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Maritime activities in Somalia

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MARITIME ACTIVITIES

IN

SOMALIA

BY

MOHAMED SHEIKH AHMED ALI

1987

GENERAL MARITIME ADMINISTRATION

World Maritime University
Malmö, Sweden

**MARITIME ACTIVITIES
IN
SOMALIA**

BY

MOHAMED SHEIKH AHMED ALI

A paper submitted to the faculty of the World Maritime University in partial satisfaction of the requirements for the award of a

MASTER OF SCIENCE DEGREE
IN
GENERAL MARITIME ADMINISTRATION

The contents of this paper reflect my personal views and are not necessarily endorsed by the University.

Signature:

Date: October 9th, 1987

Supervised and assessed by:
Professor A.A. Monsef

Co-assessed by:
Visiting Professor Aage Os

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Finally, the writer expresses his deepest gratitude to his lovely wife, Ruchio who assumed the burden of the head of the family, during his two-year absence, and his father in law who took great care of his dependents at home.

Any error omission in the contents of this work is the sole responsibility of the writer and no other.

LIST OF ABBREVIATIONS

SDR	Somali Democratic Republic
MMT & P	Ministry of Marine Transport and ports
MPW & H	Ministry of Public Works and Housing
SPA	Somali Ports Authority
SSA&L	Somali Shipping Agency and Line
MARPOL	Marine Pollution
EEZ	Exclusive Economic Zone
FRG	Federal Republic of Germany
ILO	International Labour Organization
IMO	International Maritime Organization
WMU	World Maritime University
UNCTAD	United Nations Conference on Trade and Development
LIBOR	London Inter Bank Offered Rate
OECD	Organisation for Economic Co-operation and Development

(ii)

GRT	Gross Registered Ton
NRT	Net Registered Ton
LOA	Length Over All
IALA	International Association of Lighthouse Authority

INTRODUCTION

Maritime planners and managers face great uncertainty in future maritime requirements. Investment in the maritime industry is usually designed to meet national needs over medium to long-term planning horizons (10-20 years). To permit better match between maritime investment and shipping and port capacity demanded, improved guidelines are required for more effective investment of operational, and institutional planning to assure the ability of the Somali maritime field to respond more effectively to the changing demands.

The objective of this study is to evaluate the present and changing environment and functions of the Somali Maritime Administration and project future operations and institutional structure under changing socio-economic conditions. The goal is to examine how these changes will affect the Somali Shipping and port productivity, effectiveness and cost and the ability of the maritime infrastructure to serve as a coordinating link for the entire maritime transportation of Somalia.

The purpose of this study is to provide effective guidelines for the planning of Somalia's maritime activities in terms of shipping and port investment, operational procedures and management as well as institutional structures to serve likely developments and their role in the economic development and growth of the country.

Chapter I.

presents the institutional and functional structure of the maritime administration of Somalia.

Chapter II.

It describes the maritime administration systems of a number of developed countries, namely:- The Federal Republic of Germany and Norway. The purpose is to illustrate the contrast between maritime administration systems of these countries on the one hand and developing countries as represented by Somalia's system, on the other hand, which is dealt with in details in chapter I.

Chapter III.

This chapter deals with the problems of ship financing in developing countries and the various sources of financial assistance available.

Chapter IV.

Describes the nature and the structure of Liner Conference Shipping, its advantages and disadvantages and the restrictions developing countries are facing.

Chapter V.

Concerns the operation and financing to ports in Somalia.

Chapter VI.

It is a conclusion of the study with recommendations to suggest improvement of the entire maritime activities of the Somali Democratic Republic.

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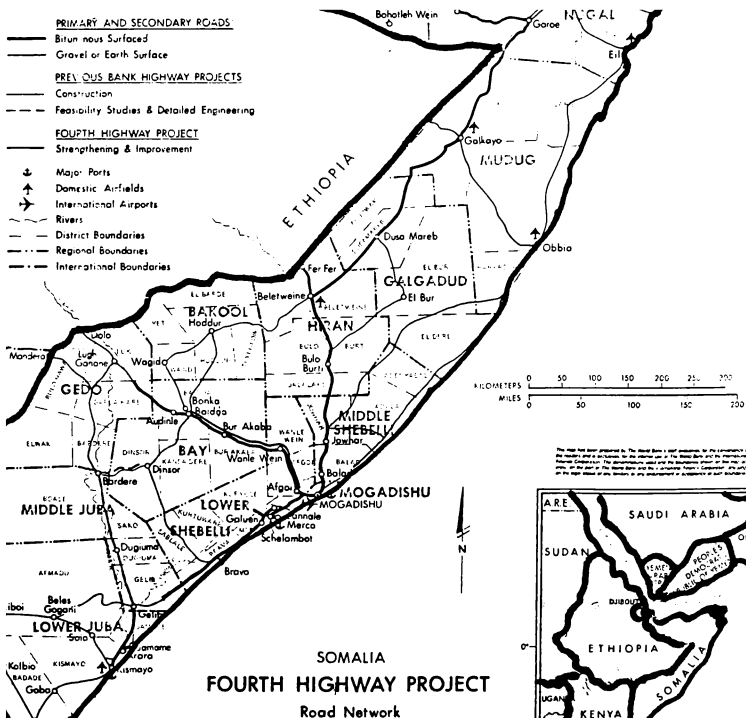
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- PRIMARY AND SECONDARY ROADS
- Bituminous Surfaced
- Gravel or Earth Surface
- PREVIOUS BANK HIGHWAY PROJECTS
- - - Construction
- - - Feasibility Studies & Detailed Engineering
- FOURTH HIGHWAY PROJECT
- Strengthening & Improvement

- ↓ Major Ports
- ↑ Domestic Airfields
- ↑ International Airports

- - - Rivers
- - - District Boundaries
- - - Regional Boundaries
- - - International Boundaries



This map has been prepared by The World Bank in cooperation with the Government of Somalia and the Ministry of Transport and Communications for the development of the Fourth Highway Project. The map shows only the existing roads in Somalia and does not show any other roads or any other information of any kind.



CHAPTER I.

MARITIME ADMINISTRATION IN SOMALIA.

1.1. INSTITUTIONAL STRUCTURE.

The Somali Democratic Republic is situated in the north eastern corner of the African continent. Somalia's long coast line of 3330 km. extends from the Kenyan border in the south along the Indian Ocean, to the neighbouring Republic of Djibouti in the north in the Gulf of Aden.

Somalia has an old maritime history and according to available records foreign traders from Asia, the Far East and Europe carried out commercial activities along the coasts of Somalia during the 13th and 14th centuries AD. Geographically Somalia is suitably located at the major commercial sea lanes through which international water borne trade is carried. However, the arrival of the colonial rule and the division of the Somali nation into five fragmental parts, have directly or indirectly discouraged the growth of coastal civilization, and the shipping activities which once flourished were gradually reduced or have substantially ceased. Upon achieving independence in 1960, it was not possible for Somalia to create a maritime administration of its own, as a result of which it has remained and functioned as an auxiliary service for other ministries for twelve years.

In 1973, the government felt the need for promoting the maritime industry giving it more priority, thus the Ministry for Fisheries and Marine Transport was created. Considerable expansion of services and facilities were achieved through this establishment at an accelerated pace and the desire for further specialisation has arisen. It was only in 1977 that the present Ministry of Marine Transport and Ports was set up excluding Fisheries and Marine Resources. The organizational structure of the Ministry of Marine Transport and Ports consists of the Minister, the Assistant Minister, the permanent secretary, the Somali Port Authority and the Somali Shipping Agency and Line. The permanent secretary who is the chief technical administrator reports directly to the Minister and his assistant and he is further assisted by four departmental heads namely: the Planning and Training, Finance and Administration, Telecommunications and Technical Works and the Maritime Department(*).

1.2. FUNCTIONS.

The functions of the Ministry of Marine Transport and Ports are suggestive by its own name. The functions fall into principal aims and objectives mainly exercised in the head office, by the Minister and his immediate aides who carry out the duties and responsibilities for the implementation of strategies in the administrative and technical departments. The main functions of the Ministry include the following:-

- a) Direction, planning, promotion, coordination and control of port and shipping activities;

(*). M.I.Singh, IMO; Somali National Report pp. 125

- b) Coordination of regional development with other states in the area of ports and shipping activities;
- c) Adoption ,issuance and promulgation of regulations for fees, dues and charges for ports, and for the promotion of national shipping services;
- d) Provision of aids to navigation along the long coastline of Somalia;
- e) Promotion of affiliation to international maritime organizations and the establishment of mutual agreements with the maritime administration in the neighbouring countries;
- f) Creation, promulgation and enforcement of rules and regulations for the safety of life and property at sea and the protection of the marine environment from pollution.

The duties and responsibilities of the departments are delegated to directors who directly report to the permanent secretary. These duties include:-

a) Maritime Department.

- i) Registration of ships;
- ii) Administration, operation and maintenance of aids to navigation;
- iii) Administration and operation of hydrographic services;

- iv) Registration and licencing of seafarers;
- v) Issuance of certificates of competence to seafarers;
- vi) Casualty investigation;
- vii) Conciliation of disputes between masters and ship crews.

b) Finance and Administration Department.

- i) Financial planning, budgeting and reporting;
- ii) Financial accounting;
- iii) Supplies, purchases and asset management;
- iv) Personnel Administration;
- v) General office administration.

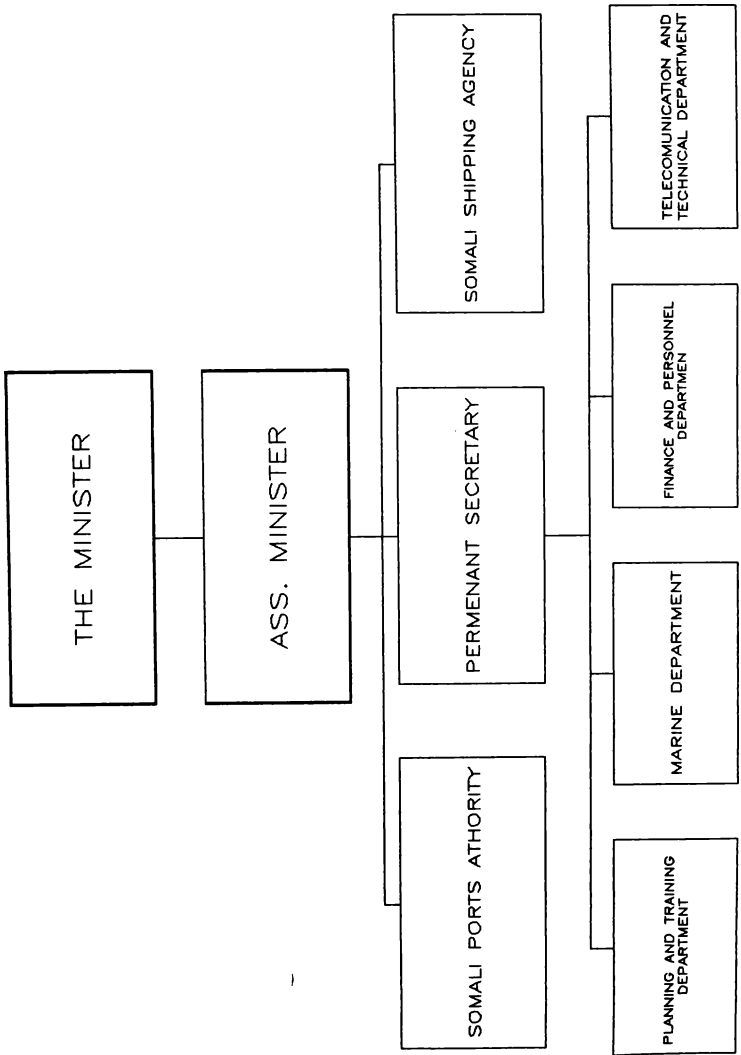
c) Planning and Training Department.

- i) Planning of short and long term development projects;
- ii) Planning and evaluation of the need for port and shipping services;

- iii) Preparation of legal instruments for the ratification of international maritime conventions by the government;
- iv) Maintenance and coordination of relations with international organizations such as IMO, UNCTAD, WMO etc;
- v) Development of training programs and training needs for personnel of the Maritime transport industry;
- vi) Coordination of development activities between the Ministry of National Planning and Ministry of Marine Transport and Ports.

d) Telecommunications and Technical Works Department.

The Telecommunications and Technical Works Department is responsible for the technical and communication work required in the direction and control of shipping movement in the territorial waters of the country. It has several tasks, some of which are not currently being exercised due to the lack of adequate qualified personnel and due to the inadequacy of equipment. The Department does not, at present, play a large role in the Somali maritime affairs.



A-SOMALI PORTS AUTHORITY (SPA).

The Somali Ports Authority which is one of the institutions that function under the Ministry of Marine Transport and Ports was created in 1962, as a statutory organization but was reorganized by Law No. 1 of January 1973. The latter decree broadened the scope and function of the SPA to facilitate the implementation of an integrated program for the planning, development, financing, operation and maintenance of ports or port districts for the entire country(*).

On 7th January 1973, which was the recreation of the SPA, the Somali President issued the Executive Order No. 1 to amend the SPA Charter to strengthen cooperation between the government and the private sector, and empowering the authority to exact responsible administrative fines for specific violations of its rules and regulations(*).

By virtue of its Charter, the SPA was attached to the Ministry of Marine Transport and Ports, which also serves as the executing agency of the authority for all its port operation projects.

