PROBLEMS AND PROSPECTS OF MAKING ADEN A FREE TRADE ZONE WITH REFERENCE TO STORAGE MANAGEMENT

A THESIS

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By

ABDULLA ALI SALEM BIN BISHER

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
UNIVERSITY OF ROORKEE
ROORKEE-247 667 (INDIA)

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CANDIDATE'S DECLARATION

I hereby certify that the work which is being presented in the thesis entitled **"PROBLEMS AND PROSPECTS OF MAKING ADEN A FREE TRADE ZONE WITH REFERENCE TO STORAGE MANAGEMENT"** in fulfilment of the requirement for the award of the *Degree of Doctor of Philosophy*, submitted in the Department of Humanities and Social Sciences of the University is an authentic record of my own work carried out during a period from June 1996 to December 1999 under the supervision of **Dr. Mansoor Ali**, Professor, Department of Humanities and Social Sciences, University of Roorkee, Roorkee. The matter embodied in this thesis has not been submitted by me for the award of any other degree.

(Abdulla Ali Salem Bin Bisher)
Signature of the Candidate

This is to certify that the above statement made by candidate is correct to the best of my knowledge.

Date : 27 - 12 - 1999

Signature of Supervisor

The Ph.D. Viva-Voce examination of Mr. Abdulla Ali Salem Bin Bisher, has been held on 2-11-2000

Signature of Supervisor(s)

Signature of H.O.D.
Head of Deptt.
Humanities & Social Science
University of Roorkee
ROORKEE

Signature of External Examiner

ABSTRACT

The Republic of Yemen is located in the South and South West of the Arabian Peninsula having boundaries with the Kingdom of Saudi Arabia from the North and North West borders Sultanate of Oman from the East. The Arabian Sea from the South and the Red Sea from the West. The area of the country is approximately 555000 sq. Km. with a total population of 13 m. in 1993.

The topography, of the region varies from beautiful plateaux, deserts mountains, valleys, and shores which are free from pollution and a great number of Gulfs and Islands through out the territorial waters of the country in the Red Sea, Babel-Mandab strait, Aden Gulf and the Arabian Sea.

The variety of topography and climate have had its great effect in the development of the Yemeni civilizations which is different from other ancient civilizations in the Nile valley and Mesopotamia, as well as other ancient civilizations in the ancient East. The Yemeni civilization had developed on banks of valleys and routes of ancient world trade.

In the field of transportation and communication, there are advanced and developed telecommunication network linking the country with the rest of the world. The Yemen Republic also possesses a modren local and international communication and telecommunication network, the direct international line exists in all governorates, in addition to telex lines, facsimile and cable lines and services as well as ordinary and express mail services, which are being provided at local and international levels.

There are four main seaports on the Arabian Sea, Gulf of Aden and the Red Sea, fully equipped to receive all kinds of cargo ships and passengers ships. These ports are Aden Port, Hudeidah Port, Mukalla Port and Mokha Port.

Aden port is a commercial and economic city of the Republic of Yemen. Aden is considered as one of the oldest and natural protected ports in the world.

Since the ancient ages specifically in B.C., era, Aden held a monopoly over goods trade which was coming from Egypt and India where it witnissed the exchange of their goods. This fact shows the geographical and historical importance of Aden at that time. Aden was the second most important bunkering port in the world.

The location of Aden is very favourable, only a few miles off the main sea route through the Red Sea and on to the near major "round the world" port of Colombo, Singapore and the Far East. In the 1950's and 1960's an early form of Free Trade Zone operated in Aden. Now, with trade between the East and West increasingly using the Middle East as an area of assembly, processing, storage and redistribution, Aden is uniquely suited to benefit from this recent development.

The enviable location of Aden, excellent natural port, expenses of surrounding flat land and large potential work force provides it with immediate advantages to transform Aden into Free Trade Zone. The Government of the Republic of Yemen is trying today to make Aden capable of resuming its historic role in the field of international commercial exchange with the purpose of expanding relations between countries and nations looking for security, stability and peace on the basis of developing and enhancing mutual interests, friendship and respect between nations.

In this study we propose to discuss the promising role of Aden Free Zone in the international economy and the prosperity it can provide to Yemen people.

The study covers the following objectives (i) To study the economy of Yemen, (ii) To study the status of port of Aden at present, (iii) To study the establishment and development of Free Trade Zones, (iv) To study the storage management and problems, (v) To compare Jebel Ali and Aden Free Zones.

The study comprises of eight Chapters (including summary and conclusions).

Chapter I is introductory in nature and deals with the statement of the research problem and its significance, objectives, scope and limitation of the study. Besides these, it spells out the data base and methodology adopted for the study.

Chapter II deals with the review of literature concerned with the research topic.

Chapter III is the outline and review of the economy of the Yemen Arab Republic (YAR) before unification, economy of the People's Democratic Republic of Yemen (PDRY) before unification, economy of Republic of Yemen (After unification in 1990), economy Development in the Republic of Yemen. This Chapter gives the necessary background to the study.

Chapter IV presents a study of the Port of Aden. In this study brief history of the port of Aden, Goals and objectives of Aden Free Zone development, ship bunkering at the port of Aden, the Aden port development and extension project and Free Trade Zone relevance to Aden (Jebel Ali Free Zone, Singapore).

Chapter V is a study of establishment and development of Free Trade Zone, definition, goals and objectives, types of Free Trade Zone. The effects of Free Zone of the economy Gulf country and Yemen, policy assessment, model Free Zone for Aden with reference to Aden.

Chapter VI is a study of development related to store-management, the storage function, store location, and current problems of storage and management in Aden Free Zone.

Chapter VII is a comparison study between Jebel Ali Free Zone (Dubai) and Aden Free Zone (Yemen), advantages, disadvantage of Free Trade Zone and Review of international experience (in the Middle East, in the Indian sub-continent, the Nokhadka Free Zone, Free Zones in the Mediterranean).

Chapter VIII presents summary, conclusion and suggestions of the study.

The major finding of the study are as follows :

1. Aden has benefited from its advantageous location, very close to the main international shipping routes passing down the Red Sea and across the Indian Ocean, and the savings in transportation cost by sea compared with other Free Zones in the area, availability of a skilled and trainable work force, with current salary levels of expectation low by international standards.

2. The Free Trade Zone at Aden can take the lead in demonstrating to the rest of the Republic of Yemen the value of producing for the domestic and international markets using domestic resources (natural gas and petroleum and agricultural).
3. The history of retailing in the port of Aden has proved the importance of good organization and management, the services at Aden port is very satisfactory.
4. From the comparison of the study of Free Zones Jebel Ali and Aden finding : i) Aden Port is better, it save time and fuel, ii) Aden provides training and experience to national labour but labour in Jebel Ali mostly comes from foreign countries. iii) The geographical historical and economic importance of Aden is more significant than Jebel Ali. iv) Aden Port is one of the oldest natural ports in the world, the area is wide open and the traffic of ships is very hub in Aden, but Jebel Ali is artificial port and is very new port, and is very closed port.

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(Abdulla Ali Salem Bin Bisher)

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CHAPTER - I

INTRODUCTION

1.1 INTRODUCTION

The intrinsic motive behind the creation of a free trade zone is to stimulate the economy of the region where the free zone is located. A Free Trade Zone, for the purposes of this study, will be defined as a designated area where unrestricted activities of industry, commerce, trade, and construction take place and where the unrestricted flow of goods and services is permitted to the rest of the world.

A Free Trade Zone is a defined area that can be anywhere within a country where the unrestricted flow of trade is permitted. Items that are imported and then exported are free from custom duties. Activities in this zone include trans-shipment of cargo, storage of cargo in warehouses, packaging of bulk items into smaller or individual packages, inspection of components and regional cargo distribution centres.

What is the vision for Aden's future? This question must be answered keeping in mind the historical background of Aden.

Following an agreement reached in December 1989 in a constitution for a unified State, the (Northern) Yemen Arab Republic and the (Southern) People's Democratic Republic of Yemen were united as the Republic of Yemen on 22 May 1990.

The Republic of Yemen is located in the South and South West of the Arabian Peninsula having boundaries with the Kingdom of Saudi Arabia from the North and North West borders, Sultanate of Oman from the East, the Arabian Sea from the South and the Red Sea from the West.

The territory includes 112 islands including Kamaran (181 sq. km) and Perim (300 sq. km) in the Red Sea and Suqutra (3500 sq. km) in the Gulf of Aden. The area of the country is approximately 555,000 sq. km excluding the desert Empty Quarter (Rubal-Khali). The population was estimated at 13 m. in 1993 and density, 21 persons per sq. km.

The country comprises 17 governorates and the Capital City, Sana'a. The commercial Capital is the port city of Aden, other important towns are the port city of Hodeida, Mukalla port and Mokha port.

On 28 Sept. 1994 the 302-member House of Representative unanimously adopted a new Constitution founded on Islamic law. This abolishes the former 5-member Presidential Council and establishes a President elected by Parliament for a 5-year term.

The topography, of the region varies from beautiful plateaus, deserts, mountains, valleys, and shores which are free from pollution and a great number of Gulfs and Islands throughout the territorial waters of the country in the Red Sea, Babel-Mandab Strait, Aden Gulf and the Arabian Sea.

The region is characterized by its medium range plateaus and hills, besides valleys and plateaus covered with greenery and palm trees reaching to the coast. These form distinctive shores in the Red Sea, Aden Gulf and the Arabian Sea. Besides this there are the beautiful of the various mountainous topographical sites, valley streams and Yemeni islands throughout the Yemeni sea shores, particularly, Suqutra island which possesses numerous forms of tourist attractions, as well as numerous coral reefs and aquatic animals. The Republic of

Yemen is distinctive in its diversified climates, thus consolidating its position as a country with investment promotion policy. The summer in the coastal regions is hot and humid, whereas, the climate is hot and dry in the inner lowlands, and fairly moderate in the high lands and midlands. In winters the climate in the eastern regions and the western slopes is fairly warm with splendid sunrise.

The variety of topography and climate have had their great effect on the development of the Yemeni civilizations which is different from other ancient civilizations in the Nile Valley and Mesopotamia, as well as other ancient civilizations in the ancient East.

The Yemeni civilization had developed on the banks of the valleys and routes of ancient world trade which contributed in the emergence of ancient and historical cities such as Shabwa, Ma'areb and Shibam, that have a great number of archaeological and historical landmarks such as dams, irrigation channels, drainage, temples, statues, paved roads, cisterns, Recording of engravings on stones, ordinance, cities and markets emphasize the donations and distinctions which the ancient Yemeni civilization contributed towards human cultural heritage and knowledge. Such Yemeni contributions were continuous throughout the historical epoch. This is apparent in handicrafts and souvenirs such as Yemeni Swords, Ganbias and Silverware. In addition to customs and traditions, folklore songs, music and dances which are numerous and variable, are the great variety of the famous Yemeni dishes. The Yemeni people are well know for being social and civilized. They are friendly and hospitable people welcoming the visitors warmly, diligently and affectionately.

In the field of transportation and communication, there are advanced developed telecommunication networks linking the country with the rest of the world. There are four main seaports on the Arabian Sea, Gulf of Aden and the Red Sea fully equipped to receive all kinds of cargo ships and passenger ships, these

ports are Aden port, Hudeidah port, Mukalla port and Mokha port. The Yemen Republic also possesses a modern local and international communication and telecommunication network, the direct international line exists in all governorates, in addition to telex lines, facsimile and cable lines and services as well as ordinary and express mail services which are being provided at local and international levels.

1.2 IMPORTANCE OF STUDY

Before discussing goals for the development of the Aden Free Trade Zone, it is important to understand how the Free Zone's mission fits into the overall plan for Yemen. According to the Yemen Free Zone enabling legislation (Republican Decree No. 49, April 25, 1991) and the final proposed draft law of the Yemen Free Zones submitted by the Board of the YFZPA to the government of the Republic in March 1992, the Republic of Yemen believes that both cooperation and integration are necessary in continuing human evolution, and that coexistence and progress can be advanced by economic growth. The Republic of Yemen is actively working towards this goal.

Furthermore, expanding international relationships will bring stability and prosperity to Yemen. Underlying these issues, is a dynamic vision for the Republic of Yemen :

a) Improve the quality of life in Yemen

The quality of life includes better nutrition, health care, housing, education and higher standard of living. It encompasses stability, prosperity and equity. Stability implies a government that is predictable and reliable, free from war and revolution, and a living environment that is sound and balanced. Prosperity suggests an economy that is growing from domestic savings and investments and benefiting from foreign investment and ventures. Equity refers to

a balanced distribution of infrastructure and social programs throughout the country, an impartial and just application of law, and a system of fair rules and principles. Economic development, aimed at providing stability, prosperity and equity will determine the future of Yemen and its people. The Aden Free Zone is destined to play a vital role in improving the quality of life in Yemen by taking a leadership position in the successful economic development of the Republic of Yemen. This vision for Aden is a product of it's past success as an international trading center, and its future role as a free zone and manufacturing hub.

b) Integrate Aden into the world economy

The YFZPA will promote economic development of the Republic by encouraging Yemeni and international investment in the Aden Free Zone. Investors require certain conditions before risking their assets. The YFZPA must initiate action to attract investments that complement Yemen's resources, capabilities and culture. For example, the YFZPA must make use of Aden's best natural resources such as its fine harbor, strong labor force, and its varied culture to attract both foreign and domestic investors. Many actions require the support from other ministries, the Governorate of Aden, businesses and the people. If these actions are completed prudently, Aden, and Yemen, can regain their place as important participants in the world economy. Many countries have found a way to successfully become integrated into the world economy by using sustained growth and development strategies such as :

- **Popular Participation**

Popular participation will allow for more emphasis on compatibility between economic activity and indigenous social groups. Popular participation has a direct role in successfully raising real income and living standards. This community involvement ensures continuity between the old and the new, as well as more

comfortable and supportive position for the people affected.

