order to reach the break-even point, traffic volumes would have to be at least one and a half times their present volume. However, it can be seen that Kismayo charges cover all costs except those of the amortization of the port facilities.

The financial situation in Berbera and Kismayo deteriorates very rapidly in 1985 and 1986, because the Berbera port extension and the Kismayo port rehabilitation are capitalized during those years. Berbera will be completed in 1985, and Kismayo was assumed to have two berths in 1985 and two more in 1986. Amortization costs increase substantially, causing deficits for Kismayo alone of 48 million and 90 million shillings in 1985 and 1986. Berbera generates a deficit of over 50 million for the two years, less than does Kismayo, due to its higher receipts.

The financial situation is summarized for all Somali ports, and by cost center in Table 3-20. In 1984, the "normal" year, both Mogadishu and Berbera realize surpluses that are sufficient to cover Kismayo and show a surplus of 11 percent. However, due to the negative balance of Kismayo and Berbera projects in 1985 and 1986, the surpluses earned by Mogadishu are not sufficient. The

FIGURE 3-20. FINANCIAL RESULTS - SURPLUS BY COST CENTER PER YEAR - ALL SOMALI PORTS
IN (000) SO.SH

Cost Center	1984 Income	1984 Cost	1984 Surplus	1984 %	1985 Income	1985 Cost	1985 Surplus	1985 %	1986 Income	1986 Cost	1986 Surplus	1986 %
Port Dues	3590	21494	(17904)	(498%)	3768	24089	(20321)	(539%)	3978	26868	(22890)	(575%)
Entrance	9802	15505	(5703)	(58%)	10253	15505	(5252)	(51%)	10785	17762	(6977)	(65%)
Towage	9464	11780	(2316)	(24%)	9895	9794	101	1%	10372	10205	167	2%
Occupancy	11413	24414	(13001)	(114%)	11942	70863	(58921)	(493%)	12507	88103	(75596)	(604%)
Pilotage	5173	1274	3899	75%	5417	984	4433	82%	5711	1052	4659	82%
Mooring	1367	658	709	51%	1431	739	692	48%	1501	830	671	45%
Stevedoring	36375	27794	8581	24%	37776	29095	8681	23%	39166	30494	8672	22%
Shore Handling	76071	30374	45697	60%	79493	21634	(57859)	73%	82780	26207	(56573)	(68%)
Storage	25000	5668	19332	77%	26000	5793	20207	77%	27040	5933	21107	78%
Misc.Ship Charge (Anchorage, etc.)	1020	--	1020	--	1058	--	1058	--	1099	--	1099	--
Equipment Rental	4990	--	4990	--	5190	--	5190	--	5379	--	5379	--
Wharfage	26000	45312	(19312)	(74%)	27040	94284	(67244)	(248%)	28123	114244	(86121)	(306%)
TOTAL	210265	184273	25992	11%	219263	272780	(53517)	(24%)	228441	321698	(93257)	(41%)

result is a cumulative deficit for all three ports of over 120 million shillings by the end of 1986.

3.8.2 Deficit Coverage Alternatives

How, then, can the deficits be covered? Assuming that this must be done from internal funding, there are two ways it can be accomplished. The first is by each port handling its own financing and the second is from cross subsidization. Each will be examined in turn.

1. Individual Port Financing

Ideally, each port should be autonomous in the sense that it is responsible for its own operations and improvements. In this case, each port would collect enough in fees to cover its investment amortization. What this would mean to each port can be seen in Table 3-21. Since Mogadishu has no deficit, no fee increases would be necessary. However, Kismayo would be required to almost double its fees just to meet current costs and more than quadruple them by 1986 to cover the costs of rehabilitation. Berbera would have to double its fees by 1985.

The major problem with this is that traffic volumes would fall both at Berbera and Kismayo due to competition from other ports. Large increases in Berbera rates would mean more cargo coming through Djibouti (see paragraph 2.3) as well as through the small ports and non-ports (beaches) on the north coast, resulting in losses not only in port fees but also in customs revenues. Higher fees in Kismayo would probably divert traffic to Mogadishu.

TABLE 3-21. ANNUAL PERCENTAGE INCREASES IN PORT FEES NECESSARY TO OFFSET PROJECTED DEFICITS

PORT	MOGADISHU	BERBERA	KISMAYO	ALL PORTS
Year				
1984	--	--	155 %	--
1985	--	84 %	30 %	24.4 %
1986	--	--	53 %	13.1 %
ACCUMULATED INCREASES	--	84 %	407 %	40.8 %

2. Cross Subsidization

The other alternative is cross subsidization, which generally means covering the deficits at some ports by those making surpluses. The argument against this is that inefficiencies tend to be perpetuated when the port concerned is not required to correct them. However, in the case of Somalia, the question is not operational inefficiency but extensive investments in port facilities. This together with the problems of competition previously cited would suggest that cross subsidization would be the preferred alternative. The annual percentage increases in port fees necessary for all ports to offset projected deficits are shown in Table 3-21. The table indicates that the fees should be increased 24.4 percent the first year in which the Berbera port extension and the first two berths of Kismayo are capitalized, reaching 40.8 percent accumulated increase over present fees by 1986 with completion of the Kismayo rehabilitation.

The next question is where the burdens of the charge should be placed: on ship, cargo, both, or something else. As the structures being built in both Kismayo and Berbera are quays, used equally by ships as well as cargo, the income should be borne by both. If so, the question becomes which fees should be raised. Raising all fees proportionally creates problems because it distorts the cost/revenue relationship of the cost centers; that is, the revenue from any cost center should reflect the cost of providing that service. Alternatively, since the investments are in quays, the cost centers of occupancy and wharfage could each absorb 50 percent of the costs. This would, of course, raise these fees considerably. In 1986, for example, occupancy rates would have to be 176 shillings per meter LOA per day instead of the current 25 shillings.

Another alternative is to include the amount as a surcharge per ton of cargo, which would be 68.21 shillings per ton import plus export, or 83.13 shillings per ton of imports. The objection to this method would be that it discriminates against low-value/high-weight cargoes (such as cement) and bagged cargo (largely food), and conversely favors high-value/low-weight items (such as video sets). A final possibility would be to make it an ad valorem tax, such as the harbor tax. The deficit could be covered by raising the harbor tax from 3 to 13 percent by 1986. Since it does not discriminate against basic foodstuffs and bulky items (such as building materials and heavy machinery) needed for development projects, and since it does not distort fees by throwing some far out of line, it is the most reasonable alternative. The higher harbor tax could also be coupled with increases in occupancy charges, which would have the effect of shifting part of the burden to ship owners, particularly if the port facilities, especially the port extension in Berbera, do not result in lower freight rates due to reduced ship waiting time. Ultimately, the best solution would be to distribute the burden between the harbor tax and berth occupancy, the percent shared by each dependent upon negotiations with both ship and cargo owners. Tables 3-22 and 3-23 show the summary financial statements for Kismayo and all ports respectively, assuming equal increases in the harbor tax and berth occupancy to cover the costs of the Berbera port extension and the Kismayo port rehabilitation. Wharfage fees would increase from their present 3 percent to 6 percent in 1985 and to 8.2 percent in 1986. Occupancy, which is currently 25 shillings per meter LOA,

TABLE 3-22. SUMMARY OF SURPLUS BY COST CENTER PER YEAR WITH IMPACT OF FEE INCREASES - KISMAYO PORT

IN (000) SO.SH

Cost Center	1984				1985				1986			
	Income	Cost	Surplus	%	Income	Cost	Surplus	%	Income	Cost	Surplus	%
Port Dues	1063	4758	(3695)	(347%)	1136	4781	(3645)	(321%)	1230	6064	(4834)	(373%)
Entrance	1663	14435	(12772)	(768%)	1778	14435	(12657)	(712%)	1921	16691	(14770)	(769%)
Towage	1541	4286	(2745)	(178%)	1647	2009	(362)	(22%)	1776	2100	(324)	(18%)
Occupancy	1863	6724	(4861)	(161%)	6440	17308	(10868)	(169%)	10564	34510	(23946)	(227%)
Pilotage	851	224	627	73%	910	239	671	74%	990	256	734	74%
Mooring	257	258	(1)	(1%)	274	290	(16)	(6%)	296	325	(29)	(10%)
Stevedoring	2006	3004	(998)	(50%)	2085	3209	(1124)	(53%)	2183	3457	(1274)	(58%)
Shore Handling	6556	2949	3607	55%	7016	2690	4326	61%	7494	6531	963	13%
Storage	1000	2192	(1192)	(119%)	1040	2208	(1168)	(112%)	1082	2226	(1146)	(106%)
Misc. Ship Charge (Anchorage, etc.)	210	--	210	100%	217	--	217	100%	226	--	226	100%
Equipment Rental	670	--	670	100%	697	--	697	100%	725	--	725	100%
Wharfage	2000	1131	(9311)	(465%)	4160	21896	(17736)	(426%)	5467	40358	(34981)	(638%)
TOTAL	19680	50142	(30462)	(155%)	27400	69065	(41665)	(152%)	38954	112519	(78565)	(231%)

TABLE 3-23. SUMMARY OF SURPLUS BY COST CENTER PER YEAR WITH IMPACT OF FEE INCREASES - ALL SOMALI PORTS

IN (000) SO.SH

Cost Center	1984 Income	1984 Cost	1984 Surplus	1984 %	1985 Income	1985 Cost	1985 Surplus	1985 %	1986 Income	1986 Cost	1986 Surplus	1986 &
Port Dues	3590	21494	(17904)	(498%)	3768	24089	(20321)	(539%)	3978	26868	(22890)	(575%)
Entrance	9802	15505	(5703)	(58%)	10253	15505	(5252)	(51%)	10785	17762	(6977)	(65%)
Towage	9464	11780	(2316)	(24%)	9895	9794	101	1%	10372	10205	167	2%
Occupancy	11413	24414	(13001)	(114%)	38730	70863	(32133)	(83%)	59136	88103	(28967)	(49%)
Pilotage	5173	1274	3899	75%	5417	984	4433	82%	5711	1052	4659	82%
Mooring	1367	658	709	51%	1431	739	692	48%	1501	830	671	45%
Stevedoring	36375	27794	8581	24%	37776	29095	8681	23%	39166	30494	8672	22%
Shore Handling	76071	30374	45697	60%	79493	21634	57859	73%	82780	26207	56573	68%
Storage	25000	5668	19332	77%	26000	5793	20207	77%	27040	5933	21107	78%
Misc. Ship Charge (Anchorage, etc.)	1020	--	1020	--	1058	--	1058	--	1099	--	1099	--
Equipment Rental	4990	--	4990	--	5190	--	5190	--	5379	--	5379	--
Wharfage	26000	45312	(19312)	(74%)	53828	94284	(40456)	(75%)	74752	114244	(39492)	(53%)
TOTAL	210265	184273	25992	11%	272839	272780	59	0	321699	321698	1	0

would be increased to 81 shillings per meter in 1985 and to 124 shillings in 1986.