Under this set-up, it establishes priorities and programs of the authority, while the Ministry of Marine Transport and Ports is in charge of the actual supervision of port operation. The SPA also works closely with ministries of Finance and Public Works and Housing which are responsible for financing and construction of major port development projects.

(*) . M.I. Singh, IMO, Somali National Report pp.125

The SPA Head Office is located within the main port area at Mogadisho which is the capital city of Somalia, while the port of Mogadisho has its own management.

Objectives and Functions of SPA.

The general objective of the Authority is to implement the state policy of an integrated program for the planning, development, financing, operation, and maintenance of ports or port districts for the entire country.

By its Charter (Law No. 1), the Somali Ports Authority is specifically tasked to ensure:-

- 1) A well-coordinated, streamlined and improved planning, development, financing, construction, maintenance and operation of ports and their facilities;
- 2) A smooth flow of water borne commerce passing through the country's ports, whether public or private, in the conduct of international and domestic trade;
- 3) The promotion of regional development through the dispersal of industries and commercial activities throughout the different regions;
- 4) A broader concept for port administration involving total port district development that includes the utilization of port's hinterland and tributary areas;

- 5) The proper collection and accounting of all income and revenue occurring to the Authority;
- 6) The realization of a reasonable return on the assets employed.

In furtherance of its objectives, the Charter also prescribes the following functions:-

- 1) Formulate and implement a comprehensive and practicable port development plan for the state in coordination with the national economic and developmental authority;
- 2) Supervise, control, regulate, construct, maintain, operate and provide such facilities and services as necessary in the ports;
- 3) Prescribe rules and regulations, procedures and guidelines governing the establishment, construction, maintenance and operation of all ports in the country;
- 4) License, control, regulate, supervise any construction or structure within any port district;
- 5) Provide service (whether on its own, by contract or otherwise) within the port district and approaches thereof, including but not limited to berthing, towing, mooring, moving loading or discharging any vessel, sorting; weighing, measuring, warehousing, or otherwise handling goods;

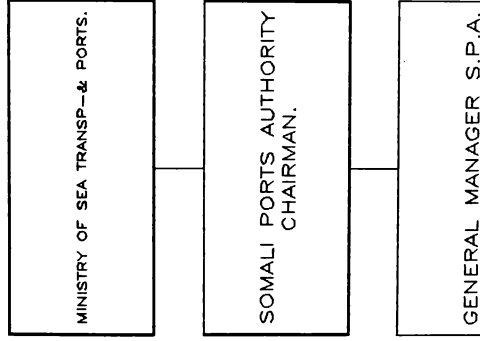
- 6) Control, regulate and supervise pilotage and the conduct of pilots in any port districts;
- 7) Provide and assist in the provision of training programs and training facilities for the staff, or staff of port operators and users for the efficient discharge of its functions, duties and responsibilities;
- 8) Perform or provide such other services as may be necessary to carry out the objectives, including the adoption of necessary measures to remedy congestion in any government port;
- 9) The provision of towage services, repair services, and such other services as are ordinarily required by ships coming into port in the course of their voyages;
- 10) The maintenance of quays, wharves, jetties, locks and piers.

Further more, the SPA has to administer and control the three major ports of the country, namely: Mogadisho and Kismayo port which are located on the Indian Ocean on the southern Somali coastline, and Berbera on the Red Sea in the northern region.

The Somali Ports Authority has the right to supervise the following small ports:-

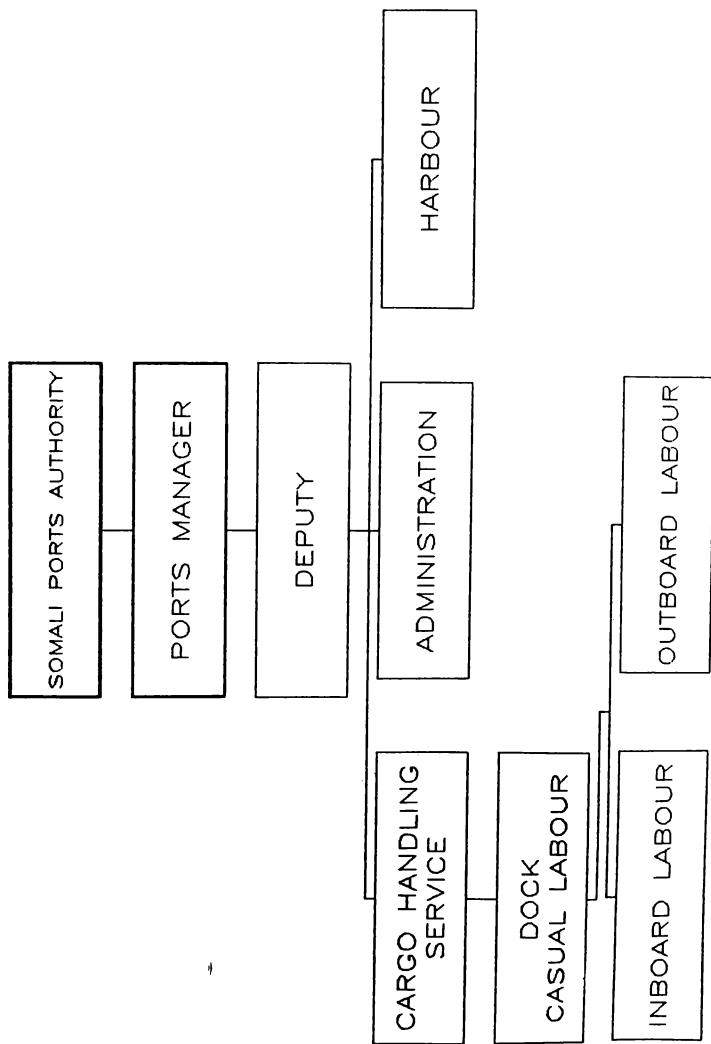
Bosaso, Qandala, Alula, Hobio, Eil, Las-korey
Maydh, Zeyla', Barava and Merca.

ORGANISATIONAL CHART OF S.P.A. IS GENERALLY AS BELO



SECRETARIET
ACHIEVE
TWO SERVICES

ORGANISATIONAL CHART FOR THE MAJOR PORTS OF SOMALIA
IS AS BELOW:



In addition to its management, operation and general port administration activities, SPA operates a wide variety of power operated vessels including:-

- a) 6 Harbour tugs whose individual horse power capacity ranges from 750-1400 HP;
- b) 1 salvage tug having a horse power capacity of 6,000;
- c) 4 pilot boats.

The personnel who are required to man those vessels are distributed throughout the vessels according to experience and operational requirements. A shift system is operated which ensures that port services are available throughout the 24 hours(*).

The majority of the maritime personnel have received no real structured training. They have acquired their skill and knowledge solely through experience while on the job.

To ensure that staff are effective and efficient in their work, the SPA has to give them periods of study in the country and overseas in developed countries.

B-THE SOMALI SHIPPING AGENCY AND LINE (SSA&L).

The attainment of the independence in 1960, Somalia had inherited a total vacuum in the field of shipping. The country had to depend on foreign owned and operated ships for the carriage of its international sea borne trade.

(*). G.S.Singh, IMO, Mission Report on Kenya, 1981 pp.10

The government of the new born state was not able to create the required maritime infrastructure, due to limitations in capital resources, man-power capabilities, etc.

However, as the volume of trade increased and the market of inbound and outbound commerce widened, the government decided to create a national shipping line in 1972. The establishment of the national shipping line was first achieved through a joint venture with the Libyan Arab Republic.

The main objective of creating a shipping company was:-

- 1) To carry a substantial portion of the live-stock trade which is transported to the Middle East;
- 2) To carry the entire banana export to Egypt, southern Europe (Italy) and the Middle East;
- 3) To carry most of the import and export general cargo of the coastal trade;
- 4) To provide safety and generate foreign exchange freight by national ships;
- 5) To improve the situation of the balance of payments through earnings and savings of foreign exchange in the form of freight;

- 6) To lay the foundation for national work force of trained seafares.

The establishment of the National Shipping Company and the ownership of ships started with the acquisition of second-hand vessels of different types and capacities. From 1972-1985 the company has owned and operated a total of 4 ships having the following particulars(*):-

<u>Name</u>	<u>Type</u>	<u>Built</u>	<u>GRT</u>
JUBA	BANANA CARRIER	1963	5170
BENADIR	BANANA CARRIER	1964	4766
BOOLIMOG	GENERAL CARGO	1971	1360
PUNTLAND	GENERAL CARGO	1960	641

Due to unavoidable circumstances, joint venture arrangements with other the country did not function and the national shipping company was matched with the shipping agency which was nationalised in 1973. Due to their old age, and the increased maintenance and repair costs, it was quite difficult and uneconomical to run some of the ships and the company decided to sell most of the ships, and to replace them with newer ones.

Maritime Transport including shipping in Somalia is organised and administered by the state and the participation from the private sector is limited. The malfunctioning or the failure of the shipping company can be attributed to several factors which may include:-

(*). IMO, Inter Regional Project, 1973, Mission Report on Somali Democratic Republic. pp.4

- a) The pattern in which national trade is regulated;
- b) Scarcity of foreign exchange which has strictly limited the free flow of foreign trade by means of documentary credits through banks;
- c) Poor marketing for shipping services due to serious limitation of experience of the existing management;
- d) Most of the imported general cargo trade of the country is carried by regular liners, which are members of the European East Africa conference, therefore it is difficult for the National Shipping Company to compete with them;
- e) The Saudi Arabian Livestock carriers which have a long traditional history of carrying Somalia's livestock traffic to the Middle East are heavily subsidised, so it has become impossible to compete with them.

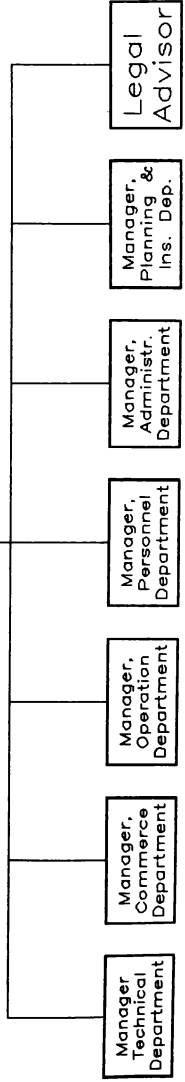
The Somali Democratic Republic which is one of Africa's privileged nations in having a very long coastline still faces problems in establishing and operating meaningful shipping services as a result of the foregoing factors.

However, as the scope for becoming a maritime country is not totally negative, and as the government and the people of Somalia have not given up the hope of utilizing the shipping possibilities, I wish to make the following points for guidance:-

- a) Review of the existing trade rules and regulations with possible modifications aimed toward more liberalisation;
- b) Creation of a national shipping fleet on joint venture basis with more advanced countries on favourable equitable basis;
- c) Reorganisation and encouragement of the traditional trade by private nationals;
- d) Creation of a favourable climate for the use of domestic coastal shipping that can compete with the presently dominant land transport;
- e) Creation and development of international coastal shipping in cooperation with neighbouring states;
- f) Exportation of cargo in C.I.F. terms and Importation of cargo in F.O.B. terms;
- g) Provision of food, fuel and other necessary supplies for ships calling at the ports;
- h) Performance of any other functions as an agent for the requirement of its clients(*);
- i) To perform any other functions as an agent for the requirement of its clients(*) .

(*). A memorandum on the possibilities of building Somali National Shipping Agency and Line. pp.6

General Manager



1.3. AIDS TO NAVIGATION.

Aids to navigation are devices or systems, external to a vessel, which are provided to help a mariner determine his position and course, to warn him of dangers or obstruction or to advise him of the location of the best or preferred route.

Aids to navigation are to be used in conjunction with available marine publications including nautical charts, lists of lights, bouys and fog signals, radio aids to marine navigation and sailing directions, for proper understanding and interpretation of their function(*).

A mariner use navigational aids even during the daytime when he can see numerous objects by which he can steer. Navigation is not an easy matter, but at night, when all such objects are obscured by darkness, it becomes far more difficult. He has to rely on a large extent upon lights which are placed at suitable position around the coast and on off-lying islands and rocks.

Each light around the coast has a different character from its neighbours, so that the mariners know immediately when they see it which light it is. There are various types of light, but the following can be taken as examples:-

- 1) Fixed lights, which are constantly visible;
- 2) Flashing lights which are visible for a short period and then obscured for a longer period.

(*). Aids and Waterways Directorate, the Canadian aids to navigation system, 1986. pp.2

Lights are frequently coloured red or green and occasionally some other colour. Many of those lights are constructed to show different colours in different directions; thus a white light may appear in a deep water channel white from shoal patches on either side and a red light is seen.

The Lighthouse Section which was part of the Marine Department of the Ministry of Marine Transport and Ports was responsible for the provision of aids to navigation in Somali waters until 1986.

At the beginning of 1987 the Ministry of Marine Transport and Ports separated the Lighthouse Section from the Marine Department and changed its former name to the Lighthouse and Hydrographic Project; the new project was established and promoted by financial and technical assistance given by the Federal Republic of Germany.

The Lighthouse and Hydrographic Project is now responsible now for the task of providing fixed and floating aids to navigation. It also has to maintain, modernize and operate the existing lighthouses which consist of thirty-four lighthouses and beacons that are located at prominent sites near Somali shore lines or built-up man made piers in or near waterways to assist the mariner to fix his position while navigating in Somali waters.