- **Environmental Conservation**

Developed and underdeveloped regions are defined by their relationship to the environment. This usually entails a move away from non-renewable resources toward greater use of renewable resources, such as talented people and comparative advantages in location and amenities. Further, in the conservation of renewable resources, it is cheaper and more efficient to control potential environmental damage than to clean it up later. Cleaning generally costs 20% to 50% more than control measures for prevention. Policies for protection of the environment should also take into account cultural customs, thus making implementation possible. The side effects of industrialization without proper safeguards for the environment takes its toll on the health and welfare of the people of all the developing nations.

- **Self-reliance**

It is important to maintain cultural continuity as additional products and technology become part of daily lives. Innovations made by the scientists and engineers of the country are some of the most valuable products. Becoming self-reliant in this way will offer the most lasting rewards and the most satisfying development to the country. Internal innovations and developments also assure a good bridge between technology and the developing country. Self-reliance also implies a high level of education for a country's populace in keeping with the sustained growth and development model.

1.3 OBJECTIVES AND HYPOTHESIS

The following are the main objectives of the study :

1. To study the Economy of Yemen.
2. To study the status of the port of Aden at present.

3. To study the establishment and development of Free Trade Zones.
4. To study the storage management and problems.
5. To compare Jebel Ali and Aden Free Zones.

The following hypotheses have been set in connection with the above objectives :

1. Integrate Aden into the world economy. If these actions are completed prudently, Aden, and Yemen can regain their place as important participants in the world economy.
2. Make relations between the Free Zone industries and the rest of the economy.
3. Effect on income of the population of Aden.
4. General more employment for the people which is very helpful for the local population.

1.4 SCOPE OF STUDY

This thesis is concerned with the study of the port of Aden as a Free Trade Zone. It has to be based on the larger framework of the economics of Free Trade Zone. It is well established that export plays an important role in economic development and Free Trade Zones have great potential to boost up exports from any region. Since unified Yemen (Republic of Yemen) is, in a sense, a country newly born in 1990, it was essential to develop its economy rapidly and in order to achieve this aim, it has been thought necessary to establish a Free Trade Zone at Aden. Since no study has been attempted so far, our attempt is the first of its kind in this direction.

The study is mainly concerned with economic aspects of the Aden Free Trade Zone. It examines the economy of Yemen in general and its export sector in particular because trade is a vehicle for development. We have concentrated on the evolution for the idea of Free Trade Zone and how it can be implemented in Aden.

Since Jebel Ali is the nearest Free Trade Zone at Dubai, we thought it useful to compare Aden with Jebel Ali in detail. However, we have also given the experience of other FTZs in the world. We have given the experience of Singapore, Sri-Lanka, Pakistan, Syria, Turkey, Jordan and a few other countries. It is hoped that they will be found very helpful for the development of Aden.

This thesis also includes a discussions of the geographical situation of Aden which gives various advantages to this port. The social and political environment of Yemen has also been discussed because political stability is necessary for the development and growth of trade.

The main focus of attention in the thesis is on storage and management of the Aden free trade zone and its costs of various types. We have also examined the technical aspects of trade, storage, transport and management. Along with sea-route trade, air trafficking in trade is also important, we have also included the Aden airport discussion for air trade and its help in cargo trade.

The account of the establishment and development of Aden as a free trade zone has been given in detail. An attempt has also been made to include the general rules and regulations which regulate land ownership, trade, storage and management. These have been given in the thesis at the right place.

The study includes as assessment of the effects of free trade zone on the economy of Yemen in particular and on gulf countries in general. It also gives an evaluation of trade policies of Yemen and her trading partner countries.

Thus, the study of Aden as Free Trade Zone includes all those aspects which are necessary for this study. Suggestions are also given for improvement in future.

1.5 RESEARCH METHODOLOGY

The study will be exploratory in nature and will be based on data, which will be collected from various Free Trade Zones which serve as parallel case studies to

the zone being developed at Aden.

The information and knowledge will be collected through goals, case studies' report, and existing conditions report, the Yemen Free Zone enabling legislature (Republican Decree No. 49, April 1991), and the current Investment Law (Presidential Decree No. 22, 1991) which form the core of the material analyzed.

1.6 SOURCES OF DATA

Secondary data was derived from the annual reports, journals, Government's Publications, and experience of different Free Trade Zones in the region.

1.7 LIMITATION OF STUDY

Aden free trade zone will be the study case of my research work along with its storage requirements and management, and to analyse the obstacles and difficulties which should be solved to make Aden a successful free trade zone.

We will take as an example "Jebel Ali" free zone in Dubai, for comparison purpose with Aden since there are common historical, economic and geographical factors.

CHAPTER - II

REVIEW OF LITERATURE

Except some reports and some work scattered here and there no systematic literature exists on this Topic, hence we decided to work on Aden - As a Free Trade Zone.

Robinson, O.P. (1962) [48] pointed out that the system of small trade and small storage retailing is as old as recorded history, since 1900 an organized, academic study of retailing using a scientific approach to the problems in the field has come about. Generally lacking was a formal marketing structure such as that found in our economy today. Gradually this situation changed as transportation and communication facilities were developed.

R. Gavin (1963) [51] reported that the economy of Southern Arabia has benefited from trade with distant countries since at least the 1st millennium BC, with the port and the merchants of Aden being mentioned in writings and inscriptions dating upto 3,000 years ago. The first British contact with Aden had been made in 1609, when the East India Company vessel "Ascension" arrived in Aden. No further visits are recorded until 1829, when the East India Company considered the idea of making Aden a colony Station. Initial development of the Port, from 1839 when Haines landed in Aden, was slow.

In the Report of the Ministry of Trade, Singapore, (1969) [53], it is stated that the priority industries in the investment promotion efforts of the Economic Development Board are as follows : metal engineering and machinery; aerospace

engineering; shipbuilding and transport equipment; shipmachinery and fittings; optical instruments and lenses; engineering, scientific and medical equipment; electrical and electronic products; and basic chemicals, petrochemicals and fine chemicals. The Singapore government has also developed a research and development plan and identified specific areas of promising industrial upgrading.

Morrison A. (1974) [41] found that the stores function is a vital part of industrial concerns, public and private utility undertakings, agricultural enterprises, municipal authorities, armed services and government departments, and it must be designed to suit the particular needs of the organization it serves. There is, therefore, no standard system which can be universally recommended or applied but, in the course of time, certain principles and practices of more or less general application have been evolved.

Novak, Adolph (1977) [47] studied that it is impossible to give any detailed advice or rule-of-thumb method for the setting and construction of stores' building, because of the variation in circumstances in different organizations. Even when the building of new storehouses is envisaged, the situation is usually complicated by existing conditions to some extent.

Ministry of Trade and Industry, Singapore (1980) [58] in a study has come to the conclusion that the economic restructuring involves the shift away from low-wage, low-skilled, and thus low value-added economic activities towards higher-wage, higher-skilled, and higher-value-added production and service activities which will result in a more efficient utilisation of Singapore's increasingly scarce labour resource. The strategy for the 1980s is therefore to achieve improvements in productivity performance to meet reduced domestic supply growth and rising expectations for better wages and higher standards of living through improved industry/product mix, improved technology mix, and human resource development facilitated by higher wages and skills development programmes.

Bidwell, R. (1983) [11] found in a study that there are two governments in Yemen : the Yemen Arab Republic (YAR) and the Peoples Democratic Republic of Yemen (PDRY). The YAR (from 1967 also known as North Yemen) had formerly been a Kingdom. In September 1962 the ruler Imam Ahmed died and a week later army officers, staged a coup, declared the Imam deposed and proclaimed the country of YAR. The PDRY (also known as Southern Yemen) comprising of Aden and the former protectorate of South Arabia, was formed on 30 November 1967, Aden had been under British rule since 1839. The private sector predominated in Yemen Arab Republic and is basically free-market economic system. The public sector was dominant in Southern Yemen's (PDRY) centrally planned socialist economy.

P. Saravanavel (1984) [50] pointed out that the number of Free Trade Zones has grown from 200 in the recent past to about 400 in about 75 countries, two-thirds of which are located in various developing countries, including India. There are two well developed free zones of this kind in India - one in the neighbourhood of Kandla Seaport, known as the Kandla Free Trade Zone and the other in the vicinity of Santa Cruz airport, known as the Santa Cruz Electronics Export Processing Zone. Four new Free Zones are also coming up in Madras, Cochin, Falta and Noida.

Eddy Lee (1984) [20] pointed out that two emerging trends are important for the future prospects of Export Processing Zones. One is the implications of new technologies derived from the microelectronic revolution for continued redeployment of industries to developing countries. Another relevant trend is the current efforts at industrial restructuring in newly industrialising countries such as Singapore and South Koria.

Mohammed Taha Bali (1988) [39] studied and found that the major factors for the success of the Free Zones in the developing countries have been : a favourable social and economic environment, Government and country support, suitable

infrastructure, plan for the future, maximized use of natural resources, selective specialization and flexibility in development.

Yemen Free Zones Public Authority (1991) [67] estimated that cooperation and integration are necessary for mankind to achieve continuity of human evolution, coexistence and progress, and that joint free will directs cooperation and integration towards serving peoples mutual interests and supports economic and geographical potentialities of the city of Aden, and the natural advantages and historical reputation Aden enjoys in international economic relations and of the cities vital role in strengthening such economic and commercial links between continents of the world. The Government of the Republic of Yemen, in the course of its effort to attain such an aim, decided to convert Aden City into a free zone.

Richard L. Bolin (1991) [52] pointed out how Export Processing Zones and Free Zones are now being used to improve the efficiency of serving global markets for both manufacturers and retailers. Issues of market strategy, logistics, finance, sourcing, quality and legality are explained by top managers and professionals. The concept of free zones as vehicles for countries to control the degree of openness they desire in international trade and global manufacturing is explored with specific examples from the Soviet Union and the United States of America.

Mahir Olish (1991) [35] gives in his study, the problems most directly related to store management are location, organization of store function, administration of personnel, provision and supervision of services, protection of customers, employees, company funds and physical property, and control of store expenses.

Markaz Al-Bahooth (1992) [36] (research centre in Saudi Arabia) studied and found that a good location, therefore, is one that assists in making possible the most profitable sales volume. The site must be convenient to the store's customers i.e. exporters and importers. Location problems are not limited to the choice of a

site for a new store, nor are they limited to a small store. The problem of store location varies considerably among various establishments.

Juma'a Amer (1993) [32] pointed out in his study that Free Zone constitute a tool for trade and economic development. They are special geographic areas that provide relief from the costs associated with custom duties, thereby reducing the overall cost of conducting business operations in a host country compared to any other offshore location. If the under-taking is successful, it can eventually provide a model for the whole country. Hong Kong, Singapore, and Mauritius are cases where Free Zone conditions apply throughout the national territory.

Canadian Occidental Petroleum Ltd. (1993) [15] reported that Yemen is a developing country, with one of the world's oldest civilization, with its own unique past, present and future. Oil development is a new and integral chapter in a continuing story we term Yemeni history. The Yemeni government gave the company an opportunity to become a significant producer of oil for the world market and also the responsibility of jointly sharing in the country's development in its broadest sense. Consequently, Canadian OXY a (petroleum company) is committed to employing Yemeni citizens in this enterprise and has formulated training programs which will develop skills not only for the oil industry, but also for broader business purposes, for health, for safety and for the environment.

Nooruddin Fakhri (1994) [46] estimated that for most of its history, the port of Aden did not have conventional along side berths for cargo ships. By the late 1940s, Aden's main concern was still ships bunkers; either coal or oil, cargo transshipment and the loading/discharging of cargoes from / to Yemen played a secondary role. Coode Blizard had completed a study for the development of the port in the early 1980s. Work commenced at the end of 1988, based on the borehole programme, soil testing, data evaluation and reports prepared by Coodes. The project was completed and handed over to Yemens Ports Authority in mid - 1990.

BP Marine (1994) [12] found that Aden was an important shipping center where goods brought by sea from India were trans-shipped to Red Sea Ports. One of the areas outside Europe where such supplies were to become of paramount importance was the Middle East, where major oil discoveries and shipping routes needed protection from the growing threat from hostile naval powers. Aden was already a British Colony, as well as a major (coal) bunkering port and ideal for the Admiralty's Purposes. By the end of the first half of the 20th Century, the steady increase in world shipping tonnage and consequent demand for fuel oil led to the Port of Aden becoming one of the world's largest oil bunkering ports.