3.9 SENSITIVITY ANALYSIS

As previously stated, one of the study directives was to determine what revenue increases would be necessary to cover the amortization of the Kismayo port rehabilitation and the expansion of Mogadishu and Berbera ports, as well as operating costs and expenses. Increases in revenue could be accomplished in two ways. First, port fees could remain at current levels, with increases in cargo volumes alone bringing revenues to a level where they covered costs. This would happen because as cargo volumes increase, revenues from more ship calls and greater tonnage of cargo being handled increase. Although variable costs also increase proportionately, revenues per ton are the greater amount and there would be a cargo level at which the "break-even" point would be reached, i.e., the increasing revenues would become equal to fixed plus variable costs.

The second method, as detailed in paragraph 3.8, is to increase current fee levels sufficiently by 1986 to cover all costs, or "break even" by then. It was shown that under basic assumptions of an average 5 percent annual cargo volume increase, fees would have to be increased by over 40 percent by 1986. But, what if volumes are less or greater? In these cases, how much should the increase be? The purpose of this section is to examine these questions under assumptions of different levels of cargo volumes.

For the purpose of analysis, three alternative cargo volume levels were assumed. The first was the base case, outlined in paragraph 3.4 which postulated a 5 percent annual increase in cargo volumes. The second alternative assumed an annual increase of 3 percent less than the base case, or effectively a 2 percent annual growth rate, while the third alternative assumed an annual growth rate 3 percent higher than the base case, or effectively 8 percent per annum.

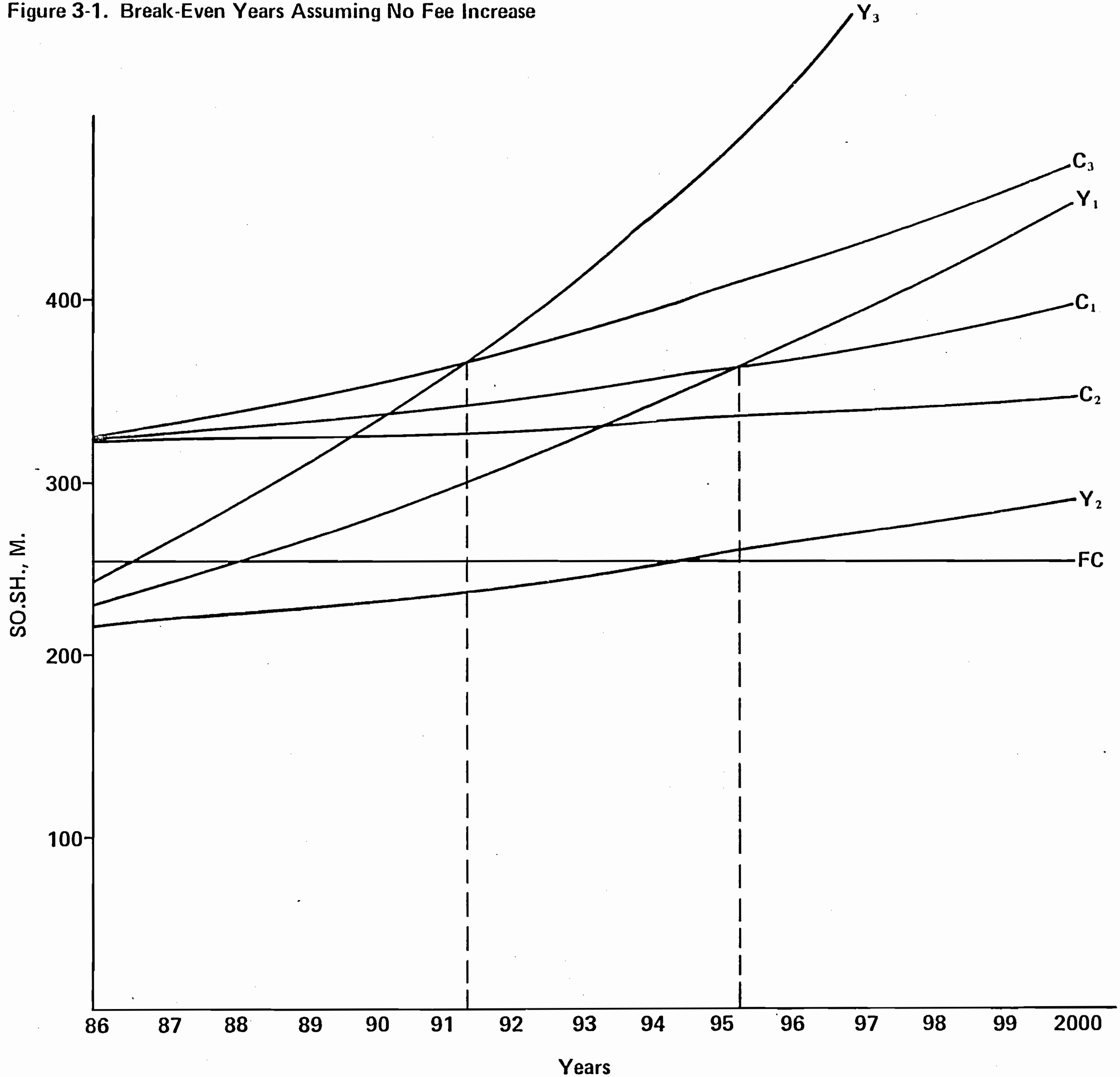
The 1986 costs and revenues per ton were used since this is the year in which all projects are assumed to have been capitalized. Variable costs were assumed to include all labor costs and equipment costs. Fixed costs consisted of facility amortization and overhead costs. Income was the average per ton for 1986.

The first analysis determined when the break-even point would be reached, assuming that present fee levels were maintained under the three alternative hypotheses for cargo volume increases. The results are shown in Figure 3-1. Here, the fixed cost (FC) is shown along with income (Y) and variable cost (C) functions for each of the three cargo volume hypotheses. The break-even points are in the following years:

	On Figure:		
Volume Hypothesis	Income	Cost	Break-Even Year
5% Volume Increase	Y1	C1	1995
2% Volume Increase	Y2	C2	2013
8% Volume Increase	Y3	C3	1991

The second analysis involves two questions: (1) how will the projected volumes affect the break-even point if the fees are increased by 41 percent by 1986, and (2) assuming a break-even point is desired in 1986, how much greater or

Figure 3-1. Break-Even Years Assuming No Fee Increase



smaller must the increase be if the cargo volumes reflecting 2 percent and 8 percent increases are realized?

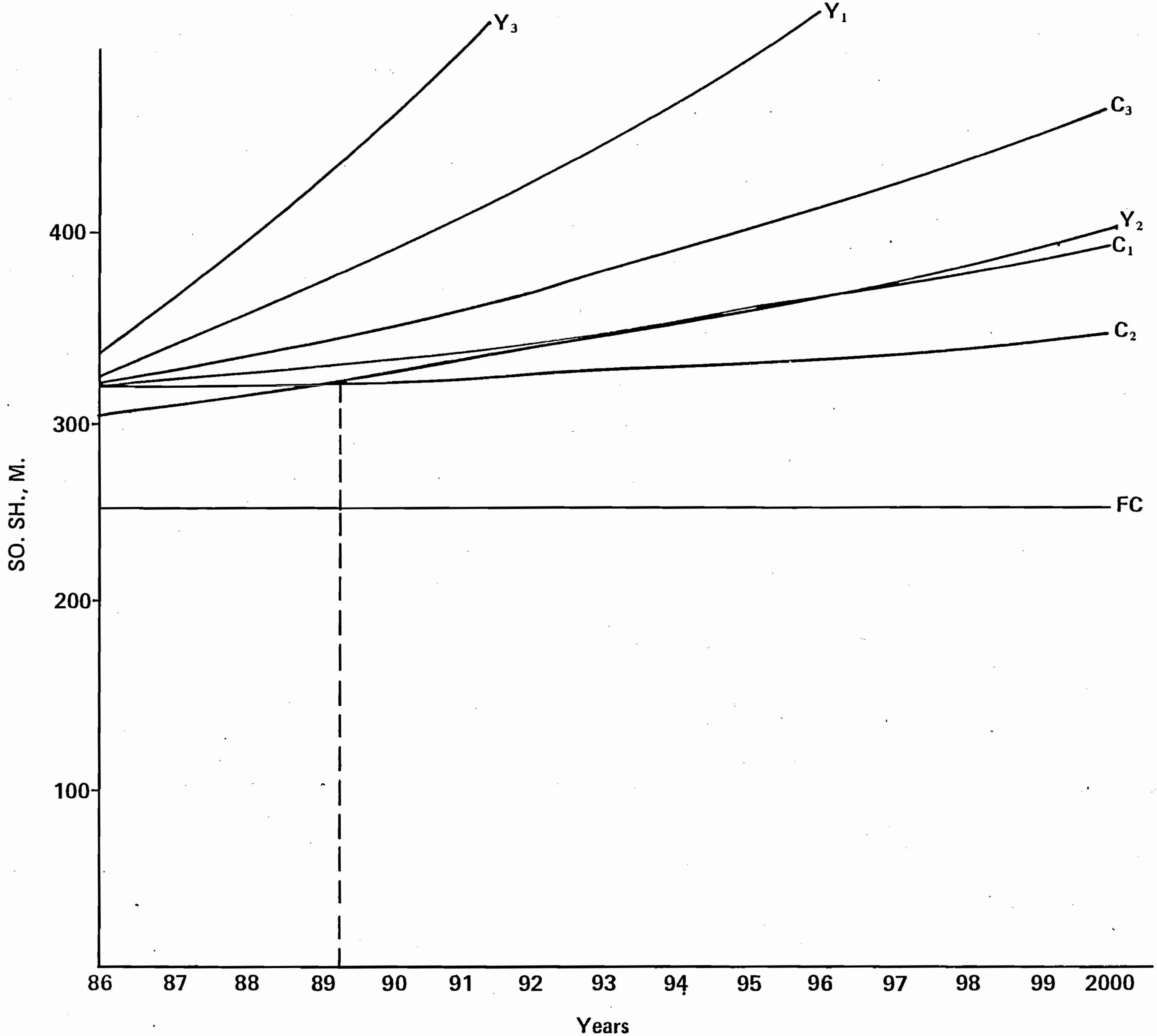
The answer to the first question is illustrated in Figure 3-2. Break even for the 5 percent volume increase is 1986 by definition; that for the 2 percent volume increase is 1989. The 8 percent volume increase breaks even before 1986 and, thus, is not illustrated.

