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*World Maritime University*

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**WORLD MARITIME UNIVERSITY**

Malmö, Sweden

***THE NEED TO REVITALISE AND RE-ESTABLISH  
A SHORT SEA SHIPPING IN MOZAMBIQUE:  
Its implications for maritime sector development, training and  
employment***

By

**PLÍNIO ÂNGELO TSEVETE  
MOZAMBIQUE**

A dissertation submitted to the World Maritime University in partial  
fulfilment of the requirements for the award of the degree of

**MASTER OF SCIENCE**

in

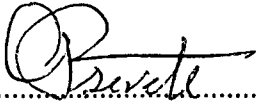
**MARITIME EDUCATION AND TRAINING  
(NAUTICAL)**

1997

## DECLARATION

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

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

  
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## DEDICATION

I HAVE DEDICATED THIS DISSERTATION TO:

My family,

To the memory of my mother, Helena, and to my father, Alberto, both of whom lovingly taught me the true value of studying.

To my brothers and my sister:

Rui, Paulina, Carlos and João,  
who supported me with love and incredible patience.

To my cousins and their sons:

Ana Maria, Adolfo, Yorene, Sidney and Leovegildo  
for their unlimited support.

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Specially, I would like to express my sincere gratitude to my Course Professor, Peter M. Muirhead, for his guidance as well as counselling throughout my two-year course.

At the same time, I would like to extend my gratitude to my supervisor, Professor David J. Mottram, who made himself available to me at all times, and ready to discuss the improvements of this dissertation. He made all the necessary remarks and suggestions to enrich this work.

Productive discussions were held with Dr Hercules Haralambides (Erasmus University), Dr Chiris Peeters (Ruca), who advised me in various domains, and Captain Kjell Grahn (Sweden) for providing me with useful material. Grateful thanks also go to all of them.

The contribution of visiting professors, lectures, library staff, English team, particularly Lecturer Inger Battista, and staff of World Maritime University is highly appreciated.

My enrolment at WMU would not have been possible without a fellowship from the Norwegian Agency for Co-operation and Development (NORAD) through the Ministry of Transport and Communications, who extended the fellowship to Nautical School of Mozambique; for this, my deepest and sincere thanks.

To students and friends at WMU and in Malmö who made my stay in Sweden most pleasant.

Finally, to all those persons who also made my stay in Sweden homely by offering friendly assistance and guidance. Those persons have been given a special place in my thoughts even though their names have not been mentioned here.

## ABSTRACT

Title of dissertation: *The need to revitalise and re-establish short sea shipping in Mozambique: Its implications for maritime sector development, training and employment.*

Degree: MSc

The dissertation is a study of the present shipping situation in Mozambique, focusing on the coastal shipping company as an operating unit, and the industry as a whole.

A short overview is given at the shipping industry and its environment. The environment includes such things as the characteristics of the market or markets within the coastal shipping company, Navique. Its operations and the amount and type of competition it faces within these markets are investigated. Other environmental factors are the political and economic changes, which are affecting the operating procedures, the government policies and regulations. Further, the cargo carrying capacity needs and potential of the coastal trade are examined.

A number of international conventions were identified in order to determine their impact upon the Mozambican shipping industry. For Navique, the frequency of sailing's, types of services offered, personnel policies as well as the age and physical characteristics of its ships were evaluated in order to establish an effective operating environment.

A proposal for the establishment of a training programme is tackled through highlighting the effects on the overall performance of the shipping industry. Finally, proposals to adopt specific measures and actions are presented.

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## LIST OF ABBREVIATIONS

BCM	Banco Comercial de Moçambique
BIM	Banco Internacional de Moçambique
BM	Banco de Moçambique
BPD	Banco Popular de Desenvolvimento
CFM	Mozambique Ports and Railways Company
DNM	National Maritime Directorate
DPCCN	Departamento de prevenção e combate as calamidades naturais
EMANA	Estaleiros de Manutenção Naval
EMARNA	Estaleiros de Manutenção e Reparação
EMODRAGA	Mozambican Dredging Company
ENABE	Estaleiros Navais da Beira
ENM	Nautical School of Mozambique
GOM	Government of Mozambique
GPA	General Peace Agreement
IMDG Code	International Maritime Dangerous Good Code
IMF	International Monetary Fund
IMO	International Maritime Organisation
INAHINA	Hydrographic Services
ISM Code	International Safety Management Code
MARAD	Maritime Administration
MARPOL	International Convention for the Prevention of Pollution from ships
MET	Maritime Education and Training
MSC	Maritime Safety Committee
MSC	Mediterranean Shipping Company
MTC	Ministry of Transport and Communications
Navique	Mozambican Shipping Company
NORAD	Norwegian Agency for Co-operation and Development
PMA	World Food Programme
PRE	Economic Recovery Programme
SADC	Southern Africa Development Community
SAFMAR	Maritime Safety Agency
SATCC	Southern Africa Transport and Communications Commission
SMS	Safety Management System
SOLAS	Safety of Life at Sea Convention
STCW	Standards of Training, Certification and Watchkeeping
WMU	World Maritime University

## CHAPTER I

### 1. INTRODUCTION

Mozambique has historically been a preferential route for the international trade of its landlocked countries, Zimbabwe, Malawi and Swaziland, as well as the eastern part of South Africa also without access to the sea.

During the time of civil war the transport system network suffered severe damages. As a consequence, transit traffic on railway and road for domestic transport was reduced. The only way to communicate was through sea transport.

At that time, sea transport was the dominant mode which conferred to a large extent the significance of coastal shipping in the country. Furthermore, coastal shipping was operated by a state-owned company, Navique.E.E, which owns old and technically outdated ships. The development of coastal shipping did not go along with the expansion of the fleet or its renewal. The consequence, was that the company reached a point where no ships were operating.

One of the principal barriers to coastal shipping, in its efforts to adapt, be competitive and increase the national maritime industry, is the inadequate supply of people with planning skills and technical expertise in the maritime field. In addition, there is a tendency to dismiss employees who are highly educated or to transfer them to other sectors of public services, including the private sector. Other problems related to

coastal shipping comprise lack of trained personnel, penurious utilisation of the fleet and costly operations.

Surrounded by these problems, the insufficiency of a satisfactory organisation being responsible for the management of the coastal fleet is considered the most serious problem. The solution for the diverse issues is the development of an appropriate organisation.

With the end of civil war, coastal shipping is facing competition from road transport. The figures of cargo transported by sea show a dramatic decrease, from 298,702 tons in 1991 to 12,404 tons in 1996. Therefore, there is a need to revitalise and re-establish short sea shipping in Mozambique. Moreover, coastal shipping will still play a crucial role of national importance in the economic development of transportation of goods for domestic and international trades.

The author believes that there is opportunity to develop and expand the coastal shipping when operated on commercial basis. Hence, there is an urgent need for a clear and unambiguous policy for the shipping industry in Mozambique.

This dissertation is a part of the component required by WMU for the award of the MSc degree in MET; therefore, the author decided to make the present study concentrating on one field which is expected to contribute to the development of the maritime industry in the country.

As a case study, the author has concentrated his attention on coastal shipping company, Navique, in order to appropriately explain the implications for maritime sector developments in Mozambique, which calls for a policy.



## THE OBJECTIVE OF THE STUDY

Despite WMU requirements, the objective of this study is as follows:

- a) to investigate the present state of coastal shipping in an overall context of cargo and Mozambican transport needs;
- b) to examine cargo carrying capacity needs and potential of the coastal trade;
- c) to identify the present international conventions (UNCLOS, SOLAS, MARPOL and STCW) regarding their impact upon the Mozambican shipping industry;
- d) to consider options and approach for Navique be more competitive and establish an effective operating environment;
- e) to establish more effective education and training of shore-based personnel

Finally, the author considers that this is a moderate gift, at the moment, to all the efforts made in order to reverse the prevailing stagnation of the maritime sector in the country.

## METHOD OF RESEARCH

The methodology used to carry out the discussion of this study is a result of:

- a) precious lectures delivered at WMU by both illustrious resident and visiting professors;
- b) field trips to maritime institutions and industries in Germany, Norway, France, the United Kingdom and the United States of America;
- c) The author identified and contacted diverse entities, organisations and enterprises related to the shipping industry in Mozambique during the break time in December-January 1996. The data was collected on documents available in Maputo, Beira, and from diverse organisations contacted by the author located in the Netherlands, Sweden and South Africa through letters, interviews, discussions and impressions from places he visited. A library literature search

was made of recent publications, technical journals, conference papers and books covering the aspects of management, ship operations and training in the shipping industry;

- d) the antecedent academic and professional experience of the author gained prior to his enrolment at WMU, basically as a merchant marine officer, pilot, supercargo, assistant lecturer and as co-ordinator of short courses.

## DIFFICULTIES AND LIMITATIONS

During the break period the author talked to managers and people involved in diverse areas of the maritime industry in Mozambique, and was viewed with a certain degree of suspicion; a group of employees were not willing to give the information asked due to attitudes of their superiors, their own anxieties, mistrust and the need for self-protection. Some of them were resentful because they had to spend precious time with the author.

The limitations are as follows:

- a) non availability of sufficient updated materials
- b) not knowing the cargo and freight details, the author can only give some ideas on how a renewed service could be organised. However, the author believes that if there were enough data and time, this study would have been developed further.

## GAIN FROM THE STUDY

- a) better understanding of the topic and related problems;
- b) achievable solution due to experience of other countries
- c) improved personal writing skills
- d) improved knowledge on employing better evidence from many sources to analyse and reject, refine or strengthen an idea.

## EXPECTED BENEFITS

- a) the government's role and consciousness
- b) the role of the human being as foundation of maritime education
- c) implementation of the proposed suggestions at ENM

## CHAPTER II

### 2. Present shipping situation in Mozambique

#### 2.1 General characteristics of shipping

Shipping is the most international of all industries. It can be distinguished by other activities because of its own peculiar characteristics. For example, when a super tanker the “Sea Empress” recently aground in Milford Haven on 15 February 1996 the newspaper The Independent of Thursday 22 February appeared with the following title:

But who takes the blame?

Built in Spain, owned by Norwegian; registered in Cyprus; managed from Glasgow; chartered by French; crewed by Russians; flying a Liberian flag; carrying an American cargo; and pouring oil to the Welsh coast.

The example above clearly shows the main characteristics of shipping that combine a number of activities which make possible such movement of goods by sea. Shipping is an international industry to which there are fewer limitations to entry and it is one of the most free and open industries. Foremost, any operator can, independently of its nationality and place where its company is located, serve world-wide shipping services. The other means which characterise shipping are the following:

- Serve to improve trade relations
- It is a complex market system
- One of the most capital intensive cost
- One of the most interesting and dynamic of industries
- It is a risky business
- It is a vein in the transport system network

## 2.2 The shipping industry in Mozambique

If you look around any room, whether at home or in the office it is likely that almost all of the articles that you see have been transported by sea at same time or at some stage of their manufacture. Ships carry the world's natural resources and the world's finished products. Energy in the form of coal, oil and gas. Food in form of rain, cereals, and rice. Base materials such as iron-ore, bauxite, alumina, fertilisers, steels, scrap, cement; the list is almost endless. And at the other end of the manufacturing line, finished goods of all sorts from computers, washing machines, and food products are transported by ships across the oceans. (Sea.net,1996)

It can not be said that shipping is only one industry, but a number of activities which join together to make possible such process of maritime transport. The shipping industry in Mozambique is composed of various operators who carry out different but reciprocal relationship functions.

Many of the activities carried out by the shipping industry was centralised and subordinated to the Ministry of Transport and Communications (MTC). Today with the market economy policy, the government of Mozambique (GOM) has taken the decision to liberalise and commercialise its shipping industry.

Reforms and re-organisation of the national maritime directorate (DNM) are taking place in the MTC. There are national directors for different areas concerned with shipping, ports and the maritime safety agency (SAFMAR).

Below is brief description to the existing structure, due to the relevance for the purpose of this paper, as well as the author’s personal observations, wherever notable:

**The structure of the shipping industry in Mozambique**

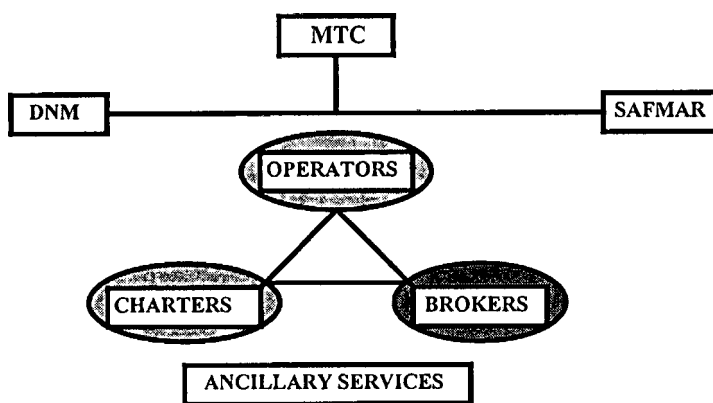


Figure 2.1 shows how the shipping industry in Mozambique is structured.

I ) The executive role of the DNM has been removed and its scope of responsibilities reduced. DNM is the central structure entitled for the exercise of maritime administration (MARAD) and has administration departments concerned with commercial aspects of ports and shipping. The role of this department is to develop a national plan for shipping and implementing

a national shipping policy. Apart from the regulatory and advisory functions concerned with maritime administration, the DNM comprises among other things the following functions:

- Formulating a strategic plan for the development of the shipping industry and implementing a transport policy approved by the government;
- Issuance of licences for shipping company operations and ships acquisition;
- Monitoring national and international freight rates;
- Examining the contribution of shipping to the national economy;
- Study, formulation and implementation of matters concerning maritime transport legislation;
- Statistics and economic planning.

A new maritime safety agency, (SAFMAR), was created by the decree law No 34/94 of September 1 because of the reduction of the executive role of DNM .

SAFMAR is a central organ subordinated to the MTC which is responsible for maritime safety, maritime inspections and maritime security. The responsibilities of SAFMAR are extended to maintenance of ship's register, register of seamen, issuance of certificates of competency and pollution control.

Later on the maritime operators and charters, who are the key players in the shipping industry, or whose action are strictly connected, are mentioned and commented.

**II ) Ports** - As mentioned earlier the decision of the GOM to commercialise and liberalise the ports has been under taken. The transformation of Mozambique Ports and Railways (CFM) into a public enterprise was motivated among other factors, by tight economic times and the decision of the GOM to adopt an open door policy.

According to the magazine, Xitimela (1996, page 48), Mozambique International Ports Services (MIPS) is a new company set up as joint venture by Mozambique Port Authority, the Rennies Group and the P&O Australian Group to manage the Maputo Port Container Terminal.

The sugar, coal and citrus terminals are allowed to be managed by the private sector as a new policy of commercialisation of such terminals. This process seems to be a step towards a decisive period in its adaptation and transformation into a contemporary and profitable device.

Ports are used for country's a internal and external trade, however, the countries of the region as well are served by this ports for their international trade.

The role played by the ports are of great importance to the transit traffic of goods being exported to or imported from landlocked countries. However, the major volume of income in foreign currency is originated by suitable transports services to Botswana, Malawi, South Africa, Swaziland, Zambia and Zimbabwe.



Mozambique is a country with a coastline of approximately 2500 Km in length, along which various ports have been established. These also provide access to the sea for landlocked countries. According to their order of importance the ports are grouped as follows, in three categories:

a) Thus international ports: Maputo , Beira and Nacala which have connections through the roads and railways which traditionally supply the transport system network to the landlocked countries (see appendix I), except for the Nacala port, which has not tide problems. Maputo and Beira can at the moment not receive the deep seagoing vessels because of siltation.

b) Regional ports: Inhambane, Quelimane and Pemba which are used for domestic trade, has connecting points to international ports for export of raw materials and agricultural products.

c) The tertiary ports supply feeder services to regional and international ports for export of agricultural products and various commodities. They are: Mocimboa da Praia, Ibo, Palma, Ilha de Moçambique, Angoche, Moma, Pebane, Macuse, Chinde and Vilanculos.

In the mean time there is rehabilitation programme for regional and tertiary ports, roads, railways and bridges in Mozambique, so called Rocs-projects. These projects are funded by the World Bank, the Nordic countries, the European Union and other developed countries.

The magazine, Xitimela (1996, page 10), refers to the President of Mozambique, Mr. J. Chissano during the inauguration of the cargo terminal in Mahotas with the following words:

One can judge the health of a country from the investments it is able to attract. The major work undertaken here allows us to feel the pulse of our economy, which is showing signs of recovery. We can say that the normalisation of the nation's life, and the resulting stimulus for a multitude of economic activities, fills us with hope for the future.

But this alone may not solve the basic problems. The senior, medium level managers and workers should be well-trained and qualified to carry out and keep the projects on going. The lack of management and training seems to be a threat to the survival of the projects.

**III ) Ancillary services** - Internally there are services which provide support to the shipping industry in the country, a description will be given of the Nautical School, Dredging Company Shipyards and Hydrographic Services (INAHINA).

**a ) The Nautical School** - In Chapter seven the author will mention the contribution to the shipping industry.

**b ) Dredging** - is the process of extracting and removing sedimentary material from harbours, marinas, navigation channels and any submerged areas where there is a need for deepening. This activity is carried out by EMODRAGA (Mozambican Dredging Company ) which has been transformed into a public enterprise. Its scope is to keep the ports dredged, to clear the ship's berth, and the

to deepen the approaches to a port over several miles for better use of the ships that call Mozambique's ports. In addition, the dredging company uses old and out-dated dredgers that can not perform the real necessities of the port users.

c ) Shipyards - There are four shipyard companies, i.e. Emaná (Estaleiros Navais de Maputo), a floating dock in Maputo, Emarna (Estaleiros de Manutenção e Reparação Naval) a graving dock that has been privatised and located in Maputo. Enabe (Estaleiros Navais da Beira) located in Beira and another in Quelimane. These shipyards are under the Ministry of Agriculture and Fisheries , and the Ministry of Industry, Commerce and Tourism. Another which was under the MTC has now been privatised. These shipyards provide repair and maintenance services to local ships, but their capacity would allow a bigger sized vessels.

d ) The maintenance of navigational aids is done by the Institute Nacional de Hidrografia (INAHINA), which is assisted by Norway and Portugal. It has established a system which covers the whole coastline. This system provides regular maintenance of buoys and light houses.

**AGENCIES** - Privatisation is the key word in the shipping operator companies at the moment. The former state-owned agencies are under privatisation, for example: Anfrena, Navinter and Mocargo.

New agencies are operating and provide services to customers. i.e., Navemar, Caravel, Mediterranean Shipping Company, and Transnática.

1.) Manica Moçambique - is a private company, which represents the main foreign lines calling the international ports in the country, Maputo, Beira and Nacala.

The main lines, which are represented by Manica are: SAECS conference lines, Mitsui OSK, Shipping Corporation of India, Indian Ocean Shipping Lines, Nippon Yusen Kaisha and Gold Star Lines. It seems to be a company with a good record in providing services for foreign companies. It means that in the development of the shipping in the country, Manica plays an important role by guaranteeing attraction of foreign lines to the country.

2.) AMI-Moçambique - it is a joint venture company between the Belgian capital and Mozambican share holders. The company has offices in Maputo and Nacala, the headquarters is located in Beira. The main activities of the AMI, are to forward cargo in transit to/from landlocked countries.

#### **Other services which are connected to the shipping industry**

Apart from the above listed agents concerned in daily ship operations, there are other activities which in one or the other way influence the shipping business. they are as following:

3.) Banks - At the moment their are state and private banks, i.e.: Banco de Moçambique (BM), Banco Comercial de Moçambique (BCM), Banco Popular de Desenvolvimento (BPD), Banco Standard Totta de Moçambique (BSTM), Banco de Fomento Exterior, Banco Internacional de Moçambique (BIM),etc. These banks can provide and issue/receive credit letters, letter of indemnity, for effects of payment of hires, pass letters of guarantee and loan to the charters.