Abdul Moti H Mohamed (1994) [2] estimated that the completion of the Multipurpose Terminal at Ma'alla, Aden acquired a tool to enable it to handle national unit load and other cargoes, using modern cargo handling methods, and to begin to compete, for the first time, for container transshipment traffic. The four main berths, total length 750 meters and with a current depth of 11.0 meters below chart datum, are well conceived, well constructed and will serve Aden for many years. Certain actions are now being planned to improve port capacity, as follows:

At the Ma'alla Terminal, berth length, water depth, turning area, craneage, grain facilities, at the north shore.

Nabil Sultan (1994) [42] in a study has come to the conclusion that the United Nations, through its Development Agency, the "United Nations Development Programme" (UNDP), has in co-operation with the Government of the Republic of Yemen, evolved a strategy which seeks to assist the Government in its desire to improve port performance and establish Free Zone facilities. UNDP recognizes that the success of any Free Zone in Yemen will depend upon a wide range of factors, including low cost transport, good infrastructure (hotels, communications, power, banking, housing etc.), and a pool of labour with a wide range of skills.

Mohd. Muzammil (1994) [40] found that India and the Republic of Yemen both are developing economics with low per capita income and low level of human development. The Republic of Yemen is very small country as compared to India. The Republic of Yemen emerged as a growing and liberal economy after the unification of the North (Yemen Arab Republic) and the South (Peoples Democratic Republic of Yemen) till May 1990 has traditionally been an agricultural economy producing primary goods and the original tribe population passing a nomadic life, herding their animals. The economy is chiefly based on oil and agriculture and trade has become very important.

Sultan Ahmed Bin Sulayem (1995) [61] discussed that the Jebel Ali Free Zone is a port based zone, centered on the Jebel Ali Port terminal of the Dubai Ports Authority (DPA), and covering a land area of 100 Km^2. The Free Zone would help in drumming up traffic through the port, and the port would provide facilities that would make the Free Zone an attractive place for investors. The Jebel Ali port terminal is essentially an extension of the Dubai transport infrastructure through which traders and distributors in Dubai can serve the regional markets of the Arabian Gulf, Middle East, Far East, South East Asia, Indian Subcontinent, Central Asia, Eastern and Western Europe, Africa and North America.

Richard L. Bolin (1995) [53] found that the newly emerging markets of the Middle East, Africa, West Asia and Russia can be served efficiently from the market center Free Zones of the Mediterranean, Gulf and India Subcontinent located midway along the world's main shipping routes. The future of cargo transport by sea, air and rail between Asia and Europe were described to delegate from 37 countries at the XIV International Conference of Free Zones and Export Processing Zones of the World Export Processing Zones Association at Dubai, UAE 1988.

The Economist Intelligence Unit Limited (1996) [63] reported that the Yemeni economy will continue to grow slowly in 1997 as new investment in Aden stimulates construction and the country benefits from a modest increase in oil production. In 1998, the investments in the Aden Free Zone, combined with growth in manufacturing and services, is expected to spur economic growth. Growth level will be inhibited, however, by the high level of imports necessary for the Aden Project and by a drop in private consumptions as the government implements plans to retire workers from the Public Sector. Overall, GDP growth should be about 2% in 1997 and 2.2% in 1998. The trade balance and consequently the current-account balance for 1996 have improved as oil prices have been higher than originally force cost. In 1997 and 1998 the current account will continue to follow the trade balance, and as imports for the industrial sector increase, the current-account surplus and trade surplus will both narrow.

The Economist Intelligence Unit Limited (1997) [62] pointed out that the falling oil production in Dubai will keep up the pressure on the government there to develop its non-oil economy. In particular, it will concentrate on encouraging growth in trade, commerce, tourism and finance, which the government wants to ensure lie at the heart of an international trading system linking East and West, and North and South. The Dubai government will develop industrial and Free Trade Zones to take advantage of the traffic and encourage development of its nascent manufacturing sector. In their recent "Dubai Vision" Plan for economic growth over the next 35 years, the authorities indicated that they intend to attract capital-intensive rather than labour-intensive industry because of the size of the UAE's expatriate population, which accounts for over 80% of the total.

Almosalmi A. Alkappashi (1998) [6] studied and found that there are 6 Free Zones in Syria, the major factors for the success of the Syrian Free Zones have been : i) a favourable social and economic environment, ii) the availability of

infrastructure with the basic facilities needed to support industrial investment, iii) strategic geographic location, and iv) competitive cost of production of the companies involved.

Thus we find that the available literature discusses about the advantages flourishing from Free Trade Zones in the world and it is expected that the study of Free Trade Zone of Aden will also disclose the conceded economics and it will lay down policy for further development of trade.

CHAPTER - III

THE ECONOMY OF YEMEN

Yemen is one of the 49 low-income countries of the world. The economy of Yemen before 22 May 1990 the unification of the Yemen Arab Republic (YAR) and the People's Democratic Republic of Yemen (PDRY) as follows :

3.1 ECONOMY OF THE YEMEN ARAB REPUBLIC (YAR) BEFORE UNIFICATION

Yemen Arab Republic is one of the 49 low-income countries of the world. It is considered by the United Nations as one of the 29 least developed countries (LLDC) and also one of the countries most seriously affected by recent adverse economic conditions. The private sector predominates in Yemen's basically free-market economic system. In 1973 Yemen's newly established Central Planning Office issued the first Three-Yemen Development Plan (1973-76) [21]. The plan called for an expenditure of YR 935.6 million ($ 205.8 million), of which 75.1% was to be financed by foreign grants and loans. Allotments were : transportation and communication, education, agriculture, industry, energy and mining, health, commerce and finance, and social and administrative services.

A Second Four-Year Development Plan (1976-80) had the same priorities. Yemen began to accept foreign aid shortly after it emerged from its centuries-old isolation in the late fifties.

The national budget and tax system are recent developments dating back to the mid-1960s. Government revenues continue to be derived primarily from customs, agricultural and capital taxes, and the Islamic zakat (or charity) tax. By functions, budgetary resources are allocated as follows : Defence, 37.5% ; Education, 7.4% ; Health, 2.9% ; Agriculture, 1.5% ; Industry, 0.1% ; Transport and Communication, 7.8% ; Other Economic Services, 0.2% ; Other, 28.3% . General government consumption represents 11.6% of GNP [16].

The Yemeni unit of currency is the rial divided into 100 fils. In 1980 the official exchange value of the rial was YR 1 = $ 0.21918/$ 1 = 4.5625. The banking system consists of the Central Bank of Yemen, the Yemeni Bank for Reconstruction and Development and five foreign commercial banks.

Yemen has the largest farming sector on the Arabian Peninsula. It employs 76% of the economically active population and contributes 35% of the GDP and 90% of the value of exports. The rate of growth during 1970-78 was 5.1% . Of the total land area of 19,500,000 hectares (48,184,500 acres), 42% or 8,158,000 hectares (17,988,390 acres) is agricultural land. The major export crops are cotton, qat and coffee. Coffee was the principal export earner until the mid-1960.

The Yemeni labour force is estimated at 1.150 million of whom 20% are employed in agriculture, 10% in industry and 20% in services. Nearby 50% of the labour force consists of emigrant workers. The government encourage the emigration of workers to Saudi Arabia and Gulf States because of the beneficial effect of workers remittances on the national budget. An estimated 800,000 Yemenis work abroad. This has resulted in a labor shortage at home. There are approximately 5,000 Indians and the same number of Pakistanis working in Yemen. In addition to these, there are Sudanes, Somalis, Egyptians, Koreans, Westerners, and numerous other foreigners. They now provide everything from manual labour to the expertise which is vital for a modern economy. These people in turn send money back to their

homes, which increases the outflow of currency and thus impacts on the balance of payments.

Yemen's foreign trade in 1978 consisted of exports of $ 7.1 million and imports of $ 834.4 million, leaving a trade deficit of $ 827.3 million. Cotton constituted 43% of the exports and coffee constituted 20%. Of the imports foodstuffs constituted 43% , consumer goods 27% , machinery and transportation equipment 14%, and chemicals and fuel constituted 16%. The United States had a favourable balance of trade with Yemen in 1980 with exports of $ 77.4 million and imports of $ 0.8 million.

3.2 ECONOMY OF THE PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN (PDRY) BEFORE UNIFICATION

Southern Yemen also is one of the 49 low-income countries. It is considered by the United Nations as one of the29 least developed (LLDC) countries in the world and one of the 45 most seriously affected (MSA) by recent adverse economic conditions. The public sector is dominant in South Yemen's centrally planned socialist economy.

The Five-Year Plan 1974-79, formulated on the basis of the experiences gained from the Three-Year Plan 1971-74, calls for a total investment of SYD 75,358,000. Sectoral allotments are as follows :

Agriculture 36.8%; Transport and communications 25.4%; Industry 17.9%; Education 8.0%; Health 4.5%; Housing 4.7%; Geological Research 1.2%; and Information and social welfare 1.5% [28].

The plan will be financed up to 46% from internal resources and 54% from external aid. The principal goals of the plan are to transform Southern Yemen from a foreign-dependent consumption economy to an independent production economy and to establish an industrial base supported by fisheries and agriculture. The Five Year Plan 1979-83 calls for expenditures of D 370 million.

The unit of currency of Southern Yemen is the Southern Yemen Dinar (SYS) divided into 1,000 fils. The exchange rate in 1980 was SYD 1 = $ 2.895. The dinar is not freely convertible. The Central Bank is the Bank of Yemen, which replaced the Yemeni Currency Authority in 1972. All commercial banks were nationalized in 1969 to form the National Bank of Yemen, Southern Yemen's only bank.

Of the total land area of 28,768,000 hectares, 6,300,000 hectares are cultivable land, but only 1,260,000 hectares are cultivated. Agriculture employs about 60% of the economically active population; its contribution to the GDP was 19% and its annual growth rate 0.9% in 1975.

The Arabian Sea fishing grounds are among the richest in the world. However, until recently Southern Yemen's 10,000 fishermen were unable to exploit this wealth because of poor equipment and marketing. The fishing industry, centered at Mukalla, primarily served internal markets.

Industry contributes 27% to the GDP, but 80% of the output comes from the British Petroleum refinery at Little Aden, the only major private industrial concern in the country. Of the total industrial output of SYD (South Yemen Dinar) 9,317,000 in 1972, the public sector accounted for 43% , the mixed sector 3% , the private sector 36% and the cooperative sector 18% . Most of the new enterprises will be agro-industries based on conversion of locally available raw materials including cotton, hides and tobacco.

The total economically active population at the time of the 1978 census was 416,000. Men constituted 82% and women 18%. About 65% were engaged in agriculture, about 20% in industry and 6% in other professions. Some 9% were unemployed.

The foreign commerce of Southern Yemen consisted in 1978 of exports of $ 42.3 million (excluding petroleum) and imports of $ 384.5 million, giving an unfavourable trade balance of $ 342.2 million. Of all exports, petroleum constitutes 73% , while of the imports, food constituted 27.5% , fuels 38.9% ,

machinery 61% and other things manufactured 27.5% .

A large-scale mineral exploration program was launched in 1975. Minerals known to exist in commercial quantities include copper, silver, gold, titanium and zircon.

3.3 ECONOMY OF THE REPUBLIC OF YEMEN AFTER UNIFICATION

On 22 May 1990 the unification of the YAR and the PDRY was proclaimed. The new country was to be known as the Republic of Yemen, with Sana'a as its political capital and Aden its economic and commercial centre.

In 1994, according to official estimates, the unified Yemen's gross domestic product (GDP), in purchasers value, was US $ 8,750 million. During 1985-94 the combined population of the YAR and the PDRY increased by an annual average of 4.1%. In 1994, according to estimates by the World Bank, the unified Yemen's gross national product (GNP), measured at average 1992-94 prices, was US $ 3,884 million, equivalent to $ 280 per head. During 1980-88, it was estimated, the YAR's GNP increased, in real terms, at an average annual rate of 5.5% , and GNP per head increased by 2.7% per year. Over the same period, the population increased by an annual average of 2.7%. The YAR's GDP increased, in real terms, by an annual average of 5.6% in 1980-87 [11].

In 1988, according to estimates by the World Bank, the PDRY's GNP, measured at average 1986-88 prices, was US $ 1,000 million, equivalent to $ 430 per head. During 1980-88, it was estimated, GNP declined, in real terms, at an average annual rate of 3.2% , and GNP per head declined by 5.9% per year. Over the same period, the population increased by an annual average of 2.9% .

In the unified Yemen agriculture (including hunting, forestry and fishing) contributed 19% of GDP in 1994, according to World Bank estimates, and employed 53.2% of the labour force. The country's principal crops are sorghum, potatoes, tomatoes, wheat, grapes and watermelons. Livestock and fishing are also important.

In 1990 exports of food and live animals provided 3.4% of total export earning. During 1990-94 agricultural production increased by an annual average of 3.6% .

In the YAR agriculture (including forestry and fishing) contributed 23% (at purchaser's values) of GDP in 1988, according to estimates by the World Bank. In 1989 63.4% of the labour force was employed in agriculture. During 1980-88 agriculture GDP increased by an annual average of 2.9% .

In the PDRY agriculture (including forestry and fishing) contributed 14.8% of GDP in 1986. An estimated 32.7% of the labour force were employed in agriculture and fishing in 1989.

Industry (including mining, manufacturing, construction and power) contributed 24% of the unified Yemen's GDP in 1992. In 1975 7.9% of the YAR's labour force were employed in the sector. During 1980-88 the YAR's industrial GDP increased by an annual average of 11.5% . Industry contributed 21.3% of the PDRY's GDP in 1988. 11.1% of the labour force were employed in industry (excluding construction) [14].