Regarding the second question, if volumes increase 8 percent, a fee increase of only 32 percent would be necessary in 1986 to cover all fixed and variable costs instead of the 40 percent needed in the base case. Under the assumption of a 2 percent volume increase, a fee increase of 47 percent would be needed in 1986 to break even in that year.

An additional factor to be considered is that after breaking even, revenues will exceed costs by a greater amount each year as cargo volumes increase. At this point, the decision must be made as to what should be done with the surplus. Depending upon the status of future port projects, the funds could be placed into a reserve to help defray anticipated capital outlays, or could be transferred to cargo owners in the form of progressive reductions in port fees.

It can be seen from the first analysis that it is unwise to depend upon cargo volumes alone to cover amortization costs of the new facilities. Therefore, a fee increase is the preferred alternative to guarantee that funds will be available to replace the facilities at Berbera and Kismayo when they reach the end of their useful lives. As for the amount of the increase, 40 percent is

Figure 3-2. Break-Even Years Assuming 41 Percent Fee Increase



not unreasonable. Even considering the possible fluctuations in cargo volumes, the plus 7 or minus 8 percent variation in increases needed is not great.

Finally, the foregoing analysis assumed that in the future port fees would be varied in accordance with any current devaluations and increases in local costs that might take place. Corresponding adjustments for these occurrences must then be added to the proposed increases.

3.10 ANALYSIS OF LEVELS AND METHODS OF CHARGING, AND SUGGESTIONS FOR IMPROVEMENTS

As discusssed in paragraph 2.3, the SPA port tariff structure has undergone substantial revision following the Price Waterhouse studies of 1976-1977. The SPA implemented most of the suggestions made by Price Waterhouse. While the primary function of this study is to examine the adequacy of the level of fees, a number of suggestions are offered for improvements in charges for individual services to be made in view of recent trends in tariff structure in major ports.

In addition, for certain fees, specifically those of equipment rental, suggestions are made for increases to be implemented immediately so that the costs of these services are covered. For those fees found to be higher than necessary to cover present costs, no reductions are suggested until they could be compensated by corresponding increases in under-recovered cost centers, shown in Table 3-23, to maintain current overall SPA financial viability.

3.10.1 Charges to Ships

First, the basis for ship charges, specifically dues, entrance, occupancy, and towage, should be gross registered tonnage (GRT) rather than net registered tonnage (NRT). NRT was suggested by Price Waterhouse on the basis of the UNCTAD study on port pricing which showed that a majority of ports charged on that basis. The trend nowadays, however, is to GRT. Mombasa, Dar es Salaam, and Djibouti use GRT as the basis. The main reason for using GRT is that from the point of view of the port, it is the most reliable index of vessel size in all three dimensions -- length, beam, and draft -- and thus the overall size of the vessel for which port facilities and services must be provided. As such, it provides a better indication of the depth of the channel for entrance, tug effort for towage, and general ship services for dues.

The present NRT tables can be converted to GRT tables by dividing current charges by 1.5. This has been done in Table 3-24. The results are approximate since the GRT groupings do not have a strict relationship with current NRT brackets, consequently a dummy run should be made with the GRT rates to make sure that there are no revenue shortfalls. The conversion does not affect the level of income, which is presently sufficient to cover all costs. The income, however, will have to be increased by the percentages shown in Table 3-21 when the costs of the Berbera and Kismayo projects will be capitalized.

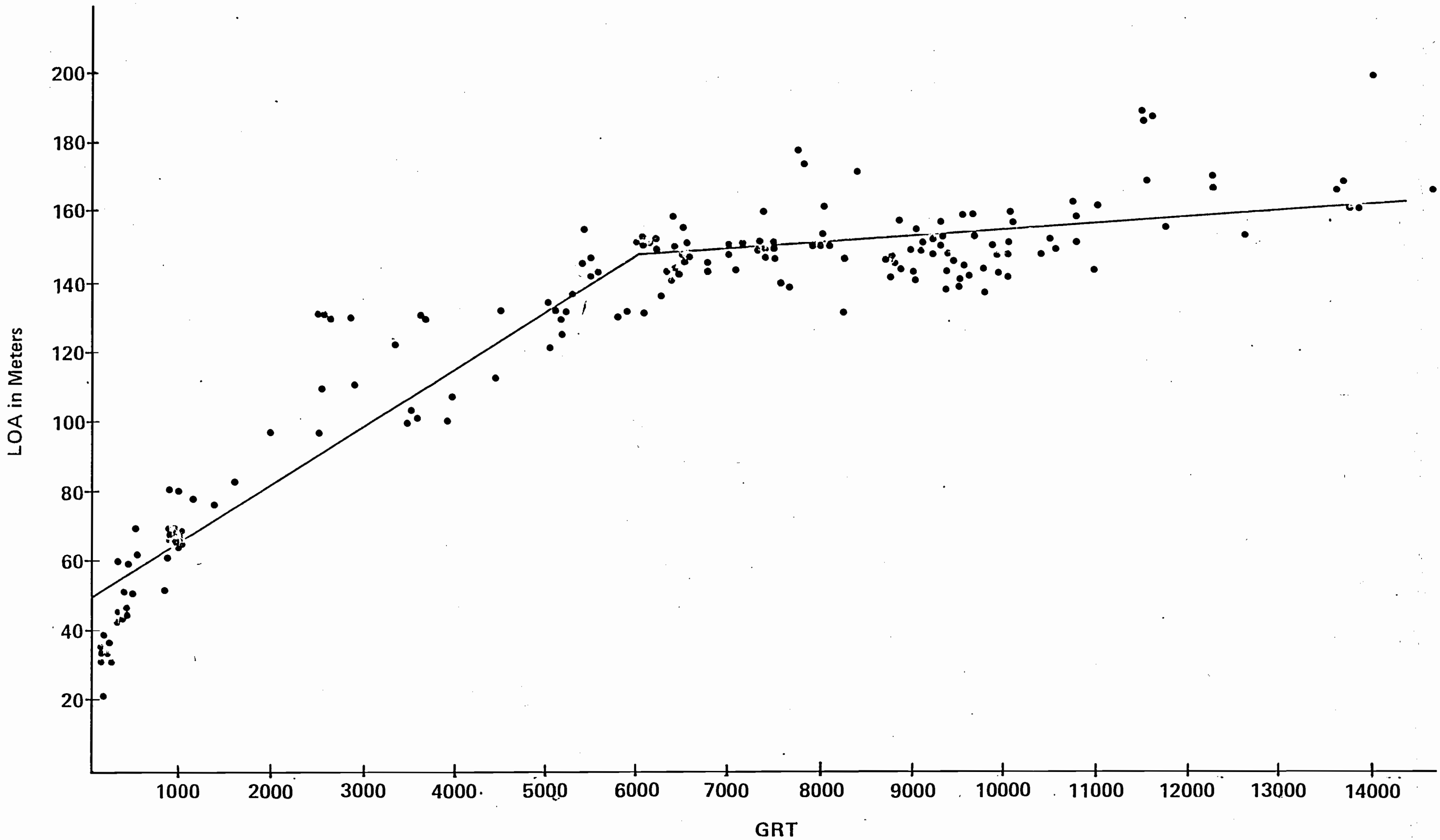
TABLE 3-24. SUGGESTED TARIFF RATES - SHIP ACCOUNT