4.) Insurance Companies - The insurance market now is open to others. There are state-owned and private companies competing in the insurance market, such as Emose, Impar. These companies have little participation in the insurance of hull and machinery, but they issue cargo insurance for example.

5.) Charters - The main charters in the country are the companies which provide food supply, for example Cogropa, Sobec, Enacomo and DPCCN (Departamento de Prevenção e Combate as calamidades Naturais), PMA (World Food Programme).

**Coastal Shipping Services** - The term “coastal shipping” is generally defined as shipping operations in the territorial waters along the national coast, but may also include operations to neighbouring countries.

The gradual withdrawal of the state from planned economy to market economy has been undertaken in the country. Central planning was abandoned, which opened the doors for liberalisation of the economy. Coastal shipping services are not an exception. The private sector is now more confident of enlarging their shares in the coastal shipping trade, while state companies and institutions often strive just to survive. They are short of money as public expenditure squeezes bits, and short of skilled personnel, as they are attracted by higher wages away from the state sector into private businesses.

As a result of commercialised and liberalised shipping activities, the GOM adopted a legislation by Decree Law No 4/96 of January. The decree states in Article 27, paragraph 1, that ‘The commercial maritime transport between national ports it is exclusively reserved to national vessels or chartered by people or national institutions’. The following paragraph 2 states that: ‘The government can define exceptions to what is stated in no 1, in the basis of social and economics interests of the country’. Therefore, there are four companies dealing with coastal services at the moment in the country. They are: Navique, Navemo, Debala Shipping and ALI Ossene Company. Each of the companies has currently different philosophies on how to operate coastal shipping.

In the next sub-section, the author will refer to Navique a company which he intends to use as case study.

**Navemo** has two chartered vessels which are involved in activities covering all Mozambique's ports. They also are canvassing cargo to and from South African ports. This company started to operate in July 1996.

**Debala Shipping Company** does not own vessels, they charter vessels when it is required to fulfil the agreement that bind the contracts negotiated with the major supplier of cargo along the coastal trade, the World Food Programme. They compete with other suppliers over the cargo from Maputo northbound.

**Ali Ossene** it is a company with two landing craft which operate along the tertiary ports to the international and regional ports.

In the near future, the Mediterranean Shipping Company (MSC) will probably enter in the coastal shipping business.

### **2.2.1 An overview and comments of the state owned company (Navique.E.E)**

For the purpose of this paper the author has chosen a state-owned company, Navique, as a case study.

With the independence of Mozambique, the owners of the companies that were operating in the coastal trade, for example Companhia Nacional de Navegação (CNN), Empresa do Limpopo A.Couto Ltd and Parceria Marítima do Xai-Xai, abandoned the country. Therefore, the absence of the owners led to the intervention by the GOM. These companies were nationalised. Resulting in the nationalisation of three companies provided by the GOM, the companies came together and formed Navique (Empresa em Formação) in 1977.

A commission was established to set up a new shipping company, which dealt strictly with coastal shipping trade. The company connected different ports along the coast. At the time of nationalisation the company owned seven ships abandoned by previous owners.

Four second hand ships were acquired by the company in Spain in 1982 and 1983 with a loan of 80% in 8 years, Gulden (1984, page 20). Other ships were donated from co-operating countries, such as, Norway, the USSR and Denmark contributing with four ships.

In 1984 the Decree Law No 3/84 established a state-owned enterprise, the so called Navique.E.E with 571 workers. Navique had monopoly over the local traffic, but not on the transit traffic. The operational independence of the company is not total and all principal decisions have to be referred to the MTC.

The company is burdened by bureaucratic government interference in daily ship operation practice. Therefore, the less profitable results in long run are caused by government interference. The management of the company is carried out by civil servants who were recruited from port or railway workers.

It should be mentioned that the key managers in the shipping industry or in marine affairs are not educated as mariners nor do they have seagoing experience.

The mariners are marginalised, and not respected in their careers. Generally the management depends on external consultants rather than the local mariners who have better knowledge of local conditions. They are failing to utilise local mariners.

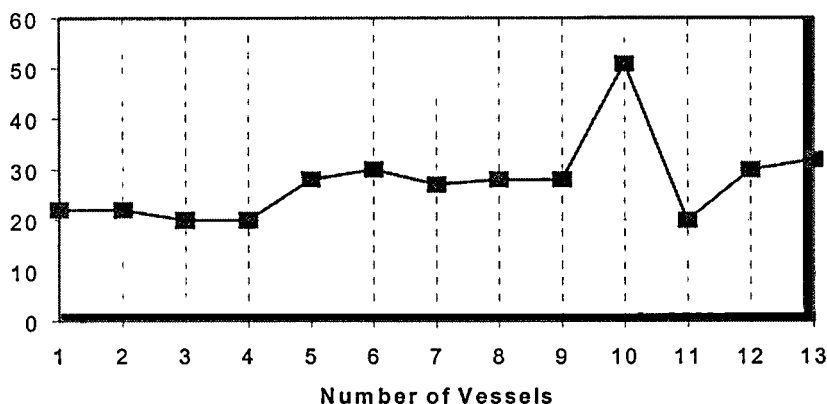
The appointment for these posts are not made with consideration to technical knowledge, but by political confidence. Bringsvaerd (1994, page 2) pointed out that knowledgeable people with broad experience in shipping have to hold top positions of - top quality management - retired politicians or rear admirals can not hold top positions if the company really wishes to serve the country, they must be competitive at an international level.

The company benefited with technical assistance supported by NORAD during the period from 1984 to 1992. This support made the company operate at full scale range along the coast and in neighbouring countries. When the technical assistance ended, the company started to decline until a level that no ship is operating at the moment.

Undoubtedly a great part of the absence of enthusiasm verified at various levels can be attributed to the level of salaries, raised cost of living and the absence of opportunities. One of the important actions, and probably also one of the most difficult to realise, is to build a spirit of enterprise culture.

From 14 vessels owned, the company reached a point where all ships are no longer in operation, without spare parts. The ships are old, out-dated and substandard. The age varies from 20 to 51 years.( see at fleet age table.1). It means that the company is bankruptcy.

**Table.1: Navique.E.E Age Fleet**



Source: Technical DPT, Navique.E.E



The author's point of view is that all ships should be sold to the scrap market for demolition. There is no reason to keep these ships along the berth side by side. Probably the ships will sink where they are and it will be very expensive and difficult to remove them unless there is a good and reasonable plan for recovery, however this will be very onerous. The assets the company owns, are the old ships, the office materials, and the people.

So the GOM took a decision by the Decree Law No 4/94 to re-structure the company by giving the possibility to celebrate a management contract programme with other companies. On the way to privatisation Navique has a management contract programme with Transinsular (Transportes Marítimos Insulares SA, Portugal) for one year, which started in July 1996. Navique and Transinsular has a lease purchasing their ship encouraging containerisation of coastal shipping. They reduced the ports of call to Maputo, Pemba and Nacala at present. The price of charter is about 5000 US\$ per day.

It can be said that the company can not depend upon other international organisations to support them forever. A much greater self-reliance than today, implying an economic policy based on a full mobilisation of all internal resources is necessary.

Preparing for privatisation the company has the task to reduce the work force. The re-dimension of the work force is taking place. From 571 workers in 1984, today the company has reduced its workers to 274, distributed as follows:

**Table 2: Distribution of Navique Manpower**

<b>Personnel Based on Shore</b>		<b>Total</b>
Office	63	
Ex.cabotage terminal	17	
Personnel of delegations	35	127
Others	11	
Foreign	1	
<b>Personnel Based at Sea</b>		
Nautical Officers	29	
Engineer Officers	34	66
Radio Officers	3	
Retired	81	
<b>Total</b>		<b>274</b>

Source: DRH,Navique.E.E

Finally, this paper focuses its main interest on shipping in Mozambique and shipping related problems. Reforms in the merchant marine sector does not mean only the change of the names of departments, companies or services, but also, and above all, on the human factor. It is necessary that better material and work conditions should be introduced to the merchant marine civil servants so that they are motivated to perform their functions.

The future of the merchant marine is at stake. The author urges the politicians, the government and the key player managers in the shipping industry to weight the consequences of not having a merchant marine in the country with a long coastline. As this would affect different sectors, such as social, economic, technical and military as well as the nation's competitive and rightful place in the world-wide oceans. The development of an internal strategy should, however, be seen within a context of an overall country.

## 2.3 Comparison of the existing transport network system of Mozambique

The existing transport network system of Mozambique is composed of road, railway and sea. Below is a description of each system regarding the conditions and the volume of cargo handled.

### a) Road Transport

As mentioned earlier the roads are under a repair program that includes tertiary ports the so called ROCs-project. This project advocates a rehabilitation of about 1800 Km in the primary roads ( approximately 35% of the paved roads).

In the road system, the principal national roads spread out from internal connections to more important cities and to neighbouring countries. The routes for international traffic between ports and neighbouring countries are pointed in the direction West-East and has principal priority to transport the goods from the interior to the ports and from the ports to the interior. The principal highways that secure international connections are as follows: Maputo-Swaziland, Maputo-South Africa, Beira-Zimbabwe, Tete-Zimbabwe, Tete-Malawi and Lichinga-Malawi. There are no good connections in direction North-South.

There are road transport enterprises which are involved in the development of a national transport network system such as:

- **Camoc** (Camionagem de Moçambique), which was in the privatisation process, had 24 trucks of 21 tons capacity, mainly horse and semi-trails combinations. Only 10 trucks were in road worthy condition.
- **Transcarga**, a private company was founded in 1991 by its associates Camoc (44%), Agricom (27%), CFM (17%) and Acauto (12%). The company operates with 42 trucks of 21 tons capacity plus two road tankers, less than half of which

(15) is road worthy. The cargo transported between 1992/95 by the road transport enterprise Transcarga Ltd was as follows:

**Table 3: Statistic of productivity of Transcarga in '000 Tons**

Year	Tons	Tons/km
1992	40,459	20.91
1993	2.898,73	1.948,40
1994	905.20	1010.80
1995	2.490,73	5962.40

Source: Transcarga Ltd and interviews by the author

- **Manica** - as a part of the South African Rannies group has its fleet of trucks
- **Transmap** - founded in 1990, runs a fleet of 18 trucks, ten of 21 tons, light of ten tons capacity.

In shipping there is an old adage: 'Never sail your ships parallel to a road'.

To support such attitude different reasons can be given:

- 1.) The most flexible mode of transport is road transport. Trucks can go straightway from the point of delivery to the point of receiver. The people involved in production and commerce can improve their services to the customers by reducing transit times which is decisive factor for the movement of money in business and competitiveness.
- 2.) Road transport is the safest mode of transport which involves less handling and hence less damage possibility to the cargo. The driver always takes care of the cargo and the truck if something goes wrong. The pilferage average is not so high.
- 3.) The cost of road transport always varies according to the distance and volume of cargo involved. However, the road conditions influence to a certain extent the cost of road transport. The cost of equipment, investment, maintenance and operations should be taken into account, when deducting the cost of road transport. In addition to that if

the cost is compared to other modes of transport, the quality transport factor is considered too.

## b) Railway transport

It can be considered that Mozambique is divided into three important corridors, which constitute ports serving the region, they are: Maputo, Beira and Nacala. The port of Maputo has three railway lines connecting Mozambique to South Africa, Swaziland and Zimbabwe. These lines serve to transport goods to and from these three countries.

The Beira corridor which has undergone the rehabilitation of the Beira-Machipanda line is adequate to the needs of Zimbabwe, Zambia, Malawi Botswana and Zaire. Another line that was supposed to transport coal from Tete, and cargo handled to Malawi is not operational at the moment.

The Nacala corridor, which connects Malawi to the port of Nacala, has other lines to the cities of Nampula and Lichinga. This corridor transports goods to these areas. The volume of cargo handled by the ports and railway lines are given below:

**Table 4: Amount handled in each Port**

PORTS	1995	1994	Difer	%TOTAL 95
Maputo	2.625'5	2.307'2	318'0	35'0
Beira	4.159'7	3.209'2	950'5	55'4
Nacala	492'1	374'4	117'7	6'6
Quelimane	160'3	237'5	-77'2	2'1
Pemba	71'1	38'9	32'2	0'9
<b>Total</b>	<b>3.110'0</b>	<b>2.626'9</b>	<b>483'1</b>	<b>100'0</b>

Source: Xitimela (20.no 1.1996)

**Table 5: Tráfego Cargas/Volume of Cargo**

LINES	1995	1994	Difer	%Total 95
Limpopo	741'7	381'4	359'8	23'8
R.Garcia	658'5	675'5	-17'0	21'2
Goba	275'0	163'5	11'5	8'8
Machipanda	953'6	904'7	48'9	30'7
Norte	141'3	95'8	45'5	4'5
<b>Total</b>	<b>3.110'0</b>	<b>2.626'9</b>	<b>483'1</b>	<b>100'0</b>

Source: Xitimela (21.no 1. 1996)

Railway transport will certainly play an important role in the East-West traffic with the neighbouring land-locked countries. A North-South railway connection for regional transport does not exist.

### C) Sea transport

The sea service is provided by four companies which has different strategic systems to perform their duties. An illustration of how Navique performed during the last ten years is given below:

**Table 6: Cargo transported in tons/from 1986 to 1996**

YEAR	PLAN	REAL
1986	272.700	248.051
1987	280.400	270.550
1988	303.000	303.970
1989	350.000	318.542
1990	345.800	305.249
1991	405.900	298.702
1992	350.000	231.414
1993	238.200	187.281
1994	155.000	83.316
1995	116.000	45.025
1996	92.000	12.404

Source: Secção de planificação e estatísticas, Navique.E.E

Mozambique's coastal service provided by the new companies during 1996 did not achieve acceptable results despite the continued pressure of competition from road transportation. The illustration below shows the productivity of coastal trade during 1996.

**Table 7: Cargo carried in the coastal trade 1996**

MONTH	CARGO TYPE	
	BREAKBULK (FREIGHT TONNES)	CONTAINERS (TEU'S)
January	66	Nil
February	346	Nil
March	4.846	Nil
April	2.829	Nil
May	1.193	Nil
June	83	Nil
July	1.473	39
August	2.300	108
September	3.333	87
October	8.978	100*
November	8.689	90*
December	6.620*	100*
<b>TOTAL</b>	<b>40.756*</b>	<b>524*</b>

Source: Interviews with shipping companies, DPT of shipping, MTC. \* Estimated

The shipping services along the coast should be competitive by offering fast and reliable services, which means that no waiting times should be accepted. For example, it is common that the ships load the cargo and then wait for some repairs, which turn the services unreliable.

Unfortunately the services rendered to the customers do not meet these requirements. The ships are old and technically out-dated; they need to be replaced. Otherwise, the very enthusiastic competitors from road transport will eventually force the older ships

out of the market. The ships must arrive at the port of destination without delays. Furthermore, operating ships with low standard requirements leads to inadequate maintenance which deteriorate even more the conditions of the ships.

As a result, this unreliable service, damages the reputation and disappearance of support from customers, such as the situation of Navique has demonstrated.

According to the studies made by the European Commission on Transport regarding short sea shipping, the arguments in favour of the transference of goods from land to sea, are considered to be the following:

- The mode of transport which is more effective in terms of energy consumption (Ton /Km);
- The mode of transport which is more effective in terms of investment/transport capacity;
- The mode of transport which is convenient to serve periphery regions...;
- The mode of transport which is environmental friendly par excellence ( statistically only 14% of maritime pollution is under ships responsibility);
- The mode of transport which is virtually free from the negative effects in society (congestion of the roads and noise)

Further, the repair work and development of national ports and internal transport network systems are commonly the previous conditions for the best utilisation of the shipping disposal capacity.



### 2.3.1 Cargo carrying capacity needs and potential of coastwise trade

As an essentially agricultural country, it is necessary to promote an efficient transport system, hence, agricultural production must be commercialised to manage financial resources.

In order to transport goods to and from a place it is necessary to have a good transport network system (Roads, Railways and Ports). The transport network system is vital to supply agriculture with required inputs and to carry agricultural products to the city areas for consumption and / or to the ports for export. The existing transport network system serves mainly the transport of goods to neighbouring countries.

With the recovery of the Mozambican economy, which is very much dependent on agricultural production, the cargo volumes transported inland as well as imports or exports will increase. Moreover, the coastal shipping services represent 10-15% of the national production (Lauridson et al. 1989, page 7) and is of significant importance as an earner of foreign currency. These cargo volumes could be transported by sea if coastal shipping services were competitive with road and railway transport.

Reference is made for the cargo forecaster to be transported in the period 1994/1998.

**Table 8: Regional and domestic traffic- Southbound 1994/1998**

1000 Tons

Total Southbound 320' Tons

FROM - TO	NACALA	QUELIMA NE	BEIRA	MAPUTO	DURBAN
PEMBA	X	X	X	10 (45)	x
NACALA	-	3(10)	6(25)	18(55)	40(100)
QUELIMA NE	-	-	2(6)	12(40)	X
BEIRA	-	-	-	9(12)	200(240)
MAPUTO	-	-	-	-	20(50)

**Table 9: Regional and domestic traffic-Northbound 1994 /1998**

**1000 Tons**

Total Northbound 247'Tons

<b>FROM- TO</b>	<b>MAPUTO</b>	<b>QUELIM ANE</b>	<b>BEIRA</b>	<b>NACALA</b>	<b>PEMBA</b>
<b>DURBAN</b>	10(30)	X	100(170)	12(50)	X
<b>MAPUTO</b>	-	54(100)	7(10)	30(759)	12(30)
<b>BEIRA</b>	-	14(14)	-	3(10)	X
<b>QUELIM ANE</b>	-	-	-	X	X
<b>NACALA</b>	-	-	-	-	3(3)

Source: Tom Bringsvagr report to GAPROMAR, 1994

-: Not applicable

**X: Potential coastal Trade**

As mentioned earlier, there is no efficient railway and road network transport system, in the direction North-South that permits, the handling of raw materials. As well as products and goods necessary for the reconstruction of the country. This traffic is dependent on maritime transport services.

Mozambique's geographic situation, which its natural maritime conditions, can haste the development of the shipping industry with a view to satisfying the maritime transport necessities if used correctly through the appropriate techniques.

#### **2.4 Why current coastwise traffic service is not effective**

The main restraint to successful development of efficient coastwise traffic service is no doubt "know how", which is lacking in the present training of staff in maritime field.

The most widely known certainly are the technical-economic possibilities and limits, but of great and increasing importance are imposed political conditions. Therefore, the coastwise service is operating under detrimental conditions. An overwhelming number of serious restrictions have delayed a good and reliable coastwise services.

The absence of efficiency and effectiveness of coastal service in the country is caused principally by inadequate means addressed to secure maritime transport, such as:

- Inadequate government sector organisation, which leads to inadequate maritime organisation;
- The absence of qualified work force of intervention in technical and managerial at all levels, and the coherent maritime transport;
- The management has met great difficulties, ranging from the poor functioning of ports and inadequate fleet, to poor capacity of ship repair;
- The shortage of foreign currency for supplying ships with spare parts, materials and workshop equipment;

In addition to the above, the shipping companies are facing particular problems .