The Government of the unified Yemen gave priority to the development of its considerable reserves of petroleum and natural gas. In 1994 Mining and Quarrying contributed 20% of GDP. Petroleum production average 335,000 barrels per day (b/d) in 1994, and at the beginning of 1995 Yemen's proven published petroleum reserves totalled 4,000 million barrels. Petroleum production was expected to increase to an average 400,000 b/d in 1996 [45].

Mining employed only 0.05% of the labour force of the YAR in 1975. However, Petroleum was discovered in commercial quantities in 1984 and large reserves were subsequently discovered along the border with the PDRY. Exports of crude petroleum products provided 91.1% of total export earnings. There are significant reserves of natural gas, estimated at 356,800 m - 424,800 m cu m at mid-1992. Salt is also exploited on a large scale. In the PDRY mining and quarrying contributed only 0.2%

of GDP in 1986. Petroleum was discovered in potentially commercial quantities in 1983. In addition, the region of the former PDRY has deposits of copper, gold, lead, zinc and molybdenum.

Manufacturing contributed 10% of the unified Yemen's GDP in 1992. The sector contributed an estimated 12% of the YAR's GDP in 1988, at purchasers' value, and employed 3.2% of the labour force in 1975. In the PDRY the sector contributed 7.9% of GDP in 1986. The most important branches of manufacturing in Yemen are petroleum refining, building materials, food products, beverages, tobacco, and chemical products.

Locally-produced petroleum provided one-third of the YAR's domestic energy requirements in 1986; the rest was provided by imports of petroleum, mainly from Saudi Arabia and Libya. Imports of mineral fuels comprised 6.7% of the value of the YAR's total imports in 1985 and 15.3% of the value of the PDRY's total imports in 1986.

In 1994 the unified Yemen recorded a visible trade deficit of US $ 1.150 m. In 1989 the YAR recorded a visible trade deficit of $ 676.6 m, and there was a deficit of $ 579m. On the current account of the balance of payments. In 1990 the principal source of imports (9.2%) was Saudi Arabia, while the principal market for exports (46.9%) was the USA. Other major trading partners were Italy, France and the United Kingdom. The YAR's principal exports in 1990 were petroleum and petroleum products, crude materials (excluding fuels), food and live animals. The principal imports in that year were food and live animals, basic manufactures, machinery and transport equipment.

In 1989 the PDRY recorded a visible trade deficit of US $ 440.1 m, and there was a deficit of $ 416.6 m. On the Current Account of the Balance of Payments. In 1986 the principal source of imports (17.7%) was the USSR. Other major sources of imports in that year were the United Kingdom, Japan, the people Republic of China,

and Denmark. The principal market for exports in 1986 (27.8%) was Japan, while other important export markets included France, Saudi Arabia, the UAE and the YAR. The principal commodities exported in 1986 were petroleum products, cotton, hides and skins, fish, rice and coffee. The principal imports were petroleum, basic manufactures, clothing, foodstuffs and livestock [66].

The unified Yemen's Budget for 1996 estimated a deficit of 25,529 m riyals. Total external debt at the end of 1994 was estimated to be US $ 5,959 m, of which $ 5,30 m was long term public debt. In that year the cost of debt-servicing was equivalent to 4.7% of the value of exports of goods and services. The annual rate of inflation averaged 100% in 1992, for the second consecutive year, but was estimated to have decreased to between 45% and 50% in 1993, before rising to 60% in 1994. In the same year, unemployment was estimated at 30% of the labour force.

1990 there was an estimated budgetary deficit of 3,965 m riyals in the YAR. In 1989 the YAR's total external public debt was US $ 2,445 m, and the cost of debt-servicing was equivalent to 11.5% of the value of exports of goods and services. The annual rate of inflation averaged 11.6% in 1980-88. An estimated 13% of the labour force were unemployed in 1986.

In the financial year ending 31 March 1986 there was a budgetary deficit of 32 m dinars in the PDRY. The 1990 budget forecast a deficit of 57 m dinars, equivalent to about 10% of estimated GDP. The annual rate of inflation averaged 4.5% in 1980-88.

Yemen is a member of the Arab Fund for Economic and Social Development (AFESD), and the council of Arab Economic Unity.

The establishment of the Republic of Yemen in 1990 was expected to facilitate economic transformation, based on the development of the large petroleum reserves within the newly unified state, and on industrial investment around the port of Aden. However, owing to the crisis in the region of the Persian (Arabian) Gulf in

1990-91 and the subsequent loss of remittances from expatriate workers, the Government adopted a policy of temporary austerity, provoking considerable public unrest in 1992. Political instability in 1993 and 1994 prevented the Government from publishing a budget for either year, and precipitated a harmful paralysis of the Yemeni economy. In mid-1994 it was reported that the Yemeni riyal was trading at unprecedented low levels on unofficial exchange, and that the annual rate of inflation was more than 100%. The civil war of May-July 1994 resulted in damage estimated at US $ 3,000 m, particularly evident in the south of the country [64]. Although the Government favoured the adoption of austerity measures (recommended by the IMF and the World Bank) to revive the ailing economy, it was initially reluctant to implement them, fearing an escalation of social unrest. Nevertheless, in January 1995 the Government doubled the price of electricity, and in March devalued the riyal after raising the price of certain basic goods and fuel. In June the Government announced a five-year plan for 1996-2000 which included the floatation of the riyal within three years, the gradual reduction of subsidies on basic goods, administrative reforms and the introduction of a programme of privatization. In January 1996 the Government commenced the Second Phase of its Economic Reform Programme with the abolition of the official exchange rate, followed by price increases to basic goods, electricity, fuel and water. Meanwhile, donor countries and agencies meeting in the Netherlands allocated Yemen $ 500 m for 1996, part of which was to mitigate the effects of the economic programme on low-income households. In March and April the IMF and World Bank approved, respectively, a 15-month stand-by credit worth $ 193 m and a loan of $ 80 m to support the reform measures.

IMF'S REVIEW OF ECONOMY OF YEMEN

In the mid-1990s, Yemen introduced a comprehensive macroeconomic adjustment and structural reform program. By late 1997, a considerable degree of

macroeconomic adjustment supported by the fund programs had been achieved. However, in 1998 the collapse of world oil prices reduced Yemen's oil export receipts by the equivalent of almost 10 percentage points of GDP compared with 1997. Regional political and security uncertainties also adversely affected economic prospects. The adverse impact was felt across all sectors of the Yemen economy, complicating economic policy making and slowing the momentum for structural reform.

Growth in 1998 is estimated to have slowed to less than 3 percent as technical difficulties delayed expected oil production increases, while the sharp decline in national income dampened public and private demand. The inflation rate rose to 11 percent on average for 1998, driven by official price increases, the impact of floods on certain agricultural commodities, and the pass-through of the depreciation of the rial. The external accounts shifted back into deficits with the sharp drop in oil exports and slower growth non-oil exports due to weak markets in neighboring oil-exporting countries. Nonetheless, gross official reserves still provided import cover for about 4.2 months at end 1998 and the external debt outlook improved following the 1997 Paris club rescheduling.

The government sought to address the challenges posed by such a difficult environment while preserving the thrust of its longer-term economic strategy. It moved quickly to significantly curtail expenditure in various areas and reduce subsidies through large increases (in a range of 15 percent to 40 percent) in administered energy, wheat and flour prices at mid year. However, these expenditure reductions have been partly offset by wage increases granted earlier in 1998 and other spending increases. Overall, the fiscal deficit in 1998 widened to an estimated 6 percent of GDP and the planned reduction of the government's net debt to the banking system was not achieved.

The growth of credit to the private sector continued at a brisk pace, although from a very low base. Following a period of nervousness in the foreign exchange market, in October 1998 monetary policy was tightened, including through a cumulative 5 percentage point increase in interest rates and a tightening of reserve requirements on foreign exchange deposits. However, net foreign assets of the banking system declined while net domestic assets increased sharply, and for the year as a whole broad money growth is now estimated at 11.7 percent. In the external accounts, the oil price shock was reflected in a deterioration in the current account to a deficit estimated at 5.2 percent of GDP, financed largely by a drawdown in gross official foreign reserves [27].

Structural reforms moved ahead in a number of areas. Parliament concealed remaining import surcharges, import bans were further reduced, and the modernization of customs clearance operations for Yemen's major sea and airports has been largely generalized to all customs offices. In January 1999, important tax reforms were promulgated, along with legislation designed to enhance competition. The substantial price increase in mid 1998 for wheat/flour and petroleum products (except diesel) and the subsequent full liberalization of wheat trade in early 1999, combined with lower world prices, reduced distortions and incentives for smuggling and monopolizing. Preparation of a major civil service reform, which is expected to reduce payrolls by at least 20 percent over five years, advanced with the completion of a census of all public employees and promulgation of a law establishing a fund for transitional income support and retirement/buyout packages for redundant public enterprise and civil service staff. In other areas, small-scale privatization continued in 1998 with the transfer of about 30 enterprises to the private sector through sale, lease, or liquidation. In preparation for the privatization of larger enterprises, a new privatization law, which would establish transparent procedures and a well-defined

institutional framework for future privatization, was submitted to the parliament. Finally, the parliament passed a new banking law that will strengthen the basis for prudential supervision. In this context, the central bank reached agreements with private commercial banks to achieve full compliance with capital adequacy rules by the end of 1999.

The government's 1999 policy mix envisions further fiscal adjustment which, together with the expected rise in private savings, will allow for a reduction in the current account deficit by about 2.5 percent of GDP. Monetary policy will aim at an average inflation rate of 9 percent and provide a tight anchor within a system of a freely floating exchange rate. Structural reform for 1999 will focus on further tax reform; implementation of the first phase of civil service reform complemented by an over haul of the pension system; restructuring of public financial institutions; and other reforms of the regulatory framework with a view to attract domestic and foreign investment [26].

The performance of the economy of Yemen during the period 1995-1998 is given in Table No. (3.1).

3.4 ECONOMIC DEVELOPMENT IN THE REPUBLIC OF YEMEN

India and the Republic of Yemen both are developing economics with low per capita income and low level of human development. While with respect to the former Yemen is ahead of India as the per capita income of the Republic of Yemen is 520 US dollars and that of India is only 330 US dollars, but with regard to the latter, the position of India is slightly better than that of Yemen. In the Human Development Report of 1993, India ranks at No. 134 and the Republic of Yemen is at No. 143 with Japan on top and Guinea at the bottom at serial No. 173. Both India and Yemen are primarily primary goods producing countries but over the last couple of decades both economies are showing remarkable dynamism which has altered the composition of the gross domestic product in these countries. External resources

play significant role in the economic development of both the countries and internal resource mobilisation is yet to match the requirement. The result is that both of them suffer from resource gap on the external account.

Table No. 3.1

Republic of Yemen : Selected Economic Indicators, 1995-98

	1995	1996	1997	Prd. 1998
Output and Prices		**Annual percentage changes**		
Real GDP at market prices	8.6	5.6	5.2	2.7
Real non-oil GDP	7.3	4.1	5.3	3.0
Consumèr price index (annual average)	62.5	27.3	6.3	11.1
Investment and savings		**In Percentage GDP**		
Total investment	21.4	21.3	23.5	21.8
Gross national savings	27.2	23.3	23.9	16.6
Budgetary operations				
Budgetary revenue	21.3	38.4	37.3	30.4
Budgetary expenditure	24.9	41.9	40.0	36.8
Budgetary balance	-2.5	-1.6	-0.9	-6.0
External Sector				
Exports	41.1	42.7	39.5	28.5
Imports	-38.0	-43.3	-42.0	-41.3
current account excluding official transfer	3.7	1.6	-0.3	-5.6
External public debt (before recheduling)	184	161.5	78.4	88.2
Gross reserves (in months of imports)	3.2	4.6	5.3	4.2
Monetary Sector	**Changes in beginning-of-period domestic liquidity**			
Net foreign assets	7.7	26.0	15.5	-10.9
Net domestic assets	12.7	-17.9	-4.8	22.7
Domestic liquidity	20.4	8.6	10.7	11.7

Source: Data provided by the Yemen authorities and IMF staff estimates and projections.

The Republic of Yemen is a very small country. Expansion in trade relations may result in the advantage of both the economies. The population of Yemen is only 1.44 per cent of that of India but the area of that country is about 16 per cent of the size of India. The gross domestic product of Yemen however, is 3.39 per cent of that of India [42].

The Republic of Yemen emerged as a growing and liberal economy after the unification of the North (Yemen Arab Republic) and the South (Peoples Democratic Republic) Yemen in May 1990. It has traditionally been an agricultural economy producing primary goods and the original tribe population passing a life of nomadic herding. The economy is chiefly based on oil and agriculture. The main agricultural products are coffee, dates, herbs, fruits, millet and maize. Many agricultural products like coffee, cotton, hides and skins are exported. Among non-agricultural products, oil is the most significant export. As per recent trade agreement (August 1993) between India and the Republic of Yemen, India will purchase 700,000 million tons of crude oil per year from Yemen costing about 80 million US dollars. This is for the first time that India will be buying oil from Yemen.