Of the thirty-four Lighthouses and beacons eleven are powered by Kerosene, six by propane gas, having converted to Kerosene, one powered by acetylene gas, and the rest by means of electricity. Most of these lights are very old, with some of the Kerosene operated ones having been installed many years ago.

Along the coast of Somalia on the Gulf of Aden there are numerous reefs and island rocks which are hardly visible at high tide but which can be a real hazard to safety of navigation. The government of Somalia is a member of the International Association of Lighthouse Authority (IALA) and has an obligation to ensure the safe management of shipping in its waters. As a result all lighthouses and beacons have to be maintained and kept in good working order and condition.

However, due to difficulties in obtaining spare parts and fuel, several of the important lighthouses have remained out of order. For long time and that might have caused the increased grounding incidents recorded during the last ten years.

Repair and maintenance work are mostly carried out in Mogadishu where a small moderately equipped maintenance workshop is in operation. However, due to the long distances, poor road conditions to and from Mogadishu, and the difficult access facilities to most of the lighthouses and beacon locations, repairs and maintenance operations often take a long time.

The government is already conscious of the low level of standard of aids to navigation, including buoys, beacons, radio or electronic aids, resulting from inadequate resources to efficiently maintain them or failure of the authorities to inform ships quickly of incidents, such as missing buoys, or break down of lights etc. Undermines reputation of the system which becomes entirely ineffective. Therefore, this state must not be allowed to exist.

The prevailing severe weather and climatic conditions,

such as frequent excessive heat, high winds during the monsoon seasons etc, rough terrain, remote locations and extremely difficult access facilities to most of these lighthouses and beacons have resulted in the Lighthouse and Hydrographic Project finding it very difficult to either recruit or retain the lighthouse keepers and maintenance men required for servicing and operating the beacons.

Despite their age and type of equipment in operation most of the existing lighthouses and beacons are still in fairly good operational condition. However, it is obviously understood that most of the lights, and in particular those operated on kerosene, are of very low intensity and range, therefore, the government is making an effort to up grade those lights.

There is also need for additional new aids to navigation, such as leading lights, beacons, radio and electronic equipment to be provided in order to further improve safety of navigation of domestic and international shipping and to conform to modern maritime safety standards.

The current project development on hydrography and lighthouse modernisation will come with increased innovations requiring improvements of the following areas:-

- 1) Employment of lighthouse keepers with sufficient educational background, who can be trained for acquisition of skills necessary for the safe handling of navigational aids;

- 2) Establishment of modest maintenance work-shops at national and regional centres within the country which can undertake coordination responsibilities of lighthouses located in remote districts;
- 3) Provision of telecommunication facilities in district centres to allow rapid exchange of information in case of emergencies;
- 4) Provision of transportation facilities for both men and material at national regional centres.

In order to have this project functioning effectively and to the satisfaction of the shipping community, the Ministry of Marine Transport and Ports requested experts on aids to navigation from the Federal Republic of Germany to advise them on the user requirements of the marine aids to navigation.

Although the cost of providing and modernizing the new and existing aids to navigations is paid for directly by the government from its public funds, it is necessary for the administration to undertake the followings:-

- 1) To make regulations for the operation of aids to navigation;
- 2) To introduce new system of levying on ships calling to Somali Ports;

- 3) It is inevitable for vessels both coastal and deep sea ships calling at Somali Ports to pay conservancy charges for light and buoy facilities;

- 4) To allocate considerable sums of money in the annual budget for the maintenance of the equipment.

1.4. THE SHIP SAFETY POLICY IN SOMALIA.

Safety at sea has received increased attention over the years. Being a seafaring nation with a large merchant and fishing fleet, Somalia has always been engaged in work to increase the standards of safety at sea. This work has been undertaken by the Ministry of Marine Transport and Ports, in compliance with conventions on safety of life and property at sea through research institutions and maritime education.

The main objective in safety work is to reduce risks. It is right to say that up to the last years the leading principles followed in the endeavour for increased safety have been to find remedies to avoid the repetition of casualties that have been experienced in the past. Priorities in safety work have to a large extent been governed by severe accidents. Up to the recent years the underlying causes behind the casualties have been hard to uncover because efficient methods and reliable, consistent data have been lacking making it difficult to perform quantitative risk analyses and to design a real forwardlooking safety management of maritime operations.

Regarding ship safety research it is quite natural that much attention has been paid to making the ship as safe as possible, when exposed to the forces of the sea or when navigating in confined waters. Fire and explosion prevention has been another important objective in the safety work.

The ship safety policy in the Somali Maritime Administration is directed to three goals:-

- a) Protection of human lives including protection from injuries as well as contribution to the general well-being of seafaring personnel.
- b) Safety of the ship and its cargo;
- c) Protection of the environment against pollution (third party interests).

In an endeavour to substantiate this goal of ship safety the government made efforts to train officers in the Alexandria Maritime Transport Accademy, the Arab Maritime Transport Accademy at Sharja and the curriculum of the National Maritime Institute was improved to raise the standards of shipboard personnel in both the engineering and nautical areas.

Due to a few severe accidents which happened to Somali boats some years ago, where crew suffered total loss in extreme weather conditions, the attention on the quality of the crew on board was again brought up. It became clear that the development of the training system in particular the life boats and the navigational aids on board (charts) had fallen behind as compared to the safety development of the ship as such. It became obvious that a link in the safety chain was inadequate.

An extensive training programme was therefore organized into the above matters under the leadership of the Somali Maritime Administration.

The programme consist of both theoretical and practical training on board ships in commercial trade. So far a successful implementation of the theoretical part of the training program has been done in Maritime Institutions, though the short courses for the ratings are not yet complete in all aspects.

The practical training is, however poorly managed and is below acceptable standards for many of the students, in accordance with international regulations. With the view to acheiving reasonable ship safety standards , the administration has lately tried to improve existing ship maintenance , and to avoid purchasing sub-standard ships from the second hand market with the help of the experience of World Maritime University graduates who are already employed in the shipping line.

The objectives of the Administration is to reduce the risks to life and health for the seafaring personnel in general. Therefore, the following strategies were formulated:-

- 1) To provide the necessary basis for improving safety at sea by developing and testing necessary actions and remedies in example technology, social science, medicine, education and administration;
- 2) Research results are to be generally applicable to the present fleet and to the fleet expected to sail in the next decade, with increased ship inspection to ensure safety of navation.

Social factors associated with ship environment and the seafarers' families are important because health and psychological relations are beginning to become legitimate factors of the safety problem. A strong signal from past conditions has shown that personnel policy in shipping companies is of great importance to the total situation of the sailors and their families.

The administration believes that the problems facing the sailor and his family is much like the conditions in the society ashore.

Although there are no training institutes as such dealing with environment management and safety administration, the following institutes in the country are concerned with training in maritime affairs, fisheries, agriculture and technical training(*):-

- National Fisheries and Maritime Institute in Mogadishu;
- Mogadishu Technical Institute;
- Faculty of Marine Science and Oceanography with the Somali University;
- Marine Research Centre.

The National Fisheries and Maritime Institute is devoted to maritime training. It offers a four-year course high school certificate in mechanics and navigation.

(*). M.I.Singh, IMO, Somali National Report. pp.129.

Somalia, is also one of the developing countries which send their personnel to the World Maritime University which is one of the international institutions for the training of personnel in the maritime sector, particularly for developing conventions for safety and welfare of seafarers at sea. Therefore when they go back home they will participate in improving the maritime sector.

Although the administration is trying to improve activities in the maritime sector there are problems which handicap them, such as:-

- 1) Lack of adequate trained surveyors;
- 2) Lack of adequate infrastructure;
- 3) Lack of good administration caused by lack of high level personnel;
- 4) Lack of up-dated legislation as concerns the safety aspect.

As safety at sea is a very comprehensive concept applying both to personnel on board, the ship, its cargo and its environment; our knowledge and concepts regarding safety need to be upgraded, thus the administration has to undertake the following:-

- 1) Establish a Maritime Safety Department with different types of surveyors, engineering, nautical, electrical, dangerous goods, examiners, administrators and casualties investigators;
- 2) Update the existing Maritime Code.

1.5. POLLUTION FROM SHIPS.

The best known cause of oil pollution is that arising from ships. Although this may contribute a comparatively small percentage of the total oil entering the sea in a year, the consequences of an accident can be disastrous to the immediate area, particularly if the ship involved is a large one and the accident occurs close to the coast.

The wrecks of the Torrey Canyon in 1967, and the Amoco Cadiz in 1978, are examples, of about how 390.000 tons of oil entered the sea in a year. Collisions and groundings account for 83 percent of major spills.

The most common pollution incidents occur during the terminal operations when oil is being loaded or discharged. Perhaps as many as 92 percent of oil spills, according to figures published by the International Tankers Owner's Pollution Federation, because they occur close to shore and often in a confined area, such as ports. the environmental damage to the immediate vicinity can be considerable. But in tonnage terms such accidents provide only a small proportion of the total; about 20.000 tons(*).

Much greater quantity of oil enters the sea as a result of normal tanker operations, usually associated with the cleaning of residues cleanage which takes place when the ship is returning from the port of discharge to take another cargo of oil.

(*).Combating oil pollution-Kuwait Action Plan, UNEP Report No.44,pp.30.

The amount of clincage normally amounts to about 0,4 percent of the cargo-carrying capacity, about 800 tons on 200,000 dwt crude oil carrier.

During ballasting and cleaning as much as half of this is lost overboard unless slops are retained onboard. In tonnage terms, this is still probably the biggest source of oil pollution from ships, about 700,000 tons a year, according to NAS, but it has declined considerably in recent years.

Although most public concern about marine pollution has concentrated on problems associated with oil, many of the chemicals carried by sea are far more dangerous to the marine environment. Some of them are so poisonous that even a tiny amount can kill fish and other marine life. They can build up gradually until they are present in large enough quantities to present a danger to human life.

Some are so persistent that they can last for tens or even hundreds of years. Fortunately, perhaps, the amount of noxious substance carried at sea is only a fraction of the amount of oil transported each year, a great deal of which is carried in bulk form in tankers specially designed for the purpose. The chemical tanker fleet amounted to 2.7 milion dwt in 1973 and had risen to 7 million dwt by 1982 (275 ships), according to figures issued by Drewry Shipping Consultants Ltd(*).

(*).Combating oil pollution-Kuwait action Plan, UNEP Report No. 44, pp.38.

The ships themselves are generally much smaller in size than oil tankers, ranging from 500 grt to about 40,000 grt. They are, however, extremely complex and hence expensive to build.

Not only must the cargo be given maximum protection, but the ship may also carry many different products at the same time, each one of which may have particular properties and require different handling.

Marine pollution has also been found in some parts of the port of Mogadishu, Kismayo and Berbera, caused by waste disposals by ships.

Although Somalia is faced by the above-mentioned oil pollution problems, it has not yet legislated any national law regarding Marine Pollution by oil. It is not party to any of the conventions on control of Marine Pollution by oil, except for the 1982 Jeddah Convention which was only signed but not yet ratified.

It is necessary to take a number of steps towards marine legislation development if the country has to curb the existing threat by oil pollution. It should consider ratifying the global convention dealing with marine pollution (e.g., MARPOL 73/78). It should adopt its own comprehensive legislation on prevention and control of oil pollution from all sources, including oil pollution from ships. There is a need for establishing within the national legislation a legal framework for oil pollution surveillance and a combat unit to enforce the pollution control law within areas of national jurisdiction.

There is a need to harmonize the country's Maritime Code with the provision of the 1982 United Nations Convention on the Law of the Sea, especially on Limits of the Territorial Sea and the legal regime of the EEZ; and to consider a framework within which it can co-operate with the countries in the western Indian Ocean in the prevention and control of deliberate and accidental discharge of oil from ship.

CHAPTER II

COMPARATIVE STUDY OF MARITIME ADMINISTRATIONS IN VARIOUS DEVELOPED COUNTRIES

2.1 MARITIME ADMINISTRATION IN THE FEDERAL REPUBLIC OF GERMANY.

In the Federal Republic of Germany the Ministry in charge of most of the maritime administration functions is the Federal Ministry of Transport which has a maritime transport department with two units, one for shipping policy, and the other, for safety at sea and related matters(*).

Each of the above units have different offices, each office handling different matters from the other; though a particular aspect of maritime administration may be handled in more than two offices. A good example of this is shipping policy, which falls into the responsibility of three different offices, one defining the basic principle of the national shipping policy, another one charged with the shipping relations between the Federal Republic of Germany and other countries, and the other one dealing with all matters related to the promotion of national shipping. There is a fourth office dealing with all aspects of the seaborne transport of cargo in which the Government takes special interest.

(*) Dr. W.H. Lampe, Maritime Administration of Federal Republic of Germany, pp.3

Within their respective spheres of competence, the various offices of the department are also responsible for representation of the country in the respective international organizations.

The shipping policy unit constitutes delegations to UNCTAD, and the safety at sea unit provides delegates to the IMO's Maritime Safety Committee and its various sub-committees; delegates from the legal office represent the country in IMO'S Legal Committee and at the United Nations Law of the Sea Conference(*).

The Department of Maritime Transport works very closely with the Central Administration Department which is competent for such important sectors as budget and personnel, and with the General Transport Policy Department, because the shipping policy is also part and parcel of general transport policy.

Due to the country's political conviction that public administration be kept to the inevitable minimum; some direct governmental administration is replaced by indirect self administration, which in practice is that the persons involved associate themselves to form a corporation under public law, which is merely supervised by the state.

The government has transferred a number of originally governmental activities to private associations.