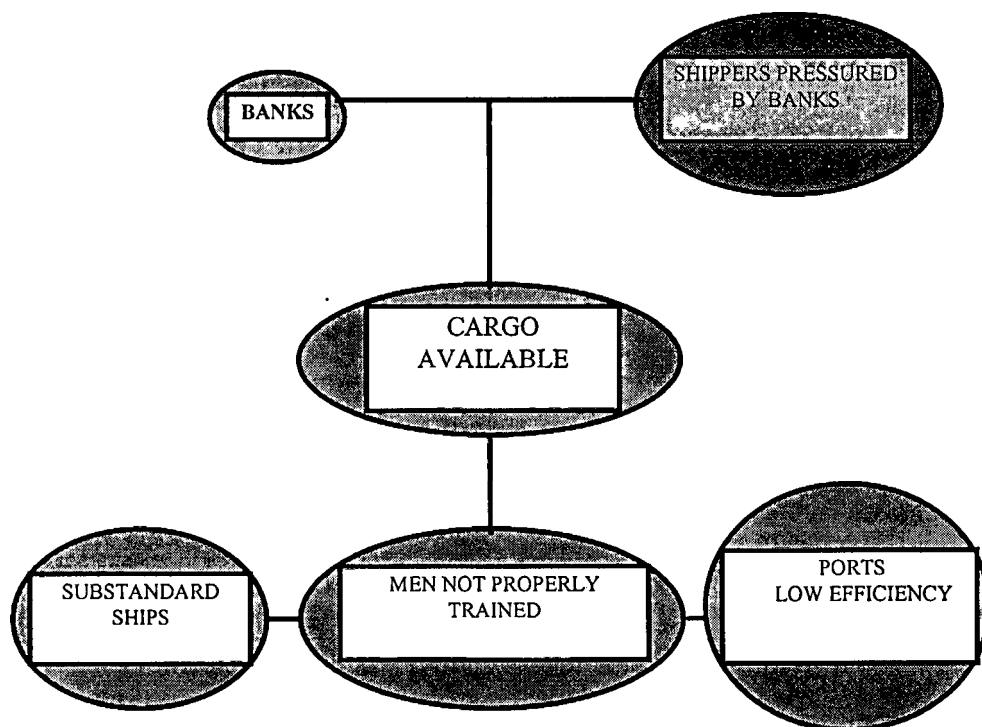


Fig: 2,2 shows particular problems the shipping companies are facing.

The shipping companies are using substandard ships and the ports have a very low rate of efficiency to handle the cargo. Therefore, the shippers are moving away from the services rendered by ships to road transport. On the one hand, the banks are putting pressure on the shippers to pay their loans on time, and on the other hand, there is a human factor which is necessary to consider because they are not properly trained and well qualified to carry out their tasks in the shipping companies.

Further, the new companies are improperly established. They do not take into account the 'Safety and Quality' factors, which make these companies operate in severe difficulties. There is a need to define clearly the policy and the objectives of the companies, with clear measures to operational safety of ships, and adequate maintenance to make this ships seaworthy.

## **2.5 Lessons to be learned from West African Countries**

In spite of the fact that the political situation and the economic conditions in each country were different to the situation described above about shipping in Mozambique, in general terms there is quite similar problems faced by both countries in the development of their shipping industries.

For example, on the one hand Tukson (1993) mentioned that, the government was not in position to get the necessary advice to shape the national shipping line because of a rather weak maritime administration under the Ministry of Transport and Communications.

On the other hand, Okesanjo (1994) noted that, 'the management failed to woefully to achieve many of those objectives for which the company was set due to bad management ... and deficiency of co-operation among various bodies responsible for shipping in Nigeria'.

A study made by Frankel (1988, pages 14 to 17) about a sample of state-owned shipping lines in ten countries in Africa looked at the issue of manning using a

comparison between Less Developed Countries (LDC) and African countries. He pointed out that practically LDC governmental shipping companies are remarkably overmanned, both on ships and in management. ... Equally, the African governmental company engaged four times as many in management and other shoreside services.

According to Prescott, Lloyd's list (1995) added that,

In Africa, the inefficiencies of state carries and aid donors requirements for abolition of cargo preference have spelt the end for several companies. The latest to go was Societe Ivoirience de Transport Maritime (SITRAM) ... which was wound up as part of restructuring and liberalising the Ivory Coast's shipping industry. ..., whose cumulative losses reached \$24m this year, has been liquidated by the debt-laden government under pressure from the World Bank, in return a \$100m loan. ... was one of the latest West African nations with any presence in the general cargo sector. Other lines, including Nigerian National Shipping Line, are virtually out of action and the only other substantial African owned operation is Camship in Cameroon.

The intention here is to highlight the diverse range of approaches that led the state-owned shipping companies in West Africa countries to slow down considerably, and to even decline.

The lessons which can be learned from West African countries have become increasingly important to overall national performance in the country. Therefore, the countries that embarked on the World Bank, and the International Monetary Fund (IMF) scheme, following the structural adjustment programme were dealt with by the policy of these institutions which recommended that the governments must privatise their state-owned companies as a condition for funding.

In any country context, privatisation programmes eventually present strategic, legal and institutional challenges.

Many governments are following these rules of privatising their strategic state-owned companies, but privatisation is only suggested by IMF without state exactly how it can

be achieved under particular political and economic circumstance of each country concerned.

Yet, Iheduru (1993) is very much concerned about the impact of such policy and he noted that 'maritime privatisation in West Africa will not necessarily result in increased efficiency of the divested enterprises because the sub-region's maritime problems have less to do with ownership than the structural constraints in world shipping together with internal management and politics.' He added that it seems to be impossible without getting the government involved in organising the maritime industry in West Africa, because the government is still the major importer and exporter in each countries in the region.

As a remedy to this situation Gilpin (1992) suggested that 'state-owned firms need to be rehabilitated before sold to attract buyers; this costs money. The government also loses out on short and medium-term revenues because of tax and trade concessions that accompany privatisation'.

Other measures were taken by the state-owned companies in West African countries to cope with the very difficult phase, such as the establishment of consortiums and joint ventures. This can be an alternative to privatisation and a way out to move towards the good performance of state-owned shipping lines.

The time has come for the establishment of safe and competitive companies.

Provided that the companies has fulfilled the technical and commercial aspects, other potential investors can provide financial resources to the development of such business.

## **Conclusion**

In conclusion, this paper has attempted to analyse the present situation of shipping industry in Mozambique. The way it is at the present is explained and commented.

As consequence of the current trend towards globalisation and liberalisation for economic development, the paper describes what is happening with the shipping industry in Mozambique. The following chapter will discuss the current political and geoeconomic situation in Mozambique and in the Southern African Region.

## **CHAPTER III**

### **3. Political and Geoeconomic analysis of Mozambique**

#### **3.1 The political situation in Mozambique and Southern African Region**

Since Mozambique achieved her independence in 1975, the government has made all the development efforts to maintain a good standard of living for the people.

However, in 1977, another group, which was highly opposed the socialist government installed in 1975, began a civil war, which continued until 4 October 1992, when the socialist government and Mozambican National Resistance (Renamo) signed the ending of the civil war through the General Peace Agreement (GPA) in Rome. (Statesman's year book, 1995/96: page 970)

Between 27 and 29 October 1994 the first free elections were held. There were 14 different party candidates. As result of the elections, Chissano and his party came to power with a majority of 53.3% (Europa World year book 1995, page 2144).

Mozambique has emerged from a devastating war which caused immense suffering to the people. As a result of these factors Mozambique is considered to be one of the poorest countries in the world, (ranking 166 out of 175 in UNDP'S human development index). However, with the, current peace conditions and political stability in the country the intention is to move towards development.



Looking at the present political and economic situation in Mozambique and analysing the external environment which is affecting directly the development of shipping business, it can be described as follow:

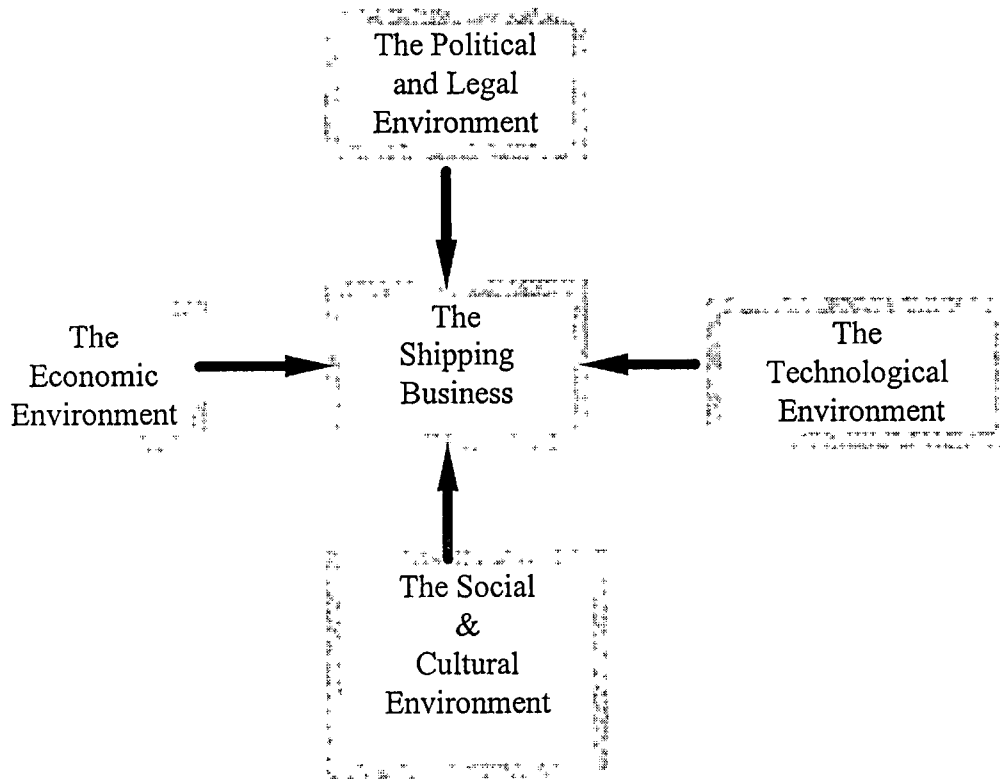


Fig.3.1: Source: Mottram, 1996. Lecture in principle of Management

The external factors which are affecting the healthy development of shipping business in the country are the adverse political and economic conditions imposed, and also the technological, social and cultural environment. Therefore, for survival in shipping business is entirely dependent on the ability to continuously adapt the industry structure to utilise the external environment to maximum advantages.

In reality, in Mozambique the picture is very different, however, the situation does not allow for best utilisation of industry structure to utilise the external environment

to maximum advantages due to the political environment which is linked to economical, technological, social and cultural environment.

On its political manifest the government promised 'Better Future' and the main objectives is to promote good governance, law and order, and solve the problem of unemployment. The society at large look at the state as creator of jobs or as provider of peoples lives. Here it can be said that is not the government who changes things but it is the people who make this things change.

The Mozambican Society desperately needs men and women who will give honest and thoughtful leadership and hard days work. After all, if men and women of integrity and ability do not give leadership to Mozambican Society who will?

If it is left to people who are self-seeking or who have an unwise or harmful agenda, where will Mozambican Society be?

The answer to these questions can be given by saying, that the fact that continue injustice exist in the distribution of national wealth, which is expressed in the aggravation of the levels of poverty in the heart of majority of the producers of that wealth.

The government stated on its manifest 'Better Future' that the people wishing for prosperity and overall development of the country have to be united, with patriotic ideal and national pride.

Nevertheless, behind this manifest 'Better Future', analysis and lay down policy for that future should be made.

If you look at present political situation in the country, it can be said that many factors are contributing negatively to working culture of the people and consequently

the way to reach sustainable economic growth. Now, you may never know exactly what impact is causing, but it is affecting the lives of many people and the healthy development of overall country.

These problems consists of lack of education and skills, heavily bureaucratic or unethical activities. Besides, it is installed in public services the protectionism, godfather, friendship, traffic of influences which leads to incompetence.

The predicable aim of the government is to stimulate growth and thereby reduce dependence on external aid. However, to achieve sustainable development and economic growth, (Matthews, 1997) pointed out that ' depend to a significant extend on the success the government enjoys in reforming the public service, which it admits lacks skills, is poorly paid, heavily bureaucratic, often corrupt, and always severely overloaded `.

It is easy to criticise the failures of others. The question of great importance is, how to find a way out with reasonable and acceptable principles, and then do it better? Unless urgent measures are taken, the current system can not be changed over night. Considering the words of (Mottram, 1997) on his theory, there are three important steps to be followed, which are as follow:

1. Knowledge and Skills
2. Political Stability and Suitability
3. Benign Regulatory Environment

First of all, the education should take a lead, training people to know and understand the social ethics and values, patriotism, culture of peace and reconciliation, which will lead to healthy atmosphere in order to have people with broader knowledge of understanding and skills to copy with the development of the country. Peoples abilities and capacity should be utilised to the maximum extend.

Secondly, it is important that political stability and suitability reflect the harmony among the people in the country, in order to attract foreign investments for betterment of standards of living of the people. People willing to invest needs political stability and suitability.

Thirdly, it is necessary that the government has benign regulatory environment in business and administration, law and order. Less government interference in industry and commerce. Promotion of free trade with lower trade barriers both in local, regional and international levels. Possible conflicts between national interests and international practices appear to be obvious, therefore, the national interests and policies should be reflected in the benign regulatory environment which implies that conflicts arising out of such situation should coincide with international practices.

According to the Catholic Bishop pastoral letter (1996) 'To promote the culture of life and of the peace' expressed concern about the political situation in the country and emphasised the need for promoting peace and reconciliation among the people and the daily practice of democratic principles. The letter pointed out that there is a tendency to exalt the regionalism and ethnic rivalry, the reappearance of armed gangs with doubtful ends, which can lead to division and new conflicts in the country. The bishop stressed the importance of peace without which, democracy and development can not be stable. There must be coexistence among the society, independent of their political convictions.

### **3.1.2 The political situation in the Southern African Region**

The Southern African region was in the recent past the pole of conflict between the West and East blocks.

The maintenance of apartheid in South Africa, and the penetration and expansion of communism in the new independent countries were in fact, the causes of the conflict.

Fortunately, the fall of the Berlin wall, the collapse of communism and with it the spilt of the Soviet Union, and the end of the apartheid system, people today live in the post cold war era. There is no longer a threat of conflict between West and East in the region.

The countries of Southern Africa used to be ruled by a one-party system. Many of them are ruled by multi-party system at the moment. Multi-party elections were held in the countries of the region, and the people of the region are living in harmony. The states of the region are combining efforts to achieve development and economic growth, alleviate poverty and to increase standards of living in the Southern African Region.

### **3.2 Mozambique as a coastal state and her importance to landlocked countries**

Mozambique's geography makes it an ideal country for the international trade of the neighbouring landlocked countries of Zimbabwe, Swaziland and Malawi, as well as the eastern region of South Africa.

The transport system network had during the period of civil war acquired low reputation due to transit time delays . Further, the railways were systematic sabotaged.

Mozambique is a member of the Southern Africa Development Community (SADC), which co-ordinates the Southern African Transport Commission (SATCC).

The SADC states is comprised of twelve members, i.e. Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe (see appendix III).

The location of Mozambique in the Southern Africa Region assumes an important geostrategic position, as its ports and railways give the country a genuine chance to become a regional gateway for Southern African countries without access to the sea.

Mozambique offers a significant advantage in haulage and transit transportation costs. It has scope to cash in on its position as a vital transport conduit.

### **3.3 Shipping patterns and competitors of the region**

Given the vital importance of the three corridors mentioned in chapter II, to the neighbouring landlocked countries, sea transport activities will continue to play an important role in the movement of cargo in the East and Southern African Region.

Meanwhile, the trends shows that the increased number of shipping companies are canvassing cargo to be transported in the traffic along the east coast of Southern Africa. These countries can not alone, faces the challenges given to them by their earlier fixed competitors, who are very combative and command the dynamics of the shipping business with powerful impact on the regional cabotage. This refers to South African maritime transport activities.

For example: Unicorn shipping of South Africa provides feeder services to Mozambican ports, which are performing well. The table below shows the amount of cargo in containers transported during the last six years. There is a slight reduction due to uncertainty of the implementation of the GPA and the situation post elections.

**Table 10: Movement of containers in the port of Maputo**

Year	Number of containers in TEU's
1991	12 130
1992	10 150
1993	7 980
1994	8 564
1995	11 950
1996	9 770

Source: Manica Moçambique

Apart from the decreased number of containers handled in 1996, there is a tendency towards increase in the current year. From the figures above, most of the containers were transported by Unicorn Shipping and about 20% of the containers were transported by the Mediterranean Shipping Company which calls regularly on Mozambican ports.

It is generally agreed that the overall increase in cargo volume along the traffic to East and Southern Africa will increase the competition.

According to Lloyd's list (1997, 24 February) the MAERSK company will add East Africa to its global network. The new East Africa service is expected to include Mozambique in the near future.

The ports of the region are playing an important role in handling cargo moved by competing companies of the region. Table.11 on appendix II shows the movement of cargo handled between 1994 and 1995 in the SADC member ports.

On the other hand, Lloyd's list (1997, 27 February) mentioned that 'Liner groups jostle for lead position'. In the vast majority of cases, the companies are establishing alliances. The paper gives an example of 'P&O which was strong in Northeast

Africa, where the Nedlloyd had not been operational, but that Nedlloyd had a strong presence in central East Africa incorporating not only the main ports of Mombassa and Dar Es Salaam, but Tanga and Zanzibar`.

It is very possible that the companies will make arrangements to obtain agreements among them to jointly operate certain routes in the East and Southern African region.

Burkom, pointed out that “ the benefit of joining forces was to bring down the system costs” (1997, Lloyd’s list, 27 Feb.)

Finally, some of the evidence shows that in the region there are many reputable competitors operating the traffic along the east coast of southern Africa.

### **3.4 Diversification of employment, expansion of national trade and regional integration**

#### **3.4.1 Diversification of employment**

Since 1987 when the GOM began to implement a set of political and economical reforms of great range, inserted in the structural adjustment programme, which is known as Economic Recovery Programme (PRE), various projects of development were undertaken.

The project of restoring ports and roads, called ROCs, is a part of this programme, which provides the creation of indispensable basic conditions for the development process in the country. This project will result in the reconstruction and enlargement of basic infra-structures that will motivate and make viable business activities.

This will promote employment in different areas of development, such as commerce, agriculture, tourism, transport and communications and constructions. Its execution means a precious source for immediate expansion of employment.



Through its initiative, the private investment projects, national or foreign, will play an important role in the creation of opportunities of employment and economic development of the citizens in the country.

### **3.4.2 Expansion of national trade**

The conditions of peace that characterise the country today are a great stimulus for enlargement of national production at various levels of economic activities.

According to the public information given by the Prime-Minister of GOM in the parliament, looked at profile of the country in 1996, which was considered to be a particularly good year. After two years of multi-party elections it was possible to bring together three important results in the structural adjustment programme. As it can be seen from the figures below regarding Mozambique's main economic results in 1996:

- Reduction of inflation in more than 30% in relation to 1995
- Real GDP growth at a rate around 6%
- 24% increase of goods and services

Source: computer software.NotMoc .971902

The economy redundant is predominantly agricultural and it is framed in the mechanisms of a market economy. In order to serve all the major industrial production centres the rural areas will supply raw materials to factories in the urban areas, therefore, the production centres will provide manufactured products, increasing in this manner national trade between rural and urban areas.

In fact, it is expected that commercialisation between the rural and urban areas will benefit both, and consequently the expansion of national trade.

### 3.4.3. Regional integration

The idea of co-operation and economic integration among members states of SADC, which was conceived in 1980, has not yet come to fruition. Politically, there is an interest for regional integration, but in the business sphere, a different perception exists.

There are countries or groups of interests which are not prepared to loose the monopolies which they have over certain activities in the region. This is a logical attitude for those in business.

Political interest exists, and it was inherited from solidarity in the struggle that the peoples of the region had against their common enemies. However, it can not be translated from one day to another in the economic domain, because there are other types of interests which involve other actors who are not always the same as yesterday or who were politically on the front line.

The author's point of view that it can not take political solidarity to economic solidarity or co-operation and regional integration based on who fought on whose side in the struggles against the colonial and racists systems in the region. There should be a clear distinction between political solidarity and regional economic integration for the purpose of development.

The writer argues for the necessity of establishment of a new agenda for integration of economies in the region. The integration does not require only political good will, but also legal instruments to be formulated in advance for implementation when it is concluded that regional economic integration becomes a reality. Consider the words

of Kaire Mbuende, the executive secretary of SADC in a press conference in November 1996 in Windhoek:

The struggle for economic emancipation in Southern Africa only will be reality if there are concrete engagement, that is, when we pass from words to action. Unless that there are people ready to be martyr by economic regional cause, as there were when had to fight against the colonial and racists regimes in the region, there will not be co-operation and less economic integration.