The area of the Republic of Yemen, which lies on the south-west of the Arabian peninsula, is 528 sq. km. and in 1991, the total population of the country was 12.5 million - thus giving a density of less than 25 persons per sq. km. In 1990, the total adult literacy in Yemen was 39 per cent and that of the females only 26 per cent.

Despite having a glorious ancient history, Yemen remained under-developed for the last couple of centuries or so and modernisation efforts began around 1970. In the decade that followed, the authorities (in the north Yemen) put into effect an ambitious development programme - largely financed by significant in flows of

private remittances and official aid to raise the standard of living of the Yemeni people.

With a rapidly growing population and a limited amount of arable land, the country had been dependent on imports for a sizeable part of the domestic consumption.

The economy of Yemen is now on the path of recovery primarily because of the efforts of the people of Yemen and also through the structural adjustment programmes which have been taken up there with a liberal entrepreneurial attitude. During the decades of 1970s and 1980s, not much information was available about the economy of South Yemen, i.e. Peoples Democratic Republic of Yemen but now after the successful unification of the North and the South Yemen, this economy is not living in isolation. It is rapidly integrating itself with the rest of the world. The friendly attitude of the Republic of Yemen towards other developing countries is worth appreciating.

During the decade of 1980s, the Yemeni economy was gradually transformed from a traditional agricultural economy engaged in primary production to an industrial and increasingly service sector oriented economy.

In the North Yemen, while agricultural production grew in absolute terms, its share in gross domestic product (GDP) declined from 53 per cent in 1970-71 to 31 per cent in 1981. (Since 1981, fiscal year coincided with calendar year). In contrast to agricultural production, the industrial output grew sharply during this period in response to large investments in economic infra-structure and growing expenditure by the private sector. But this growth of industrial sector was neither sufficient to permit an expansion of exports (which remained at less than 1 per cent of imports) nor conducive to a significant increase in the production of import substitutes. Imports, thus grew rapidly throughout the period. It was mainly because of government's liberal trade policy, liberal

foreign exchange policy and the availability of foreign exchange reserves.

In North Yemen, the decade of 1970s witnessed fast increase in fiscal expenditures which led to a weakening of the government's financial position because the government could not generate resources in adequate amount. Revenue collection of the government was also hindered by relatively open borders which encouraged movement of goods through non-official (duty-free) channels. There were also the difficulties inherent in collecting taxes from a fiercely independent tribal population which was widely dispersed in the country's mountainous terrain. Because of these limitation on the revenue side, North Yemen recorded huge deficits that reached a record of 33 per cent of the Gross Domestic Product by 1982 when the government launched the second five year development plan.

The deficits in the budget of the North Yemen were mainly financed through loans from the Central Bank. The resultant injection of purchasing power coupled with the growth of credit to the private sector continued to maintain demands for imports at high levels.

But despite the weakening in the government's financial position and the growing imbalance between exports and imports during the most part of 1970s the larger inflow of remittances and official aid (through to lesser extent) permitted the balance of payments to show over-all surpluses throughout the period. But this trend could not sustain for long. Private remittances and official aid both declined and the country posted deficit in balance of payments in 1979-80. The amount of deficit reached to a level of 300 million dollars in 1982. Consequently, the net foreign assets of the Central Bank declined from 900 million dollars to 558 million dollars in 1980-82.

In order to control the growing budget deficit and the BOP deficit, the government of North Yemen undertook a number of actions in 1983:

(i) Wage restraint,

(ii) Reduction in development spending,

(iii) Increases in tax and duty rates to mobilise more resources,

(iv) Improvement in tax collection mechanism.

As a result the deficits were reduced to a considerable extent in 1983 and 1984 - both in absolute terms and as percentage of Gross Domestic Product. Tightening of fiscal policy was coupled with a tight monetary policy adopted by the Central Bank which enhanced the commercial bank reserve requirement from 10 per cent to 20 per cent.

These measures of fiscal restraint did help in reducing the deficit of balance of payments despite a sharp decline in the official aid. But the money supply growth rate continued to remain as high as 28 per cent which maintained pressure on the economy.

In view of the dwindling foreign exchange reserves, the authorities decided to tighten up the exchange and payments system, which until then had been free of restrictions. A comprehensive foreign exchange budget was drawn up which was the first of its type in the country. Import licensing system was introduced. The licensing system gave priority to:

(i) Import of food-stuff,

(ii) Petroleum products,

(iii) Medicine, and

(iv) Inputs for agriculture and industry.

Importers were required to finance imports from foreign exchange purchased from Banks. These measures were further reinforced by a depreciation of the official exchange rate of Yemeni Rial - which lowered the rate from 4.56 Rials per dollar to 5.85 Rials per dollar by November 1981.

These measures led to further reduction in imports, reinforcing the contraction of economic activity that had begun in 1982. A serious earthquake destroyed the productive capacity of the economy partly and the situation was worsened due to reduced rainfall in the next two years. The over-all economic condition continued to remain unfavourable.

In 1985, the authorities in the North Yemen took the following measures to raise revenue collection :

(i) To increase collection from customs duties in view of import restraint, measures were taken to combat smuggling and to direct more imports through official channels.

(ii) Introduction of fees on student enrolment to help recover part of the outlays on education.

(iii) Improving collections from vehicle taxes, income taxes and "qat" (qat is a mild stimulant whose chewing is a social custom there).

Along with these measures, fiscal restraint also continued and the Rial was further depreciated to 6.50 per dollar.

But, on the whole the above mentioned restrictive measures could not eliminate the excess aggregate demand in the North Yemen and consequently the structure of demand in 1988 revealed that government's general consumption was 20 per cent of the GDP, private consumption accounted for 80 per cent and the aggregate investment stood at 13 per cent, thus giving a resource balance of 13 per cent of the GDP in the aggregate structure of demand.

The corresponding figures for the South People Democratic Republic of Yemen are not available.

The composition of the Central Government's expenditure in the North Yemen reveals the following:

(Share in total expenditure)

	1972	1988
Defence	33.8%	31.2%
Education	4.0%	17.6%
Health	2.9%	3.6%

Despite harsh economic environment, the growth rate of the North Yemen has not been too low. For the period 1980-87, the average annual growth rate in Gross Domestic Product of North Yemen has been 5.6 per cent. Sectoral performance reveals that in agriculture the growth rate was 2.3 per cent per annum, in industry 8.7 per cent and in manufacturing 14.2 per cent. In the services sector, the growth rate recorded was 6 per cent per annum. The year 1988 was an adverse year and these figures will decline slightly if the average is taken up to 1988.

Comparable date of growth rates in South Yemen are not available.

In 1988, the population of North Yemen was 8.5 million and that of the South Yemen was 2.4 million. The per capita income in North Yemen was 640 dollars and in South Yemen it was 430 dollars. Thus before unification, South Yemen had less population and less per capita income while the North Yemen had more population and more per capita income. But what is more important is that during 1980-88, the annual rate of inflation in the South Yemen was less than the half of the rate of inflation recorded in the North Yemen. While in South Yemen, the rate of inflation was 4.5 per cent per year, in North Yemen it was 11.6 per cent per year.

Life expectancy at birth in North Yemen was 47 years in 1988 and in the South Yemen it was 51 years in the same year. Literacy rate was also much higher in the South Yemen.

In 1988, the total literacy in North Yemen was 14 per cent while in the South Yemen it was 41 per cent. Female literacy rate was only 3 per cent in North Yemen

and 25 per cent in the South Yemen in the same year.

The Gross Domestic Product in 1988 of North Yemen was 5910 million dollar while that of the South Yemen was 840 million dollars i.e. South Yemen's GDP was 14.2 per cent of that of the North Yemen.

In 1988, the sectoral composition of GDP in the North and the South Yemen was as under:

(Percentages)

	Agriculture	**Industry**	**Services**
North Yemen	23	26	50
South Yemen	16	23	61
Republic of Yemen (1991)	22	26	52

The above figures reveal that the economy of South Yemen has undergone greater dynamism than that of the North Yemen.

Both North and South Yemen had been importing cereals to feed their population, cereal imports for the two parts of yemen are shown below:

(Thousand metric tons)

	1974	**1988**	**Increase**	**1990-1991**
North Yemen	158	754	477%	N.A.
South Yemen	148	459	310%	N.A.
Republic of Yemen	306	1213	396%	149

The total food import for the Republic of Yemen in 1990-91 is less than half of the total food import for the erstwhile North and South Yemen. This is a very encouraging indicator that the unified Yemen is moving fast towards complete self-sufficiency in food. It has already been achieved to a great extent.

The over-all human development in South Yemen is better than in the North

Yemen. In the Human Development Report 1991 (in a list of 130 countries with Niger on top with lowest human development index and Japan at the bottom with highest index), North Yemen is at Serial No. 25 and South Yemen at 31. Interestingly, India is also closely placed at 37th rank.

Thus, it can be said that North Yemen with relatively higher per capita income gives lower human development index while the South Yemen with low per capita income has higher human development index.

There is a need for overall improvement in economic performance with maximum reliance on domestic resources and also the need to reduce the resource gap in the demand structure. It is expected that the present dynamic leadership of Yemen and the enthusiasm of the masses will provide the answer. One only hopes that the Yemen will regain its lost glory very soon.

Table No. 3.2

Statistical Survey

AREA, POPULATION AND DENSITY

Area (in km)	536,869 (207,286 sq miles)
Population 1994	14,561,330
Density (per sq km) 1994	27,1

Source : Republic of Yemen Central Statistical Organization.

Table No. 3.3

Mining

('000 metric tons)

	1991	1992
Crude Perlileum	9,431	8,143

Source : UN, Industrial Commodity Statistics Year Book, 1996

Table No. 3.4

Industry

SEICTED PRODUCTS

('000 metric tons, unless otherwise indicated)

	1991	1992
Motor spirit (Petrol)	510	800
Kerosene	172	222
Jet fuels	360	400
Distillate fuel oils	1,281	1,880
Residual fuel oils	1,946	2,300
Liquefied Petroleum gas	50	50
Electricity (million KWh)	1,750	1,810

Source : UN, Industrial Commodity Statistical Year Book, 1996

Table No. 3.5

INTERNATIONAL SEA-BORNE SHIPPING

(Freight traffic, '000 metric tons)

	1988	1989	1990
Goods loaded	1,836	1,883	1,936
Goods unloaded	7,189	7,151	7,829

Source : UN, Monthly Bulletin of Statistics, 1996

Table 3.6 Yemen Republic
Basic Indicators

Head	Data
1. Population (millions) 1997	16
2. Area (Thousand of Sq. Kms) 1995	528
3. Population Density (persons Sq. Km.)	29
4. G.N.P. (Billion dollars) 1997	4.3
5. G.N.P. Rank of Yemen in the world	97
6. G.N.P. per capita	270
7. G.N.P. per capita rank of Yemen in the world	117
8. G.N.P. measured at PPP*	11.8
(a) Total (billion $)	720
(b) Per capita ($)	117
Rank	

Source W.B. : World Development Report 1998-99
Oxford University Press, New York, 1998

* Purchasing power parity :

At the PPP rate, one dollar has the same purchasing power in Yemen our domestic goods and services as the US$ has our U.S. goods and services.

Table 3.7 Quality of Life

Head	Data
1. Malnutrition among children % of age group under 5 (1990-95)	30
2. Under 5 mortality rate (per thousand)	
1980	198
1996	130
3. Life expectancy at birth (1996)	
Males	54
Females	54
4. Urban population as % of total	
1980	20
1996	35
5. Access to sanitation in Urban Areas (Percent)	70

Source W.B. : World Development Report 1998-90,
Oxford University Press, New York, 1998

Table 3.8 Population and Labor Force

Head	Data
1. Population (millions)	
1980	9
1997	16
2. Average annual generally rate of population (Percentage)	
1980-90	3.3
1990-97	4.5
3. Population (aged 15-64) (millions)	
1980	4
1997	8
4. Total labor force (millions)	
1980	2
1997	5
Average Annual growth rate (%)	
1980-90	3.7
1990-97	4.9
Percentage of Female labor force	
1980	33
1997	28
Child labor aged 10-14 Years (% of age group)	28 26

Source W.B. : World Development Report 1998-90,
Oxford University Press, New York, 1998

Table 3.9 Extent of Poverty in Yemen

Head	Data
1. Population below the poverty line (1992)	
(a) Rural %	19.2
(b) Urban %	18.6
National %	19.1
2. Per capita Income in $ (1997)	270
World Average in $	5130
Yemen : PCI as % of World average	5.26

Source : Calculated on the basis of World Bank data

CHAPTER - IV

STATUS OF PORT OF ADEN AT PRESENT

4.1 THE PORT OF ADEN - A BRIEF HISTORY

The economy of Southern Arabia has benefited from trade with distant countries since at least the 1st millennium BC, with the port and the merchants of Aden being mentioned in writings and inscriptions dating up to 3,000 years ago. Since then, its prosperity has frequently been commented upon by travelers in this part of the world. It was under the control of the Himyarite Kings in the Pre-Christian era and was captured by the Romans in 24 BC. Later, it came under the Persians, until being taken over by the rulers of the Yemen in the 6th Century AD.

In the 16th Century Aden supported a population of some 60,000. In 1507, Admiral Don Alphonso D'Alburquerque reached Socotra, laying siege to Aden in 1513 but failing to capture it, although it was forced to capitulate to a Turkish force shortly afterwards following bombardment, it is recorded, by 100 pieces of ordnance.