(*)Dr. W.H.Lampe, Maritime administration of Federal Republic of Germany. pp.10

A good example of this is the " Germany society for the rescue of shipwrecked sailors " which is in charge of surface search and rescue at sea; vocational training on board ships; and the activities at the West Germany Classification Society (Germanisch Lloyd), which fulfils governmental functions with regard to the surveys and inspections of ships.

The German Hydrographic Institute which is a governmental authority is responsible for production of charts, nautical handboards; prediction and measurement of tides, notice to mariners; navigational warnings; type-testing and type approval of nautical equipment; marine survey and oceanographic research " with their own ships " marine pollution monitoring.

The Federal Board of tonnage measurement is responsible for the movement of vessels in accordance with national and international rules and regulations.

From the above it is clear that the maritime administration in Germany has its complexities, like many other countries in the world; but it has worked for them and it has been beneficial. The system has been in existence for many years and therefore it causes no problem to the local administration. On the other hand this bearing public responsibility has kept a high degree of flexibility and has always tried to adopt the current developments. But this does not mean that things would work the same way in another country. The existing differences in the historical development, the economic status, the political system and the geographical situation may determine the direction and performance of public administration in any country.

2.2. MARITIME ADMINISTRATION of " NORWAY ".

Norway is traditionally a maritime country, with a long experience in shipping. For hundreds of years the sea has been their main transportation system. From the eleventh to the twelfth century Norway was a thriving seapower in the north(*).

The Vikings who were famous pirates and also tradesmen had developed excellent seamanship.

Though Norway has had such a long experience in shipping and as shipping is one of the major industries, maritime administration in the country is distributed among many different ministries. The ministries have functions which are part of or which concern the maritime administration. The Ministry of Trade and Shipping is however considered to have the most important function of maritime administration.

The most important task of this ministry is to look after the interest of the shipping industry on a national and international basis. It is engaged in maintaining and, if possible, improving the access to the market of Norwegian Shipping services and also in attending to the interest of the persons who are employed in the shipping trade.

The ministry has a department which is responsible for maritime matters and it has five divisions with the following functions:-

(*).Prof. A.Os, Introduction of Norwegian Maritime Administration.pp.1

- 1) Licensing Norwegian companies to invest in shipping companies abroad and to enter ships in other registers;
- 2) Annual national budget assessment of the shipping industry and the oil drilling industry, maritime transport, and contingency planning;
- 3) Administration issues and others;

There is another division which deals with:-

- 1) Maritime transport as discussed in international organization including OECD, UNCTAD, and relations to the EEC;
- 2) General shipping policy relations with OECD countries;
- 3) General questions regarding protection and flags of convenience.

There is also a third one which deals with:-

- 1) The affairs of the maritime directorate for seamen and Norwegian government seamen's service;
- 2) Relations with ILO concerning maritime transport;
- 3) The social conditions of seafarers and their families, conditions at work on board ships, general questions regarding maritime studies;

4) Relations with the IMO.

The fourth division deals with the followings:-

- 1) General economic assessments of maritime transport and related activities;
- 2) The economic and competitive strength of the Norwegian shipping industry;
- 3) Long term programme assessment of the shipping industry and the oil drilling industry.

The last division which is the fifth one deals with:-

- 1) Access to the shipping markets of developing countries and state trading countries;
- 2) Shipping policy in relation with the USA, bilateral shipping agreements;
- 3) Commercial cooperation and other projects to develop the shipping industry in developing countries.

The maritime directorate and its external organisation, the ship control, are authorised to exercise the administration of measures to maintain and improve maritime safety standards. It also exercises functions delegated to it by other ministries. According to the Seaworthiness Act, the directorate is supposed to be headed by a person specially skilled in maritime and shipping matters(*).

(*)Prof.AOs, Introduction to Norwegian Maritime Adm. pp.12

The directorate has delegated part of its obligations to other agencies partly governmental and partly private or non-profit organizations in order to cope with its work. According to the provisions of international conventions the government of a country may entrust the inspection and survey either to surveyors appointed on individual occasion to a classification organization which it has recognized. However, the government must fully guarantee the completeness and sufficiency of the survey.

The directorate also offers its services to other ministries, public and private institutions. The Ministry of Trade and Shipping has authorised the directorate to make decisions, which within its field of activity are pursuant to Acts or regulations vested in the Ministry.

- Seamen's relations to military authorities;
- Signing off/on and mustering in Norway and abroad;
- Administration of arrangements concerning taxation of seamen sickness benefits, collection of social security dues.

The directorate is headed by a director-general with a permanent deputy. It has five divisions and employs 250 persons. Much of its work takes place through consultation throughout the world and the directorate is authorized to give instructions to the consulates in matters concerning seamen(*).

(*).Prof. A. Os, Introduction to Norwegian Maritime Administration . pp.23.

The Norwegian Government's aim is to carry out welfare service for seafarers working on board Norwegian ship engaged in domestic and international trade. Such services may also benefit seafarers from other countries. Since this institution is not much concerned with administrative matters, I will not deal much on it.

The Ministry of Basic Education is responsible for basic education including schools for elementary maritime education, giving competency for the lowest certificates for deck and engine departments. This kind of maritime education is given in about 50 maritime schools situated in different parts of the country.

The number of schools and enrolment of students is however falling and has been reduced greatly recently due to the poor shipping situation facing Norway today and specially due to flagging out of many of the Norwegian ships to foreign registers.

Advanced Maritime colleges are under the Ministry of Higher Education and they offer courses ranging from shipping economics, maritime administration to business administration and economics. Technical courses in maritime affairs are also offered.

The main tasks of this directorate for seamen are:-

- 1) General questions in connection with the administration of Seamen's Act;
- 2) Search for missing seafarers, commission to ascertain foreign law and service of units;

4) Travelling arrangements for seamen and their families.

The Ministry of Fisheries and its subordinate bodies carry out many functions of maritime administration. It has two directorates in charge of maritime administration: the directorate of coastal affairs and the directorate of fisheries.

The directorate for fisheries deals with almost everything related to marine resources. Two research institutions are working for the directorate, namely the Institute of Nutrition and the Institute of Marine Research.

The directorate for coastal affairs is responsible for ports, sea lanes, navigation aids and pilotage. The head office is in Oslo and has five branches.

The Ministry of Finance is in charge of matters related to taxation with regard to shipping and seafarers. Oil pollution control is under the Ministry of Environment, while maritime rescue service is under the Ministry of Justice. This Ministry is also in charge of maritime commercial law aspects and legislation in that field. Safety in connection with oil exploitation of the Norwegian continental shelf and shipbuilding yards are under the Ministry of Industry.

Beside the Ministry of Trade and Shipping, it can be said that the Ministry of Fisheries is carrying out the maritime administrative functions in Norway. As we have seen however virtually all the ministries in the country are involved in maritime administration in one way or another.

SHIP FINANCE IN DEVELOPING
COUNTRIES.

3.1. GENERAL PROBLEMS IN SHIPPING FINANCE
IN DEVELOPING COUNTRIES

In principle, several different sources of ship finance and technical assistance may be considered. However, not all of the sources may be available or appropriate in a particular case. The main sources of ship finance are(*):-

- a) Equity investment;
- b) National Shipping finance funds;
- c) Export credit by foreign yards;
- d) Bilateral assistance;
- e) Commercial banks and ship mortgage lenders;
- f) Leasing arrangements; and
- g) International financial or development institutions.

(*) Harald Hansen; world Bank Staff Working Paper No.502, 1981. The Developing Countries and International Shipping, p.55

For obvious reasons, I omit the discussion of (a) and (b) above and proceed to (c).

The availability of the ship building credit did not become widespread until the 1950. Before that time the relative slow growth in world trade allowed shipowners to accumulate the resource necessary to make each new shipping fleet generally a life time work beginning with the purchase and operation of ageing second-hand vessel and gradually improving the quality and size of the fleet from accumulated trading profit.

Today, to the developing maritime countries, there is nearly an infinite variety of loan offers like loans from capital markets, banks and finance houses. However, these sources are generally inadequate and allow very little choice in ship procurement, since finance usually has been tied and subject to conditions that are not necessarily compatible with particular needs of a developing country.

The main problem facing new maritime developing countries to finance their new maritime activities is availability and cost of capital. In developing countries where capital needed for development is scarce and the process of capital formation slow, there is a heavy reliance on imported foreign capital either in the form of international economic aid or normal market investment loans.

The situation is further compounded by the shortage of trained personnel, lack of appropriate maritime legislation, proper ship register and arbitration provision and a comprehensive and thorough preinvestment studies.

With many of these new developing countries faced with severe balance of payments difficulties and their economies, the availability of foreign finance, to finance their maritime activities, and the ability to repay these loans is dependent not only on the cost of the loans but also on the cash-flow generated by the borrowers who depend on the variables of the shipping markets.

Shipping being a capital intensive industry with relatively high risk, not only large capital is needed for the acquisition of ships but also a considerable amount for maintenance and repair cost.

The policies and sources of ship finance market conditions differ greatly according to the changes in capital market conditions, and to the changes in the shipping market.

3.2. PROBLEMS ASSOCIATED WITH THE FINANCING OF OTHER INSTITUTIONS.

Generally, for both developed and developing countries the ability of any national shipping line to raise the required amount of capital to acquire ships will depend largely on its previous performance as shown by its balance sheet. For new entrant shipping lines, previous performance does not exist and, hence, a difficult stage for developing countries to surmount.

For developing countries in particular the basic policies for banks towards the loan risks are different. Not only do some banks prefer to remain conservative, but also due to legal regulations, there is a limitation of amounts that can be lent to a shipping company based on the debt-equity ratio, loyalty to their borrowers as shown in their readines to stand-by these customers.

Furthermore, to some degree, the loan terms and conditions depend on the type of ships available for export under the prevailing shipping supply and demand conditions and also the extent to which a shipyard and the bank want to do business with a particular shipowner.

Thus the large and well established customers are likely to obtain finance on the most favourable terms as banks have become very selective and are willing to lend only to what they consider to be reputable and credit worthy shipowners. Even then the finances from foreign banks are not cheap either; they usually charged " Country risk " or even made the finances available only for the acquisitions of selected types of vessels, such as trawlers, ferry boats, fishing boats and the like and not for large merchant vessels used in international seaborne transport.

3.2.1. INTEREST RATES.

During the early seventies to date, loan conditions for ship purchasing have generally hardened with higher interest rates being applied as compared to earlier periods. The methods of calculating interest repayment schedules can vary and do considerably affect the net present value of the loans resulting in heavy amounts on the principal.

These have to a large extent be affected to new maritime developing countries.

In shipping finance, the rule is that the interest rate is charged semi-annually in arrears at a simple interest rate of half the annual rate. The interest rates also reflects on the type of the loan currency. The dollar loan takes a 360-day year for interest rate calculation, whilst sterling loan interests are calculated on a 365day basis consequently, a dollar loan is higher than that for a sterling loan.

It is worth reflecting that government-financed loans are fixed interest loans, commercial bank loans may either be at a fixed interest rate or normally at a "LIBOR" plus rate, i.e. the interest is adjusted every six months depending on the current London Inter Bank Offered Rate.

Unfortunately foreign loans obtained from OECD countries and commercial banks operating the variable interest rate LIBOR and commercial banks operating the variable interest rate LIBOR have both proved unfavourable to developing maritime countries.

3.2.2. FOREIGN EXCHANGE PROBLEMS.

The loans are usually on a floating exchange rate basis which makes it practically impossible to predict cash-flow and also tends to increase the cost of loans if the interest rate floats upwards.

The country or company, whatever, may resort to multicurrency borrowing to reduce potential increase in interest costs, although where a developing maritime country receives most revenues in a particular currency, fixed rate financing in that currency in which it is received may be advantageous in avoiding loss due to not only currency fluctuation but also raising costs of currency conversion.

3.3. SOURCES AND TYPES OF SHIP FINANCE IN DEVELOPING MARITIME COUNTRIES.

In the recent past, the various sources of finance listed below had been made available to developing maritime countries for the acquisition of ships for their national fleets(*):-

- 1) Shipyards Credits;
- 2) Foreign and local commercial banks;
- 3) Leasing arrangements;
- 4) Bilateral aid or government-to-government soft loans;
- 5) Special national funds set up for shipping or shipbuilding development;
- 6) Joint ventures.

(*) UNCTAD; Merchant Fleet Development, Ship Financing For Developing Countries, 1985, p.5

Of these sources, shipyard credits, commercial bank loans and government-to-government soft loans individually or in their various combinations are the most common. The other sources of loans available are:-

- 1) Government support export credits;
- 2) Local maritime development funds;
- 3) Equity or retained earnings of shipping companies.

An attempt will be made to outline the advantages and disadvantages of the three most common methods.

SHIPYARD CREDITS

These are loans for ships sold to foreign buyers. They are mainly intended to provide employment for domestic shipyards and varies in institutional form and finance arrangements in the various exporting countries.

Advantages.

The important advantage of the ship export credits scheme, is that they normally carry fixed interest rate fluctuations, which make it advantageous to the borrower in terms of cash-flow prediction.

The interest rates are relatively low if compared to rates prevailing in national financial markets for international lending bank and soft loans during the time of low order book purchase in yards.

Disadvantages.

The type of loan financing is only available for new building and not for second-hand ship acquisition which is a negative factor for certain developing countries which may wish to rely on second-hand purchases for the expansion of their fleets.

The scheme also has other limitations for a given loan. The borrower is tied to a particular supplier on terms determined by government policy and the loan may be subject to restrictive conditions.