Finally, it can be said that being a country with a favourable transport system in relationship to its geographic location, Mozambique, is relying on its transport system network for its well being.

The great contribution which Mozambique can give to the regional economic integration is to provide suitable transport services to the countries which are distantly located from the large markets and to a significant extent dependent on its gateway for their international trade.

Since the political environment in Mozambique and Southern Africa has improved, there is a chance for economic integration and general development in the region. However, for this economic integration to become a reality there are needs to be fulfilled. The governments in the region should commit themselves to built basic legal instruments for application in the region.

The competing companies will continue to improve their services therefore, more competition should be expected. With current conditions, employment will diversify and trade will expand.

## **CHAPTER IV**

### **4. The Impact of UN and IMO Conventions on Mozambique**

#### **4.1 Background**

After the inauguration on 6 January 1959, the International Maritime Organisation (IMO) made a lot of efforts to establish various conventions concerned with the design, construction and equipment of ships, safety of life at sea and prevention of marine pollution.

In spite of the fact that Mozambique has been independent since 1975, the legal tradition is still Portuguese. Therefore, the little effort made by the former colonial power to develop a national merchant marine is reflected in the number of international conventions in the maritime field, to which Portugal was a contracting party during the colonial period.

Many of the international conventions which have some relevance to the country's ports and shipping industries are outdated. The UNCLOS and MARPOL Conventions for example are not ratified. These and other conventions need to be ratified and brought into line with practicable standards in the global maritime community transportation practice of the International Maritime Organisation (IMO).

Mozambique is a vast country with a long coastline which has vital importance in terms of fundamental transport for its survival. Therefore, the authorities must give proper attention to regulate the legal instruments in the national legislation.

The IMO encourages the contracting governments to ratify international conventions, and Mozambique became a member of the IMO on January 17, 1979, (Arroyo, 1991, page 29). From a list of more than forty conventions, agreements, protocols and amendments adopted by IMO, eleven were ratified but not all of them are incorporated into the national legislation. However, the Mozambican authorities are slow in implementing the conventions and the respective amendments.

This chapter will discuss some of the factors that make difficult the implementation of the conventions to which Mozambique is signatory in the IMO, namely, those intended to promote safety and environment protection. i.e.; the International Convention for the Safety of Life at Sea, The International Convention for the Prevention of Pollution from Ships (MARPOL) and The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW).

The legal conditions of the conventions in the national legislation are determined. The provisions of the conventions not yet implemented by the country are identified and some actions intended to promote their implementation are recommended.

#### **4.2 Legal Status of the Conventions**

The selected IMO conventions for analysis are SOLAS, MARPOL and STCW. The SOLAS Convention was ratified on October 24, 1995 but has not yet been published within national law. The legislation which was extended to the overseas provinces by decree law No 39.598 of 3rd April 1954 is still used.

The provisions of SOLAS are not yet incorporated in domestic law. (Kirkpatrick, 1992, page 93).

The STCW was ratified and published in national law by the Ministerial Diploma No 17/85, dated 5th June. The GOM has not yet ratified the MARPOL convention.

With regard to the amendments of these conventions, the Ministerial Diploma has not yet been published although Mozambique has accepted the tacit acceptance procedures. The 'Tacit Acceptance Procedures' is the system which has now been incorporated into IMO technical instruments and is designed to speed up the entry into force of amendments.

#### **4.3 United Nations Convention on the Law of the Sea (UNCLOS)**

The United Nations Convention on the Law of the Sea (UNCLOS) is the law which was borrowed from traditions, and is intended to promote public order of the oceans. The great importance of the UNCLOS is that its principles, which are universally accepted, are to contribute to the maintenance of peace, justice and progress for all human beings.

The UNCLOS is the mother source of international public law which establishes the legal regime of the seas. UNCLOS states that the 'Freedom of the seas' is the fundamental principle based on the general idea that the high seas are open to all and not any state can exercise her sovereignty over other parties. It comprises inter alia, the 'freedom to navigate, fish, lay pipelines and underwater cables and to overfly the high seas'. (Farthing, 1993, page 33). When ships are engaged on international voyages they call on a large number of ports around different countries in the world.

These ships are obliged to obey the laws of those countries that exercise sovereign rights in their territorial waters.

In addition, with regard to shipping the UNCLOS also regulates such fundamental principles as rights to passage through international canals, water-ways and important straits; the legal regime of ships in ports and maritime rights of the land-locked countries, protection and preservation of the marine environment, exploitation of living resources and conservation, the settlement of disputes and the right of states as a matter of security to interfere with ships outside territorial waters.

The use of the sea is an indispensable element for development of Mozambique. It gives access to different ports of the world. It is obvious that the development of coastal trade and fisheries along Mozambican coast represent potential risk to human lives, living resources in the sea and the coastal environment.

Therefore, the incessant movement of different ships of various classes along the coast exposes it to an imminent danger of casualties, such as collisions, fire or explosion, grounding, sinking and pollution to the marine environment.

Mozambique as a coastal state has an inherent right as a territorial sovereign state to investigate any casualty which results in or which threatens its territorial interests. This is recognised under customary international law in any case of threat and is manifested in national legislation of coastal state. (Wiswall, 1997)

It should be borne in mind that UNCLOS is an umbrella convention for other important legal instruments produced by IMO, which gives the coastal states the rights and obligations to exercise her sovereignty.

For example, article 94, paragraph 7 of UNCLOS is headed 'Duties of flag states' but does not apply only to flag states. The obligation is imposed upon port states and coastal states to investigate casualties. Furthermore, article 221 is headed 'Measures to avoid pollution arising from maritime casualties'. The examples above show some of the articles in UNCLOS which are re-stated in the conventions adopted by IMO, such as MARPOL, SOLAS and STCW.

Mozambique signed the UNCLOS, (UN, 1983, page 190) at Montego Bay, Jamaica 10 December 1982 and incorporated the sea law into national law by the decree law N0 4/96 dated 4 January. However, the GOM has not yet ratified the convention.

There were discussions in the parliament about ratification of the convention but there was no consensus. It is reasonable, therefore, that the Mozambican authorities should ratify the UNCLOS and when the convention is ratified it will give immense contribution to correct some defects and further it will be applied in settling national issues or disputes that may arise.

#### **4.4 Safety of Life at Sea (SOLAS)**

The Safety of Life at Sea Convention was created as a result of the need to control and legislate international rules that had in view to minimise the loss of lives, property and damage to the marine environment.

The SOLAS Convention contains provisions that when put in practice contribute to the safety of ships, people onboard, cargo and protection of the marine environment. These provisions can be summarised as follows:



#### **4.4.1 The inspection and survey of ships**

Regulation 19 chapter I, contain the duty and obligation of the port state to verify the existence of valid certificates onboard. ' These shall be accepted unless there are clear ground for believing that the condition of ship or its equipment does not correspond substantially with particulars of any of the certificates ' (SOLAS, 1992, page 33)

Mozambique adhered to the convention on October 24,1995 but has not published it in the national law and also is obliged to follow these rules under the provisions of the convention. The inspections carried out in Mozambique have been the motive of some critics regarding both the content and the organisation.

Despite the creation of SAFMAR, which is the entity responsible for maritime safety, it has not yet established port state control. Hence it is advisable to establish an entity which will co-ordinate the control of inspections by port state and the flag state. Further, it is important to train qualified inspectors to exercise these functions.

#### **4.4.2 The carriage of dangerous goods**

The IMO has revised and adopted in 1981, 1983 and 1989 the amendments to SOLAS 1974 regarding the carriage of dangerous goods. ' The chapter VII of the 1974 SOLAS convention was revised, as amended in 1994, applies now to all ships to which the SOLAS regulations generally apply, in addition, to cargo ships of less than 500 tons gross tonnage ' (IMO, 1996, page 3). The requirements for transport of dangerous goods are found in the International Maritime Dangerous Goods Code (IMDG-Code). These requirements are principally directed to the mariners, but are also of interest to the industries and services that handle dangerous goods and land transport.

Port authorities can use this code for maintenance of proper segregation inside cargo port areas, precautions necessary in relation to other cargo, discharge, storage and stowage. The amount of dangerous goods transported along the Mozambican coast should be considered and the implementation of the IMDG-Code must be decided as soon as possible because there is no legislation related to the transport of dangerous goods in Mozambique. It is important to place legislation regarding the IMDG-Code in the national law.

#### **4.4.3 International Safety Management Code (ISM code)**

Another aspect of the SOLAS Convention is that the new Chapter IX (entitled management for the safe operations of ships) makes mandatory the international management code for safe operation of ships and pollution prevention, known as the 'ISM Code' which will enter into force on 1 July 1998 for certain types of ships, such as passenger ships, including passenger high-speed craft, oil tankers, chemical tankers, gas carriers, bulk carriers and cargo high-speed craft of 500 gross tonnage. Other types of ships will enter into force by the year 2002, for all contracting parties which are signatory to the SOLAS Convention.

The IMO urges all SOLAS signatory countries like Mozambique to implement the Code on national basis. Moreover, the institutionalisation of the ISM Code will require government commitment to ensure safety at sea, prevention of human injury or loss of life, damage to/of property and pollution prevention specially of the marine environment through an effective regulatory system.

Nevertheless, it should be stressed that it will be necessary to train personnel to carry out the audits and all processes of certification required by the convention. Whether or not the process of certification is delegated to recognised organisations, such as

classification societies. It is important that the administration has its qualified personnel to monitor the work of recognised organisations.

According to resolution A.741 (18), 'Safety management objectives of the company should, inter alia:

- .1 Provide for safe practices in ship operation and safe working environment;
- .2 Establish safeguards against all identified risks; and
- .3 Continuously improve safety management skills of personnel ashore and aboard ships, including preparing for emergencies related both to safety and environment protection`.

The ISM Code stresses the need for quality operational standards to enhance the seaworthiness of ships.

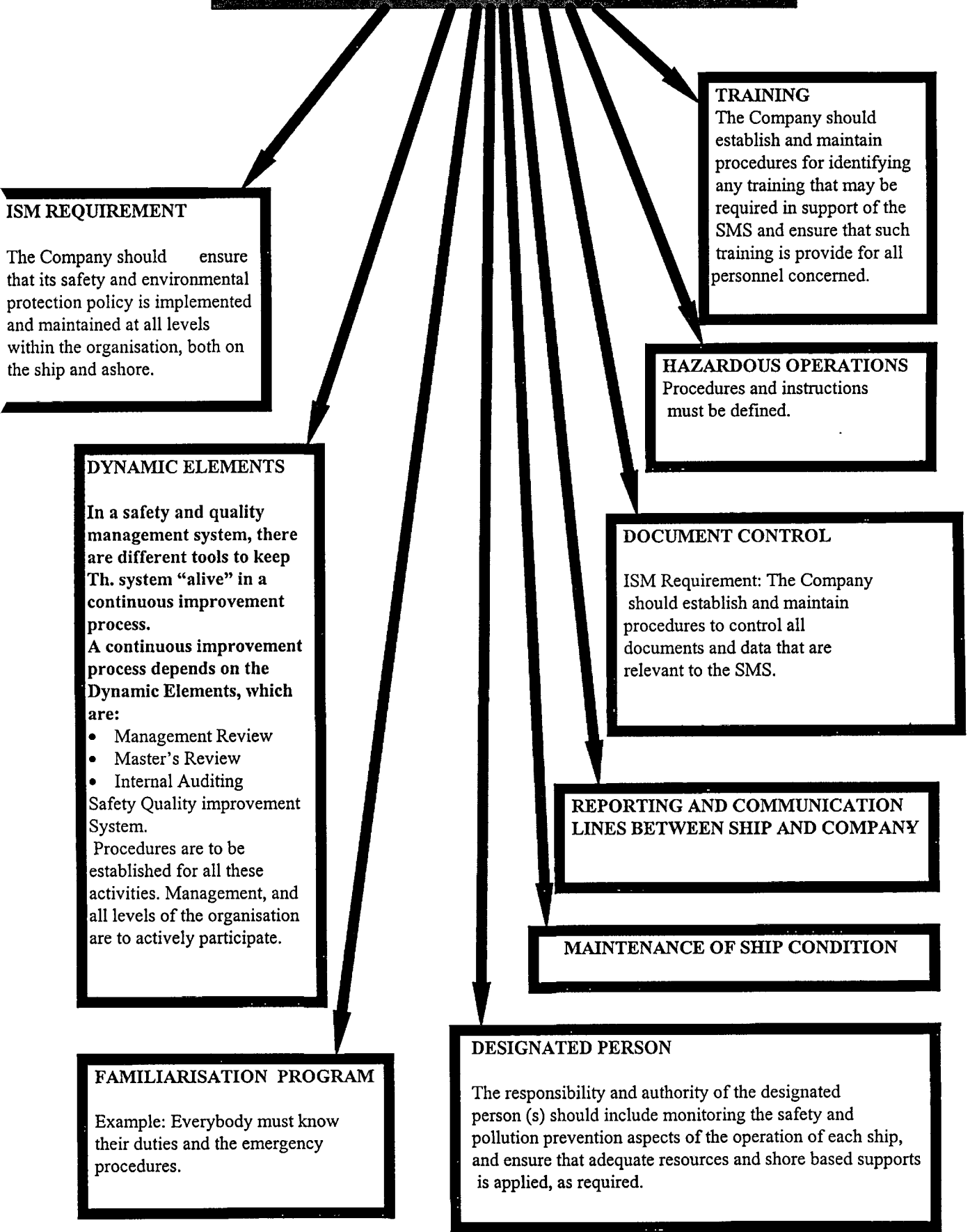
In practice, every shipping companies will have to implement and maintain a safety management system (SMS) to which both ship and shore-based staff must be committed and a policy established and implemented for achieving its aims.

The formalised and documented procedures forming the SMS should ensure that conditions, activities and tasks relating to safety management are carried out in accordance with the procedures of the company.

Navique, which is running substandard ships, is going to find it very difficult to implement it as it is confronted by a new period of tougher regulations. As a result, it is increasingly difficult for Navique with poor quality standard to continue to trade on its principal trade routes in the southern African region.

The task facing Navique at the moment is to set up a safety management system (SMS) to comply with ISM Code requirements. The figures below show the example which illustrates the principles necessary to set up the safety management system (SMS) and how it can be implemented in the company:

**FIGURE 4: MAIN ELEMENTS  
IN A SAFETY MANAGEMENT SYSTEM (SMS)**



## FIG 4.2 HOW TO IMPLEMENT AND USE A SAFETY MANAGEMENT SYSTEM (SMS)

### ESSENTIAL REQUIREMENTS

- Commitment from the Top Management
- Project Organisation.
- Involvement of personnel from the Company and the vessel during the development of the system.
- Project information distributed regularly to all involved.

### INTRODUCING THE SMS

- Top Management must show their involvement.
- Start using the system.
- Everybody with a specific SMS responsibility must be trained, and their responsibilities are to be described in their job description

### SMS TRAINING

All employees must understand that the SMS is supposed to improve their job situation.

### ADVANTAGES OF USING THE SMS

1. Increased safety awareness.
2. Safe practices and conditions.
3. Avoidance of accidents.
4. Reduced losses.
5. Less property damage.
6. Reduced costly repairs.
7. High performance and effective maintenance

*Involvement by everyone is the key to success*

Source: DET NORSKE VERITAS CLASSIFICATION AS

When the procedures for implementation of the SMS are in place, it is important to promote, up-date and improve the system through internal audits as well as to constantly review the system.

#### **4.5 The International Convention for the Prevention of Pollution from Ships, and the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships 1973. (MARPOL 73/78)**

The accidents that involve oil tanker ships always result in catastrophic oil spills, for example: Torrey Canyon in 1967, Amoco Cadiz in 1978, Exxon Valdez in 1989, Agean Sea and Katina P. in 1992, Brear in 1993, Sea Empress in 1996 and Diamond Grace in 1997; the list is almost endless. Therefore, the IMO over the years has made efforts to minimise accidents and to guarantee that any spills taking place are dealt with quickly and effectively.

Mozambique is not party to the MARPOL Convention, but by succession the country continues to use the former Portuguese legislation, decree No 495/73 dated 6. October, which is outdated. This prohibits the 'Launching or discharge in the proximate territorial sea, ports, docks, berths or estuaries and other maritime jurisdiction areas of any noxious waters and residual substances, as well as other substances that could pollute the waters, beaches or margins'. As can be seen the legislation does not reflect at the time being the realities in the country, even though the national legislation does not go along with the provisions of MARPOL.

There is increasing environmental awareness. New rules and regulations are constantly coming into force. Many changes are taking place whereby oil spills, shipping, connected industries and services may be considered.

A study by Kirkpatrick (1992, page 14) looked at the legal and institutional aspects on the environment in force in Mozambique and pointed out that:

The legislation on environment was incomplete and unrealistic because do not englobe acts that prejudice the marine flora and fauna, in any maritime space and did not accompany the international convention on pollution.

Is Mozambique prepared for an unexpected oil tanker accident?

The country is not prepared to deal with this kind of accident. A point in case is the oil tanker "Katina P." accident in 1992. It is evident that the spillage of large amounts of crude oil has done serious damage to marine life as well as to the marine environment. The clean up operation consumed an astronomic amount of money. For a country without an up-dated legislation, a potential threat in form of a major oil spill could be extremely costly as such accidents are likely to happen.

What have been done after the "Katina P." accident?

Concerning promulgation of national legislation related to marine pollution nothing has been done. The authorities were more concerned with speeding up the ratification of the International Oil Pollution Compensation Fund instead of legislating and ratifying the MARPOL Convention.

What economical implications will the implementation of MARPOL cause when Mozambique accedes to the convention?

It is true that the implementation of the MARPOL Convention in the present situation will probably cause heavy financial onus on Mozambique. However, bearing in mind that the Mozambique Channel is a route of great significance to the crude oil transport traffic and its derivatives. Referring to (UNEP, 1989) 'daily about 225 oil tankers are moving through the waters of the eastern African region, making the area one of the busiest oil tanker routes in the world'.

Further, along the coast there are eco-systems and ecological sensitive areas, which need to be protected and preserved. Therefore, there is an urgent need to examine the situation of national laws on the environment and the implications of the ratification of the MARPOL Convention.

MARPOL, the International Convention for the Prevention of Pollution from Ships, 1973 and the Protocol of 1978 define rules to be adopted by the contracting parties in the prevention and control of maritime pollution caused by noxious liquid substances transported or produced by ships.

The acceding of the MARPOL Convention by Mozambique will require considerable efforts from the authorities. The impact of acceding the convention will influence the adoption of measures that will prevent difficulties at the time of implementation of the convention. Below are some points which are necessary to consider when drafting national law as follows:

#### **4.5.1 Low fines applied to illegal discharges**

Article 4 of the MARPOL Convention obliges the contracting parties to incorporate into the national legislation sanctions sufficiently severe in order to discourage the occurrence of illegal pollution.

Kirkpatrick (1992, page 14) mentioned that the amount charged for fines in case of discharge of ship ballast into the sea does not go over 1.000.000 MT (Meticais), or equivalent to US\$ 500. The infraction process is initiated by the harbour master. This is the minimum quantity, taking into account the costs involved in the gathering, transport and treatment of these residues.



#### **4.5.2 Absence of Inspection to ships in ports**

According to Article 5 paragraph 2 of the MARPOL Convention, ships must be inspected while in port. In Mozambique there are no established inspections to that effect. Furthermore, personnel with specific training for such functions do not exist. For example, in the countries which are parties to the Memorandum of Understanding on Port State Control, known as 'The Paris MOU', inspections are carried out by maritime port authorities and Port State Control inspectors. Therefore, the master is obliged to present a certification of reception of residues. The authenticity of these certificate is subsequently verified by checking the hydrocarbon or chemical substance on record book on board .