The fortunes of Aden have risen and fallen with changes in routes and circumstances of trade, and, following strangulation of the Red Sea spice trade by Portuguese interests, the port subsequently fell into decline. It did not benefit substantially from the new Yemeni coffee trade in the 17th and 18th Centuries, which raised the fortunes of Mokha and Hodeidah. In the 1730s, the ruler of Lahej rebelled against the Imam and occupied Aden, retaining control until the arrival

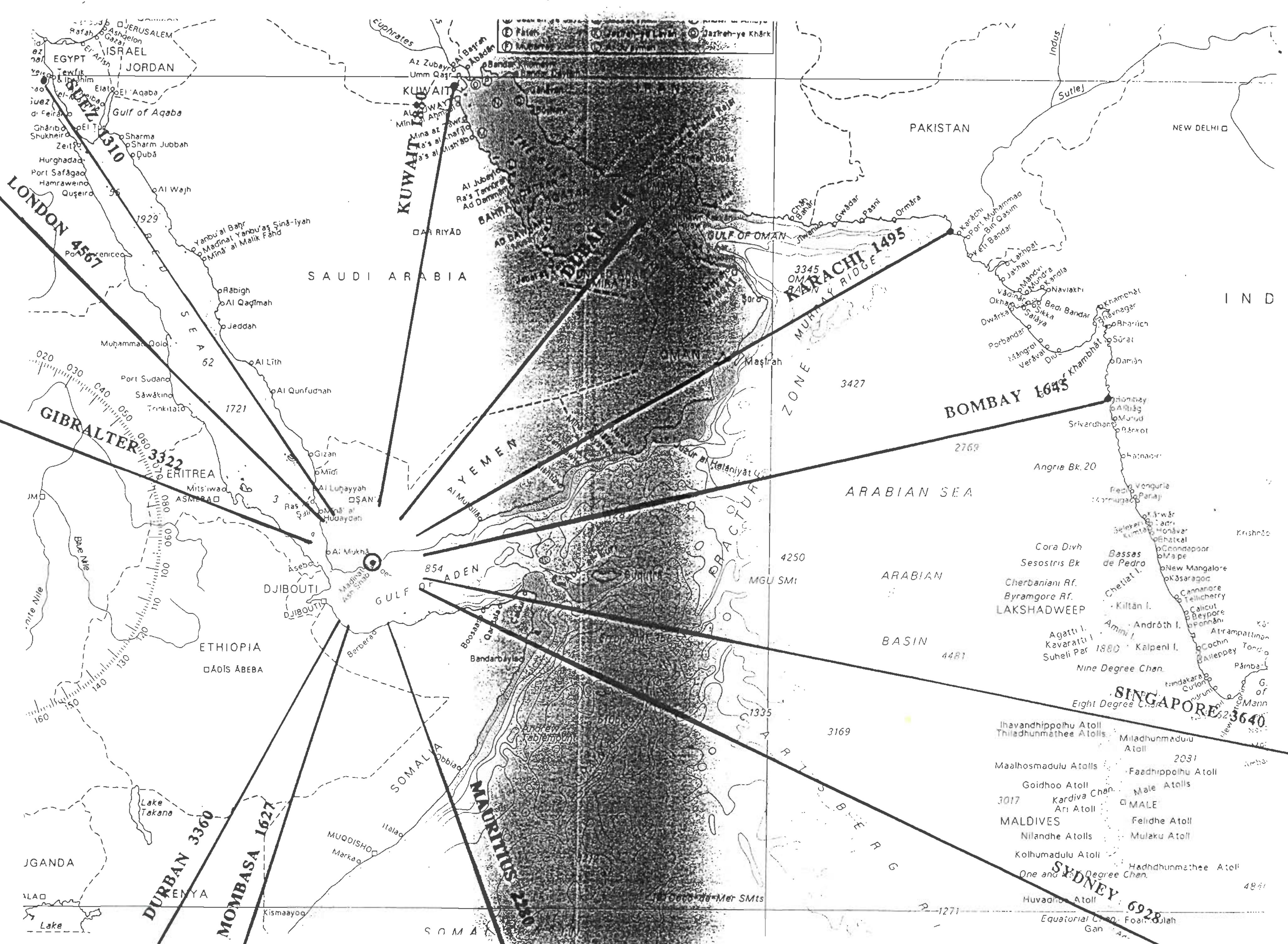
of the British. By 1839, Aden was virtually a fishing village of around 600 people but Haines, writing optimistically to the Bombay Government of Aden's admirable position, fine harbour and natural defences, concluded that Aden's poor condition resulted from misgovernment.

The first British contact with Aden had been in 1609, when the East India Company vessel "Ascension" called. No further visits are recorded until 1829. When the East India Company considered the idea of making Aden a colony Station, and various ships visited the port [15]. Initial development of the port from 1839, when Haines landed in Aden, was slow.

The provisions for the garrison and establishment of a coaling depot did not greatly stimulate commerce. Trade with the interior coffee districts of Yemen did not materialize quickly. It was, in fact, trade with the northern coast of East Africa which prospered, based on the security provided by the garrison at Aden. The main outlet for this trade was the Berbera roadstead where merchants from India and Arabia met to trade with the Somali tribesmen at the great fair held there each year. In 1840 it is recorded that 300 native vessels and 21,000 camels were engaged in this trade. Berbera was deserted during the monsoon between April and October, but, with the change in season, the island tribes moved to the coast to prepare their huts for the expected visitors.

Vessels from Yemen, Muscat, Ras-al-Khaymah, Bahrain Porebunder and Bombay arrived to trade (see the enclosed map showing sea routes).

The British settlement at Aden soon induced the Indian merchant houses to establish their depots there. The nomadic Somalis would not allow permanent buildings at Berbera, so the merchants built their storage facilities in Aden. Up to 1848, Aden was still little more than an offshoot of the Berbera trading centre, handling surplus stocks at the end of the Berbera fair. However, Somali



LONDON 4567
SUEZ 1310
KUWAIT 1880
DUBAI 1641
KARACHI 1495
BOMBAY 1645
SINGAPORE 3640
SYDNEY 6928
MAURITIUS 2280
MOMBASA 1627
DURBAN 3360
GIBRALTER 3322
SAUDI ARABIA
YEMEN
OMAN
ERITREA
ETHIOPIA
DJIBOUTI
SOMALIA
KENYA
UGANDA
EGYPT
ISRAEL
JORDAN
PAKISTAN
NEW DELHI
GULF OF ADEN
GULF OF OMAN
ARABIAN SEA
ARABIAN BASIN
LAKSHADWEEP
MALDIVES
MURRAY RIDGE

merchants gradually moved across the Gulf to conduct their business at Aden, forced into this by the continuing refusal of the tribesmen to allow permanent dwellings at Berbera, so that, by 1875, the situation had radically altered, with the majority of the African trade being financed, supplied and controlled from Aden. From 1839, Haines tried to win the coffee trade away from Mokha, but with little success. Its ruler, the Wily Sheriff Hussain, used various means to thwart him, American Vessels continued to use Mokha, loading 2.5 million pounds of coffee as early as 1805 and obtaining favourable terms from the Sheriff.

In time, however, disputes between the Imam of Yemen and the Sheriff began to swing the balance in Aden's favour. The Imam attacked the Red Sea coastal area in 1844, finally taking over Mokha in 1848, when all business there came to a halt. Within 18 months, the Hadjeria and Sana'a Caravans were coming to Aden, loaded with coffee. Unfavourable customs rates and uncertainty over availability of cargo initially caused American vessels to avoid Aden. This problem was solved in 1850, when Aden was declared a "Free Port". From then on, export shippers of all nations in the lower Red Sea directed their vessels to Aden. By 1854, contracts for export coffee worth $184,000 were executed through the port. As Aden grew, neighbouring ports (Mokha, Shugra, Bir Ahmed) were seriously affected and, by the time of Haines' departure in 1854, a sizable Arab and Indian trading community was consolidating its grip on markets in North East Africa, Red Sea ports and Yemen. Trade with the American, French and German ships which made Aden the focus of their activity, was brisk.

Business was conducted in the streets of Crater, where warehouses had been constructed and the customs house stood, facing "Front Bay" by Seera island. Native vessels could find good anchorage to the East of the island, in 9-11 meters of water, except during the monsoon.

Other landing places were established for square rigged ships at Ma'alla and

Ras sheikh Ahmed in "Western Bay", protected at all seasons, and in 1847 Haines recommended the building of a second customs post at Main Pass to register the trade from there. Apier was constructed at Ma'alla by merchants in 1855 and in 1864, the main customs post moved there. A typical square-rigger from America would lie for a month inside Flint island, served by lighters unloading American cotton goods, and loading gums and coffee, dealing with the Arab, Persian and Indian merchants now based in Aden. She would then sail for Zanzibar to load cloves. Zanzibar remained the headquarters for American, French and German traders until the late 1850, when branches of their houses were established in Aden. As shown in the returns for 1855/56, the bulk of Aden's trade was with India, particularly Mumbai and its sub-ports, and with the USA, which commanded 30% of its trade. By 1856/57 France had surprisingly overtaken both Mumbai and America. Although British ships providing the mail steamship service dominated Aden's traffic (29,000 tons/year between 1852 and 1855 compared with 8,000 tons of non-British ships), it was not until 1857, when captain Luke Thomas began commercial operations in Aden, that a British trade was established. Trade was largely in the hands of Indian and Persian houses.

British shipping consisted almost entirely of mail steamships and vessels connected with the mail service. Mailships which meant P & O vessels after the termination of the Government mail service - had priority in the harbour and were provided with buoy berths. Until 1857, other vessel had to lie at anchor in the inner harbour. Mail ships had company pilots, while merchant ships hired Red Sea pilots until the Aden Pilot Service was established in 1848.

In 1856 the Australian and the Mauritian steamship lines established depots at Hedjuff, followed by Messageries Maritimes in the early 1860s. Steamers required a great deal of coal, transported from the UK by a fleet of colliers. Due to draft limitation in Western Bay, colliers were required to discharge in the

outer harbour to reduce their draft to 17 feet before unloading the remaining coal in the inner harbour.

At shore, labour to handle cargoes was being mobilized, using the 'Mukadem' system, under which gangs working for recognized foremen or leaders provided a disciplined labour force. Mukadems kept the gangs together, filled the places of those who fell sick and provided sufficient labour to meet the needs of the port employers. 'Serangs' and 'Tindals' supervised the actual work, with the Serangs accepting or refusing the services of mukadems as they judge them fit or not.

The mukadam system was used by Haines from the earliest days in constructing the fortification being erected around Aden. Labourers came from as far away as Egypt and Iran, but the majority were from Mokha or the hill farming communities of Yemen, and from Aden. Aden itself was gradually becoming a cosmopolitan community, a mixture of Arab, Indian and Somali workers and traders. During the 1840s and 1850s around a third of the labour force were hill farmers from Yemen and the hinterland, who used to go back to sow their crops in June and October each year, leaving Aden with a shortage of labourers. Another third came from Mokha as the population of that port gradually moved to the new growth center.

People lived, until the 1850s, mainly in poor huts. In 1856 playfair, the Assistant Resident, introduced a policy of tearing down the huts, at the same time as he was clearing the Tawila water tanks. Hut occupiers were offered plots on which to build stone houses so that, by 1867, there were 1,840 stone houses for a population of 17,564. A survey of Ma'alla in 1881 showed that 15% of the population was homeless, 60% were semi-settled in Kutcha houses, and rest lived in stone houses. The population (of around 22,000 by 1870) was dominated by migrant port workers who used the coffee houses to find employment, take their recreation, eat food and, in many cases, collect their wages from the mukadem, who was often the coffee shopkeeper [52].

The size of the population remained reasonably steady until the opening of the Suez Canal in 1869. From then on, steamers began to replace square-riggers (which made the longer voyage around the Cape to China and India) and coal imports to Aden shot up. However, it was only when the triple-expansion engines for steamers became available, in the 1880s, reducing the amount of coal required to fuel them, that these vessels became truly competitive.

Competition from the new port of Djibouti, and from Perim, which charged no harbour dues, were significant. Businessmen began to look critically at the harbour facilities at Aden, which had not been improved substantially since the 1850s.

The average draught of vessels using the harbour was increasing annually, and the port was seriously in need of dredging. Ships were being forced to the use deeper, open waters in the outer harbour beyond Ras Marbut and Ras Tarshyne. Equipment and lighters were being damaged and labourers occasionally refused to go out unless risk allowance.

Dredging the port had been the subject of correspondence since 1858, and in 1860 a small, inadequate dredger arrived, leaving shortly afterwards. Shipping agents demanded action, or a reduction in harbour dues, and the Aden Chamber of Commerce was established, largely to strengthen the hand of shipping companies using the port. The controversy dragged on, with questions being asked in the UK House of Commons in 1885.

Eventually (1889), Aden Port Trust was founded, representing both Government and the mercantile community, to supervise the arrangements of the port and the spending of Port income. Its main task was the dredging of the Port.

A dredger finally arrived in 1890, and dredging began in earnest in 1891. By the end of the century, Aden had become a respectable harbour, capable of berthing the largest ships of the day. The dredging work drew the two sides of the Port

Trust together, for a time, but when the Chairman proposed that the number of lighter wharves available should be increased by reclaiming land in front of the crescent, to be paid for by an increase in harbour dues, the mercantile members strongly resisted him. The scheme went ahead, but when the reclaimed land was used to provide public playing fields, there was further outcry.