Furthermore, the loan terms and conditions depend on the types of ships available for export under prevailing shipping supply and demand conditions and also the extent to which the shipyard and the bank want to make a business concerning export credit financing which is subject to high currency exposure risks owing to the loan being denominated exclusively in one currency of the shipbuilding country, and to the fact that the shipping company may be earning most of its freight revenues in different currencies. Then, the time of soft loan may be unfavourable to shipowners.

3.4. COMMERCIAL BANK CREDITS.

The Commercial Banks and Financial Institutions provide the bulk of the finance; the loans on usually medium term with a fluctuating rate of interest are called term loans which by definition are business credits with maturity of more than one year but less than 15 years.

These loans are credits under which the borrower pays an interest rate based upon the LIBOR (London Interbank Offered Rate) for the first banks, plus a margin which provides the gross profit of the bank. The interest rate is reviewed every three to six months(*).

ADVANTAGES.

The main advantage of this source of finance is the flexibility to the borrower, who can negotiate with a bank to obtain the full amount of the loan and is free to choose where to buy the ships.

Such source of finance is used not only for new building but also second-hand ships. It also gives the shipowner the possibility of arranging the loan repayment in different and more flexible ways to suit individual needs.

DISADVANTAGES.

Generally these loans do not provide special terms for developing countries, in some cases developing country borrowers are charged premiums for cross-border risks, where the loan is made in convertible foreign currency, or foreign currency which can not be freely repatriated, e.g. without official or central bank authorisation.

The loans are usually on a floating exchange rate basis which makes it practically impossible to predict cash-flow and also tends to increase the cost of the loan if the interest rate floats upwards.

(*) Prof. A.A. Monsef; The establishing of National Shipping Industry in a Developing Maritime Country. p.119

3.5. GOVERNMENT-TO-GOVERNMENT SOFT LOAN.

Quite often, this type of loan is mixed with officially supported ship export credits, on terms more favourable than the standard OECD terms. This type of loan or aid is not usually for second-hand acquisitions and it tends to tie the borrower to a particular supplier and in some cases it effectively limits the choice of ships to be acquired.

Furthermore, in cases where the financing is not mixed and involves pure aid or grants, it could be available only on selected types of vessels, such as trawlers, ferry boats, and fishing boats but not for ships to international seaborne trade.

Perhaps most importantly is the human factor aspect in that loans are made by human beings, not machines, and the evaluation of the risks of most loans is in the final analysis a matter of personal judgement.

3.6. INVESTING IN SHIPPING.

Although much intellectual effort has gone into the evaluation of time and much insight and practical knowledge have been gained, this is still an area involved in difficulties. There are many variables to consider:-

- 1) The type of ship;
- 2) The speed required;
- 3) Trading area, etc.

Often the time-saving involves higher speeds which often increases the probability of accidents. These, in turn, raise the issues of speed and safety regulations and the sensitive question of government participation in general.

Broadly speaking, shipping investment today is primarily concerned with three main areas:-

- A- Investment decisions on seaborne trade, including techniques for cost-benefit analysis and discounting;
- B- Allocation of resources in shipping investment, including problems of pricing policies;
- C- The role and impact of government in transportation, including questions of regulation and long term planning for adequate infrastructure.

Shipping policies are likely to be different from one country to another depending on the country's role and participation in world trade and shipping. The larger the country is in these respects, the more likely it is that its policies are directed toward areas of activity which can be summarised as:-

- A- The carriage of different goods;

B- Activities supporting the carriage, such as port operations, manpower, customs procedures, and other similar activities;

C- Institutions and policies affecting both the carriage and the support activities, such as labour unions, government regulations, and international agreements and conventions.

The demand for shipping is more complex and difficult when we look at institutions that are both domestic and international and affect both carriage and support activities.

Included here would be government regulations, particularly those pertaining to subsidies, taxation, financing, various U N Agencies, particularly the International Labour Organisation (ILO), the International Maritime Organisation (IMO), United Nations Conference on Trade and Development (UNCTAD), and the regional economic commissions.

For each of these, understanding requires identification and analysis of the particular institution's structure, objectives, and effect on the shipping industry and support activities.

3.7. RECOMMENDATION AND OBSERVATION.

It is recommended that developing countries establish a special maritime development fund of a national ship building industry through loans and subsidies.

Though such funds may not be sufficient because of difficulties in raising the required capital in local and foreign financial markets, it will contribute to the growth of the shipping industry. Also developing countries should enact an appropriate maritime legislation, institute a ship register and appropriate maritime administration with a view to facilitate easy access to ship finance in foreign markets.

Shipping companies of developing countries should consider the establishment and development of joint venture or similar arrangements with shipping companies of developed countries. As such cooperative ventures will facilitate the transfer of technology and experience in the field of both vessel operation and fleet administration. In evaluating investment decisions, developing countries should appreciate that cash-flow, or ability to meet loan obligations and commercial profitability are not only the essential considerations. Other considerations should include improvement in the balance of payments, creation of employment, reducing dependence of foreign shipping services, and promoting exports.

Developing countries need to increase their efforts to gain access to national and other cargoes through increased competitiveness in order to improve the employment opportunities of their national fleets.

To this end, they need to promote regional and subregional co-operation in shipping activities in order to enable their national fleet to achieve greater utilization of vessels and economies of scale.

Providers of ship finance should give greater consideration to second-hand purchases, because in recent years second-hand prices have been substantially below newbuilding prices, thus offering lower loan repayment burdens since developing countries appear to rely on second-hand acquisition.

It should be noted that while secondhand purchases may be more appropriate for vessels whose technology is not changing rapidly, vessels experiencing rapid changes in technology may present great risks since the vessels may become obsolete even before the loans are fully paid.

After having considered all the qualitative factors affecting the financing decision, it becomes necessary to make comparisons in money terms. This also is frequently difficult due to the number of variables involved.

Generally a source of finance can provide the exact number required to reflect a specific set of assumptions for making decisions.

CHAPTER IV.

LINER CONFERENCE--POOLING ARRANGEMENTS.

4.1. NATURE AND ARRANGEMENTS OF THE DIFFERENT TYPES OF CONFERENCE POOLS.

The Liner Conference is an organization whereby a number of shipowners offer their services on a given sea route on conditions agreed by the members. Conferences are semi-monopolistic associations of shipping lines formed for the purpose of restricting competition between their members and protecting them from outside competition. Different types of arrangements can be reached to promote this objective(*).

The formation of a pool eliminates competition amongst members at more attractive ports; thus ensuring that lesser attractive ports are covered.

Pooling takes various forms of agreements:-

- i) Agreement to control a number of sailings;
- ii) Control of cargo and revenue;
- iii) Quota systems or space pools, a form a cargo pooling usually physical and not financial;
- IV) Pooling between conference ports only.

(*). UNCTAD; The Liner Conference system, TD/3/C.4/63 pp3

The details of a pooling agreement determine to what degree competition among pool members is eliminated. These agreements pertain to internal conference arrangements of a private confidential nature and usually a closed guarded secret.

A cargo pool relates to a specific or narrowly defined group of commodities. Under the pool agreement each member is entitled to carry a specified percentage share of the freight tons of the items concerned.

Cargo sharing or output sharing or regulation of the trade has been a feature of the closed conferences since their inception. The regulation of the tonnage was considered essential if a situation of over-supply was to be avoided and to prevent one member gaining more of the trade at the expense of another.

Output sharing is adopted to ensure an equitable distribution of trade among members. The practices used in order to share the trade are limitations on the number of sailings each member can make and restrictions on the amount of cargo each member can lift. These practices may be used together with revenue pooling agreements.

4.2. REVENUE POOL.

The pool freight revenues of all the participants in the pool is shared according to agreed percentages. This is so because a wide variety of cargoes with a wide disparity in rates are carried and hence revenue pooling dominates any competition of high rate cargoes whilst ensuring that the lesser attractive cargoes are also handled(*).

UNCTAD; The Liner conference system, TD/B/C.4/62 pp.6

Agreement to pool revenue or traffic, through far less numerous than an ordinary conference agreements, are not common.

The pool may cover only one commodity or several commodities except those specifically exempted. Revenue pools are the more common and generally divide the net revenue earned on the commodities covered by the agreement on the basis of past performances; the average lifting of members, i.e., that the three years preceeding the settling up of the revenue pool.

In others, the pool members are obliged to safeguard the quality of their services and even to maintain for the period of the pool agreement the level and quality existing services in the area of operating of the pool. Some pool agreements even provide for associate membership in which case they operate in a very limited way (say 2.5% of the total gross pool freight revenue in any pool period) as some pool shares are fixed for a defined period.

Pooling agreements include provisions regarding coverage of:

- 1) Carriers;
- 2) Port or coastal range;
- 3) Commodities;
- 4) Separate pools by commodity group operational requirements;

- 5) Minimum number of sailings to handle the expected cargo movement;
- 6) Pool shares;
- 7) Renegotiation period.

Contribution rates (Revenue Pools) may or may not include:-

- 1) Bunker, currency adjustment;
- 2) Taxes;
- 3) Ad-valorem charges;
- 4) Heavy lift charges;
- 5) Port differential;
- 6) Deductions, additions for non pier-to-pier, container rates or free-in, free out.

Penalties.

- Forfeiture for under- carriage;

Pool transfer.

- Frequency of settling accounts.

4.3. POOL ADMINISTRATION.

In order to assess and keep track of cargo movements, to schedule vessels of member lines and monitor the actual performance of each member to the pool, a pool committee consisting of the participating pool members or their agents is appointed. When many ports are covered by a pooling agreement, there will often be several pool committees.

These committees appoint a secretary who, on the one hand, is responsible for the day-to-day working of the pool and, on the other hand, can act as secretary of the pool.

Some of many responsibilities vested in the powers of this committee include:-

- a) Admissions of new members;
- b) Changes in the pool percentages;
- c) Decisions on matters such as additions to or deletion from the list of commodities excluded from the pool changes in the amount of carrying money;
- d) Changes in the minimum number of loading or discharging calls;
- e) Changes in the amount of bank guarantee required from each pool member;
- f) Changes in the penalty provision.

The collection of pool returns, their consolidations and the computation of the balances at the end of the pool period for the purpose of settlement of accounts which are done by an appointed firm accountant.

All disputes arising between pool members in the interpretation and fulfillment of the pool agreements are referred to arbitration. In order to ensure that any party defaulter pays the penalty awarded by the arbitrators, each pool member is required to deposit with the secretary an irrevocable bank guarantee for a specified amount.

The amount collected from the penalties are either placed into a common fund, or set aside in a special fund for later distribution to all members. However, the situations where penalties are levied may be very rare in practice due to the fact that a high sense of responsibility, fear of criticism of fellow members and continuous vigilance maintained by the pool committee reduce cases of breaches of the pool agreement to the barest minimum.

4.4 FIXING OF POOL SHARES.

In the conferences with two or more lines of the same flag in the pool, the shares are initially fixed on the basis of the flag groups and then between the members in each flag group. The basis on which the shares of different lines or flag groups in the pool are established may be as follows:-

- 1) Negotiations between the pool members;

(*).UNCTAD; The Liner Conference System, TD/B/C.4/62.P.97

- 2) Commercial and other requirements of the trade;
- 3) Past performance of each member;
- 4) Future potential of each member;
- 5) National aspirations of the different members;
- 6) Capacity of line or group to compete as an outsider if agreement on pool share is not reached.

A pool arrangement was introduced initially to monitor the actual performance of each member line in the various sections of the conference. Trade in the immediate past was a very important consideration in allocating percentage shares among the members. The national lines of the countries served by the conference generally had special position in the pool.

In some conferences the pooling arrangement provides for an escalating share to the national line in the home trade and in such cases progressively increasing shares are contributed by other members of their pool to the national line.

Competition between the members of a pool which covers both revenue and cargo may lead each member to attempt to impose his margin of profit by reducing his cost of operation(*).

(*)UNCTAD; The Liner Conference System, TD/B/C.4/62, P.99

The liner would then have preference for cargoes with the lowest handling costs in relation to the freight rate.

This preference, however, does not exist if only the net revenue is pooled after deducting from the gross revenue of every member's actual handling and other costs which are directly attributable to the carriage of a particular item. Where, however, a fixed allowance is deducted to cover these items, the incentive remains.

It may be argued that a pool leaves hardly any incentive for a line to expand its tonnage or improve its services to shippers. Internal struggles may appear between the pool members, but a successful pooling arrangement arrests competition and preserves a status quota. All other competition is eliminated except that which could lead to an increase in the share of the members within the pool agreements which provide for a limited automatic adjustment in the pool share. In fact such a situation can arise only if the other members are not very particular about fulfilling their own quotas and maintaining their existing shares.

The pool agreement provides machinery to keep a regular watch over the performance of each member and to bring about a periodic adjustment in the over-all performance of each member so as to ensure that all members fulfill their quota by the end of a pool period. One of the pool agreements in United States Trade states that "Consistent overcarriage shall not constitute a claim by the party for any upward revision of the pool percentages allotted to that party under this agreement."

Since over-carriage by itself is not going to result in an increase in the share there is hardly any incentive to overcarrying by a member.

It might be permitted under special circumstances if the other members considered that it was necessary for the performance of the service obligations of the conference as a whole.

4.5. COMPARISON OF DIFFERENT TYPES OF POOL

We have identified the three types of pool as, the cargo pool, the revenue pool and the combined cargo/revenue pool. Also we can define the cargo pool as a quota system. The comparison of the different types of pool can be done in two terms: short run and long run.