Tariff	Ship Sizes	Unit for Charging	Mogadishu So.Sh	Berbara So.Sh	Kismayo So.Sh
Port Dues	1- 2000 GRT	Per Ship/	1333	666	1333
	2001- 4000 GRT	Per Call	2000	1333	4000
	4001- 6000 GRT		3333	2666	6666
	6001- 8000 GRT		4000	3333	10000
	8001-10000 GRT		4666	4000	13333
	Above-10000 GRT		5333	4666	16666
Entrance	1- 2000 GRT	Per Ship/	3333	666	3333
	2001- 4000 GRT	Per Call	6666	1000	6666
	4001- 6000 GRT		13333	3333	10000
	6001- 8000 GRT		16666	4666	13333
	8001-10000 GRT		20000	5666	16666
	Above-10000 GRT		23333	6666	20000
Mooring	1- 2000 GRT	Per Ship/			
	2001- 4000 GRT	Operation			
	4001- 6000 GRT		NO CHANGE		
	6001- 8000 GRT				
	8001-10000 GRT				
	Above-10000				
Pilotage	1- 2000 GRT	Per GRT/			
	2001- 4000 GRT	Ship			
	4001- 6000 GRT		NO CHANGE		
	6001- 8000 GRT				
	8001-10000 GRT				
	Above-10000 GRT				
Towage	1- 2000 GRT	/Tug	1333	1333	1333
	2001- 4000 GRT	/Operations	1666	1666	1666
	4001- 6000 GRT		2000	2000	2000
	6001- 8000 GRT		2333	2333	2333
	8001-10000 GRT		2666	2666	2666
	Above-10000 GRT		3000	3000	3000
Berth Occupancy	1- 2000 GRT	Per GRT/	2.03	2.03	2.03
	2001- 4000 GRT	Ship	.89	.89	.89
	4001- 6000 GRT		.66	.66	.66
	Above 6000 GRT		.63	.63	.63
Anchorage Fees	GRT	Per Ship Per Month	. 40	. 40	. 40

In the case of berth occupancy, GRT is better than length overall (LOA) as a measure because, in addition to length of berth occupied, it indicates water depth, space used on the quay, and width of the slip. While Somali ports do not have slips, still the beam of moored vessels limits to some extent the space in the basin available for maneuvering other vessels, particularly in Kismayo and Mogadishu. Using GRT for berth occupancy will also mean a considerable increase in revenues to the SPA because LOA increases quite rapidly up to about 140-150 meters, then levels off, whereas GRT continues to climb. This is shown in Figure 3-3 where the relationship between LOA and GRT is demonstrated for a sample of 200 ship calls in Mogadishu during 1983. The relationship is less than proportional, but increasing up to an LOA of about 150 m and a GRT of 6,000 tons. Beyond this point, LOA remains constant. Thus, a ship of 11,000 or 12,000 GRT will pay the same occupancy charges as a ship half the size. Since the current fee schedule does not increase above 25 shillings per meter per day, it discriminates in favor of larger ships, the majority of which are foreign owned, and against smaller national ships. Larger ships are also more economical with more ability to pay higher charges. Thus, besides discriminating, the SPA is losing considerable income from the present structure.

However, small ships should be maintained on an LOA or equivalent basis. This is because they have low GRT but comparatively longer LOA, as can be seen from Figure 3-3. Charging small ships the same rate per GRT as large ships not only discriminates against the latter, but encourages small ships to occupy berths for longer periods, keeping larger ships with higher demurrage rates waiting. Therefore, many ports charge based on LOA for small ships and GRT for large ones.

Figure 3·3. LOA vs. GRT – Sample of 200 Ship Calls, Mogadishu



A comparison of three possible charging modes for the Somali ports was made. The first is the present system of 25 shillings per meter of LOA per day. In the first alternative to the present system, the same GRT groupings in intervals of 2,000 tons were used up to 6,000 GRT, then one rate was charged for all larger vessels. The rates up to 6,000 GRT were calculated so that on the average the same income is derived as with LOA. In the second alternative to the present system, occupancy is calculated at 1 shilling per ton GRT for all ships above 2,000 GRT. One shilling per ton is equivalent to the average occupancy rate charged at U.S. ports -- about $0.06 per GRT. To prevent loss of revenue from small ships, the same fee is used as in the first alternative, namely 2.03 shillings per GRT. The two alternatives are summarized in Table 3-25.

The results in terms of impact on income are shown in Table 3-26. The first alternative increases income over the present LOA based fee by 52 percent, or over 6 million shillings in 1986, and the second alternative by 123 percent, or over 15 million shillings in 1986. These increases would be insufficient to cover the increase of 120 million shillings required for the Berbera and Kismayo projects.

3.10.2 Charges to Cargo

The tariffs charged to cargo were also reviewed. As in the case of ship fees, each table in the SPA Tariff Regulations of 1983 was considered in terms of normal charging practice as well as the level of fees relative to their respective costs, as near as could be determined. The schedule letters refer to those of the current SPA fee schedules shown in Appendix B. Comments on fee levels and charging methods for each table are as follows:

TABLE 3-25. TWO ALTERNATIVE RATES FOR OCCUPANCY IN SO.SH. PER TON GRT

Tonnage (GRT)	1-2000	2001-4000	4001-6000	6000
Alternative 1	2.03	0.89	0.66	0.63
Alternative 2	2.03	1.00	1.00	1.00

TABLE 3-26. COMPARISON OF DIFFERENT REVENUE LEVELS FOR OCCUPANCY PER PORT

IN SO.SH

PORT	BASE	%	1984	1985	1986
Mogadishu					
	1. LOA	--	6.654.500	6.955.200	7.265.350
	2. GRT Alt. (1)		9.547.763	10.100.261	11.036.877
	3. GRT Alt. (2)		14.534.361	15.209.501	15.922.335
Berbera					
	1. LOA	--	2.895.500	2.999.100	3.092.200
	2. GRT Alt. (1)		5.214.414	5.376.752	5.552.628
	3. GRT Alt. (2)		7.118.827	7.397.551	7.647.368
Kismayo					
	1. LOA	--	1.862.925	1.987.775	2.129.825
	2. GRT Alt. (1)		2.586.102	2.737.350	2.929.391
	3. GRT Alt. (2)		3.770.888	4.001.217	4.293.425
TOTAL					
	1. LOA		11.412.925	11.942.075	12.487.375
	2. GRT Alt. (1)		17.348.279	18.214.363	19.518.896
	3. GRT Alt. (2)		25.424.076	26.608.269	27.863.125
Increase in Income over LOA, %					
	1. GRT Alt. (1)	52%	5.935.354	6.272.288	7.031.521
	2. GRT Alt. (2)	123%	14.011.151	14.666.194	15.375.753

Shore Handling Charges (Schedule A)

The present tariff treats different kinds of breakbulk and bagged cargo by metric ton and livestock per head, with rates both for loading and unloading. As shown in paragraph 3.7, shore handling rates exceed costs in all ports by a substantial margin. As a double check, calculations were made for various kinds of cargo based on observations of hook cycle times, gang sizes, and equipment used at both Mogadishu and Kismayo ports, and estimated costs. In all cases for the selected types of cargo, revenue exceeded cost by a substantial margin, as shown below. Therefore, as previously mentioned, no reduction in shore handling rates should be made until compensated by corresponding increases in wharfage rates.

Item	Shore Handling Cost	Existing Rate	Percentage
Crate of Wire	SoSh 82	SoSh 120	146
Crate of Fixtures	64	140	210
Fertilizer Barrels	36	78	210
Rolls of Fiberboard	30	56	180
Rolls of Paper	34	56	160
Rebar	86	120	139
50 kg Bags	23	56	240
Camel	3	6	100

Stevedoring Charges (Schedules C and R)

The basic units for stevedoring charges are the same as those used for shore handling, i.e., by metric ton for general and bagged cargoes and per head for livestock. A similar analysis was undertaken for stevedoring as for shore handling. In Mogadishu, costs related to general cargo were found to be 13.4

So Sh per ton and 22.9 in Kismayo, due to a higher pay scale in the latter port. This compares with a charge of 35 So Sh per ton. Livestock were more marginal. Both Mogadishu and Kismayo lose on camels. Kismayo does slightly better than break even on cattle, but recovers twice the costs of stevedoring sheep and goats. Therefore, no increase in fees should be made for stevedoring charges for the same reasons as stated for shore handling charges.

Storage Charges (Schedule P). Storage charges are based on 100 kg of cargo, both in open and covered storage (sheds) as shown below.

Days	Basic Unit	Open Storage	Covered Storage
First Ten Days After Free Period	Per Day/100 kg	0.30	0.50
Second Ten Days	Per Day/100 kg	1.60	1.00
Thereafter	Per Day/100 kg	1.00	1.50

As noted in paragraph 3.7, storage appears to be quite profitable when taken in all Somali ports. Current income from storage is high in relation to costs, and sheds and storage areas do not appear to be congested. No change in rates should be made for the reasons given in paragraph 3.9.

Equipment Rental

The Somali ports provide equipment for rental to port users for work beyond normal shore cargo handling. The types of equipment rented are cranes, forklift trucks, tractors and trailers, cargo-handling gear, and marine craft. The costs of ownership and utilization of each one of these items have been calculated and compared with the actual charges by piece of equipment described below. The total income from equipment rental amounts to less than 2.5 percent of total income in 1984.

Quay cranes are not available in Somali ports but a charge is included for them in Schedule I. In practice, the tariff applies to mobile cranes working ships alongside the quays. The cost calculation is based on the existing types of mobile cranes. Fixed-cost components include annualized replacement and maintenance costs divided by average annual operating hours for 1982-83 at Mogadishu port. Variable-cost components consist of fuel and operator salary based on operating hours. An economic life of five years was assumed as well as 7.5 percent interest on amortization, and maintenance as 10 percent of the initial investment. The costs of the cranes per hour are shown below with current and proposed rates.

Crane Capacity	Cost	Present Rate	Proposed Rate
Up to 3,000 kg	SoSh 275/hr	SoSh 300/hr	SoSh 300/hr
Up to 5,000 kg	275/hr	350/hr	350/hr
Up to 10,000 kg	458/hr	400/hr	500/hr
Up to 15,000 kg	580/hr	500/hr	700/hr
Above 15,000 kg	1058/hr	800/hr	1100/hr

The proposed rates average about 110 percent of the costs to account for overhead.