The merchants were, naturally, concerned to maintain the competitive position of Aden and contain costs. Between 1880 and 1910 business boomed, fortunes were made, and lost. The Suez Canal and increasing use of steamships were having their effect. The now regular flow of shipping through Aden enabled merchants to ship their goods at precisely the time that the market was in their favour in the receiving country - the forerunner of "just-in-time" deliveries. The telegraph, which was first used in Aden in 1870, enabled Adenese merchants to keep in constant touch with world prices, an advantage not available to other Red Sea Ports. These ports then became commercial satellites of Aden.

The nature of business in Aden was changing. Producers in the interiors of neighbouring states undertook their business with traders in Hodeidah, Djibouti, Zeila and Barbera, but most of the exports from these states were then collected for shipment from Aden. Exports of gums, resins, skins and coffee from Aden increased rapidly. Adenese merchants were one step further away from producers, but, with the telegraph, a stage nearer to the consumers in Europe and America. Men with greater knowledge of western markets and business methods began to play a more prominent part in Aden's commercial life.

As Aden grew, the total trade in the Red Sea, Gulf of Aden and Horn of Africa was expanding and offering new opportunities. Heavy European investment in Eritrea and in British and French Somaliland was bringing commercial results. Capital investment brought opportunities for enterprising contractors, and in time the economies of the nearby countries began to develop and their products swelled the

trade passing through the port of Aden. In Yemen, the influence of Turkish government and its investment had a similar effect. The small fleet of Aden based coastal steamers brought increasing volumes of goods to the port, while the trade in regional commodities gained stability and exports rose in step with European demand.

For Aden, there was one cloud on the horizon - the coaling station on the island of Perim. The station had been established in 1884 and with no port dues, had drawn away a substantial proportion of Aden's bunkering traffic. By 1932, Perim surpassed Aden as a coal bankering station and it seemed as though Aden's bankering services would decline. However, the solution to the problem was already in sight. The days of the coal-fired vessel were numbered. A small oil bunkering facility had been established in Aden in the 1920s and between 1928 - 1931, additional oil berths were laid down, bringing the number to four. The harbour and approach channels were deepened to 31 feet and Aden had only to wait for the conversion of word shipping to oil fuel. By the late 1930s, Aden was averaging 150 ship calls per month and the coaling station at Perim was closed in 1937. Following the Second World War, when the world's tonnage was replaced, oil-fired ships were invariably built. Thus, between 1946 - 1952, the tonnage of shipping using the port doubled and continued to increase, until Aden became the world's premier ship bunkering port.

If you stand on Jebel Shamsan some 600 meters above the city of Aden and look out to sea, the horizon is about 45 miles away. From here one can see the ships which move between the Red Sea and the Indian Ocean and pass within a few miles of the Harbour.

Aden has been a major regional centre at various times over the past 3000 years. Over this long time span, visitors with vision have always been impressed by the port and by the opportunities for trade which it offers. MarcoPolo and Ibn

Batuta both noted the prosperity of Aden as a shipowning centre.

Just under 160 years ago captain Haines and the British arrived, to stay for 125 years. Captain Haines stated, when Aden was a small village, that Aden could again become a major trading centre. The latter part of the British period proved him correct and Aden grew to become one of the busiest ports in the world.

Aden was declared a Free Port in 1850 as it took control of Yemen's coffee export trade. From 1869 the Suez Canal shortened the sea distance between Londan and Bombay from over 10,700 miles around the Cape of Good Hope to 6270 miles through the Mediterranean and Red Sea.

Aden's coal bunkering and re-provisioning trade accelerated Aden was fortunate to be connected to the London/Bombay telegraph cable in the 1870's, giving it great advantages in east/west communication. By 1901, Aden Inner Harbour had been dredged to 30 feet to handle the largest ships of those days.

In 1919 Aden introduced oil bunkering and became, by the 1950's, one of the world's top ship bunkering ports, handling up to 6,300 ships a year. Calls by cargo and passenger vessels made Aden the world's 4th largest tax-free shopping port. It became the regional base for dhow, coastal, and deep-sea traffic. Dhows trading between the Gulf, Pakistan, the Red Sea and East Africa were regular callers and Aden handled over 1500 dhows annually in the mid - 1900s.

By 1959, Aden's four tugs, five pilot boats and eight mooring boats were each manned by four crews, working 8 hour shifts 24 hours per day to handle a ship movement every 33 minutes.

During the 30s, 40s and 50s, Aden's entrepot trade increased in value terms tenfold. However, this was due to rapid inflation rather than an increase in volume. The millions of yards of cotton, thousands of tons of coffee and gums, and millions of skins remained largely stable.

However, there was also a considerable volume of hinterland-based trade

coming to Aden, and the tonnages of exports from the port between 1900 and 1954 (Coffee, gums and skins) gradually increased. With the growth in the volume of traffic calling for bunkers, including passengers vessels. Aden became a hive of activity, with shops for visiting crews and passengers open 24 hours a day, 40 to 50 ship movements daily and large volumes of fuel oil being produced by the refinery, constructed in 1954. Cargo, generally in small lots, was discharged and loaded at the stream berths, providing Aden with daily shipping services to and from Europe and the Far East and enabling the merchants in Aden to supply importers over a wide area of the region with competitively priced goods.

Aden's alongside berthing facilities were also improved at this time, with the construction of the "Home Trade Quarry". This provided an approach channel and alongside depth of 20 feet, with three 3 ton travelling electric cranes for cargo handling. At the same time, large areas of land in Ma'alla were reclaimed, on which the Ma'alla flats, storage facilities for the port and a trading area were built. Additional lighter berths were provided at Ma'alla. In the early 1960's, the port invested substantially in three bunkering platforms on fixed dolphins, maintaining its ability to refuel vessels in the minimum of time. Further dredging of the port deepened approach channels and provided depths of 38 feet (11.9 metres) at these platforms, where fuel oil could be loaded at rates of up to 1500 tons per hour [2].

In 1967, independence from Britain coincided with the closure of the Suez Canal. These two events radically altered Aden's role as a middle distance bunkering port and transshipment centre. Ships now went around the cape enroute for Gulf ports. Indian sub-continent, Indonesia, Australia and the Far East. Only small numbers visited ports in the Red Sea or Gulf of Aden. The number of ships calling at Aden fell drastically and in spite of further improvements to the port during the 1970 traffic throughout did not recover. When, in 1975, the canal

reopened, trading patterns and regional balances had altered beyond recognition.

Gulf ports, previously little more than fishing villages, had, by investing the oil revenues which enriched them from the mid 60's onwards; particularly after 1972; built up their own trade. The massive imports of construction materials, investments in infrastructure, development of banking, communication systems and distribution services, boosted shipping and airline services, to these new load centres, outstripping any limited development of services at Aden.

The need for a longside berth to handle larger vessels had been evident for some years, and plans for the construction of a deep water multipurpose terminal at Ma'alla were formulated in the 1980s. With Arab Fund support, these were implemented in 1988 and the new terminal handed over in 1990.

On 22nd May 1990. 'North' and 'South' Yemen were united, ending over 260 years of division, creating a country with a population of some 13 million, a growing oil industry and a will to see trade with the rest of the world expanded. Port investments are proceeding, with immediate plans to deepen the Ma'alla Terminal and, in the near future, to provide container berths in the 'North Shore' area while deepending the port to 16 metres.

4.2 FACTORS FAVOURING ADEN

The following are the main factors favouring Aden as port :

1. It is directly on the main round the world and the Far East to Europe/America trade route, with a deviation of only 4 miles from this route to reach the pilot station.
2. It has clear approaches from deep water, with no reefs, well marked by aids to navigation.
3. It has a4 mile pilotage to the berths from the fairway buoy.
4. It can provide deep water berths in one of the world's largest natural

harbours, protected from the prevailing easterly winds during winter months by hills 500 metres high to the South and East and from the summer SW monsoon by hills 350 metres high to the South West.

5. It operates for 365 days a year, 24 hours a day.
6. It is around 4570 miles from NE Europe and 3640 miles from Singapore (see the enclosed map showing sea routs).
7. It is well placed to provide transshipment services to East Africa, the Red Sea, the sub-continent and the Gulf.
8. It enjoys a dry climate with average temperatures of around 28^0C through the winter and 38^0C during the summer.

The Ma'alla Terminal

The port authority fully realized that cargo handling methods at Aden had to change and that the solution was to build new berths. By 1988 Yemen Ports Authority (YPA) had secured finance generously provided by the Arab Funds to construct the Ma'alla Multi-Purpose Terminal.

This gives the port its first a longside berths for large dry cargo vessels in its history. In 1993 the first container gantry quay crane arrived. A second crane was delivered in 1995, which now allows Aden to offer container transshipment services. 1997 and 1998 have been steady growth, with 1998 showing an accelerating upward trend in number of ship calls and tonnages of bulk, general and containerized cargoes. Container volume almost doubled between 1994 and 1997.

In 1997 13,456 TEU were handled, in 1998 57,537, an increase of 427% over 1997. Volume will reach over 100,000 TEU at Ma'alla in 1999 thanks to the recently generated volume of transshipment containers.

Recent Developments

Although, with the construction of the Ma'alla Terminal, trends were

positive, the port was very conscious during the 1990's that Aden's position as a service and distribution centre for the Region had been lost to competitors. YPA has always believed that it was entirely possible to restore Aden to its former position as a major port. Various developments in international shipping made the mid-1990's the right time to act.

Aden comes late to the modern container transshipment business, but there are certain advantages in this. The growth in ship size, re-grouping of shipping companies and changes in international trade patterns favour a terminal built specifically to serve the new generation of container ships, in the right location, offering a high standard of service.

Following unity in 1990, various studies by British, World Bank and other consultants concluded that Aden's geographical location would allow it to develop significant container transshipment services. The Free Zone Authority was established in 1990 and a concession agreement to construct and operate a new container terminal and Industrial Development Zone was approved in November 1995.

Port Design Objectives

In considering the design of the new container terminal, YPA had certain objectives which it wished to see implemented. These are summarized as follows :

1. The terminal should have a depth of 18 meters to allow the world's largest container ships to be berthed, and to allow for any likely future growth in ship size.
2. The terminal should be aligned in such a way that ships entering the inner harbour would have sufficient sea room in which to stop and turn.
3. The terminal should be designed with adequate space for future expansion as traffic increases.
4. The turning area should be able to turn ship of 350 metres or more in length.
5. The quay wall should be constructed in mass concrete, without any

reinforcing, to avoid cracking and the need for repair work in future.

6. The inner harbour should be dredged across its full width to provide operational flexibility.
7. Dredged material should be used to maximise benefit to the port and to the nation by providing new areas inside the inner harbour for future port expansion.
8. The terminal should be equipped to handle to world's largest container ships.

The port of Aden has many terminals. The Ma'alla terminal is the most important among these. It has some basic strength. The main points are given below:

1. Location
2. Water depth
3. Clear short access channel
4. In the main route
5. Transshipment from Red sea, Gulf of Aden, Arabian Gulf, Pakistan, India, East and South Africa.
6. Protection from weather.
7. No salutation-low speed tied and current.
8. Good pilots and marine staff.
9. Competent management
10. Reasonable multipurpose along side facilities.
11. A history of international trade.

But there are some weaknesses about this terminal which are listed below :

1. Socialist background
2. Reputation for difficult relations.
3. Reputation as a port for the Russians.

4. Lack of labour in skills.
5. Lack of safety awareness (or philosophy in the port).
6. In experience in handling large container ships.
7. No computers of EDI knowledge in port operations.
8. No computers in shipping agents (except Natship).
9. Obstructive customs.
10. Obstructive security.
11. Lack of clear government commitment to development of Aden.
12. No management track record.
13. View of Aden as a bunker port only.
14. Very high Ocean freight rates at present.
15. Lack of competent lasting gangs.

The future potential of the Ma'alla terminal is very bright. There are the following possibilities of its expansion in future which may offer several opportunities of development :

1. Probability of achieving for hub port facilities for container transshipment traffic.
2. Increase in main line container ship size strongly forces Aden when it has deep water.
3. Aden is the only port likely to stop very large container ships.
4. Big ships don't want to enter the gulf (Insurance cost).
5. Khorfakkan and Fujairah have reached their capacity.
6. Muscat is inefficient.
7. Potential growth in traffic to South Africa.
8. Limited water depth in Karachi.
9. Growth of container cargo to Pakistan and India.
10. Growth in the role of major hub in major routes worldwide.

11. Increasing water depth in major container ports.
12. Deepening of Suez canal.

Because of the many ports in Oman, UAE and neighbouring Djebouti and Colombo ports. The Ma'alla Terminal is facing some problems and threats, the main treats are :

1. Competition from Dubai Ports Authority (DPA).
2. Competition from Fujairah.
3. Expansion of Colombo.
4. Ability to transship at Jeddah/Djibouti.
5. Easier custom clearance at Hodiedah.
6. Low ocean freight cost to Hodiedah from all other ports.