#### **4.5.3 Application of recommended procedures on casualty investigation**

The MARPOL Convention contains various articles related to casualty investigation. According to Articles 4, 6, 8 and 12, if Mozambique accedes to the convention necessary measures should be adopted to develop a casualty investigation process. They should also co-operate with interested parties involved in marine pollution accidents to report and gather evidence. Article 8 paragraph (1) states that ' The report of an incident shall be made without delay to the fullest extent possible in accordance with the provisions of protocol I of MARPOL convention' .

Equally each of the parties must carry out the necessary arrangements to achieve complete investigation on incidents to be circulated among all interested parties. If the results obtained through an investigation show the need for changes in the convention, this should be reported to IMO.

#### **4.5.4 Issue of Certificates of reception of residues of ships**

According to the MARPOL Convention, maritime port authorities should issue a certificate of normalisation of reception of residues from ships recognised by IMO. In the same way, the installations of reception of residues should be registered in a record book.

#### **4.5.5 The Absence of Installations for Reception of Chemical Residues from Ships**

In Mozambique, these types of installations do not exist . As chemical tanker ships used frequently call on Mozambican ports, it is important to take into account the installations of such facilities.

#### **4.6 STCW 78 as REVISED 95 CONVENTION**

Several types of accidents involving ships, such as collisions, sinking, fire or explosions and grounding have occurred. Allegedly, the causes of these accidents were due to insufficient watchkeeping.

In 1971 the Maritime Safety Committee decided to create a sub-committee which would be responsible for developing the text of the convention on standards of training, certification and watchkeeping. After seven years of discussion involving several meetings, the convention was adopted following amendments by the members. Finally, the convention was adopted following amendments by the international conference on training and certification of seafarers, held in 1978. (IMO, 1996, pages 1 and 2)

Before the adoption of the 1978 Convention, each government established their own standards of certification without reference to procedures made in other countries. Taking into consideration that shipping is the most international of all industries, the first intention of the STCW 78 Convention was to achieve the minimum professional standards for seafarers.

The convention establishes basic principles on training, certification and watchkeeping for seafarers at an international level, which includes a number of regulations within Chapter II (standards regarding the Master and Deck department), Chapter III (standards regarding the Engine department), Chapter IV (standards regarding radio personnel), Chapter V (standards regarding special requirements for tankers) and Chapter VI (standards regarding proficiency in survival craft), from which it ensures the continued proficiency and the minimum requirement for each department of the ship (IMO, 1993, STCW 78).

The convention entered into force in April 1984 (IMO, 1996). It was expected that the convention would reach the objectives of its creation, which was to ensure competence of masters, officers and ratings of all seagoing ships and their safe operation through efficient watchkeeping.

In spite of the fact that the convention was widely accepted, it has not achieved its purpose yet. The main reason for this was that there was a lack of uniformity in the application of standards because the interpretation of the convention was left 'To satisfaction of Administration'.

Each government was left to interpret the convention in its own manner, which varied from country to country. In the same way it was difficult to precisely define the lack of standards.

For example, in Mozambique the Administration is using different approaches to requirements for certification, namely:

- The Administration instead of sea service imposed as condition for certification that the seafarers should have certain hours of navigation, which is counted as the time spent by seafarers on watch at sea and this time is divided by factor three. At least 1500 hours of navigation is required.
- The administration requires medical fitness of seafarers for the purpose of certification but this requirement does not have medical standards.
- The Administration does not accept sea service obtained on sea going vessels for the purpose of certification.
- The Administration uses its own criteria for examination and does not have schedules; it is more dependent on the person in charge of certification.

Many changes in the shipping industry have taken place since the development of the convention in 1978. New types of ships have been built and the technology applied to them is very sophisticated and requires actions from the Maritime Safety Committee adopting amendments to the convention.

With these changes the lack of training and watchkeeping became evident. In particular it was necessary to consider a series of amendments which required a complete revision of the convention. The Maritime Safety Committee not only took into consideration the changes that have occurred in shipping since the adoption in 1978, but attempted to strengthen implementation and control procedures to make the convention more effective.

#### 4.6.1 The Structure of the Revised STCW

The revised convention remains with the original text of the STCW 78, although most of the knowledge required for deck, engineering and radio certificates remain unchanged. The revised convention requirements now focus on the competence necessary to perform the functions concerned. The convention comprises 17 articles and an annex, composed of resolution 1, which is sub-divided into 14 resolutions forming an integral part of the convention.

The Seafarers, Training, Certification and Watchkeeping (STCW) code consists of part A; Mandatory Standards regarding Provisions of the Annex to the Convention, part B; Recommended Guidance Regarding Provisions of the STCW Convention and its Annex. There are eight chapters which are as follows:

Chapter I: Standards regarding general provisions; Chapter II: Standards regarding master and deck department; Chapter III: Standards regarding the engine department; Chapter IV: Standards regarding radio personnel; Chapter V: Standards regarding special training requirements for personnel on certain types of ships; Chapter VI: Standards regarding emergency, occupational safety, medical care and survival functions; Chapter VII: Alternative certification, and Chapter VIII: Standards regarding watchkeeping (IMO, STCW 95, 1996).

The convention is structured in such way that certification of the seafarers is not only concerned with administration but also with maritime institutions and shipping companies. The role which each institution plays will contribute to achieving the standards of competency.

Morrison (1996, page 10) suggested that:

Each government must take responsibility for administering the convention and must be given the necessary regulatory and administrative authority to ensure that all government departments and agencies, education and training institutes, shipowners, ship management companies and seafarers within party's jurisdiction give full and complete effect to the revised convention.

#### **4.6.2 The aims of the revised STCW and what should be done in Mozambique**

The objectives of the STCW 78 Convention was to stipulate the minimum global standards for certification of seafarers. The revised STCW has the same aim but has been enlarged by giving more details about the skills and competence required.

The revised convention gives the Administration the responsibility to maintain direct control, in particular in relation to the qualifications of those seafarers who work on their ships. The convention requires that the parties to the convention should cooperate with each other to benefit from the implementation of the convention.

##### **4.6.2.1 What should be done**

The situation for implementation of the revised STCW 95 in Mozambique is very different from the previous STCW 78 Convention. The implementation requires more resources, i.e. physical, financial and human; therefore, there will be major changes in attitudes, practices, procedures and in the entire national law in order to comply with the stipulations in the convention.

It is the obligation of the Mozambican Maritime Safety Agency (SAFMAR) to establish administrative measures for effective implementation of STCW 95 Convention including the following:

1. SAFMAR must report by 1 August 1998 to the IMO that administrative measures have been taken to comply with the convention, and that education and training courses at the Nautical School of Mozambique (ENM), certification procedures and other applicable factors to implementation are in place with documentary evidence.
2. Establish regulations and guidelines for the Nautical School of Mozambique regarding Quality Standards and examination.
3. Establish regulation of compliance with safe manning standards and the ability of seafarers to maintain watchkeeping standards.
4. Establish regulations regarding certificate requirements.
5. Establish regulations for seafarers to take refresher training courses if necessary to up grade their standards for compliance with the convention.

#### **4.6.2.2 Challenges and problems which the Nautical School of Mozambique (ENM) will face**

The ENM will have to face challenges described in the new requirements in the STCW 95 Amendments under regulation 1/8 and under the codes, A1/8, B1/8, which deal with a more complex subject - 'Quality Standards' - Humans and their ability in management of maritime institutions!

Hence the efforts required to ensure uniform standards in the implementation of the 'Quality Standards System' need to be far greater than the efforts for establishment of a new curriculum. The code requires that ENM should set up the Quality Standards System which came into force on 1 February 1997.

The proposed organisation is intended to help the National Maritime Administration and the ENM to establish a system for compliance with the convention in the stipulated period of time.

### **Challenges**

The quality standards system consists of the following:

1.) The Quality standards system is to be applied to all STCW education, training, assessments, certification, endorsement and revalidation as well as to qualifications and experience of instructors both in government and non -government areas.

This is to ensure that all the stated objectives are achieved and both instructors and assessors meet the qualifications and experience requirements.

2.) Maritime Education and Training (MET) institutions must have a self assessment system through feedback from students, shipping companies, employers from maritime industries and continue to improve upon to the fullest spirit of the STCW 95 Convention, Code A.

3.) MET institutions must develop a process of recorded documentation, written schemes of course contents, delivery methods, list of training equipment, list of qualified training instructors with their qualifications and experience.

4.) MET institutions have to undertake external evaluations periodically each five years. This can be done either by a government council comprising members not involved in training, examination and certification or by external agencies providing such services.

5.) The revised STCW Convention 95 determines the extent of refresher and updating training for seafarers if their first training was not up to the new standards.



6.) MET institutions are required to send a report to IMO (MSC) on MET standards.

### **Difficulties**

Quality systems require audits of procedures. Quality systems constantly talk of commitment from the top. The commitment involves primarily the commitment to giving authority, to decentralisation, and to do the personnel and personal development that makes this possible. (Mottram, 1996, page 17)

The quality of internal audits at the Nautical School of Mozambique will be more dependent on the seriousness and belief of the top management in the development of a quality assurance system and the internal audits needs the support of bottom up involvement every day.

For the quality standards system to succeed in improving the training standards of seafarers, a very solid look will need to be taken at the quality of the instructors and trainers themselves to avoid failure on required standards for seafarers. Besides financial investments, an input of technical expertise will also be required. It will be very difficult for the maritime administration to convince the government to allocate the necessary resources to meet the quality standards at the ENM for the compliance report to IMO by August 1998. This will also include the requisition of modern equipment.

The interpretation of quality standards at ENM will be different from other institutions due to the national education system, culture, social values and the maritime background of Mozambique.

The quality standards system requirements of the STCW 95 Convention give authority for the following actions:

1. Restructuring of the organisation
2. Acquisition of the equipment related to the learning objectives i.e. simulators
3. Training of trainers
4. Instructor's qualifications
5. Examination requirements and system for assessment
6. Review of the level for admitting students where applicable
7. Curriculum and syllabus for each course
8. Allocation of resources
9. Commitment to achieve the desired objectives of the maritime institutions.

#### **4.6.2.3 Proposed Quality standards system for Nautical School of Mozambique (ENM)**

The ENM has a gigantic task to comply with the STCW 95 Convention. Below is a proposed quality standards system with suggestive actions for revision and inclusion in some areas covering administration, structure, control functions and recorded documentation process.

##### **Mission statement**

The ENM should review and rewrite the mission statement broadly covering strategic objectives, specifying the role of the school in the development of a maritime infrastructure of the industry with clear policy on quality standards, and on meeting IMO requirements on the STCW 95 Convention in matters related to all maritime training and education programmes. The ENM should establish a quality system to satisfy the standards required by maritime and educational authorities in the country. It should also include the establishment of a culture and value system that encourage

good practice in teaching and a feel for services rendered to the international maritime community.

## **GENERAL GOVERNANCE AND CONTROL**

### **Advisory Board**

The Maritime Administration must establish examinations and certification systems and incorporate these in a quality standard system, including independent audit and also an advisory board with a broader representation from the various stake holders with policy setting functions keeping in mind the dynamic environment of the maritime industry and the role to be played by ENM.

### **Organisational structure**

Presently neither the existing structure gives full authority to the internal quality assurance nor any external audit system. Therefore, there is a need to re-structure the whole organisation as shown in Fig. 4.6.3 with suggestive academic units and their functions.

### **Academic Council**

The proposed academic council headed by a member of the academic staff will provide advice to the director on academic matters , approval of programmes and courses, maintenance and setting of academic standards, check and balance of quality assurances, procedures and methods of documentation in compliance with the STCW 95 Convention. Academic council shall be assisted by course committee, examination board, quality standards committee and academic registrar. It will monitor mechanism of study, conduct regular schedule of committee and board meetings. It will also receive feedback from students, external examiners, shipping companies and other employers.

### **Internal review scheme**

The Academic Council using the resource of various committees should review the following :

- Curriculum and course contents
- Assessment and examination procedures
- Documentation
- Schemes, methods and effectiveness of course delivery
- Student performance
- Admission policy

Furthermore, the council should make adjustments to improve quality standards wherever applicable.

**Quality Standards Committee** - The effective quality and control scheme will be drawn by this committee. This will also be responsible for an effective channel of communication, the acceptance of responsibility by staff and students, review and approval of any training system.

Mottram (1996, page 17) pointed out that:

Personnel involvement is necessary. The objective needs to be one of creating a competitive, innovative, quality organisation. This requires commitment and involvement, but more than this, it means creating a learning organisation and constantly enabling and encouraging the decision-making process to be pushed downwards, against the natural drift.

The benefits however, and the culture improvements produced, can lead to progressive quality gains as well as enhanced competitiveness, innovation and organisational growth.

**Exam Board** - their functions will be the approval of examinations and security of the system.

**Academic Registry** - will be responsible for maintenance of student admissions and academic records.

**Course Committees** - This committee will be responsible for evaluating programmes of study and encouraging the adoption of a variety of ways to ensure that the programmes of study are running as planned. This might include all instructors monitoring the courses and review process evaluating the study programme.

### **External Quality Audit**

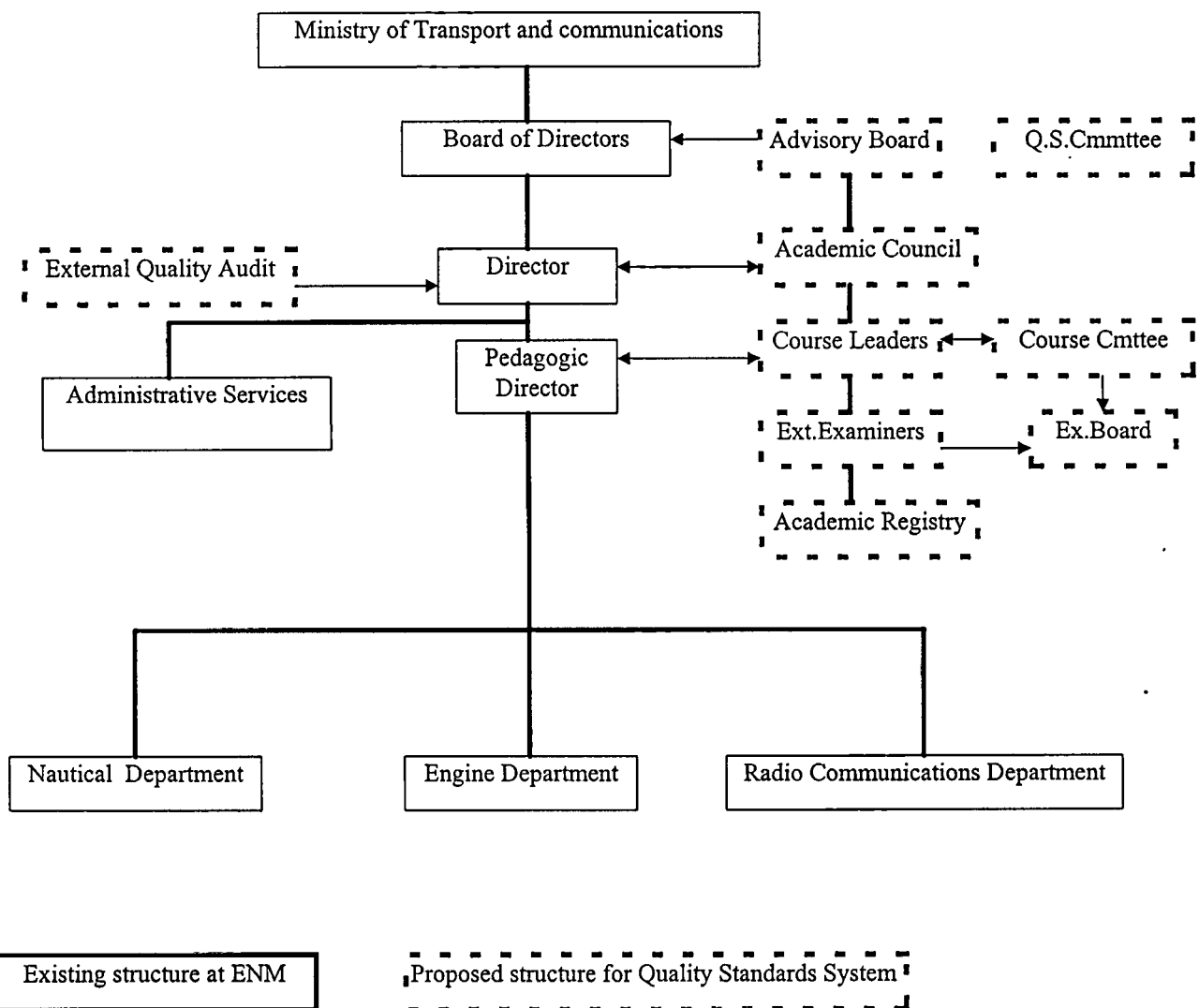
External quality audit is a body which will provide an independent evaluation on a quality control scheme to be established at ENM. It will give an independent assessment to the operation and effectiveness of the quality assurance and control procedures. The external quality audit will serve as an impetus to strengthen the will to make the fundamental changes that are required by the STCW 95 Convention. The quality external audit will require that the means adopted by ENM reflect the particular approach to quality of the institution. This is to ensure that all approaches to teaching and learning are examined appropriately through its quality assurance and control systems in order to ensure the compatibility of standards and the quality of student experience.

When conducting external evaluation, the audits should be informed in advance of the following items:

1. Mission statement: policies rules and functions of ENM
2. Organisational chart: management and academic functions

3. Copies of courses schemes showing aims and objectives, conduct of examinations
4. Details of external examiners
5. Teaching staff and their qualifications and areas being taught
6. Level of admitting students (Muirehead, 1997)

**Figure 4.3: Proposed Organisational Structure for ENM**



Finally, the convention will lead to improvements in maritime safety and will ensure that all parties to the convention have in place proper procedures for training and examining seafarers to the standards required. Each person involved in maritime institutions, administrations, and shipping companies should contribute with his/her knowledge to develop efforts to achieve the global standards.

#### **4.7 Present Mozambican Shipping Policy**

It is clear to everyone that as it is carried out today, Mozambican shipping is not up to international standards with respect to maritime commerce, safety and quality. Nevertheless, before presenting the Mozambican shipping policy, some definitions of shipping policy will be given for better understanding.

On the one hand, Chrzanowsk (1985, page 112) pointed out that shipping policy may be defined

as a totality of economic, legal and administrative measures by means of which the state influences the position of its national fleet in the national economy and in the international freight market. Shipping policy has two aspects: domestic, which is the attitude of the state towards its own merchant marine, and foreign which is its attitude towards the fleets of other countries.

Yamamoto (1995) added that 'A national policy is to facilitate the industry the best environment to realise "The optimum system" through various means and ways, including promotion of key "Components" which exist domestically'.

On the other hand, Frankel (1992, page 212) noted that:

shipping policies include economic and operational regulation, manpower use and ownership restrictions, cargo and transport access limitations, direct and indirect government aids or subsidies, technical or technological regulation, and more. They also include measures

designed to enhance national prestige, visibility, and defensive (or offensive) capability. Shipping is subject to both national and international policy and the two sometimes conflict with, or at least contradict, each other. This is often the result of less than effective objectives setting, need identification, and the failure to develop unambiguous measures of performance.

Given the definitions of shipping policy it could be said that the Mozambican shipping industry has historically been influenced by a lack of direction in government policy. The Mozambican shipping policy is based on a cabotage regime.

The GOM by resolution N0.5/96 (Shipping Policy Law, 1996) of 2 April obviously admits the importance of a well-developed transport system as being crucial to the country's economic and social development. The document specifies the policy issues to implementation of the new regulatory framework for shipping as follows:

1. To encourage the participation of the private sector in the development of maritime transport.
2. To create favourable conditions through a marine development fund or other incentives in such a way that national cabotage is done by national flag ships or chartered by national enterprises. As transitory measures, while strengthening the national capacity, adoption of regulations enabling charter of cargo space for cabotage transport by national shipowners in vessels belonging to foreign shipowners who call Mozambican ports.
3. To encourage the participation of nationals in the exploitation of maritime traffic, regional and international.