Rental of Mobile Cranes. Schedule K shows rates per ton for use inside the port and per hour outside the port. Using tons as a charge base is not recommended because it is difficult to tell how many tons were actually lifted, especially where several lifts may be involved. Also, a crane may be hired to lift a ton but kept waiting and thus not be available for other service. Time is a more practical and equitable basis for charging.

The following table presents costs and actual and proposed rates. The basis for calculation was the same as for quay cranes.

Crane Capacity	Cost/Hour	Present Rate		Proposed Rate	
		Inside	Outside	Inside	Outside
	SoSh	SoSh	SoSh	SoSh	SoSh
Up to 5,000 kg	275	60/ton	250/hr	350/hr	530/hr
5,001-15,000 kg	458-580	100/ton	400/hr	500/hr	750/hr
15,000-25,000 kg	580-1058	150/ton	500/hr	800/hr	1200/hr
Above 25,000 kg	1174	100/ton	2000/hr	1200/hr	1800/hr

The proposed rates for use outside the port are based on a surcharge of 50 percent, as at present. A higher percentage is used here since the intent is to use port equipment for port operations rather than for outside rental.

Rental of Forklift Trucks (Schedule L) as in the case of cranes, shows rates per ton inside the port area and per hour outside.

For the same reasons it is recommended that rates per hour be used inside as well as outside. Costs for forklifts were calculated on the same basis as those for cranes. The costs and actual and proposed rates are shown below. Again, the proposed rates for use outside the port are based on a 50 percent surcharge, while inside the port the surcharge is 10 percent.

Forklift Capacity	Cost/Hour	Present Rate Inside	Present Rate Outside	Proposed Rate Inside	Proposed Rate Outside
	SoSh	SoSh	SoSh	SoSh	SoSh
3 ton	162	50/ton	180/hr	180/hr	270/hr
5 ton	211	50/ton	180/hr	230/hr	340/hr

Rental of Tractors and Trailers (Schedule M) is based on an hourly rate. The charges for tractors inside the port cover costs adequately, however outside the port they do not. Port officials explained that use outside the port is practically nonexistent. However, this is no reason not to cover costs. Therefore, a rate high enough to recover costs is proposed. Trailers are currently rented for outside use at very high rates in order to discourage their use. Rates inside the port do not exist since trailers are kept exclusively for cargo handling. Costs and present and proposed rates follow.

Equipment	Cost/Hour	Present Rate Inside	Present Rate Outside	Proposed Rate Inside	Proposed Rate Outside
	SoSh	SoSh	SoSh	SoSh	SoSh
Tractors	168	300/hr*	100/hr	300/hr*	250/hr
Trailers 20T	16	--	400/hr	--	400/hr
	23	--	600/hr	--	500/hr

*With gooseneck.

Rental of Cargo Handling Gear (Schedule N) is charged on a per day basis. Costs below have been calculated taking into account the high misuse and loss rates reported by port officials.

Gear	Cost		Present Rate		Proposed Rate	
Net Sling	SoSh	75/day	SoSh	60/day	SoSh	80/day
Rope Sling		90/day		70/day		100/day
Wire Sling		100/day		80/day		110/day
Pallet		23/day		10/day		30/day
Chain		38/day		40/day		40/day

Rental of Marine Craft (Schedule O). Rental of marine craft, particularly tug boats, is significantly undercharged, as can be seen from the cost center analysis in Table 3-20. To determine more accurately the costs relative to actual charges, calculations were made assuming the following:

- Capital costs: $1,000,000 for tug boat, $100,000 for launch, and $50,000 for lighter.
- Economic life: 15 years for tug boat, 10 years for launch and 10 years for lighter.
- Interest rate for amortization: 7.5 percent.
- Maintenance cost: 10 percent of capital cost.
- Utilization: 652 hours per year (average for 1982 and 1983, Mogadishu port).
- Fuel: SoSh 7 per liter.

- Crew: 3 per tug boat, 2 for launch, and 2 for lighter.

Costs, current hire rates, and proposed hire rates, are as follows:

		Current Rate			Proposed Rate		
Marine Craft	Costs	Inside	Outside	Salvation	Inside	Outside	Salvation
Tug boat (hr)	7,242	2,500	3,000	4,500	7,500	11,000	15,000
Launch (hr)	504	250	800	-	500	750	-
Lighter (day)	1,188	500	1,000	-	1,200	1,800	-

The proposed rates for hire outside the harbor are 50 percent higher than the rates inside the port, while the use of a tug boat for salvation is 100 percent higher.

Miscellaneous Services and Charges on Dhows (Schedules Q and S). These are minor revenue components based mostly on cost of labor provided. A review with port officials showed that the levels of charges are satisfactory and need no change at present.

3.10.3 Suggestions Regarding Levels and Methods of Charging

The suggestions regarding levels and methods of charging are as follows.

The basis for charges to ships should be changed from LOA and NRT to GRT.

There is no need to increase current fee levels on compulsory charges, such as those in the ship accounts, stevedoring, shore handling, and storage for the purpose of increasing income because at present the SPA has a surplus over its costs. Increases and decreases in individual fees to bring them more in line with their costs should be implemented when the cost-based tariff methodology has been adopted by the SPA.

Equipment rental rates should be increased so that these costs will be fully recovered, keeping in mind that the first priority of any port is that of providing services, such as towing and cargo handling, for users. Rental is incidental, diverting equipment and personnel from their priority tasks, and therefore should reflect the full cost of the service provided.

APPENDIX A

SOMALI SHIPPING AGENCY & LINE

AGENCY TARIFF

APPENDIX A

SOMALI SHIPPING AGENCY & LINE
AGENCY TARIFF

1) **AGENCY FEES PER CALL**

a - Liner Vessels irrespective of DWT ... Sh.So. 24.000 per call

b - CHARTERED VESSELS

Whereas Inward Freight Commission is not collectable under the Charter Party, the Agency Fees shall be as follows:

- For the first 3 days	Sh.So.	48.000
- Thereafter	Sh.So.	4.000
- With a Minimum fees	Sh.So.	60.000

c - For Vessels consigned to chartered or Owners Agent where the other want to be attended as Agent for themselves and for their requirements, the latter shall be applied:

- First 3 Days Minimum	Sh.So	24.000
- Thereafter	Sh.So	2.000 per day.

d - For Vessels on Charter or Tramping in traditional Liner trades discharging full or part mixed general cargoes with one or many Bills of Lading, the Agency will be in accordance with para (a) above or as para (b) above whichever is greater to the Agency.

e - TANKER

Discharging and/or Loading full or part cargo of Bulk Liquids:

- First 2 Days	So.Sh.	48.000
- Thereafter	Sh.So.	6.000 per day
- With a Minimum fees	Sh.So	60.000

Cont ......2.......

f - PASSENGER SHIP

- For the first 24 Hours	Sh.So	40.000
- Thereafter	Sh.So.	6.000 per day
- With a Minimum fees of	Sh.So.	52.000

g - REEFER VESSELS

- First 2 Days	Sh.So.	30.000
- Thereafter	Sh.So.	6.000 per day
- With a Minimum fees of	Sh.So.	60.000

h - SHIPS CALLING FOR BUNKERS, WATER, STORES, ORDERS, REPAIR, CREW CHARGES DELIVERY OR REDELIVERY ONLY

- For the first 3 Days	Sh.So.	24.000
- Thereafter	Sh.So.	2.400 per day

i - SHIPS CALLING SOLELY FOR THE PURPOSE OF LANDING SICK OR INJURED PASSENGERS

- For the first 3 days	Sh.So.	12.000
- Thereafter	Sh.So.	1.200 per day

j - NAVY SHIPS IRRESPECTIVE OF TONNAGE

- Per call	Sh.So.	18.000

k - TRAWLERS AND FISHING VESSELS

I - For the first 3 days	Sh.So.	12.000
II - Thereafter	Sh.So.	1.500 per day
II - Fishery Boats First 3 days	Sh.So.	1.500
III - Thereafter	Sh.So.	500 per day
III - Shows with Mechanical Propulsion. First 3 days	Sh.So.	300
Thereafter	Sh.So.	100 per day

Cont ......3.......

- IV - Shows without Mechanical Propulsion. First 3 Days	Sh.So.	200
- Thereafter	Sh.So.	100 per day

2) AGENCY COMMISSIONS

a - Agency Commission on Freight/Demurrage

- Inward Freight Commission	Sh.So.	2%
- Outward Freight Commission	Sh.So	5%
- Demurrage Commission	Sh.So	5%

b - AGENCY COMMISSION OF PASSENGER FARE

- Booking Commission	Sh.So.	10%
- Commission on Passengers disembarked ...	Sh.So.	4%
- Booking Commission payable by Passengers for each ticket	Sh.So	100

c - AGENCY COMMISSION ON REMITTANCES

- On net amount of remittance on freight and demurrage collected and irrespective of Commissions under 2 (a)	Sh.So	2%

d - AGENCY FEES ON DELIVERY AND SHIPPING ORDER PAYABLE BY SHIPPERS/RECEIVERS

I - Shipping Order

For each ton or CBM of Outgoing cargo and whichever is greater	Sh.So	4,00

II - Shipping Order

For each ton or CBM of Outgoing cargo and whichever is greater	Sh.So.	5,00

III - Livestock Fees

- Camels	Sh.So.	4,00 per head
- Cattle	Sh.So	2,00 per head
- Sheep/Goats	Sh.So.	1,00 per head

Cont......4......