SHORT RUN.

Under a quota system each line in the conference is allotted a share of the total volume of cargo to be carried and may be penalized by the pool for over-carrying and compensated for undercarrying if this arose from circumstances beyond his control.

In a revenue pool each line pays into the pool all or a proportion of its own revenue earnings and is entitled to receive from the pool a fixed share of the total revenue earned by the pool.

A combined cargo/revenue pool controls both the quantity of cargo carried and the revenue earned, so that each line has an obligation to lift a certain percentage of the cargo and to pay into the pool a certain proportion of the revenue arising from carrying that cargo, the effect of overcarriage and undercarriage are then adjusted by the pool.

Within a quota system, the focus of attention of each line is likely to be on attaining as much as possible of higher rate cargoes unless for any reason these are particularly expensive to handle or has to comply with limitations regarding the carrying of preferred cargoes. What it is seeking is that those cargoes on which the absolute gap between freight earnings and handling costs are highest and to carry as much as possible of its allowed tonnage in the form of such cargoes. In such a situation the more efficient line with its efficiency is assumed to affect all their operations including cargo booking and will earn more profits than the less efficient lines in the pool.

A revenue pool is somewhat more complicated. At its the simplest, each line may pay into the pool the total revenue earned. More commonly, however, it will pay into the pool the total revenue earned, minus a fixed allowance per ton of cargo carried. The fixed allowance will generally be calculated so as to leave to each line the financial incentive to provide a service to shippers by lifting all the cargo available for any sailing. The most efficient line will get a greater share of these cargoes, leaving the least efficient line with the cargo where the percentage of the handling costs is relatively high in relation to the freight rate.

In the combined cargo revenue pool, the most likely provision is the pool on all other cargo carried would be allowed to deduct a fixed amount to cover handling costs before paying in the remainder of the revenue to the pool.

The fixed amount, if it constitutes an incentive to the shipowner to provide a proper service, needs to be in excess of the cost of handling. It should be noted that deliberate and avoidable over-carrying may lead to the line being fined by the pool.

The question inevitably arises as to what is the effect of the different types of pool on the efficiency of the member lines of the conferences and on the services provided to the shippers.

Under the quota system there is no mechanism by which an inefficient line is compensated for its higher costs and by its presumed inability to secure the best paying cargo. Such a line enjoys protection in the sense that it is assured of a certain level of earning from carrying of that cargo.

In the revenue pool the protection of inefficient lines is very much greater, its payment into the pool depends upon its own gross earnings and if it is inefficient it may be presumed that the gross earnings will be below those of the more efficient lines. However, it then receives from the pool as a whole and this gains some advantages from the efficiency of the members(*).

(*). UNCTAD; The Liner Conference System, TD/B/C.4/62, P.102

The cargo/revenue pool is a combination of the other two types as regards its effect on the efficiency of the operations.

There is a greater degree of protection to the inefficient line than the quota system, but a greater incentive to the efficient line than in either the quota system or the revenue pool. The penalties for the inefficient line are smaller than under the quota system, but the protection to its inefficiency is also less than the revenue pool.

In terms of services to shippers there is probably not a great deal to choose between the various types of pool. One aim of the pool is to prevent overcapacity. There may be some tendency under the quota system for low-rated cargoes to be shut-out by the best lines and to be left to the least efficient lines to carry but this will only occur any market when the low rated cargoes are difficult to stow.

In the revenue pool there may be similar bias against difficult cargoes by the better lines and such cargoes will be then left to the least efficient lines. However, in practice the difference between these two is minimal.

The idea of the combined cargo/revenue pool should succeed in eliminating the difference altogether. On the basis of the above analysis it appears that in the short run it makes very little difference what sort of pool is in operation.

LONG RUN.

In the long run, there may be a significant difference between the effects of the quota system and the revenue pool, respectively.

It appears that the revenue pool, because of the protection which it gives to the inefficient line through the shortage out of the total receipts of the pool, reduces the competitive pressures on the least efficient line to move out of the trade, thus limiting the opportunities for the more efficient line to expand. Thus, if, as is normally the case, service to shippers is a direct function of the efficiency of the lines operating in the trade. In the long run the revenue pool, by protecting the inefficient lines appears to jeopardize, the interest of the shippers. Therefore, the quota system seems to be preferred to the revenue pool.

Before the UN Code of Conduct for Liner Conferences, the Conference through its various committees and sub-committees administered its own rules, subject only to its own internal system of checking and controlling to ensure that the job was correctly done in accordance with these rules. While in general terms, it is well known what is meant by a pool, the word does cover a large range of different situations, and the way in which the 40: 40: 20 of the Liner Code of Conduct rules are administered will be different depending on which concept of a pool is adopted.

In the case of the combined cargo/revenue pool, the protection given to the inefficient lines is less than afforded by the straight revenue pool(*).

Further, the combined cargo/revenue pool directs the attention of the conference both to the abilities of the lines to obtain cargo and the revenue which they have earned, and so introduces the possibility that the conferences would be more ready to reduce the shares of the inefficient lines. When the pool shares are renegotiated then it might be of the other situation, i.e. short run.

4.6. THE ADVANTAGE AND DISADVANTAGE OF A POOLING SYSTEM.

When pooling is introduced in a trade, the trade is no longer served by lines on individual basis. Instead, a comprehensive coordination of services by conference lines is at the disposal of the trade.

It is argued by the conferences that pooling enables them to provide adequate space to meet the trade's normal requirements with proper frequency of service, with the avoidance of possible wastage through duplication of service and unnecessary ports of calls, thus enabling them to maintain freight rates at reasonable levels.

It is further maintained by conferences that if the advantages of the pool are appreciated and the trade cooperate by making the best use of a service, it would result in the mutual benefit to all.

(*) UNCTAD; The Liner Conference System, TD/B/C.4/62/1970
P.104

On the basis of the above analysis, it appears that proper pooling arrangements should result in the following advantages to shippers(*):-

- 1) Reliable assessment of the existing and potential demand for space leading to better coverage of shippers' space requirements;

2) Planning of shipments:-

Efficient scheduling of vessel and determination of advanced sailing programmes will help shippers plan their shipments;

3) Close liaison with shippers:-

Particularly to assess their space requirements, leading to a better coordination between supply and demand for space;

4) Operation of vessels:-

Economies in the operation of vessels of the pool members should result in lower freight rates than in the absence of a pool and also improve coverage of less remunerative ports and for less attractive cargoes.

(*). UNCTAD; The Liner Conference System,
TD/B/C.4/62/1970, P.105

DISADVANTAGES:-

1) Reduction of conference services:-

With the introduction of pooling arrangements, shippers have complained that frequency of conference services have been reduced. This applies mainly to attractive ports where, in the absence of a pool there is greater competition among the conference members;

2) Restriction of choice of ships:-

Pooling reduces the liberty of the shippers to pick those shipping lines which are most efficient and provide the best services;

3) Extra handling and storage cost:-

It is also argued that a carrier may refuse to accept cargo if it will lead to overcarrying causing the shipper to wait for the next available vessels which may result in extra handling and storage costs;

4) Deterioration of conferences services:-

Pooling arrangements, which in effect should eliminate all rate and space competition between members, may cause the quality of conference services to deteriorate because pool lines acquire a sense of security in their business leading to an attitude of indifference towards the shippers;

5) Benefits of economies achieved:-

It is pointed out by shippers that there is no method by which they can verify the benefits of economies achieved through the rationalisation of services by pooling which are passed on to them in the form of lower rate levels.

4-7. CONCLUSION.

- 1) If pooling is to work satisfactorily to the benefits of both shippers and shipowners, cooperation and consultations are needed. A weekly organised pool without cargo forecast provides limited advantages to shippers and may very well lead to major disadvantages of the forms already discussed;
- 2) There should be full consultation between shippers and shipowners before a pool is formed and at all stages of the trade.

It is also to be noted that if the pool organization is weak due to lack of consultation, then the possibility of lines acquiring a sense of security which leads to complacency and indifference is greatly reduced;

- 3) If a pool is strongly and efficiently organized the advantages to all concerned are maximised. But no matter how much consultation there is between shippers, the uncertainties of both agricultural, industrial and commercial activities, on the one hand, and transport, on the other, inevitably means that sometimes ships will not be available when needed. The more effective the pool is in eliminating excess capacity, the more likely that, it will not have the capacity to cope with effects of sudden changes in the demand for shipping space;
- 4) The purpose of pooling agreement as is to return regularly to the trade and obtain maximum cargo for each member limiting competition to a minimum. On the other hand, it will develop stagnation and monopolistic practices. The only feasible solution to such a situation is to limit the duration of the pooling arrangement to a specific period of time, long enough to cure the trade but short enough to avoid the spread of abuses and regression.
- 5) Pooling arrangements should be aimed at reducing such malpractices as secret rebates and rate-cutting because earnings could be shared;
- 6) Pools should be looked at in the right perspective. If they prevent malpractices, secure regular service, and ensure rationalization of sailing, they should be allowed to exist until they reach their goal.

- 7) Pooling arrangements participated by the lines of the developing countries should be framed on the joint ventures, on the basis of the Liner Code of Conduct. To strengthen the position of the developing countries, the Code must be revised to include cargo sharing the entire liner cargo and not only the conference cargo.

CHAPTER V .

PORT OPERATION AND PRODUCTIVITY .

5.1. THE SHIP OPERATION (CONVENTIONAL SHIPS).

The four component stages of the berth operation in a port, which are a closely linked chain of activities can be divided into:-

- 1) The ship operation;
- 2) The quay transfer operation;
- 3) The storage operation; and
- 4) The receipt/delivery operation.

Each operation has its own importance in achieving efficient port operations in an integrated manner, but because of its dominant role in the berth system parts, I will concentrate on the ship operation, the transfer of cargo between the ship and the shore. This is because, whatever its route throughout the port, every item of cargo must pass through the ship operation twice, in fact once for loading and once for discharging. The speed of operation inevitably controls the rate of operations of all other components of the berth operation. So poor planning and poor supervision of ship loading and discharging soon becomes apparent. Low berth throughput and high cargo handling costs will be unavoidable.

Clearly then, a sound understanding of the problems of management of the ship operation is going to be essential for any port management.

Although the ship operation is really a continuous process, it is convenient to think of it as a sequence of activities. For cargo discharging the stages are:-

- 1) Preparation of and hooking of cargo in the hold ;
- 2) Lifting of the cargo to the quay ;
- 3) Landing of cargo and unhooking;
- 4) Return of the hook to the hold, ready for the next lift.

Because the sequence is repeated again and again, it is often referred to as the hook cycle. The first stage involves the breaking down of the cargo stacks in their stowage position in the hold, moving each piece by hand or machine to the hatch square or other convenient points, making up the set there on pallets, nets or slings or other stevedoring gear, and then attaching the set to the crane or derrick hook ready for discharge. This stage itself consists of a series of activities which must be organised properly and in the correct sequence if the hook cycle is to be performed well.

The second stage in the discharge operation is the hook transfer, where the set is lifted from the hatch square by the derrick or the crane hook, out of the hold, and swung overside towards the quay.

Safety is obviously a key consideration in this stage, where the hook must never be overloaded so that personal injuries and damages to cargo are avoided.

The third stage is the cargo release where the quay gang carefully guides the set so that it is safely landed on the quay. The fourth and final stage in the hook cycle is the hook return where the hook is returned to the hold as quickly as possible ready for lifting the next set.

The efficiency of the ship operation is considerably affected by the four activities of the hook cycle sequence, and if these activities of the hook cycle are not properly coordinated, then the ship operation will not proceed smoothly and efficiently, leading to:-

- 1) Frequent delays, high idle time and low berth throughput;
- 2) Poor use of the berth resources, causes ship delays and high cargo handling costs.

It is obvious that the ease and speed with which cargo can be loaded into or discharged from a vessel depends to a considerable extent on the ship itself, its design and layout, and the way it is equipped.

Based on past experience, it is in most cases true that generally in developing countries and Somalia in particular, where productivity is low, ports are usually faced with old general cargo vessels, with small hatchways, making it difficult to manoeuvre large hook loads.

The hatches and deck openings are secured by beams, hatchboards, tarpaulins and battens. The tween decks have low head heights, no lighting and are obstructed by pillars. There are raised hatch coamings and other obstructions which make it difficult or impossible to use mechanical handling equipment. Handling large and bulky cargoes is always slow and laborious in these cramped, confined, poorly lit and badly designed spaces.

Design features of this type will increase the time needed to prepare and discharge import cargo and load and stow export cargo.

Modern ships have wide hatch openings, which give generous clearance for the hook and its cargo. They have automatic hatch covers so that labour time is not wasted in opening and closing them. Open, unobstructed below deck space with flush decking allow ready access to labour and mechanical handling equipment.

A high shift output should be expected from designs of this type provided the stowage is good. Gangs with relatively small labour supported by mechanical handling equipment can be deployed.

The pattern of loading and discharging cargo in ports reflects the structure of the trade. Vessels engaged in the general cargo trade create more operational headaches, more planning and supervisory problems, than those employed on any other trade. This is due to a number of factors which include:-

- 1) The enormous number of separate small consignments;
- 2) The varied mix of cargoes;
- 3) The capacity of the stowage;
- 4) The unreliability of sailing schedules and the unpredictability of port itineraries.