4. To ensure efficient application of regulations concerning maritime safety, maritime inspections, navigational aids and prevention of maritime pollution.
5. To promote the efficiency of state enterprises and encourage participation whether by mixed enterprises or by private companies in accordance with interests of the state.
6. New private sector entry; it is conceived that new entry will be on a concession basis with clearly spelled out service criteria.
7. Commercial pricing: tariffs allowed to be more easily adjusted but still subject to government review.
8. Fair competition, the same rights and obligations will be assigned to all participants.

The government transport policy in most cases sustains a changed position towards private domain participation within the shipping industry, but appears to give up some doubts about market operations; thus, includes the freedom of pricing and freedom of route entry.

#### **4.7.1 Deficiencies of the Mozambican Shipping Policy**

There are some deficiencies in the present shipping policy. The document only encourages the move towards the private sector but it does not give the idea how to achieve those objectives pointed out above.

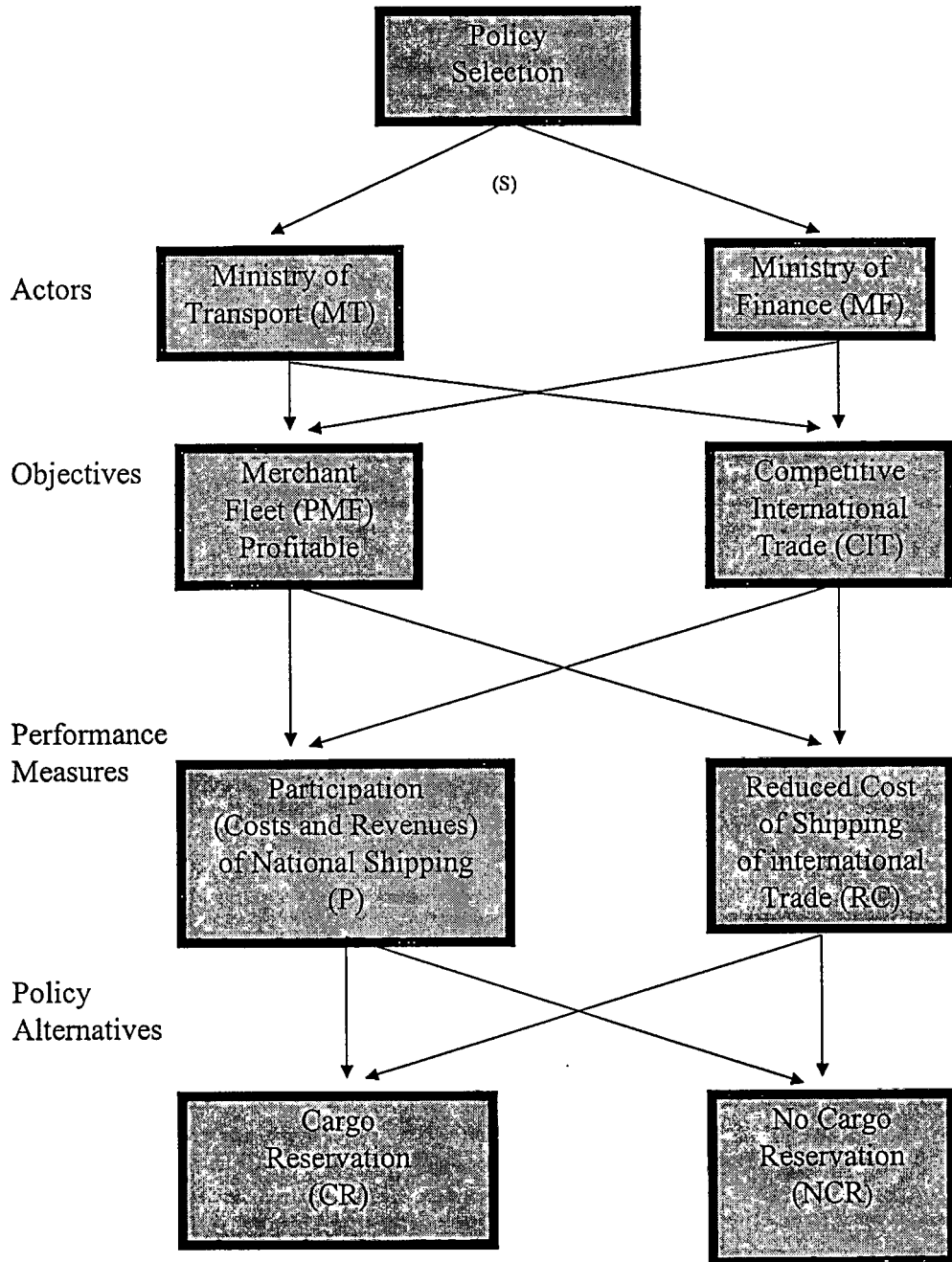
It is easy to recognise problems but it is difficult to find solutions. There are many interests at stake; therefore, it would be better to harmonise the shipping policy in order to be able to serve all interests.

However, in some respects, it could be suggested that the shipping policy should focus on various interests of the players in the industry and then set the priorities in order to allocate the necessary resources. The shipping policy should contribute to Mozambique regaining its position as a major transit country for cargo in and out of the region.

For example, (Frankel, 1992) suggested that 'involvement of all decision-makers assures completeness of the group multi-criteria and also reduces the potential for introduction of bias in the valuation of objectives'.

As mentioned before the shipping policy should set the priorities in order to make the policy more effective. Following is an example of a hierarchical logic model for a shipping policy made by Frankel (1992). This model has been effective when selecting a shipping policy.

Figure 4.4: Hierarchical logic in shipping



Source: (Frankel, 1992) Simple shipping policy-decision making

#### 4.8 Identification of short comings

The implementation of UNCLOS and IMO conventions in Mozambique has been very slow. The mentioned IMO conventions have developed quicker in the field of safety and environment protection; therefore, the government has the important task of preparing national regulations, implementation and their enforcement.

As indicated in this chapter, however, the success of IMO conventions in promotion of international standards of safety and prevention of various environmental problems can nevertheless be questioned.

Moreover, in absence of national legislation in Mozambique, two scenarios can be expected:

(i) The administration will not be involved in their functions of Port State Control and more, the shipowners will avoid to register their ships in the country. As a consequence the national seafarers will not be accepted in the international maritime community.

(ii) With tightened regulations approved by IMO concerning safety and environment protection, the Mozambican coast is facing a major threat of pollution, grounding, and collisions by unscrupulous shipowners who will deliberately provoke accidents for insurance purposes. This would raise conflicts between the owners and insurance companies.

There is one certainty that the present situation of the regulations of maritime transport in the national legislation will not contribute to achieving “Safer Ships and Cleaner Oceans” in Mozambique.

An guidelines for maritime legislation by United Nations (1991, page 2) offers an interesting argument for this view:

It is of paramount importance that, before starting to draft a piece of maritime legislation, the relevant policy issues are clearly defined and brought into line. This will enable the policy makers to set priorities and, if necessary, establish a hierarchy of policy objectives. This will secure the necessary consistency of both policy and law and therefore prevent situations whereby a particular law serves a particular policy objective, but runs counter to other objectives.

This chapter has emphasised that the nature of the international shipping regulations and their application in Mozambique are such that there is presently limited scope for enforcement by the national authorities. In certain specific areas, however, the maritime administration can and should take positive actions, which will serve to strengthen Mozambique's posture in national regulations. The following chapter presents the present technical, commercial and financial aspects of Navique and suggestions to improve the renewed services.

## CHAPTER V

### **5. Present Technical, Commercial and Financial Aspects of Navique and Suggestions to Improve the Renewed Services**

#### **5.1 Introduction**

Until recently coastal shipping has been the most important mode of transport.

The poor conditions of roads, associated with the effects of the civil war contributed to a large extent to the importance of coastal shipping in the country.

Nevertheless, the transport activities in Mozambique contributes 10%-15% of the national product. Within the goods transported by each mode, 3% was carried by road, 7% by air, and 60% by coastal shipping (Fleet Renewal Project, 1992). These figures show clearly the importance of coastal shipping for the national economy.

This is very important for the coastwise shipping company Navique E.E., which only owns 13 ships, most of which are very old with total 12,254 DWT dry cargo. Although small, it is clear that the fleet is inadequate at present for the demands which are being made on it. The future of Navique E.E fleet does not look particularly promising. Therefore, there is a need for a gradual acquisition and upgrading programme by Navique E.E which employs its ships on Mozambican trading routes.

This chapter will discuss and try to evaluate the present situation of the fleet and suggest how the renewed service can be operated in a competitive environment.

## 5.2 Analysis of Commercial, Technical and Financial Aspects of the Company

As discussed before, Navique E.E plays an important role in coastal shipping with great influence on the economic development of the country. Therefore, analysis of commercial, technical and financial aspects of the company should be made. These aspects are really inter-linked as shown by the following:

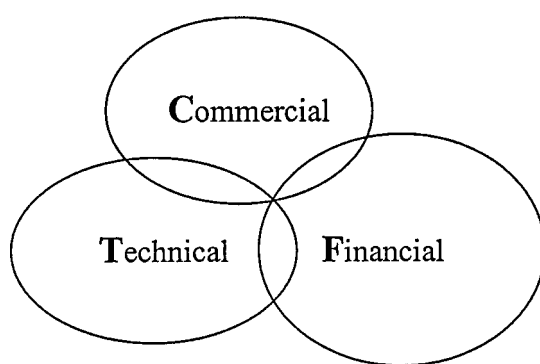


Figure 5.1 Shows aspects of the analysis

Indeed, to be successful, the establishment of new investments in one country, such as a shipping company, usually requires thorough analysis which also bears other consequence, which may obstruct the development of the project.

### 5.2.1 Analysis of commercial aspects

The commercial amplitude of Navique E.E has dramatically decreased during the past six years. It can be seen from the table 7 in chapter II that there was a very large decrease compared with the figure which was twenty- four times as high in 1990.

The reasons for the considerable decrease of commercial activities was due to the fleet, which spent most of its available time in port, showing clearly the poor service organisation of the entire system of coastal shipping in Mozambique. On the one hand, the main causes for this situation can be stressed as follows:

- a) The ships stay in port expecting unprepared cargo
- b) The loading or discharge operations
- c) The ships suffers prolonged delays as a result of congestion in ports
- d) Conditions such as tides and clearances

In addition there is, the continued pressure of competition from road transport and other shipping companies.

At this stage, it would be better to give a definition of the company according to the ISM Code and STCW 95.

“Company” means the owner of the ship or other organisation or person such as the manager, or bareboat charterer, who has assumed the responsibility for operation of the ship from the shipowner and who on assuming such responsibility has agreed to take over all the duties and responsibility imposed by the code.

Brodie (1997, page 167) gives the following definition regarding the seaworthiness of a ship: ‘Fitness of a ship for particular voyage with particular cargo. The main requirements for seaworthiness are that a ship has sufficient crew, stores and fuel, that machinery and equipment are in good repair and that the ship is fit to receive and carry the cargo`.

With the new requirements of the ISM Code and STCW 95 it should be added that the company and personnel onboard are considered to be seaworthy if they comply with the ISM Code and STCW 95 requirements respectively.



### **5.2.2 Analysis of technical aspects**

Although Navique E.E made considerable efforts to improve its management, great difficulties, such as inadequate operations in ports, badly supplied fleet, use of inappropriate enterprises with ship repair expertise as well as inefficient ship repair, one of the major support for maritime transport which has almost not developed at all.

For example, the ships are old and technically out-dated, which makes the company operate under adverse conditions, such as long delays in repairs because of shortage of spare parts. As the parts needed vary from ship to ship, their acquisition is extremely difficult.

### **5.2.3 Analysis of financial aspects**

The analysis made above may delay the development and expansion of the company and also a number of sectors of the economy which are dependent on the coastal shipping. However, the financial situation i.e. increased costs is due to the following:

- a) Debits with shipyards
- b) High debits with port authorities
- c) Increasing costs of repair and maintenance of ships
- d) Delayed wages of workers
- e) Debits with the company which supply bunkers

The managers of the company were not able to control the operating costs; therefore, the increased of costs and also the need for the company to enlarge its fleet or to make radical changes to its ships in order to overcome all or part of its problems were not successful at all. The analysis presented obviously reveals impediment or inability of the company to make high incomes in an extremely competitive coastal shipping environment.

If the Mozambican coastal shipping company, Navique E.E is to survive with good reputation, drastic changes in people's attitude are needed. The new needs of Navique are now more complex than they were in its initial establishment as a national coastal shipping company.

The company should make all the possible efforts to compete at an international level with a high degree of standards on safety and quality. In this sense, and taking into account that there is a need to make ships more profitable, a fundamental component for shipping companies is to compete and survive in maritime transport, a business, which maybe more than others, is carried out in an open market largely susceptible to political, economic and social factors.

Finally, all of these facts affect the entire economic development in the country; therefore, they deserve consideration from Mozambican authorities in order to find a way out of this situation.

### **5.3 How to Provide the Mozambican Coastal Shipping Company, Navique, with Tools to be more Competitive?**

As previously indicated, the coastal shipping company, Navique E.E, was badly managed in all aspects, therefore, the Government of Mozambique (GOM) has taken the decision to privatise the shipping company, also as part of ongoing process of restructuring and private sector promotion.

According to the unit responsible for the privatisation process, the contract which established the new consortium between Transinsular (Portugal) and Focus 21 (Moçambique) will be signed in the near future.

In the same way the main idea of the government in this respect should be to create a favourable environment for individual enterprises to flourish, and to facilitate newfangled ideas and investigations to ensure home-made rivalry and free market competition. The indispensable role of the government is hence to provide legislation and tax arrangements to stabilise Mozambique business jurisdiction, which will be essential to attract risk capital to the enterprises and industries in the country. (Mottram, 1997)

It was inevitable that the company should be privatised bearing in mind that it is facing tremendous losses, which are a burden for the government operating it. In addition, it is understood that investment decisions in coastal shipping company must remain the right and exclusive responsibility of the new consortium and that only the consortium can choose what types of ships to operate and at what cost.

At the present time, much attention should be paid to what can be done in terms of technical, commercial and financial aspects of the company. Therefore, to run efficiently, a shipping company must possess agility in order to meet the necessities of the shippers and itself to the increasing demands of the extremely aggressive shipping market.

### **5.3.1 How Can the Coastal Shipping Company be Competitive?**

Successful ship managers are those who are responsive to client requirements, anticipating them and satisfying them. Reputations are hard to earn, easy to lose. Judgements on quality are initially subjective, influenced by reputation and track record.

(Spruyt, 1994, page 71)

- The coastal shipping company must offer quick and infallible service, which means that no awaiting times may be allowed; the ship should reach a port of destination without delays. The goods should be available, papers done, and the loading procedure programmed and ready to start at once.
- Taking into account that the company may call eight (8) ports a trip, speed is a key factor to consider. It is important to guarantee that the goods transported reach the point of its destination in perfect conditions, and to secure a satisfactory service at reasonable cost in all ports of call. The cargo handling, in each port should in addition be fast and efficient, which means that the cargo must be either in containers or unitised in pallets.
- Positive qualities on technical maintenance standards of the fleet should be reached.

### **5.3.2 Technically- What Should be Done**

First of all, the company has to define a policy and its aspirations, taking into consideration the new requirements of the ISM Code with regard to high standards for quality and safety. Further, the high standards requirements head to ideal maintenance, efficiency and by this, reliable service. This leads further to good reputation and increased support from public customers.

According to Branch (1989, page 438) 'The aim is to provide a fleet which is compatible and economical to the market requirement at lowest possible cost having regard to safety, statutory obligations and service standards`.

On the other hand Spruyt (1994, page 13) added that ' ... the sensitivity of a voyage estimate is much improved if the estimator is aware of the cost vessel following a route pattern that allows a favourable purchase of provisions...`

Therefore, the company has to establish standards and struggle for efficient performance, meeting the international safety standards. Qualified crews and an enlarged fleet would modestly be an asset to the country.

### **5.3.3 Commercially- What should be Done**

From the owner's viewpoint:

The ship is capital asset that will carry whatever cargo yields the greatest profit, obviously, the more different types of cargo it can carry and more efficiently it can carry them, the more attractive the ship is in commercial terms. ( Stopford, 1992, page 261)

A significant part of the cargo transported by Navique along the coast can be broadly divided into three categories: Bulk cargo, general cargo and containers, using small-size general cargo ships. These ships expend divers days in port to handle a few hundred tons of general cargo at high costs and with frequent damage to the cargo. This will continue for an unspecified time unless measures a taken to encourage shippers to make use of either unitised or palletised cargo and containers.

The bulk and general cargoes carried by ships in coastal trade tend to reduce productivity and increase transit time. There is a risk that more valuable paid cargo finds somebody else who can provide the service, for example road transport. Apart from all this adversities presented, there is a greater opportunity for Navique to explore regional cabotage at the same time.

As mentioned earlier, the present trading pattern of the deep sea vessels shows preference for the port of Durban.

Table 11: The pattern for containers in and out of Durban is as follows:

• To/From	Europe/Mediterranean area/ along African West Coast:	51%
• “	USA	: 5%
•	South America	: 3
•	Along African East Coast	: 5%
• To/From	India	: 30%
• “	Far East	: 6%
		-----
TOTAL		100%

Source: Tom Bringsvaerd Report to Gapromar

There is also other liner groups operating from Europe, the Mediterranean Sea, and the Red Sea along the East African Coast to Mombassa, Dar- Es- Salaam, Tanga, Zanzibar and Mozambique.

Looking at the liner groups operating along the East African coast it is visible that Mozambican ports are not attracting these liner groups despite its geographic situation. Therefore, a solution is to organise efficient ships, able of handling a certain amount of unitised cargo and containers, and to operate these ships on routine basis, efficiently, fast and at moderate cost.

In conclusion, the quality of service, punctuality of ships, transport costs and safe carriage of cargo are of extreme significance.

### **5.3.4 Financially- what should be done**

As previously discussed, Navique currently faces grave financial problems, making it very difficult to operate in such a capital intensive and vulnerable industry. Therefore, there is reason to believe that a diversity of motives is prevailing with relation to investments in the company.

It would be reasonable if Navique guaranteed the best possible performance of the company resources and a satisfactory financial control, which is one of the most significant components in order for the company to become successful. The ability to control the costs is a part of quality assurance.

It is generally agreed that transport is a social benefit to the public society. In order to provide an effective service satisfactory to the market it might be indispensable by the government to contribute with subsidies, either by direct or indirect subsidies.

### **5.4 Competitive Advantages**

New competitive strategies and a continuous program for its improvement are required to be established and implemented in the company. The company should evaluate its present competitive position in relation to its geographical location, potential of coastal trade, customers and competitors, and then build a vision for where it must be in the future and convert that future into reality.

Competitive advantage is the exclusive method to knock over customers and market shares from other competitors and to increase the company business profitably. The strategy which will be adopted should have both an offensive and defensive prospect.

With this in mind, one of the most important actions, and probably also one of the most difficult to realise, is to build a spirit of enterprise culture. This means that above all the company should put its efforts on people, and then change people's attitude. This whole process must focus on people who are a driving force.

Pfeffer (1994, page 16) pointed out that:

achieving competitive success through people involves fundamentally altering how we think about the work force and the employment relationship. It means achieving success by working with people, not by replacing them or limiting the scope of their activities. It entails seeing the work force as a source of strategic advantages, not just as a cost to be minimised or avoided.

The spirit of enterprise culture, and people's attitude must be strategically aligned with one another; hence, much should be done on training to upgrade the skills of personnel. The company should treat training as a strategic objective of the business in order to produce real competitive advantage.

In order to achieve competitive success through people, it is obvious what has to be done but for a variety of reasons it is difficult doing it. That is because the fundamental problems are more social and political than technical. (Pfeffer, 1994, page 205).