IV - Bills of Lading Fees

For the set of 3 negotiable and 3 non negotiable Bills of Lading for the Shippers	Sh.So.	120,00
For each additional copy (from Stamp duty due)	Sh.So.	40,00

V - Claims and Cargo Traces

- Claim Application foes	Sh.So.	200,00
- Claim Settlement fees per Claim ...	Sh.So.	5%

3) CREW AND/OR STOWAWAY ATTENDANCE FEES

a - Crew and/or Stowaway left behind

Minimum per person or per week .... or part thereof.	Sh.So.	1.400,00

b - Crew Embarkation/Disembarkation Attended

Minimum per person	Sh.So.	600,00

c - Crew Signing on/or Off:

Minimum per person	Sh.So.	600,00
Minimum/Maximum	Sh.So.	12.000,00

4) MISCELLANEOUS

a - Car Hire

Conveyance to/or from Ship Hospital per trip	Sh.So.	200,00
Conveyance to or from Ship/Center per trip	Sh.So.	200,00
Conveyance to/or from Ship/Airport per trip	Sh.So.	200,00
An Additional Standing Charges per day ..	Sh.So.	400,00
- Car Hire for dhows	Sh.So.	60,00

Cont.........5......

b - Staff Overtime

Per day (24 hours)	Sh.So.	1.200,00

c - Supervisor and Asst. Supervisor

Per day (24 Hours)	Sh.So.	560,00

d - I Free Pratique/Harbour Master Fees

Free Pratique per call	Sh.So.	1.000,00
II - Harbor Master fees per .call.........	Sh.So.	400,00

e - Customs Overtime Fees

- The first day	Sh.So.	120,00
- Thereafter per day	Sh.So.	20,00

- Customs Manifest Fees

- Per trip (Arrival and Departure)	Sh.So.	400,00

f - Petty Expenses

- Local Postage/Telex, Phone, Photocopies and translation	Sh.So.	1.400,00

g - Social Ammenities Fees (Voluntary)

- Per Ship/Per trip	Sh.So.	1.000,00

h	- Sundry Expenses	Sh.So.	1.600,00
i	- Bank Charges/Commission or Remittance ...	Sh.So	1%
j	- Clearance Fees	Sh.So.	600,00 per call
k	- Immigration Fees	Sh.So.	300,00 per call

l - <u>Brokerage Commission</u>

- As per Agreement between the Agency and Broker(s)

m - <u>General Average</u>

- As per Agreement between the Agency and the parties concerned and in consideration to the extent of work involved.

l) Watchmen .... Sh.So. 280,00 per 24 Hours.

APPENDIX B

SOMALI DEMOCRATIC REPUBLIC

TARIFF REGULATION OF 1983

SOMALI PORTS AUTHORITY

SOMALI DEMOCRATIC REPUBLIC

TARIFF REGULATION OF 1983

=SOMALI PORTS AUTHORITY=

THE MINISTER
OF MARINE TRANSPORT AND PORTS

HAVING SEEN The Constitution of The Somali Democratic Republic

HAVING SEEN Law No.1 of 21st October,1969.

HAVING SEEN Law No.1 of 7th January,1973 Article 3,Paragraph 3, letter (a) regarding the creation of the Somali Ports Authority.

HAVING SEEN Law No.17 of 21st April,1974 regarding the powers of the Minister over the activities of Public Agencies.

HAVING SEEN The proposal of the President of the Somali Ports Authority.

CONSIDERING The necessity to promulgate Tariff regulations concrning the services rendered by the Somali Ports Authority.

HEREBY PROMULGATES

This regulation and the Tariff rates attached thereto.

Article 1.

Purpose of the Tariff

The Minister has recognised the urgent need to issue new tariff regulations for the Somali Ports Authority, with the aim of achieving its objective of attaining and maintaining a self-supporting position.

Article II.

Abrogation

All internal regulations and ordinances which are inconsistant with this tariff regulations are hereby obrogated.

Article III.

Coming into effect

This tariff regulation will be effective from the 1st JANUARY 1983.

Article IV.

Publication

BEST AVAILABLE COPY

This regulation will be published in the official bullettim of the government.

Mogadisho, 15th December 1982

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CHAPTER I

GENERAL

Set below are the principal charges and rates levied on Ships and Cargo passing through the Major Somali Ports of Mogadishu,Berbera,and Kismayo.

These rates and charges are shown in tabulations drawn up in the sequence of alphabetical order.A Number of rules and conditions applying there to are also enumerated.

TABLES

- A - Shore Handling or Lighterage.
- C - Stevedoring or Handling on Board.
- D - General Service Charges on Ships.
- E - Entrance on Ships.
- F - Mooring or Berthing.
- G - Berth Occupancy Charges.
- H - Pilotage Charges.
- I - Towage Charges.
- J - Hire of Quay Cranes.
- K - Hire of Mobile Cranes.
- L - Hire of Forklifts.
- M - Hire of Tractors and Trailers.
- N - Hire of Cargo Handling Gear.
- O - Hire of Marine Craft.
- P - Storage on Cargo.
- Q - Miscelaneous Services.
- R - Shore Handling on self propelled vehicles,Cars, Trucks,Tractors etc.
- S - Charges on dhows.
- T - Port Dues on Bulk liquids & Molasess.

DEFINITIONS:- In this Tariff unless context otherwise Requires:-

" TONS " Means 1000 Kg.
" QUINTAL " Means 100 Kg.
" NRT " Means Net Registered Ton.
" GRT " Means Gross Registered Ton.
" STORE " Means Sheds, Warehouses and Stacking Areas.
" DAY " Means 24 Hours of from 06.00 - 06.00 AM.
" HOUR " Means Hours of Daylight.
" So.Sh." Means Somali Shilings.
" OAL " Means Overall Length.
" DIRTY CARGO" (EXAMPLES) = Dates, Cement, Animals, Edible, Betumen, Oils, etc.
" B/L. " Menns Bill of Lading.
" Quay Cranes" Means Cranes fixed on the water frontage apron and can handle Cargo from the Ships hold to the quay and vice versa.
" ISO " Means International Organization on Standardizatio

CHAPTER II

SHORE HANDLING/LIGHTERAGE

Article 1

Chargeable Unit

1. All Cargo charges on shore handling or lighterage will be calculated on the deadweight.
2. All Charges in this Tariff where the basis is on deadweight, shall be raised in units of 1000 Kg. (Ton) or part thereof.
3. Any fraction of a Ton will be treated as whole number Ton which is the lowost chargebalo unit.
4. Where information in the official Shipping documents appears to be insufficient or doubtful, The Port Authority reserves the right to make check weighment or on spot measurement, and shore handling or lighterage charges will be assessed on which ever is greater so obtained.

Article 2

Empty Containers

Empty Containeros when loaded or discharged ~~XXXXXXXXX~~ will be charged as a general Cargo items at full rates as shown in table (A) of this Tariff.

Article 3

Surcharges

1. All dirty cargo that may leave stains,contaminating effects or damages on the surface of work aprons or storage areas,will be charged a surcharge of 20% on the normal handling rates shown in table (A).The Somali Ports Authority is empowered to determine which cargoes can be classified as dirty Cargo.
2. Timber blanks discharged or loaded in loose pieces or insufficiently. packed will be charged a surcharge or 30% on the ordinary rates specified in table (A) of this Tariff.

Article 4

Rebates and Reductions

1. Timber blanks discharged or loaded in hard pressed bundles which may facilitate handling with mechanical equipment will be given a rebate of 5% on the ordinary handling charges specified in table (A) of this Tariff.
2. Goods discharged or loaded pre-palletized that may facilitate the use of Mechanical equipment will be given on application a rebate of 3% on the handling rate specified in table (A) of this Tariff.There will be no rebate when palletized unit is broken down or built in the Port.
3. Bagged Cargo discharged or loaded pre-slung will be allowed a rebate of 3% on the ordinary handling rate specified in table (A) of this Tariff.
4. Cargo discharged or loaded in containers of the ISO dimensions and specifications will be given a rebate of 4% on the normal handling rates specified in table (A) of this Tariff.
5. If a complete consignment (Specified B/L.Quantity) is delivered direct from the Ship rail,a rebate of 40% will be allowed on the ordinary handling rate in table (A) of this Tariff.

CHAPTER III

Stevedoring or Handling on Board

Basis of Assessment

1. Stevedoring or handling on board charges will be assessed on the deadweight for all goods except life animals which are based on the individual heads.
2. Subject to conditions in the terms of carriage between the consignee and the carrier, settlement of stevedoring charges will be the responsibility of the vessel and his Agent unless a written indemnity is received by the Somali Ports Authority sufficiently in advance.
3. Overtime operations on board Ships will be effected to discharge or load goods only after a written application has been received from the Ship's master or his agent.
4. Overtime charges on Stevedoring operations as shown in table (Q) of this tariff will become due on the following times:-

Normal Days	=	18.00 HRS	-	06.00 HRS.
Fridays And Other Holidays	=	06.00	-	06.00 HRS.

CHAPTER IV

Port Dues on Ships and Entrance Charges

Article 6

Application

Port Dues on Ships and entrance charges will be levied on Ships once in each trip at each Port of call.

Article 7

Reductions

1. Ships belonging to the Somali National Line and other organs of the Somali Government which are wholly owned

by the Somali Government will be allowed a reduction of 50% on the rates specified in tables (D & E) of this Tariff.

2. Ships Calling at the Port on account of stress of weather, or disabled, or with mutinous crews, or for medical assistance without discharging or loading goods and Passengers will be charged 25% of the normal rates after 12 HRS of free stay.
3. Ships calling for Slipping, repairing, beaching, examination, cleaning or painting will be charged one-half of the ordinary rates.
4. Ships calling for the sole purpose of taking Oil or coal for bunkers, Ship stores, provisions or water will be charged onethird of the Normal rates specified in tables (D & E) of this Tariff.

Article 8

Excemptions

1. Ships calling for the sole purpose of loading, discharging, embarking or disembarking mail and passengers in the outer anchorage will be excempted from entrance and general Service charges. But should any such vessel load or discharged Cargo, she will be chargeable in the same manner as if she had entered the inner harbour in full rate.
2. War ships of all nations will be excempted from entrance charged and Port dues specified in schedules (D & E).