It is particularly important that terminal operators and ship's cargo officers cooperate in making proper stowage plans. This facilitates quick discharge in the port of destination and affects the ship's stability, trimming and balancing of cargo weight on either side of the ship's centre line and prevents listing to port or starboard as well as protecting cargo from damage. The characteristics of the cargo do also considerably affect ship operations. These include:-

- a) Handling properties, such as dimensions, weight, density and shape;
- b) Packing, such as drums, bags, bales, chests, crates, cartons or just loose;
- c) Marking and separation of cargo are very important as poorly marked and separated cargoes can waste an enormous amount of time when locating and preparing for discharge;

- d) The consignment size is also essentially important as scattered collection of small consignments prevent the hatch gang from making good output, and can slow down the hook cycle considerably.

Labour is particularly important in the handling of break-bulk general cargoes aboard conventional vessels. The hook cycle is still after all, essentially a labour-dominated operation, even when mechanical handling equipment is being used. The main work unit in the organizational structure of a berth is the labour gang; in the ship operation there are shipboard gangs and quay gangs. The efficiency of the operation obviously depends to a large extent on the ability of the gangs to handle the cargo safely, speedily and carefully. These are the basic skills of dockworkers. Each gang needs men with more specialist skills:-

- 1) Crane drivers;
- 2) Winchmen;
- 3) Tally clerks;
- 4) Riggers;
- 5) Equipment operators and so on.

The operation also requires men to fill the key supervisory positions.

Recruiting and selecting labour is itself a skill and important task. Each job must be analysed carefully and it must be decided what particular personal attributes are desirable to carry them out effectively.

The aim of the port management must be to keep the four activities of the hook cycle going smoothly and without delays and so enough labour must be allocated to each aspect of the operation to avoid hold-ups at any point. Manning levels must be set, therefore, to match the job in hand, according to the type of cargo being handled, the working conditions at the time, and the equipment available for handling the cargo.

Efficient use of labour resources is not simply a matter of manning levels but depends just as much on the way the men are deployed in each work area. Many of the delays to the hook in the hold or on the quayside are caused not by having too few men in the gangs but by poor deployment and poor organization of their work. It is therefore vitally important after fixing the size of the gang to cope easily with the work involved, sensible deployment of men must be made within the various stage of the operation.

The ship operation is generally referred to as the dominant one among the different berth throughput components, and in realising an efficient vessel operation, port managers and terminal operators must keep the following points in mind:-

- 1) Because slow-moving or idle hook represents cost performance that can never be recovered, the hook must be kept moving continuously;

- 2) Maximum number of hook cycles per hour with maximum safe working loads of cargo lifts must be assured in any cycle;
- 3) In order to plan and manage the ship operation effectively, port management must know the major design and construction features of each vessel calling at the port;
- 4) Port regulations must make clear provision for the discouragement of the use of older ships that can cause operational headaches and poor output;
- 5) Ship and cargo owners or their agents must provide sufficient information in good time, so that ship operations can be planned well ahead;
- 6) The management must select men with the right aptitudes for each job, and see that they are given the necessary training to do the job properly;
- 7) Manning levels must be fixed appropriately to the cargo, the working conditions, and the equipment used;
- 8) Men must be deployed properly among the various activities so as to eliminate delays;

- 9) Performance must be monitored continuously to spot signs of imbalance and immediate action should be taken as soon as they arise.

5.2. THE STORAGE OPERATION.

The storage operation, besides the vessel's operation, is the port's focal function; and in many ports assumes even greater importance as delays caused by inadequate or insufficient storage, are able to deteriorate the reputation of an otherwise well-organised port. This includes raising transport costs to owners and to the port itself. In organising the port storage it is necessary to be well informed about the different reasons for customers to require storage capacity, and these reasons may include(*):-

- a) To act as a buffer between ship discharge and delivery (for imports), and receipt of cargo and ship loading (for exports);
- b) To allow time for certain administrative formalities, such as customs clearance to be carried out.

The passage of cargo through the port storage area is referred to as the indirect route, whether in the form of covered storage or simply open area. Cargo using the indirect route normally incurs higher costs than that which follows the direct route.

(*). UNCTAD; Port Operations Manual, pp.159.

Whether storage areas are provided in the form of transit sheds or open storage depends on the amount of protection which the cargo requires.

In general, high value cargoes and those which could be damaged by the weather need shed accommodation. Most ports provide covered shed accommodation alongside all general cargo berths.

In the port of BERBERA, however, where rain is relatively rare, transit sheds are provided at only about less than one fourth of the berths, open storage areas being provided at the remainder. Whether the storage area is covered or open does not affect the principle of short term storage of cargo in ports. The words store and storage, therefore will be used interchangeably in this context, to include both transit sheds and open storage areas.

In the Somali Democratic Republic, the majority of the cargo imported by sea is breakbulk general cargo which must be moved through the port's indirect route, requiring storage facilities. Ports in Somalia do not provide long term storage and the capacity of covered storage for short term purposes in all the three major ports is limited. The actual utilization of the port's transit sheds as compared to the intrinsic capacities is highly inefficient, due to a number of reasons including poor usage of space, lack of equipment for stacking goods to the required height, longer transit time of cargo, excessive broken storage of cargo due to bad stacking, and bad planning of shed floor space. Transit time of cargo as stipulated in the present port regulations is 5 days, but it is hardly practical and the actual transit time averages at 15 days.

It is therefore possible to calculate the holding and the annual capacity of a transit shed in Mogadishu with a total floor area of 5000 sq.m. for a certain commodity having a density of 2 cubic meters, at a broken storage allowance of 40%, and a stacking height of 2 meters.

EXAMPLE:-

Holding capacity= (5000-(5000x0.4)x2/2)= 3000 Tons.

With 5 days transit time,

$$\text{annual capacity} = \frac{3000 \times 365}{5} = 219.000 \text{ Tons.}$$

Alternatively, with 15 days transit time, annual

$$\text{capacity} = \frac{300 \times 360}{30} = 73.000 \text{ Tons per annum.}$$

Among the other administrative procedures which contributed to the acute need for storage capacity include:-

- 1) Late production of importation documents;
- 2) Incorrect documentation;
- 3) Failure to pay port dues and charges;
- 4) Slow processing of documents by customs;

- 5) Failure of the shipowner to inform the consignee about the ship's arrival;
- 6) Failure to obtain bank clearance.

The use of storage capacities for a given cargo mix depends very much on the skill of the shed superintendent and the senior management. The objective of the Ports Authority to provide port storage capacity is not for revenue earning and the following points must be given thorough consideration in order to be able to use the port storage space more effectively:-

- 1) A systematic shed layout with clearly defined bays and gangways must be made;
- 2) There must be well-defined rules for how high and how carefully to stack cargo and under what conditions;
- 3) A simple but disciplined consignment location system must be adopted;
- 4) There must be good handling and stacking equipment;
- 5) There must be a labour force sufficient to keep up with the quayside operations, including making sure that movement of cargo is never slowed down for lack of tallymen or sorters;

- 6) Shed planning must take account of the widely varying cargo characteristics, and careful control of shifting, sorting and consolidation of cargo must be made as delivery proceeds;
- 7) Cargo in transit time in the port storage must be clearly defined both in the customs law and port regulations with very strict adherence to its practice;
- 8) Communication between the ports authority, shippers, consignees, forwarders and the customs must be improved so that delays are minimised and the need for storage space is kept minimal;
- 9) Consignees must take advantage of the rebate payment made by the Ports Authority (10%) to cargoes moved in the direct route.

5.3. RECEIPT/DELIVERY OPERATION.

The Receipt/Delivery operation is the final part of the four sequences of activities in berth operations, where the maritime and inland transport systems meet. It is the vital link between the port and the importers and exporters in the hinterland. Exactly where the operation takes place depends on the route that the cargo follows through the port(*).

(*) UNCTAD; IPP 1, pp.1

For directly routed cargo, the Receipt and Delivery operation occurs on the quayside, under the hook, while for indirectly routed cargo it takes place in the open storage yards or covered storage areas of the port. The Receipt/Delivery operation might seem a simple and unimportant compared to other berth systems (e.g., ship operation) but it really has an extremely significant influence on other berth activities.

In the case of directly routed cargo, the effect is directly on the ship operation itself, while for indirect routed cargo, the Receipt/Delivery operation affects the flow of cargo into and out of storage quite seriously, and if badly planned and managed, can greatly interfere with other berth activities.

What really makes the Receipt/Delivery operation difficult to control is the fact that its performance depends so heavily on the actions of individuals and organizations outside the port, and not under the direct control of the port management.

Whether cargo follows the direct or the indirect route through the port, the Receipt/Delivery operation consists of a sequence of three activities, and the elements of the operation, are basically the same whether dealing with road vehicles, rail wagons, barges or coastal vessels. The activities can be summarised as(*):-

- a) Positioning;
- b) Loading/unloading;
- c) and dispatch.

(*). UNCTAD; IPPI; pp.1

The effects of poor management of the Receipt/Delivery operation show up too clearly and frequently in ports. Traffic congestion is a common occurrence, vehicles clogging up entrances or parking all over the place in operational areas, and even on the quay itself. Vehicles may hang around for hours or even days waiting for cargo to be loaded or discharged. At the other extreme, cargo may be found piling up on the quay and hooks hanging idle, waiting for vehicles to arrive. The port management must be able to work out the cause and effect and should try to find the solution.

All these problems, and others, lead to a terrible waste of resources, adding not only to berth costs but also, of course, to inland transport costs and, eventually, to the costs of the nations trade.

Although it may not always be a matter of poor port management, there is a great deal that can be done to improve the Receipt/Delivery operation and as a result, the port management must take the following recommendations into consideration:-

- 1) Arrival and departure of transport in the port must be effectively regulated;
- 2) Movement of transport to and from handling bays and delivery points in the port must be strictly controlled;
- 3) Labour and equipment must be sensibly allocated to meet demand at delivery and reception points in the port;

(*). UNCTAD; IPPI, pp.5

- 4) All documentary and administrative procedures connected with the operation must be coordinated carefully;
- 5) Port management must take responsibility to liaise with transport operators to ensure that vehicles and wagons arrive at the port at the right time and in the right order.

5.4. THE RESTRUCTURED PORT TARIFF.

After a series of public hearings with executives of shipping companies and other port users in connection with the Somali Ports Authority's new set of port charges, the SPA has finally come out with the Regulation No. WGBD/XW/7/77/87, stipulating revised ship dues and cargo rates.

The above mentioned regulation was approved by the Minister of Marine Transport and Ports after he recognised the urgent need to issue tariff regulations for the Somali Ports Authority, with the aim of achieving its objective of being economically self-sufficient. He also considered the National Economic Policy and the unstable exchange rate of international currencies. The tariff regulation has been in effect since 15th January, 1985.

A port tariff refers to the charge being collected by the SPA for the use of the premises, work, appliances, facilities, or the services provided by or belonging to SPA or any other organisation concerned with port operations.

It is classified into those charged against a vessels, (like harbour fees, tonnage dues and berthing charges) and those charged against cargo, (like wharfage dues, storage charges), passing through the major Somali Ports of Mogadishu, Berber and Kismayo.

The tariff restrucsture was nescessary for Somali Ports Authority to:-

- 1) Increase earnings due to new investment;
- 2) Achieve reasonable rate of return from its assets;
- 3) Contribute to national development projects;
- 4) Achieve its objectives which are to be economically self-sufficient. ✓

The restructured charges were applied uniformly through the major Somali ports. Before the tariff restructuring was made, ships and cargo charges were based on the following rules(*)-

- 1) Cargo charges were based on weight or volume whichever was greater;
- 2) The lowest chargeable unit was quintal (100 kg) ;
- 3) All ship charges were payable in US Dollars through the Somali Shipping Agency and Line;

(*). Somali Ports Tariff, 1985; pp.2

- 4) All port charges were significantly low in real terms from 1982 to 1984.

As mentioned in Chapter II, Article 1 of the regulation No. WGBD/XW/7/77/85, the charges are as follows(*):-

- 1) All cargo charges in this tariff where the basis is on deadweight, shall be raised in units of 1000 kg (ton) or part thereof;
- 2) Any fraction of a ton will be treated as whole number-ton-which is the lowest chargeable unit;
- 3) All ship charges are payable in US dollars only and directly to the Somali Ports Authority instead of the Somali Shipping Agency and Line;
- 4) All ship charges are based on the N.R.T. of the ship, except pilotage and berth occupancy which are on the G.R.T. and the length overall (L.O.A.) of the ship, respectively.

To restructure the fees and charges, SPA consolidated most of the varied bases into common ones and merged the differentiated rates into common rates without sacrificing revenue. It re-ensured that the proposed fees would be equivalent to existing charges revenue wise, aside from providing funds for administrative and operating port development projects.

Somali Port Tariff; 1985, pp.2

Although the above rate is the case in port tariffs in Somalia, there is still a need to reorganize it further.

The ports are competing with the other ports within the region and therefore it would be necessary :-

- 1) To consider the adequacy of fees in comparison with other neighbouring ports like Mombasa, Aden and Djibouti;
- 2) To review the tariff levels at regular intervals of 2 years rather than huge increase once after long periods;
- 3) To change the berth occupancy charges which is based on (L. O.A.) to G.R.T. ;
- 4) To change all ship charges which are based on N.R.T.to be like the pilotage charges, which are based on G.R.T.;
- 5) To reduce the number of documents which relate to the consignment to facilitate delivery of goods;
- 6) To consider that fee levels should be sufficient to cover the amortization cost of port rehabilitation and extension.