Therefore, the company policy should have incentives to motivate its personnel in order to have maximum advantage through them. All this should be done with the prime objective of responding to the competition that exists in coastal trade in the region. Eventually thus will enable the company to undergo rapid growth.



#### **5.4.1 A Perspective for Navique to Compete Effectively in Southern African Coastal Shipping**

Navique has a long way to go on its reorganisation process. However, there are promising perspectives for development of coastal shipping services along the coast of Southern Africa.

The great traffic and cargo flow to the ports of the East and Southern African coast such as Mombasa, Dar-Es-Salaam and Durban give an excellent indication and opportunity for establishment of regular services in the region.

In today's of more and more open and aggressive world-wide economic environment, the performance of Navique will depend considerably on its ability to establish links with other competitors in the region.

In addition Mozambique is emerging as an important transit traffic country, both within the East and Southern Africa regions. However, the regional cabotage should be considered as a priority serving inter- regional and international trades. Navique should extend its services to Mombasa and Durban, which are the gateways to world-wide shipping services into and out of Mozambique. This can only be advantageous in assisting trade opportunities developing from a growing Mozambican economy.

#### **5.4.2 Joint Ventures**

From what has been discussed, assuming that Navique is privatised, the new consortium can look for other partners in order to share their involvement in coastal shipping services.

Hilling (1996, page 296) writes that ' ... private shipowning will be best developed in those countries in which local entrepreneurial groups have emerged with a capacity for capital accumulation and investment and where economic growth has been most pronounced'.

The present economic situation of the country is showing signs of recovery. Therefore, it is important to seek assistance and co-operation in areas which the new owners can not provide expertise. There are other potential partners willing to assist within their capacities provided that the commercial and technical aspects of the company are good.

Navique could handle the current circumstances much better if other partners are found. This could be achieved by forming a merger. Its main objective should be to improve the overall performance of coastal shipping services and commercial facilities in the region of Southern Africa.

Today's world is globalisation of information, communications, technology, commercialisation and economy. Countries around the world are joining together creating regional economic blocks, liberalising their trades, forming alliances with one goal in mind: the transfer of "know how" and economic growth.

In the words of professor E M Borgese "knowledge knows no frontier". Technology is information based on knowledge. Every transfer of technology is a joint ventures; therefore, the technology transfer by means of "know how" might be cost effective to learn.

A joint venture might be very a precious apparatus in fulfilment of technology transfer and management expertise for Navique. However, a joint venture per se will

not be a solution to all the problems any coastal shipping companies facing because the joint venture has to carry its own risks.

Concerned with the recovery of the economy and the need to provide adequate connections among Southern African ports, Navique should be able to compete in domestic trade and expand its activities in the region on an extensive commercial assumption.

As (Sturme, 1991) noted,

It is essential that the joint venture is seen as a purely economic entity, operating on a fully commercial basis. It should not be, and indeed must be explicitly protected from becoming, a vehicle for the exercise of potential patronage or any form of nepotism on the one hand, or a de facto part of the administration on other.

Navique, should be operated on commercial basis in order to survive in an extremely competitive and volatile market.

## **5.5 Establishment of an Effective Operating Environment**

It is suggested that the company establish an operational working environment by offering regular, reliable and efficient transport services. However, additional efforts are needed to achieve further improvements, such as marketing strategies, port operations, training and establishment of joint ventures.

As can be seen from appendix iv and v, the company should cover the following ports: Durban, Maputo, Beira, Quelimane, Nacala, Pemba, Dar-Es-Salaam and Mombasa. As cargo and freight details are unavailable, the following ideas show how a renewed service could be organised :

**a) Type of Tonnage**

It seems that the services must be operated with multi-purpose ships with great flexibility of use combining transport of containerised cargo and unitised cargo, and semi-container ships with a high degree of containerisation. The size of the ships expected should be around 200 TEUs and speed 15 knots.

**b) Cargo Handling Technology**

It is clear that there is a need for increased containerisation, even at ship's convenience. The company will then obtain the following:

- Quick turnover in ports
- Considerable reduced pilferage and damage frequency
- Reduced port costs

As can be seen, most cargoes can be containerised, even vehicles and logs that can move on flatracks; vehicles northbound and logs southbound.

**c) Schedules**

The following is made with some degree of future expectations, especially the following:

The overseas container traffic will increase and to quite a degree move via Durban. It is unlikely that overseas carriers will call at Mozambican ports directly and in any case most overseas carriers will tranship outside Mozambique's ports.

If Navique does not move cargoes to/from Durban and Mombasa, others will certainly do so. As consequence, the company runs the risk that they include ports like Maputo, Beira and Nacala in their schedules. The trade will generally increase and be containerised, except possibly the cargoes to Quelimane.

**Ship “A”** Durban-Maputo-Beira-Maputo-Durban

**Intervals:** Every 10 days

**Ship “B”** Maputo-Beira-Quelimane-Nacala-Pemba-Maputo

**Intervals:** Every 14 days

**Ship “C”** Maputo-Pemba-Nacala-Quelimane-Beira-Maputo

**Intervals:** Every 14 days

**Ship “D”** Beira-Mombassa-Dar-Es-Salaam-Pemba-Nacala-Beira

**Intervals:** Every 14 days

Assuming that the above is feasible, Navique would be able to operate a full scale feeder and coastal service using just four (4) ships.

In conclusion, this chapter has clearly demonstrated how Navique activities has dramatically decreased in all aspects. However, in order to make the company more competitive, it may be useful to mention that there is an opportunity to reorganise and renew its services providing regular, reliable and safe carriage of cargo to the customers. Chapter VI will discuss the role of the Nautical School of Mozambique in providing training to the shipping industry in the country.

## CHAPTER VI

### 6. The Role of the Nautical School of Mozambique (ENM)

#### 6.1 Background

The Portuguese authorities made little effort to develop trade, industry, training of mariners or advanced education in Mozambique. As consequence, at independence less than 20% of the Mozambicans spoke Portuguese and the illiteracy rate was still at least 95% (World Education Encyclopaedia, Volume II, 1995, pages 891,893). Therefore, the absence of a policy directed to train Mozambican mariners during the colonial period, imposed new challenges after independence in order to extend the participation in the international maritime community.

Under the subordination of the Ministry of Transport and Communications, Mozambique has operated the merchant navy professional training institution since 1977. The primary objective of the creation of Nautical School of Mozambique was to decrease the exodus of Portuguese officers and seamen and to train seafarers for coastal shipping. Thus, the ENM was successively enlarged to be able to meet the need for training in maritime education.

Furthermore, the school offers courses based on a “sandwich” scheme for deck, engineer and radio communications. The ENM runs courses at all levels corresponding to the three careers of the merchant marine. The total period of

instruction, including the school time practice and sea service, for master mariners and chief engineers is a period of ten and nine years respectively.

## **6.2 Training Needs**

The nautical school has achieved the primary objective of its creation, which was to cover the loss of Portuguese officers, but a great deal still needs to be done.

Currently, there is marked reduction of enrolment of students compared to 1985. This tendency is less than the initial year because the students appear not to be motivated when they finish the course. They could easily find job and the reduced number of the fleet demotivated the enrolment of the students at the ENM. For example, there are available 180 graduates from ENM who are estimated that are unemployed by MTC. (Harris.T, Falcão.R, Manuel.P, 1996, page 7)

The draft document for coastal transport sector: 1992-1995, (Author unknown, 1995, page 7), states that 'The planning of the ENM training activity is severely hampered by the lack of an assessment of future demand for officers and other maritime related personnel. Hence, a manpower development study for the maritime sector has to be undertaken as soon as possible'. This study will play a significant role for the ENM, a role that will enable the institution to make predictions about training needs in the shipping industry, practices and outcome with great confidence.

For example, shore-based personnel in the shipping industry need to be trained. As mentioned in Chapter II various operators, such as shipping companies, ship's agents, agencies, brokers and freight forwarders are operating in the Mozambican shipping industry. Training for shore-based personnel is accordingly seen as a necessity to improve the working standards of employees in commercial shipping practices.

Training in the future for more shore-based personnel will also create further demand due to the growth of transit cargo through Mozambican ports. An estimate shows that there are at least 200 persons who need to be trained per year in the next three years, from 1997-1999 (Harris at al, 1996, page 29).

The ENM aspires to be a most useful training institution for the shipping industry, therefore, it is important that the ENM should be open to the shipping industry as a whole. Furthermore, training should match with the needs of the industry. This would involve the introduction of new courses and flexible methodology for attendance at school, otherwise the ENM will lose important partners in the shipping industry. The ENM should adopt measures to introduction on its curriculum a course programme for the B.Sc. in professional shipping business practices and operations.

### **6.3 Developing an Academic Shipping Programme for Shore-based Personnel**

#### **6.3.1 Course Title: *Professional Shipping Business Practices and Operations***

#### **6.3.2 Learners**

The course is suitable for people employed in the shipping industry as ship's agents, operators, brokers, freight forwarders, and cargo surveyors. The course is also suitable for people in the shipping industry who are employed in related functions, for example ship officers, accountants, marketing staff and for authorities involved in shipping business activities. The course is also available for those persons who wish to initiate their careers in the shipping industry and gain an understanding of how complex this industry is.



### **6.3.3 General Aim of the Course**

The course aim is to offer study in and general understanding of shipping, the proper application of theories in commercial techniques and techniques applied in maritime transport with specific remarks to the aspects that influence the demand for making use of shipping services. Another aim is to produce skilled executives capable of performing effectively in the shipping and trading fields both at the national and international levels. On successful completion of the course the ENM will award a degree of Bachelor in Professional Shipping Business practices and operations.

### **6.3.4 Course Objectives**

On successful completion of the course the student should be able to:

- recognise how the international shipping industry is organised
- identify and examines problems faced by the shipping industry as a whole
- explain the different contracts of affreightment governing the business of hiring ships and the carriage of goods by sea
- use computer data in operations related to accounting, budgeting, cargo booking and describe with examples the purpose of various accounting systems in the shipping company
- examine the international legal regime for a ship's management, manning and safety
- analyse the operational implications of ships use, sale and purchase of ships
- identify the recruitment criteria and the use of human resources in context of the shipping industry
- understand the rights and needs of the customers and how to effectively deal with them
- discuss the knowledge and experience acquired in order to demonstrates clear understanding of procedures in an organisation of shipping industry

- appreciate the interests at stake and the complexity of the shipping business system

### **6.3.5 Course Structure and Organisation**

The professional shipping business practices and operations programme consists of lectures, practical work, tutorials and an approved project report, which has a number of fundamental components:

- The course has a duration of three consecutive years, divided into six semesters of 18 weeks each, for the specific purpose to give shore-based personnel special education within shipping.
- The evaluation of the student's progress will be carried out by continuous assessment through written tests, assignments and oral presentations to allow instant feedback to the learners, and the submission of an approved project report at the end of the course.
- The project report requires learners to commit themselves to research study in areas which are covered by the course programme. It is important that the learners should be capable of demonstrating an ability to select and prepare materials, evaluate and analyse a specific sphere, subject or point in shipping business practices and operations.

### **6.3.6 Content of the Course ( Subject Details)**

The principal aim of the professional shipping business practices and operations is to provide a comprehensive level of understanding of the shipping picture of the present and its practices for personnel who are involved in the shipping industry on shore. The course consists of four subjects divided in various modules. On the whole the course programme deals with general management principles from course materials and then through experience of the learners at work.

### ***1. Maritime Economic Environment***

- The shipping industry
- Shipping management
- Shipping practices
- Personnel management and marketing

### ***2. Maritime Information and Technology***

- Ship and technical operations
- Computer and information system
- Technical expression, communication and report writing

### ***3. Shipping Accounting, Finance and Insurance***

- Accounting and auditing, cashflow, revenue and costs, statistics in shipping companies
- Marine insurance law, hull and machinery, cargo insurance, P&I, general average, shipowners liabilities and claims

### ***4. Maritime Law and Policy***

- International law of the sea
- Safety at sea and quality management
- Rights and Liabilities
- Pollution Law
- Contracts of affreightment
- IMO conventions

### **6.3.7 Admission Requirements**

The entrance to the professional shipping business practices and operations course will be open to both sexes from upper secondary twelve years of general education up to (university entry level) or commercial medium level, over 18 years. They must successfully pass exam for access to ENM entrance. The total period of instruction, including a written report, is three years.

## **6.4 Implications for Maritime Sector Development**

One of Mozambique's most evident problems at the moment is the lack of education and skills in the majority of the population, without which there can be no sustained development. According to (Hawkins ,1997) presently there is an illiteracy rate of 67% among people over 15 years old, and only 7% of the eligible age group attend secondary school and 54% primary school.

Therefore, the maritime sector is to a greater extent down to the track than a number of others in its guide to correct the status and at same time fit in with the new approaches in the skills development training strategy for sustainable economic and employment growth. It is also far down the track in accrediting training courses and promoting facilities to the companies in utilising the systematic plan for upgrading staff.

Apart from some training systems in place, particularly for seafarers but a great deal more is still needed. It is obvious that maritime sector also need to set about identifying what educational and training needs the industry has, then begin the training process.

Therefore, the maritime industry of Mozambique is of sufficient complexity to justify a national maritime education and training system for its purpose. Although the training component of the shipping industry is a relatively small part of the composite, the authorities must consider all measures to develop training programmes for shore-based personnel. Furthermore, the needs of the industry should be satisfied and appropriately addressed. In order to obtain full benefits for development of the maritime sector, the proposed training programme for shore-based personnel should be authorised and credited as soon as possible.

The decision to set up this programme will have implications on national strategy aimed to provide effective training within the present capacities of domestic transport and trade. Furthermore, this fact implies that developments on the international scene influence the management of trade and the organisation of the shipping industry in the country.

So far, the maritime sector will benefit from the improvement in the management of the shipping companies, the increasing opportunities of employment, the reduction of costs and delays of ships and also the improvement of communications between shore-based and shipboard operations. Therefore, the development of this programme will have an impact on the social, economic, political and cultural sphere in the maritime sector of Mozambique.

## **CHAPTER VII**

### **7. CONCLUSIONS AND RECOMMENDATIONS**

#### **7.1 CONCLUSIONS**

From the beginning of this paper the author supported the promotion of a shipping strategy which will enable the country to implant herself within the region of southern Africa and may along with this serve to encourage her industry making it more competitive and efficient. Therefore, the present shipping situation, the traffic trends and cargo flow, the operational characteristics of coastal shipping as well as the Mozambican political, economic and regulatory environment were considered in this dissertation. The preceding analysis was made and appropriate suggestions given for the performance of coastal shipping which revealed the following conclusions:

- Mozambique's shipping industry is undergoing continuous reforms. The shipping and ports state-owned enterprises are being handed over to private sector operators who will in the long run serve to strengthen the competitive posture of the Mozambican shipping industry.
- The Mozambican authorities are failing to utilise local mariner's capability to the maximum extent. This attitude has resulted in inadequate structure to deal with many of the problems facing the maritime sector in the country.

- The coastal shipping is an increasingly important sector, which is indispensable to the development of trade. The present coastal shipping has serious deficiencies; hence, there is an urgent need for improving the services rendered to the customers. In addition, the present technical availability of the fleet is very low and the analyses of the study show clearly that the fleet must be renewed.
- The government interference in daily ship operation practice contributed to a large extent to the absence of the spirit of enterprise culture, the absence of opportunities and the absence of enthusiasm among the personnel of shipping companies due to the level of salaries and raised cost of living.
- The three international ports of the country will have regional impact upon the transit cargoes to landlocked countries. The transport system is the main source of Mozambican shipping services; therefore, these facts may affect the development of the national shipping company in gaining access to these cargoes.
- The lack of education and management skills are the factors which are contributing to inefficient development of the maritime sector.
- The Mozambican flag ships with their crew can not at present compete successfully within domestic and regional trades. This situation is due to the inadequate fleet and quality of services rendered.
- The policy of coastal transport currently allows any Mozambican registered shipping enterprises to charter space in foreign flag vessels to carry Mozambican coastal cargo. Moreover, at present the government policy with regards to the shipping industry is not clearly defined at all.

- There is no entity which co-ordinates the implementation of the IMO conventions in Mozambique, and some of the conventions acceded by the country have not yet been incorporated properly in the national legislation.
- In Mozambique ship inspections and surveys are carried out by personnel without updated regulatory guidelines which mandate safety standards.
- The provisions on discharge of wastes at sea in the national legislation are inadequate and outdated. The same condition applies to sewage, garbage and oil spills. In case of serious oil spill, the fines charged through national legislation are a considerable insignificant amount. An approved national oil spill contingency plan does not exist. Furthermore, very nearly there is no apparatus at all in case of an accident for controlling an oil or chemical spill.
- The main challenge Mozambican ports authorities have to meet is concerned with productivity, loading and unloading times, and it is precisely in this area that sweeping reforms must be carried out.
- The analyse of the study suggested that an advisory board should be created by and report to a committee of the ministry responsible for transport, trade and industry, environment and foreign affairs. Further, it is also suggested that the impact of economic and technical rules and regulations on the ability of Mozambican shipping to compete in domestic and international shipping markets are reviewed.



- The Mozambican economy is gradually recovering and giving signs of growth; hence, the coastal shipping company, Navique, can compete in the domestic and regional trades.
- As a result of the study, it shows that there is a serious need for a clear and unambiguous policy in which Mozambique clearly reveals its aims with regard to the shipping industry. Further, strategic priorities should be defined in hierarchical order. Before doing so, it is advisable that all actors, such as the government, i.e. National Maritime Directorate, SAFMAR, Customs, Immigration and Hydrography Services; the users, i.e. importer/exporters and shippers; the providers, i.e. shipowners, ship operators, maritime unions, dredging, shipping agencies, crewing agencies, surveyors, nautical school, stevedores, ship brokers, fishermen; maritime lawyers, marine transport insurance, P&I, professional maritime associations, maritime consultants and researchers are represented and together draft the policy for the shipping industry.
- No development will be possible without training. There is a great need to train shore-based personnel in order to develop people's skills and make them able to properly carry out their functions. Maritime training for shore-based personnel is an extended need for the shipping industry. The entire economy can be affected if there is failure to train shore-based personnel for the maritime sector.
- It has been correctly said that sustained development and education are not separate challenges; they are inevitably linked. Development can not subsist on a prevailing stagnation of maritime sector in the country; therefore, the training programme proposed within ENM may be achieved, and as the school is under the subordination of the Ministry of Transport and Communications it is probable that discussion will broaden to the whole maritime industry in order to find ways

in which the project will be funded. In addition, the implementation of the training programme will be costly, but with its execution there will be a number of opportunities to train shore-based personnel which will benefit the maritime sector as well as the country.

- The future of ENM will depend on the ability to introduce more courses which match with the needs of the shipping industry in the country and region of southern Africa. Further, there is at present good chances for the expansion of maritime education and training, which will have an impact on the development of the maritime sector country.

## **7.2 RECOMMENDATIONS**

In general the Mozambican shipping industry has arrived at a decision in direction of more, not less, competition. There is a number of positive elements of change in shipping and ports. To this end, this chapter presents recommendations which the author believes to be absolutely necessary for the maintenance of an efficient and competitive environment in the shipping industry serving the interests of the country's trade. Action is recommended as follows:

1. The government take further steps towards the establishment of a Mozambican shipping industry policy.
2. An advisory board consisting of representatives from the industry, government, users and providers be created to monitor on an ongoing basis the shipping environment.

3. The Mozambican shipping industry should start competitive domestic trades and then gradually expand into regional and ocean trade shipping.
4. The government make use of the mariner's capacity to the maximum extent in order to overcome some of the problems in areas where the mariners can provide necessary expertise.
5. Navique be seen as an enterprise which can be profitable provided that it is operated on commercial basis; however, innovative concepts should be introduced in order to establish a highly competitive shipping company.
6. A body which co-ordinates and is responsible for IMO matters established, it should consist of personnel with broad knowledge and experience of the legal instruments of IMO.
7. Inquires in the institutions related to safety at sea and prevention of marine pollution be made in order to determine the factors which make the implementation of the conventions difficult.
8. Periodical meetings be carried out between the ministries to co-ordinate the activities which follow the adoption of a convention, that is, promulgation of rules and regulations, which promotes the implementation of the conventions, remittance of documents at IMO, presentation of proposals of interest for Mozambique at IMO, and publication of the IMO documents to the public and private institutions connected to the shipping industry and the marine environment.