CHAPTER V

MOORING CHARGES

Article 9

Application

1. Mooring charges will be levied on vessel entering or leaving the harbour, or making movements within the harbour.
2. The Need to use the mooring facilities whether it be boats or staff, will be decided by the harbour Pilot who is handling the vessel at that time.

Article 10

Reductions.

Ships moving from one berth to another or shifting from berth to buoys and vice versa will be charged one-half

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Article 11

Excemption

Should the use of Mooring facilities be for the sole purpose of Port convenience,there will be no charges for such services.

CHAPTER VI

Berth Occupancy

Article 12

Application

1. Berth occupancy charges will be levied on ships for the period of time they remain fast in the berth.
2. Berth occupancy charges will be calculated on the Ships OAL in meters.Al fractions of a mater will be considered as a meter (WHOLE NUMBAR).

Article 13

Excemptions

War Ships of all nations that use the berths for the sole purpose of courtesy,taking bunker or provisions or for medical assistance will not be charged berth occupancy for the first 24 HRS after which such charges will be levied in full rates.

CHAPTER VII

Pilotage

Article 14

Application

Pilotage will be levied on ships entering or leaving the Port or when shifting within the harbour.

Article 15

Compulsary Pilotage

The use of Pilot services is compulsory in all the deeps water harbours of the Somali Democaratic Republic.

Article 16

Excemptions

Compulsory Pilotage will be excempted from:-

(a) Vessels whose NRT does not exceed 200.

(b) All fishing Vessels.

(c) All Sailing dhows.

(d) War Ships of all nations.

(e) Ships having valid certificate of Pilotage exception, issued by the Somali Ports Authority.

Article 17

Reductions

Ships Shifting berths within the harbour will be charged onehalf of the normal rates specified in table (H) of this Tariff.

Article 18

Pilot Detention

Where the services of a pilot have been requested at a given time and provided at that time, and the ship through no fault of the Port Management does not require this service within hal an hour of such time the charges specified in table (Q) will be levied for each half an hour or part thereof after the first half hour of detention. The Port Management may forego this attendance charges where it sees fit to do so for reason arising from act of god.

Article 19

Port Convenience

When a Ship is moved solely for the convenince of the Port, no charges will be made for Pilotage Service in respect of this movement.

CHAPTER VIII

TOWAGE

Article 20

Use of tugs

The use of tugs for vessels entering for the purpose of loading or discharging good and mail, embarking or disembarking Passengers, taking bunkers or provisions or entering for assistance of any kind will be compulsory.

Article 21

Towage for Shifting Vessels

For vessels shifting berths or moving from one point to another within the harbour will be charged one-half of the normal towage rates specified in table (I) of this Tariff.

Article 22

Excemptions

Compulsory towage will be excempted from:-

(a) National war Ships.
(b) Sailing dhows.
(c) All fishing Vessels.
(d) Pleasure Yachts and domestic craft.
(e) Vessels whose NRT does not exceed 200

Article 23

Waving Charges

The Port Management may excempt compulsory tug services from a nominated vessel on application in special circumstances.

CHAPTER IX

Hire of Cranes and other Mechanical Cargo Handling Equipment.

Article 24

Quay Cranes

The use of quay cranes where available will be compulsory for all vessels loading or discharging good in deep water Ports.

Article 25

Waving Charges

The Port Management may rule out the use of quay cranes where it sees inconvenient or uneconomical, e.g. for sailing dhows. In such cases, however, the Management may recommend or instruct the use of mobile cranes or Ship derricks which ever may be convenint or economical.

Article 26

Article 26

Equipment used outside Ports

Charges on mobile cranes,forklift,tractors or trailers used outside the Port area will levied during the hours of daylight or the total period that the machine may remain with the customer.

There will be no charge for night hours,unless it is sufficently proved that machine has been used actively during the night.

CHAPTER X

Cargo Handling Gear

Article 27

Hire of Handling Gear

Cargo Handling,gear,such as pallets,rope slings,net slings,wire slings and lashing chains may be provided to vessels on hire after a written request is received from the Ship's master or his Agent.

CHAPTER XI

Hire of Marine Craft

Article 28

1. Outside normal Operations Port's Marine craft such as tugs, launches,lighters,etc.May be offered for hire,inside or outside the Port limits at the rates specified in table (O) of this Tariff.
2. Where special circumstances so require,such rates might be negotiated and covered by separate agreement under the sole discretion of the Port Management.

CHAPTER XII

Storage

Article 29

Import Cargo

Import Cargo will be given 5 days of free storage biginning from the day,the carrying vessel starts discharging.

Article 30

Export Cargo

Export Cargo will be given 5 days of free storage beginning from the day goods have entered the store.

Article 31

Storage Premises

Storage charged on import and export cargo will be applicable to all transit sheds, open areas and over flow warehouses, and will remain due until shipment or delivery is effected.

CHAPTER XIII

GARS AND OTHER MOBILE PLANT

Article 32

Sherehandling/ Lighterage

Shore handling or lighterage charges on cars, lorries, trucks and the other items shown in table (R) will apply to all such amchinery wheather packed or unpacked.

Article 33

STEVEDORING

Stevedoring charges on the items in table (R) will be collected in the same manner as the rates on general cargo stated in table (C).

CHAPTER XIV

Bulk Liquids

Article 34

General Services

Crude Oil and other refined petrolum products which may be pumped in or out by the Ship's gear in bulk will be levied Port dues charges as stated in table (T) of this Tariff.

Article 35

Oil Bunker for Ships

Oil pumped from land installations through pipes and supplied to ships in oil jetties for bunkering purposes will be charged the same rate as other bulk liquids shown in table (T) of this Tariff.

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CHAPTER XV

Miscellaneous Charges

Article 36

Cleaning of Ship holds

Cleaning of Ship holds will be made by the Port labour after a written request made by the Ship's master or his agent is received, and the rates, shown in table (Q) will be applicable.

Article 37

Rigging of Ship Derricks

Rigging and snatching of ship derricks may be made by the Port labour after a written request has been made by ship's master or his agent, and the rates shown in table (Q) will be applicable.

Article 38

Opening and Closing of Ship Hatches

Ship hatches may be opened and closed by the port labour after a written request is made by the Ship's master or his agent, and the charges specified in table (Q) of this tariff will be applicable.

Article 39.

Heavy lift Charges

In addition to all other relevant charges prescribed elsewhere in this tariff, customers will pay heavy lift charges per ton (DEADWEIGHT) on each single package whose weight is 5 tons or over.

The rates specified in table (Q) of this tariff will be applied thereto.

Article 40

Passenger Charges

Passenger charges prescribed in table (Q) of this tariff will over one person and 2 Packages of personal effects carried by hand.

Article 41

Lighterage Operations

Shore handling charges on cargo discharged or loaded in lighters, from ships in outer anchorage or anchoring in the protected waters of the inner harbour basin will be charged

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25% extra lighterage on the rates specified in table (A) of this Tariff.

SOMALI PORTS AUTHORITY

[illegible] TARIFF

[illegible] "A"

SHORE HANDLING CHARGES

LOADING AND DISCHARGING

MOGADISHU, BERBERA, KISMAYO

DESCRIPTION	BASIC UNIT	DETAILS LOADING	DETAILS DISCHARGING
CEMENT	1000 KG	So.Sh.63	So.Sh. 63
ANIMAL REFUSE (BIG WOOL)	1000 KG	So.Sh.23	So.Sh. 28
BAGGED CARGO	1000 KG	So.Sh.54	Sh.So. 56
CANNED MEAT	1000 KG	So.Sh.50	So.Sh. 50
EXPLOSIVE & DANGEROUS	1000 KG	So.Sh.450	So.Sh. 500
TYRES & TUBES	1000 KG	So.Sh.120	So.Sh. 140
RADIOS & ACCESSORIES	1000 KG	So.Sh.170	So.Sh. 200
MATCHES	1000 KG	So.Sh.110	So.Sh. 120
EMPTY BEER DRUMS	1000 KG	So.Sh.110	So.Sh. 120
SHOES & SANDLES	1000 KG	So.Sh.110	So.Sh. 160
TEA LEAVES	1000 KG	So.Sh.90	So.Sh. 320
MATCHES,TABACO & CIGART	1000 KG	So.Sh.130	So.Sh. 150
TOILET PAPER	1000 KG	So.Sh.300	So.Sh. 320
SHEED & GOAT SKINS	1000 KG	So.Sh.100	So.Sh. 120
SPONGES,[illegible]	1000 KG	So.Sh.300	So.Sh. 320
COTTONS BALES	1000 KG	So.Sh.56	So.Sh. 72
TIMBER	1000 KG	So.Sh.80	So.Sh. 96
PLASTIC PIPES	1000 KG	So.Sh.300	So.Sh. 400
EMPTY TINS & LIDS	1000 KG	So.Sh.150	So.Sh. 170
CAMEL	PER HEAD	So.Sh.6/	So.Sh. 6/
CATTLE	PER HEAD	So.Sh.4/	So.Sh. 4/
SHEEP,GOATS	PER HEAD	So.Sh.1/	So.Sh. 1/
OTHER GENERAL CARGO	1000 KG	So.Sh.68	So.Sh. 70
SWEETS & CHOCCLATES	1000 KG	So.Sh.100	So.Sh. 120
BANANA	[illegible]	So.Sh.1	So.Sh. 1
BERBERA ANIMAL			
(1) CAMEL XXXX	[illegible]	So.Sh.10	So.Sh. 10
(2) CATTLE	[illegible]	So.Sh.7	So.Sh. 7
[illegible]			

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SOMALI PORTS AUTHORITY
REVISED TARIFFS

SCHEDULES " C "