CHAPTER VII

CONCLUSION AND RECOMMENDATIONS

The aim of this chapter is to high light all the recom-
mendations and the conclusion of the auththor.

It was indicated in Chapter 1 that the functions of the
maritime administration in a country can be vested in one
or more governmental agencies, or certain maritime func-
tions can be delegated to private entities.

In general, there is a responsible ministry or department
in a country which deals with policies on different modes
of transportation (air, land, rail and sea), and on
policies on communications (mails, telephone, telecom-
munications, cable) and ports. The day to day function
of the ministry (or department) is policy making, super-
vision, and administration.

In Somalia, there is a Ministry of Marine Transport and
Ports. As the name suggests, its main functions include
direction, planning, promotion, controlling and coordi-
nation of ports and shipping activities. It is also res-
ponsible for, issuance and promulgation of rules and re-
gulations on fees, dues, and charges in ports and freight
rates for shipping services. There are other offices or
directorates under the Ministry in charge of safety, na-
vigation, registration and licensing of ships and sea-
farers. The Somali Ports Authority (SPA) is, under the
general supervision of the Ministry, in charge of the
administration, development, management, and operation of
the ports, or port districts for the entire country.

In the light of the above observations, and on the basis of the experience of other maritime countries with a long tradition in shipping, the maritime functions of a maritime administration of a country, in so far as the Somali maritime administration is concerned, can be regulatory and developmental.

Under the regulatory functions of the maritime administration of Somalia or other developing countries, the following aspects must be embodied in a Maritime Legislation. This legislation may be called the Merchant Shipping Act or Decree, and its rules and regulations. The scope of such maritime legislation shall cover the following important subjects:-

- 1) Registration of ships;
- 2) Manning of ships;
- 3) Crew matters;
- 4) Safety of Life at Sea;
- 5) Marine Environment Protection;
- 6) Wreck and Salvage;
- 7) Marine Inquiries/Investigations into Marine Casualties;

Under the developmental or maritime promotion functions of the maritime administration, the following important topics or interests must be embodied in the merchant shipping legislation:-

- 1) Implementation of the UNCTAD Liner Code;
- 2) Coastal trade reservattion (cabotage);
- 3) Trade licensing of ships;
- 4) Cargo reservation or cargo preferences;
- 5) Rationalization of freight rates;
- 6) Optimum utilization of national ships in the carriage of the country's foreign trade;
- 7) Development planning;
- 8) Coordination, liaison and monitoring.

Recognizing the developmental funcation of the maritime administration, the Somali government established in 1972 a national shipping line to cary a substantial share in the livestock trade of the country, generate foreign exchange, and to create competent reservoir of manpower. This study had given some insights on how a national shipping line may succeed.

The following recommendations on improving the national shipping line of the country may be considered by the highest authorities:-

- a) Reconsideration is to be given to the general framework of the national economic policy as to give national shipping a higher priority;
- b) Review of the existing trade rules and regulations;
- c) Creation of national shipping fleet on joint venture agreement with multinational shipping companies under a favourable and equitable basis. One of the main aims of this joint venture arrangement is the transfer of technology and spread of capital risk;
- d) Reorganization and encouragement of the traditional "dhow" trade by private nationals;
- e) Creation of favourable climate to enable the domestic shipping to compete with the presently dominant land mode of transport;
- f) Creation and development of international coastal shipping in cooperation with neighbouring states;
- g) To obtain export cargo for national and foreign shipowners and/or operators to which it acts as agent or freight forwarders;

- h) To provide food, provisions and other necessities for ships calling at the ports;
- i) To perform such other services as are necessary for the efficient operation of the shipping services in the country.

As a whole, the areas affected within the areas of maritime activities are: the ownership, registration, management, operation and upkeep and maintenance of national shipping fleet and also other related maritime activities such shiprepairing, drydocking, port operations and maritime training.

As indicated in Chapter I, there is need for additional aids to navigation such as leading lights, beacons radio, and electronic equipment. With new equipment and new technology, there is need for improving the following areas:-

- 1) Employment of lighthouse keepers with sufficient and relevant educational background;
- 2) The establishment of modest maintenance workshops at regional centers which will undertake coordinative activities of light-houses located in remote districts;
- 3) Provision for telecommunication facilities in districts to allow rapid exchange of information in remote districts;

- 4) Provision of transportation facilities for both men and material at regional centres.
- 5) To introduce new system of levying on ships calling to Somali ports;
- 6) It is inevitable for vessels both coastal and deep sea ships calling at Somali Ports to pay conservancy charges for light and buoy facilities;
- 7) To allocate considerable sums of money in the annual budget for the maintenance of the equipment.

One of the major areas affecting the profitability and effectiveness of any shipping business enterprise today is safety. The lack of a good workable safety program can rob a shipping company of its profits just as quickly and certainly as an armed band of criminals carrying out the profits in canvas bags. This loss begins with the ship crew's payment of insurance premiums to cover job-related injuries and accident-damaged or destroyed equipment and vessel structures. These premium costs are directly tied to the frequency and extent of claims for such injuries and damages. A good safety and loss-prevention program on board ships can result in the saving of millions of dollars.

In planning safety a good place to start is by studying the regulations promulgated by the state maritime safety and health authorities, in compliance with national occupational safety and health acts. If a safety plan is to be implemented on board ships, to be sure that it is effectively executed means starting by involving everyone that will be affected by the plan and finding ways to motivate all concerned. This motivation and involvement must begin with the establishment of rules and regulations by management which must be complied by all ship board personnel, management and labour, with enforcement responsibilities given to middle management and supervisory personnel on board vessels.

The rules must address themselves to the conduct of all seafarers while at their work place; the wearing of safety devices and protective clothing, maintenance schedules for equipment, observance of good housekeeping procedures, safe operation of machinery and devices used in navigating the ship safely; and disciplinary action for violations as well as establishing procedures for reporting safety violations or observed hazards. Once prepared, these rules must be incorporated into the general work rules of the shipping company.

Training sessions must be initiated for all levels of seafarers, emphasising the importance of safety to the individual, not only for his own physical safety but also how safety relates to the stability of the ship and company and in turn to crew's own job stability and security.

Once the crew's education and training on the importance of marine safety has been accomplished, the next step in implementing a safety program is to provide a constant and total awareness of the importance of initiating and maintaining good safety habits.

In order to achieve meaningful objectives of maritime safety, in an industry which is truly international in character, the government needs to adopt and ratify the relevant international conventions for maritime safety and efficiency of navigation, under the auspices of the newly created maritime safety administration with different types of surveyors, engineering, nautical, electrical, dangerous goods, examiners, administrators and casualties investigators. These conventions include:-

- 1) The International Convention for the Safety of Life at Sea (SOLAS 1974), as modified by Protocol of 1978 and amended in 1981 aiming at specifying internationally acceptable minimum safety standards for the design, construction, equipment and operation of merchant ships;
- 2) The International Convention on Load Line 1966, which deals with establishing uniform principles and rules with respect to the limit to which ships on international voyages may be loaded;

- 3) The International Convention for standards of training certification and watchkeeping of seafares 1978, which deals with crew rather than ships.

Marine Pollution may be defined as the introduction by man, directly or indirectly, of substances or energy into the marine environment resulting in such deleterious effects as harm to living resources, hazard to human health, hindrance to marine activities including, fishing, impairing of quality for use of sea water, and reduction of amenities.

In the Somali Democratic Republic, there is considerable shipping, fishing and oil exploration carried out in its internal and territorial waters and its exclusive economic zone, and the quantities of oil handled in the ports warrant the need for drawing up contingency plan to control and combat pollution from ships.

As a result the revised maritime code must make provisions for the protection of marine environment, and the government must adopt and ratify the following:-

- 1) The International Convention for the Prevention of Pollution from ships 1974 as modified by Protocol of 1978 relating thereto;
- 2) The International Convention for the Establishment of an International Fund for the Compensation of Oil Pollution Damages 1971;

- 3) The International Maritime Dangerous Goods Code (IMDG), the IMO Recommendations on handling and storage of Dangerous Goods in ports, the Code of Safe Practice of Solid Bulk Cargoes and the Bulk Chemical Code must all be adopted into the National Maritime Code and Port regulations; to prevent the pollution of the sea by oil and other harmful substances.

Shipping being a capital intensive industry with relatively high risk, not only large capital is needed for the acquisition of ships but also a considerable amount for maintenance and repair cost.

The policies and sources of ship finance market conditions differ greatly according to the changes in capital market conditions, and the change in the shipping market.

For developing countries, the basic policies for banks towards the loan risks are different. Not only some banks prefer to remain conservative, but also due to legal restrictions, there is a limitation of amounts that can be lent to a shipping company based on the debt-equity ratio, loyalty to their borrowers as in their readiness to stand-by these customers.

It is therefore recommended that developing countries should give thorough consideration to the followings in financing their shipping industry:-

- 1) Development of a special maritime development fund of national ship building industry through loans and subsidies;
- 2) Enactment of appropriate maritime legislation;
- 3) Institution of a ship register and appropriate maritime administration with a view to facilitate easy access to ship finance in foreign markets;
- 4) In order to facilitate transfer of technology and experience in the field of both vessel operation and fleet administration, shipping companies of developing countries must consider the establishment of Joint ventures or similar arrangements with shipping companies of developed countries.

In the field of Liner Shipping, Liner Conferences, which are international cartels among shipping operators and intended to help stabilize trades have been in existence since the 19th century, and the principles of free circulation of shipping has traditionally been recognised in the international marine transport market.

With the exception of the U.S. and a few other developed countries, governments have rarely intervened in the affairs of Liner Conferences.

As a consequence, many of them in the past were close, and many developing nations were dissatisfied with the situation of liner conferences because shipping companies of those countries were sometimes refused admission to conferences even on their own national trade routes. It was against this background that developing nations posed increasing demands for the admission of their shipping companies into liner conference which serve their foreign trade to promote their own marcantile marine and for the institution of rules providing for consultation between conference and their national shippers.

As a compromise between developoing and developed nations, the conference of plenipotentiaries on a code of conduct for Liner conferences, had adopted the Convention on a Code of Conduct for Liner Conferences in 1974.

The contents of the convention of a Code of Conduct for Liner Conferences primarily include:-

- 1) Formulation of the qualifications of shipping lines for admission into liner conferences to open the door to the national shipping lines of mutually trading nations as long as they have sufficient capabilities;
- 2) Formulation of a guidelines to be observed in determining shares in pooling arrangements or the like among the member lines of conference of mutually trading countries 40: 40 basis and a significant share, such as 20 percent for the third country shipping lines;

- 3) Provision for more appropriate and harmonious relationships between liner conferences and shippers with respect the management of Liner Conferences, including stipulation for consultations concerning general rate increases and other matters of common concern to conferences and shippers, and
- 4) Introduction of mandatory international conciliation procedures for the settlement of disputes;

The convention has been in force since 1983, and although developing countries attach great importance to it, its practical implementation has weakened by the followings:-

- a) The convention cover only Liner Conference cargo and is not concerned with non-conference liner cargo and bulk trade, and that is where developing countries demand further modification;
- b) The reservation of the EEC Countries (Brussels Package) regarding the implementation of the convention;
- c) The continuous rejection of the United States to the Convention on a Code of Conduct for Liner Conferences.

In bringing greater efficiency into the port operations, the port management must spare no efforts to utilize all available resources more effectively. In achieving this endeavour of objectives, the port administration should keep the followings points in mind:-

- a) Port operations must be well planned so that all the berth system parts are properly coordinated;
- b) Loading and discharging of ships in ports must be highly productive and safe;
- c) The port management must have thorough knowledge of the design features of all vessels calling at ports so that badly constructed ships do not pose operational headaches to the port;
- d) Proper cooperation must be made between port administration and port users;
- e) Port management must select men with the right aptitudes for each job, and see that they are properly trained;
- f) Manning levels of longshoremen gangs must be fixed appropriately to the cargo, working conditions, and the equipment used;
- g) A systematic shed layout with clearly defined bays and gangways must be made;

- h) Port regulations must clearly and adequately stipulate port storage procedures, and practice;
- i) Cargo transit time in the ports must be reduced from the present level;
- j) Storage charges of cargo in the port's storage space must be increased to reflect penalty on slow deliveries;
- k) All documentary and administrative procedures connected with port operations must be coordinated carefully;
- l) Working hours of port operations, customs authorities and inland transport operators must be closely coordinated so that development of bottlenecks in any one stage of the operation is avoided;
- m) Port tariffs must be reviewed and revised in appropriate intervals of time so that port's financial position is not jeopardised;
- n) Port charges must be comparable to those of neighbouring ports within the region;
- o) Ship dues and cargo rates must be related to appropriate paying port units (e.g. GRT, DWT, volume, advalorem etc), so that port services always yield adequate funds for ensuring efficient port operating facilities;

In conclusion, in this study, I have attempted to examine the maritime environment of Somalia, firstly, with an assesment of external environment, and secondly the impact of changes on the internal maritime environment.

In so doing an attempt was made to evaluate the strategic, administrative and operational aspects in the maritime administration. With respect to external maritime environment I have concluded that the competitive characteristic of the liner industry of the developing countries mainly depends on the amount of cooperation between less developed nations and the effective implementation of the Convention on a Code of Conduct for the Liner Conferances.

It is estimated that important changes in the maritime transport industry may occur in the foreseeable future. These changes will continue to increase the risks attached to ship financing and port investment in so far as, newer requirement criteria will have to be met without an assurance of stable world economy.

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