9. In order to release the responsibilities for ensuring safety and environment protection at sea, SAFMAR, which is the organ that exercises maritime safety administration, have an adequate and competent authority to up-to-date relevant legislation with regard to safety at sea and protection of the marine environment based on international rules and regulations and national requirements.

10. SAFMAR should establish measures for effective implementation of STCW 95 which includes the following:

- (I) establish regulations and guidelines for the Nautical School of Mozambique regarding Quality Standards System and examination.
- (ii) establish regulations regarding certificate requirements.
- (iii) establish regulations of compliance with safe manning standards and the ability of seafarers to maintain watchkeeping standards.
- (iv) establish regulations for seafarers to take refresher training courses if necessary to upgrade their standards for compliance with the convention.

11. ENM establish organisational procedures in order to meet the requirements of the revised STCW 95 with regards to a quality standard system.

The proposed training programme should be funded either by state expenditure, maritime industry funds or aid funds; hence, when clarified who will fund, it is necessary to take all measures in order to this fund be well managed with transparency.

12. Navique should put its efforts on people by training them in order to achieve competitive success.

13. Navique establish partnership with other companies in order to gain technology transfer through “know how”.

14. ENM should be open to the shipping industry by introducing new courses which match with the needs of the industry.

15. The government through the Ministry of Education approve the course in professional shipping business practice and operations in order to benefit shore-based personnel of the maritime industry.

Finally, all these facts affect the development of the maritime sector; therefore, they deserve the necessary consideration from the government of Mozambique.

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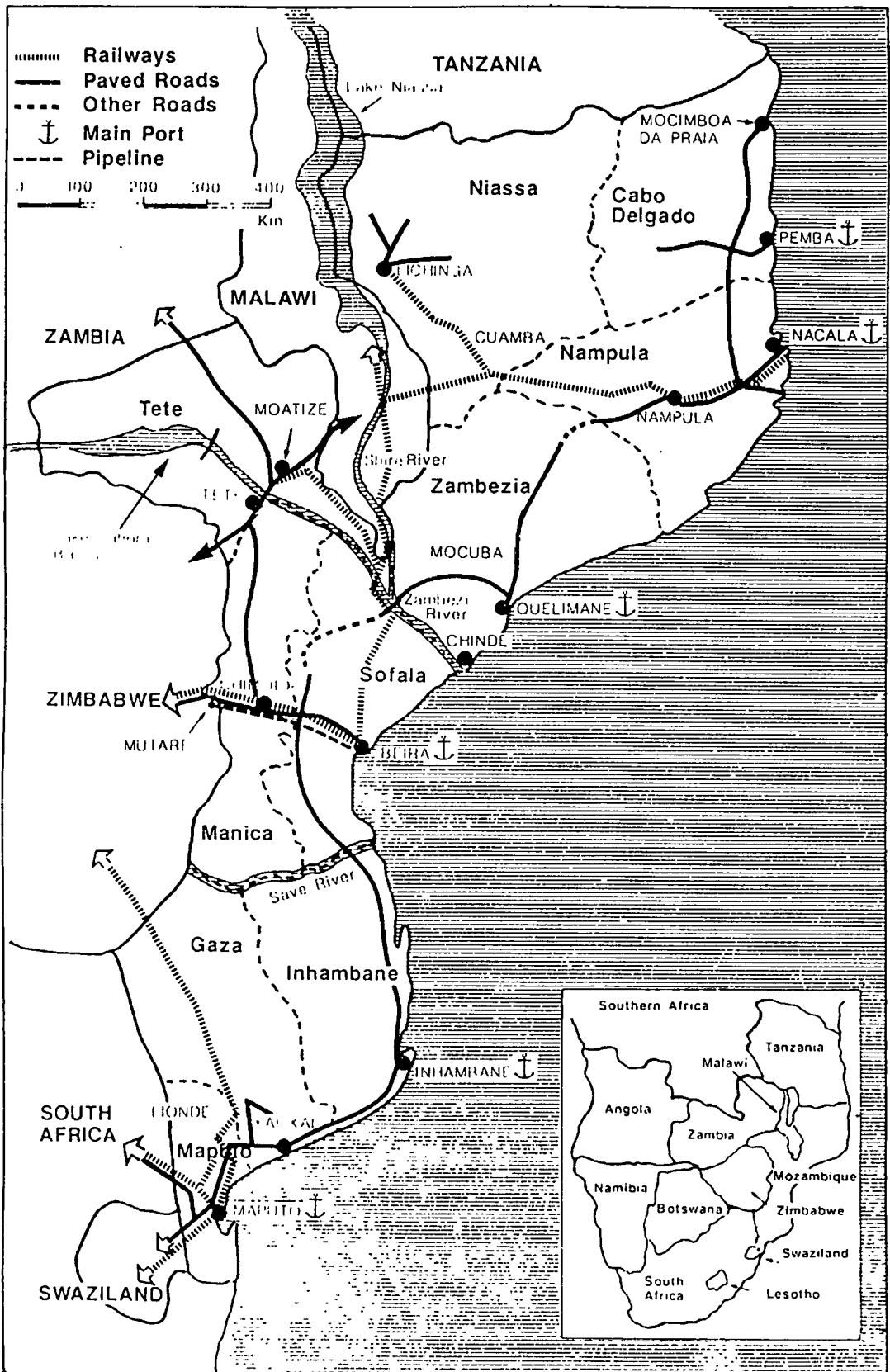
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**The Transport System**

Source: CDI, MTC

TABLE 11

## SADC PORT TRAFFIC : ORIGINS AND DESTINATIONS : Eastern Seaboard

Appendix II.

1995 compared with 1994 ('000 tons)

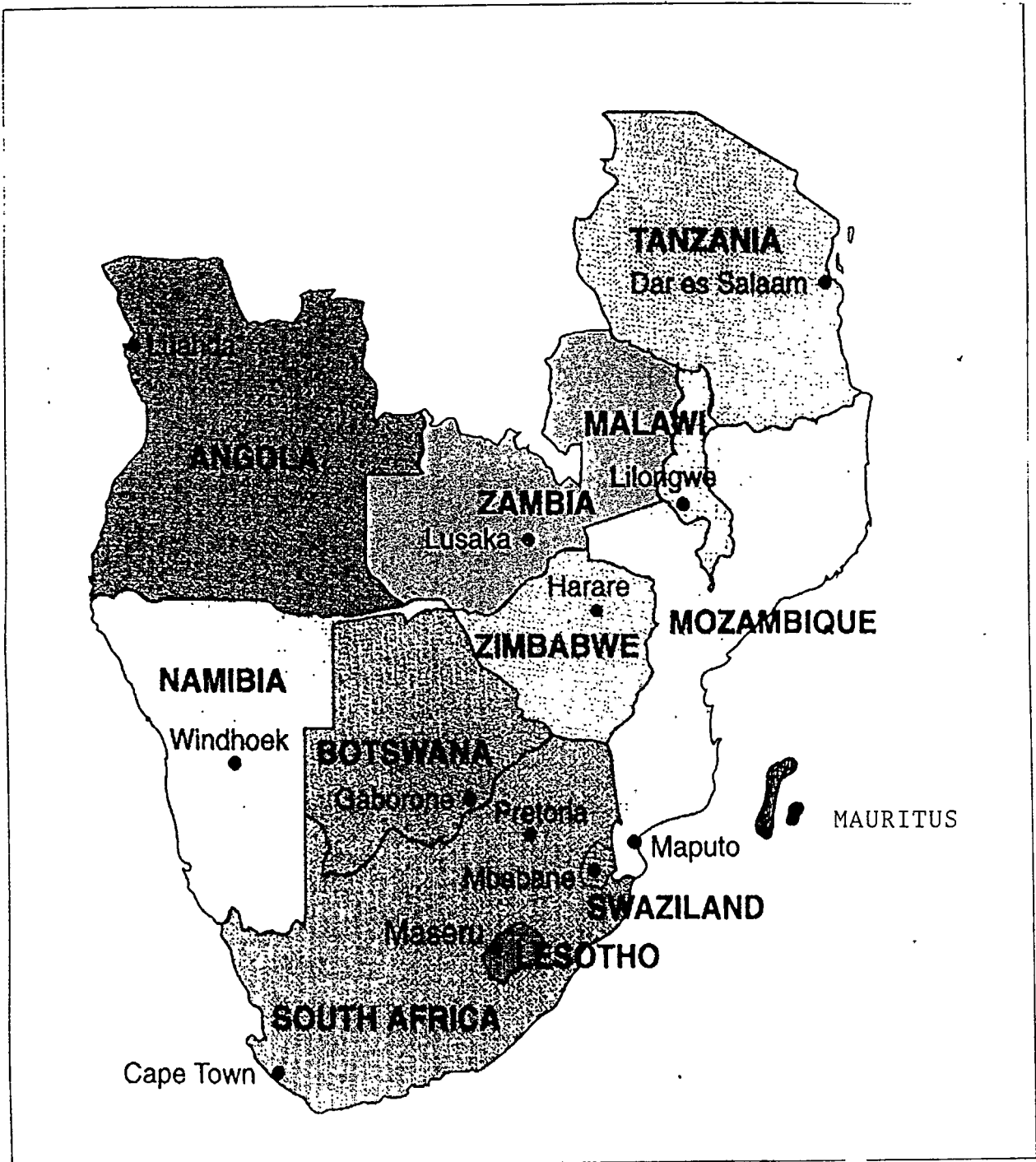
Port / Country	Angola		Botswana		Lesotho		Malawi		Mauritius		Mozambique		Namibia		South Africa		Swaziland		Tanzania		Zambia		Zimbabwe		Other		Total		
	1995	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995	1994	
<b>Dar es Salaam</b>																													
Imports	-	-	-	-	-	-	9	20	-	-	-	-	-	-	-	-	-	-	2,196	2,188	753	512	-	45	427	327	3,385	3,092	
Exports	-	-	-	-	-	-	2	11	-	-	-	-	-	-	-	-	-	-	440	397	330	274	-	-	78	68	850	750	
Total	-	-	-	-	-	-	11	31	-	-	-	-	-	-	-	-	-	-	2,636	2,585	1,083	786	-	45	505	395	4,235	3,842	
<b>Nacala</b>																													
Imports	-	-	-	-	-	-	242	65	-	-	96	173	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	338	238
Exports	-	-	-	-	-	-	35	38	-	-	42	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	77	136
Total	-	-	-	-	-	-	277	103	-	-	138	271	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	415	374
<b>Beira</b>																													
Imports	-	-	-	-	-	-	123	91	-	-	454	293	-	-	-	-	-	-	-	-	26	78	1,454	1,289	1	87	2,058	1,838	
Exports	-	-	-	-	-	-	57	49	-	-	64	51	-	-	-	-	-	-	-	-	25	46	283	481	-	-	429	627	
Total	-	-	-	-	-	-	180	140	-	-	518	344	-	-	-	-	-	-	-	-	51	124	1,737	1,770	1	87	2,487	2,465	
<b>Maputo</b>																													
Imports	-	-	-	-	-	-	-	-	-	-	724	702	-	-	-	-	16	3	-	-	-	-	90	22	3	-	833	727	
Exports	-	-	-	-	-	-	-	-	-	-	95	72	-	-	484	538	178	105	-	-	-	-	671	441	-	-	1,428	1,156	
Total	-	-	-	-	-	-	-	-	-	-	819	774	-	-	484	538	194	108	-	-	-	-	761	463	3	-	2,261	1,883	
<b>Port Louis</b>																													
Imports	-	-	-	-	-	-	-	-	2,427	2,401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,427	2,401
Exports	-	-	-	-	-	-	-	-	994	993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	994	993
Total	-	-	-	-	-	-	-	-	3,421	3,394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,421	3,394
<b>Richards Bay</b>																													
Imports	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,168	2,348	-	-	-	-	-	-	-	-	-	-	-	3,168	2,348
Exports	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72,897	66,308	47	53	-	-	-	27	-	-	-	-	72,944	66,388	
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76,065	68,656	47	53	-	-	-	27	-	-	-	-	76,112	68,736	
<b>Durban</b>																													
Imports	-	-	95	72	60	32	17	7	-	-	5	22	1	-	12,896	10,002	45	4	-	-	8	2	173	171	8	5	13,308	10,317	
Exports	-	-	17	27	14	12	88	114	-	-	24	14	-	-	12,808	14,445	104	88	-	-	6	1	134	270	1	1	13,196	14,972	
Total	-	-	112	99	74	44	105	121	-	-	29	36	1	-	25,704	24,447	149	92	-	-	14	3	307	441	9	6	26,504	25,289	
<b>East London</b>																													
Imports	-	-	-	31	-	23	-	-	-	-	-	1	-	-	815	479	-	-	-	-	-	-	-	-	-	-	-	815	534
Exports	10	-	-	15	-	-	15	-	-	-	15	-	-	-	343	1,962	-	-	-	-	-	32	5	-	-	-	388	2,009	
Total	10	-	-	46	-	23	15	-	-	-	15	1	-	-	1,158	2,441	-	-	-	-	-	32	5	-	-	-	1,203	2,543	
<b>Port Elizabeth</b>																													
Imports	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,760	1,172	-	-	-	-	-	-	-	-	-	-	-	1,760	1,172
Exports	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,191	2,520	-	-	-	-	-	-	-	-	1	1	3,192	2,521	
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,951	3,692	-	-	-	-	-	-	-	-	1	1	4,952	3,693	
<b>Total</b>																													
Imports	-	-	95	103	60	55	391	183	2,427	2,401	1,279	1,191	1	-	18,639	14,001	61	7	2,196	2,188	787	592	1,717	1,527	439	419	28,092	22,667	
Exports	10	-	17	42	14	12	197	212	994	993	240	235	-	-	89,723	85,773	329	246	440	397	361	380	1,093	1,192	80	70	93,498	89,552	
<b>Grand Total</b>	10	-	112	145	74	67	588	395	3,421	3,394	1,519	1,426	1	-	108,362	99,774	390	253	2,636	2,585	1,148	972	2,810	2,719	519	489	121,590	112,219	

Note : - means nil or less than the unit stated

-- means not available

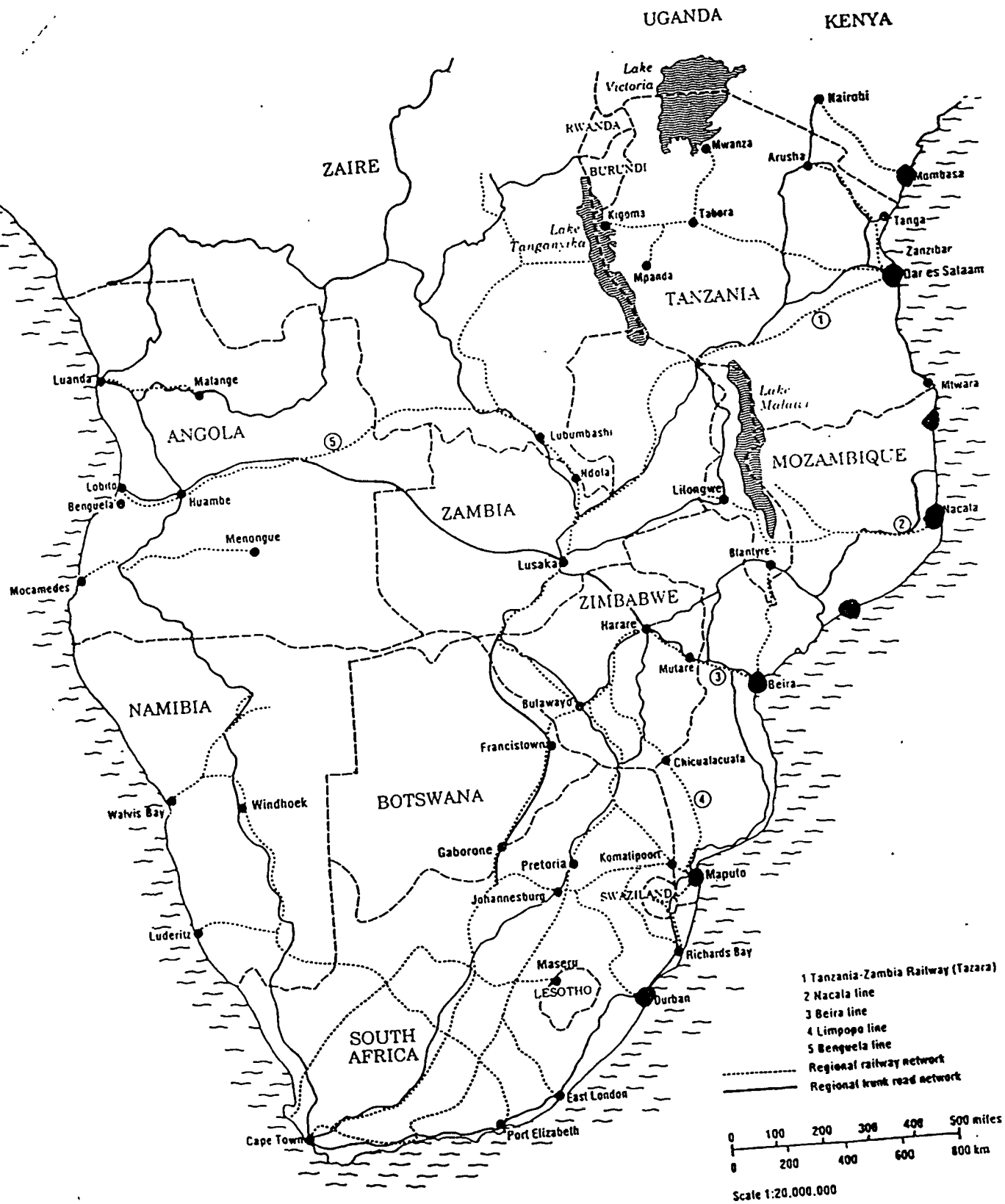
Source : SADC Port Authorities

# SADC MEMBER STATES



Source: SATCC, adapted by author

# Ports to be covered by Navique



Source: The SADCC Ports Handbook

**Appendix v - DISTANCE TABLE IN NAUTICAL MILES**

530	1431	1277	1183	1128	1004	985	945	882	807	758	658	638	530	488	440	408	180	MOMBASA
1380	1293	1139	1039	990	866	847	807	744	669	620	520	500	392	350	310	270		DAR ES SALAAM
1112	1063	912	783	760	642	622	595	536	452	405	301	251	154	111	72			PALMA
1075	1004	853	748	701	583	563	536	477	407	346	242	216	117	72				MOCIMBOA DA PRAIA
1019	948	797	685	645	527	507	480	421	337	290	186	150	45					IBO
979	903	752	651	602	482	462	435	376	292	245	141	110						PEMBA
898	827	688	573	544	406	386	359	300	212	169	64							NACALA
840	769	618	515	480	348	328	301	242	154	106								ILHA DE MOZAMBIQUE
756	685	538	447	389	260	235	205	141	69									ANGOICHE
707	636	472	380	340	199	174	142	80										MOMA
650	579	430	311	263	131	100	74											PEBANE
605	534	386	269	208	73	48												MAGUSE
598	523	361	254	197	63													QUELIMANE
558	489	327	201	149														CHINDE
481	389	264	132															BEIRA
374	312	171																VILANKULOS
254	182																	INHAMBANE
72																		INHAMPURA
<b>MAPUTO</b>																		
302	DURBAN																	
493	266	EAST LONDON																
694	398	140	PORT ELIZABETH															

**MOZAMBIQUE  
CHANNEL**

Modified from: Navique E.E (1993)  
Borrowed from: Jerónimo Tamele  
Dissertation.WMU.MALMÖ-SWEDEN  
Appendix v