STEVEDORING CHARGES

DESCRIPTION	BASIC UNIT	MOGADISHU So.Sh.	BERBERA So.Sh.	KISMAAYO So.Sh.
CEMENT	1000 KG	35/	35/=	35/=
BAGGED CARGO	1000 Kg	35/	35/=	35/=
GENERAL CARGO	1000 KG	35/	35/=	35/=
EXPLOSIVES DANGERS	1000 KG	40/	40/=	40/=
CANNED MEAT	1000 KG	35/	35/=	35/=
CAMEL	HEAD	8/	10/=	8/=
CATTLE	HEAD	6/	7/=	6/=
SHEEP GOATS	HEAD	1/50	1/50	1/50
Banana	[illegible]			

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SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SHIP CHARGES

SCHEDULE " D "

PORT DUES

SHIP SISES	BASIC UNIT	MOGADISHU SO. SH.	BERBERA SO. SH.	KISMAAYO SO. SH.
1- 2000 NRT	FOR SHIP	2000/	1000/	2000/
2001 - 4000 NRT	" "	3000/	2000/	6000/
4001 - 6000 NRT	" "	5000/	4000/	10000/
6001 - 8000 NRT	" "	6000/	5000/	15000/
8001 - 10000 NRT	" "	7000/	6000/	20000/
ABOVE 10000 NRT	" "	8000/	7000/	25000/

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " E "

SHIP CHARGES

ENTRANCE

SHIP	BASIC UNIT	MOGADISHU SO.SH.	BERBERA SO.SH.	KISMAAYO SO. SH.
1 - 2000 NRT	PER SHIP/TRIP	5000	1000	5000
2001 - 4000 NRT	" " "	10000	1500	10000
4001 - 6000 NRT	" " "	20000	5000	15000
6001 - 8000 NRT	" " "	25000	7000	20000
8001 - 10000	" " "	30000	8500	25000
ABOVE 10000	" " "	35000	10000	30000

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SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " F "

MOORING SERVICES

SHIP SIZE	BASIC UNIT	MOGADISHU SO. SH.	BERBERA SO. SH.	KISMAAYO SO. SH.
UP TO 2000 GRT	PER SHIP OPERAT.	400	400	400
2001 - 4000 GRT	" " "	600	600	600
4001 - 6000 GRT	" " "	800	800	800
6001 - 8000 GRT	" " "	1000	1000	1000
8001 - 10000 GRT	" " "	1200	1200	1200
ABOVE - 10000 GRT	" " "	1400	1400	1400

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " G "

SHIP CHARGES

BERTH OCCUPANCY

DESCRIPTION	BASIC	MOGADISHU SH. SO.	BERBERA SO. SH.	KISMAAYO SO. SH.
SHIP	PER DAY/METER	25/=	25/=	25/=

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " H "

PILOTAGE SERVICE

SHIP	BASIC UNIT	MOGADISHU SO. SH.	BERBERA SO. SH.	KISMAAYO SO. SH.
1 - 2000 GRT	GRT	0.20	0.20	0.20
2001 - 4000 GRT	GRT	0.40	0/40	0.40
4001 - 6000 GRT	GRT	0.50	0.50	0.50
6001 - 8000 GRT	GRT	0.60	0.60	0.60
8001 - 10000 GRT	GRT	0.70	0.70	0.70
ABOVE 10000 GRT	GRT	0.80	0.80	0.80

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " I "

SHIP CHARGES

TOWAGE SERVICES NRT

SHIP	BASIC UNIT	MOGADISHU SO. SH.	BERBERA SO. SH.	KISMAAYO SO. SH.
1- 2000 NRT	TUG/OPER	2000/=	2000/=	2000/=
2001 - 4000	" "	2500/=	2500/=	2500/=
4001 - 6000	" "	3000/=	3000/=	3000/=
6001 - 8000	" "	3500/=	3500/=	3500/=
8001 - 10000	" "	4000/=	4000/=	4000/=
ABOVE 10000	" "	4500/=	4500/=	4500/=
GUUL- VICTORY	PER HOUR	3500/=	-	-

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " J "

HIRE OF QUAY CRANES

CRANES CAPACITY	BASIC UNIT	MOGADISHU SO. SH.	BERBERA SO. SH.	KISMAAYO SO. SH.
1 - 3000 KG	PER HOUR	300/=	300/=	300/=
3001 - 5000 KG	" "	350/=	350/=	350/=
5001 -10000 KG	" "	400/=	400/=	400/=
10001 -15000 KG	" "	500/=	500/=	500/=
ABOVE 15000 KG	" "	800/=	800/=	800/=
JUMBO CRANES	" "	1500/=	1500/=	1500/=

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " K "

MOBILE CRANES INCLUDING TRUCK MOUNTED

SERVICE	BASIC	CRANE CAPACITY			
		UP TO 5000 KG.	5001-15000 KG.	15000-25000 KG.	ABOVE 25000 KG.
INSIDE PORT	PER TON	60/=	100/=	150/=	1000/=
OUTSIDE PORT	PER HR	250/=	400/=	500/=	2000/=

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " L "

HIRE OF FORKLIFTS

SERVICE	BASIC UNIT	RANGE OF CAPACITY PER LIFTER FROM I TON UP WARDS
INSIDE PORT	PER TON	SO.SH. 50/=
OUTSIDE PORT	PER HR	SO.SH.180/=

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " M "

HIRE OF TRACTORS & TRAILERS

SERVICE	BASIC UNIT	TRACTORS	TRAILERS	
			UP TO 20 tons	ABOVE 20 TONS
OUTSIDE PORT	PER HOUR	100/=	400/=	600/=
TRACTORS WITH GOOSENGOK	PER HOUR	300/=	-	-

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " N "

HIRE OF CARGO HANDILING GEAR

DESCRIPTION	BASIC UNIT	RATE
NET SLINGS	PER NET/SLING/DAY	60/=
ROPE SLINGS	PER SLING/DAY	70/=
WIRE SLING	PER SLING/DAY	80/=
PALLET	PER/PALLET/DAY	10/=
CHAINS	PER/PIECE/DAY	40/=

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " 8 "

HIRE OF MARINE CRAFT

CRAFT	BASIC UNIT	WITHIN PORT	OUTSIDE PORT AREA	
			NORMAL COASTAL PATROLING	SALVATION FOR SHIPS
TUGS	HOUR	2500/=	3000/=	4500/=
LAUNCHES	HOUR	250/=	800/=	-
LIGHTERS	DAY	500/=	1000/=	-

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " Q "

MISCELANEOUS SERVICES

DESCRIPTION	BASIC UNIT	RATES		
		NORMAL DAYS	FRIDAYS	OTHER HOLIDAYS
WATER SUPPLY FOR SHIPS	TON	15/=	15/=	15/=
CARGO SHIFTED ON BOARD	TON	20/=	20/=	20/=
WEIGH BRIDGE SCALE	ITEM	20/=	20/=	20/=
O/T. ON STEVEDORING	STV.AMOU	25%	50%	100%
RWBAGING OF GOODS	1000 KG.	5/=	5/=	5/=
CLEANING OF SHIP HOLDS	PER HOLD	1000/=	1200/=	1500/=
RIGGING SHIP DERRICKS	PER HOOK	400/=	500/=	600/=
PILOT DETENTION	PER ½ HR	150/=	200/=	300/=
OPENING SHIP HATCHES	PER HATCH	400/=	500/=	600/=
HEAVY LIFTS QUAY CRANS.	PER LIFT ABOVE 5 TONS	30/=	30/=	30/=
PASSENGERS	PERSON	18/=	18/=	20/=
STUFFING CONTAINERS	PER CONTAINE	500/=	600/=	800/=
STRIPPING CONTAINERS	PER RECEIVER	200/=	300/=	400/=
PASSENGER BAGAGES EE	PER PACKAGE	10/=	10/=	10/=
MAIL BAGS	PER BAG	10/=	10/=	10/=
SAHAY SIINTA	PACKAGE	5/50	5/50	5/50

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " R "

LOADING AND DISCHARGING

CARS, LORRIES & OTHER MOBILE PLANTS

DESCRIPTION	BASIC UNIT	UP TO 600 KG.	601-1000 KG.	1001-1500 KG.	1501-2000 KG.	ABOVE 2000 KG.
CARS	PER NO	400/=	600/=	1000/=	1500/=	2400/=
LORRY TRUCKS	PER NO	400/=	600/=	1000/=	1500/=	2400/=
TRACTORS	PER NO	400/=	600/=	1000/=	1500/=	2400/=
TRAILERS	PER NO	400/=	600/=	1000/=	1500/=	2400/=
CRANES	PER NO	400/=	600/=	1000/=	1500/=	2400/=
BULDOSERS	PER NO	400/=	600/=	1000/=	1500/=	2400/=

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " S "

CHARGES ON DHOWS

DESCRIPTION	BASIC UNIT	PORTS			
		MOGADISHO	BERBERA	KISMAYO	MERKA
GENERAL/ SERVICE	DHOW/ TRIP	600/=	600/=	600/=	600/=

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " T "

GENERAL SERVICES ON CRUDE OIL AND PETROLEUUM PRODUCTS IN BULK.

CRUDE OIL PETROLEUM PRODUCTS	BASIC UNIT	MOGADISHU	BERBERA	KISMAAYO
LOADING	100 KG	0.30	0.30	0.30
DISCHARGING	100 KG	0.50	0.50	0.50
MOLASESS				
SAARIS	100 KG	-	-	0.70
DEJIN	100 KG	-	-	0.70

SOMALI PORTS AUTHORITY

REVENUE TARIFFS

SCHEDULE " P "

STORAGE CHARGES

DAYS	BASIC UNIT	D E T A I S	
		OPEN STORAGE	COVERED STORAGE
1ST TEN DAYS AFTER FREE PERIOP	PER DAY/100 KG	0.30 0	0.50
2ND TEN DAYS	PER DAY/100 KG	0.60 0	1.00
THERE AFTER	PER DAY/100 KG	1.00 0	1/50