4.3 GOALS AND OBJECTIVES

In keeping with the sustained growth and development model, the Aden Free Zone Development Goals are [69]:

Create an investment environment

Achieve sustainable development

Promote indigenous innovations

Secure self-reliance

Protect the natural, built and human environment. Aden, Yemen is an ideal site for an integrated international cargo hub supported by a thriving free zone. The rapidly growing demand for international sea-air cargo transfer and the steadily growing regional cargo traffic in the Arabian Peninsula are determining factors that emphasize the need for Aden to become a major international cargo hub.

Aden will support several forms of tourism including destination resort, base of operations for adventure travel/ecotourism and business travel.

4.3.1 Create on investment environment

To ensure the success of the Free Zone at Aden, the YFZPA must use its position as a national role model and strive to create an environment that foreign private investors will find hospitable. A review of other successful free zones indicates that it is within the ability of free zone administrators working in cooperation with the government to make the structural changes necessary to guarantee the success of the Free Zone.

The foremost components of the investment environment is a stable and predictable political situation.

In addition to political stability, attractive business incentives are another essential factor for the creation of a favourable investment environment.

Another critical component of the attractive investment environment is the availability of a well-trained, economical labor supply. The YFZPA and the Republic of Yemen will have to recognize the importance of training and education and jointly develop programs to meet the needs of the Free Zone.

Investment Environment Tools and Objectives

- *Maximize free zone potential*

This will include adopting policies such as free import and export, streamlined processes, efficient customs procedures, and bonded warehousing. Other policies will include unlimited free zone activities, and provisions for the free play of market forces. Hong Kong and Tianjin are good examples of areas with maximization policies.

- *Provide investment incentives and benefits*

These will probably include low taxes, tax exemptions, easy currency exchanges systems, foreign ownership, joint Yenture opportunities, or customized

infrastructure. Monetary policy also affects the desirability of the country for foreign investment. Extremes on either end-highly valued or intentionally undervalued currencies are undesirable.

- *Integrate administrative structures, especially operations associated with foreign trade.*

As in Shantou, simplicity and efficiency and the idea of service in administration are port of an integrated system designed to improve working relations with investors. It gives investors a feeling of security and stability when risking assets in a foreign country. In Sri Lanka investors can apply to a central agency which is responsible for all free zones in the country.

- *Adopt competitive rates and charges*

The YFZPA will be aware of rates and charges at other international ports so as to be highly competitive.

- *Privatize operations of the seaport and airport, and free zone services*

Hong Kong and Bremen are prime examples of the success of this policy. Hong Kong has encouraged private operation of its airport and its seaport. Bremen has turned over all of its free port operations to Bremen Lagerhaus Gesellschaft (BLG). Privatization has been responsible for keeping these two areas highly competitive in the world markets and at the forefront of technology.

- *Incorporate integrated management information systems*

As seen in Bremen/Bremerhaven, modern information systems are important tools in serving international cargo and the shipping industry.

- *Apply prompt and effective administrative procedures that balance public and private interests*

Shantou, China has instituted a policy of answering investment project

applications within one week starting from the day the feasibility report is accepted. Approved projects have to be granted all procedural clearances within ten days if all materials and certificates are in order. This policy allows investors and bussinesspersons to feel that they are tread fairly and openly, as well as allowing their development proposals to remain viable.

- *Provide guarantees against expropriation and other political risks without just compensation*

To improve the attractiveness of a nation for foreign investments, the adoption of a domestic policy that limits non-commercial risks, such as in the case of nationalization of business, is often recommended. Application of prompt, adequate, and effective compensation and international arbitration is recommended.

4.3.2 Achieve Sustainable Development

The YFZPA must ensure that its programs are oriented to long-term, sustainable growth. While this approach implies a less rapid rate of development, it ensures that the overall impact of the free zone will be positive. Sustainable Development is the process of improving the quality of life of a population through the rational application of capital, labor, and resources. Sustainable implies careful and appropriate consumption of renewable and nonrenewable resources to allow for gains to be made across many generations. It also implies a low level of debt that is serviced by an export sector consisting of secondary or tertiary factors of production. Finally, it is characterized by the development of a well-trained and paid labor force with access to adequate housing, health care, and food.

By diversifying industries and investments, the likelihood of success increases. Diversification is essential as developing countries become more developed. Successful newly industrialized Asian countries have diversified widely

moving from commodities and textiles to manufactured goods. The manufacturing of machinery, electrical products, and upscale consumer goods are continuing to increase. Labor-intensive exports such as textiles are becoming less important. Other commodity rich countries (like Malaysia, Indonesia, and the Philippines) have been slow to diversify and are still considered less developed countries. Another aspect of diversification is a changing comparative advantage which allows countries with few resources other than abundant labor to advance economically. Capital earned in the first stages of industrialization are often used to prepare for the next stage, and so forth, until a country like Japan which started with shipbuilding was able to advance into auto manufacturing and ultimately into the high technology arena [19].

Growing incrementally spreads the cost over time, easing the challenge of finance. Incremental growth will diminish the need for substantial foreign capital and increase the utilization of local resources. Opportunities and changes in technology can be incorporated as the need arises. The goal is to constantly grow, not in bursts and stops but steadily over an extended period of time. A good example of incremental growth is in the SEZ of Shantou, China.

Sustainable Development Tools and Objectives

- *Emphasize incremental, steady growth*

Singapore's government set goals for incremental growth and development in its industrial sector aimed at long term prosperity. The success of this strategy since the 1960's can be seen in Singapore's status as a Newly Industrialized Country, and its steadily increasing GDP.

- *Plan and design facilities by carefully matching resources to needs*

Hong Kong provides an excellent example of "matching" resources to need: Because of the limited amount of available and useful land and the lack of natural

resources. Hong Kong concentrates on the development of industries that can operate in multi-storied factory buildings, incorporating mostly light manufacturing industries.

- *Foster diversified industrial and economic activities*

Mauritius is setting a good example for diversification with their Export Service Zone which is aimed at boosting service firms in such areas as accounting, law, medicine, international marketing, engineering, quality control and insurance. In addition, they are diversifying the present industrial base a way from labor-intensive textile manufacturing into more relatively capital-intensive and high technology areas so as not to be dependent on a single market.

- *Promote use of existing facilities*

Using vacant or under utilized buildings, warehouses, factories, and other facilities available at the port and airport, will lower the initial costs of starting the free zone, provide immediate access to the free zone for investors (infrastructure and roads already being in place) and will provide a level of momentum for free zone promoters.

- *Require contiguous development*

Utility lines and road are usually the most expensive elements in any development scheme. New development that occurs adjacent to existing development will cost the developer (and/or the free zone) less to improve and the free zone and community less to maintain. Contiguous development practices will decrease land speculation, increases access to employment opportunities for workers and the labor supply for employers, and will help the new development become and integral part of the community.

- *Encourage private development of public facilities*

Joint ventures have become the best method of sharing risks for foreign investors. These bilateral and multilateral ventures allow for pooling of expertise, access to industries, resources, and other advantages for investors and host countries alike. For example, large early investors may provide their own water and power supplies in Batam, and Bremer Lagerhaus-Gesellschaft builds all superstructure at the Bremen/Bremerhaven ports.

- *Pursue international grants and low cost loans*

Fewer donor nations and institutions exist and/or can afford to make grants and loans during these tight financial times. And, more and more grants and loans are being tied to ideological or export product development that furthers the needs and desires of the donor country or institution. Therefore, YFZPA will be selective in the pursuit and acceptance of grants and loans and insure that their interests are not compromised or exploited.

- *Develop flexible long range plans for infrastructure that are adaptable to emerging technology, and new growth*

Improvements in infrastructure, agricultural production, and rural electrification will likely occur with foreign help. While developed countries are willing to help it is often only on long term improvement projects. The priorities for use of these funds will be set by the YFZPA and planned to coincide with long term free zone development increments that will improve existing facilities, make contiguous growth possible, increase shared use of facilities, best match the needs and resources, and that will otherwise improve prospects for sustainable growth.

- *Offer incentives to domestic investors*

While improving the investment environment, it is important to work towards a

comprehensive economic system focused on export industries, gradually establishing a market structure oriented towards the international market. Trade relations will focus on development of export values coming from the country's own produce, and from the country's own people. Joint ventures, and partial domestic ownership are other methods of domestic investment.

- *Integrate the free zone activities with the entire community*

Integrating the technology and talent of inland areas with the economic development zone or free zone will encourage investments in both areas, encourage support industries in the interior as well as in the free zone, and produce greater equity (and quality of life). In addition, it is important to hire local labor. In Dubai, as much as 90% of the labor is expatriate resulting in little commitment to the community.

- *Promote basic education for everyone*

While the YFZPA is not going to be directly involved in basic education provisions, it will be directly influenced by the availability of educated workers, research and development projects and the attraction of employers to the free zone. The importance of a highly educated work force cannot be overstated. All of the Asian examples demonstrate that the success of a free zone can be directly correlated to education.

4.3.3 Promote Indigenous Innovations

Virtually every industry in the world has witnessed dramatic improvements in efficiency from new products adapted to their specific needs. Yemen, too, can enjoy these benefits by identifying the appropriate technology, adapting it to Yemen's culture and needs, and assisting the population in learning to use that technology. Transfer of technology and the creation of new skills in the workforce

are just as important to host countries as are the number of jobs created.

Historically, Aden has benefited from its advantageous location. In addition, the Republic of Yemen is now a source of natural gas and petroleum, as well as affordable labour. The technologies that best promote these features must be adapted for use in Yemen.

The Free Zone at Aden can take the lead in demonstrating to the rest of the Republic of Yemen the value of producing for the domestic and international markets using domestic resources. The processing of the domestic fruit crop in countrty instead of importing powdered juices from abroad would be an example of how Yemen could start using its local resources and expertise in an economically productive way.

Indigenous Innovations Tools and Objectives

- *Encourage domestic joint ventures with experienced foreign companies*

Joint ventures enable transfer of technology with less risk to both the foreign and the domestic entity. In addition, the local entity (government, agency, or firm), has the advantage of collecting foreign currency which is easily convertible on international markets.

- *Adapt foreign experience in business, industry, and services*

Many examples exists of successful adaptations in business, industry and services. For example, Korea's success is based largely on reprocessing goods from developing countries that are then exported to Japan; the Chinese have developed sophisticated development services; Hong Kong offers new facilities and global services; Bremen has developed communications to track ships and products from factory to port; and Singapore has used its high savings rates to support its research and development activities (innovation) [31].

Mauritius is developing its tertiary sector in banking, reinsurance, and resorts.

- *Incorporate lessons learned from other free zones*

The developing nations of the world all have important lessons, both positive and negative. The results of their trials and errors cannot be applied in every case, but selected actions and techniques will be researched and incorporated where applicable. For example, several of the Pacific Basin countries are like Yemen in that their natural resources are very limited. They have, nevertheless, become very successful, and many of their practices may be transferable.

- *Transfer appropriate technology*

While the transfer of technology and new skills from foreign direct investment is important, not all technology will be appropriate for Yemen. Timing, and internal changes will play a large part in making determinations about what technology Yemen and the YFZPA find appropriate. A variety of specialization will occur time, but each will be chosen for its appropriateness at any one time since what was appropriate last year may not be appropriate today.

- *Adapt technology to Yemeni culture and practices*

Technical assistance, advisors, and money from foreign developed countries have been applied successfully to many developing nations in their quest to become industrialized. The most successful applications, however, have been those that were adapted to the culture and practices by local people, especially scientists and engineers. The size of a nation does not inhibit its use and adaptation/innovation of advances and technology. It is possible, as Japan has done, to hold on to what is useful from the past while advancing into the future.

- *Encourage use of local resources*

The tendency of countries to specialize in the production and export of products that can be manufactured cheaply and competitively is called comparative advantage. It is a country's factor endowments that determine how strong the comparative advantage is and combined with its available technology determine, its first exportable. In Aden, these will include such things as its educated work force (human capital), petroleum resources, mineral resources, fish (natural resources), seaport and airport and refinery (Physical resources). It is most efficient and most profitable to begin exporting products that will use the locally available resources.

- *Train and educate workers to use new technology*

In successful less developed countries (LDC's) and NIC's, education emphasized the acquisition of skill and knowledge essential for innovation and manufacturing success. While government's role is different in each one, general focus is on science and engineering, and further, on research and development activities. High rates of adult literacy in increases in overall education of the labor force is typical. Training and retraining of scientists and engineers ensures the capacity for technology absorption and adaptation. The YFZPA could encourage this activity by promoting research and development center as part of its work.

4.3.4 Secure Self-Reliance

One of Yemen's strongest assets is its unity. This unity began thousands of years ago and it manifests itself today in a shared purpose, culture and government. The Republic of Yemen has the responsibility of ensuring the accurate expression of Yemeni interests within the global economic community.

The Republic of Yemen must capitalize on the cohesive loyalty that brought it unification to build relationships that keep both public and private organizations intact during the processes of rebuilding a single nation. This same loyalty and cohesive social structure can be used to promote the use of its own resources, to develop decision making systems, and to determine its own future. Yemen must be willing to take risks and endure the hardships and self- discipline that comes with making progress in economic development.

Yemen can accept assistance from outside sources, and use the bond of social relations to readily adapt to new technology and innovate a Yemeni product. In Japan, for example, the social progress witnessed during the post war years has allowed Asians to accept the need for radical transformations within their societies. The guiding principles of accepting and using aid packages should be to promote the unity of Yemen and build a self-reliant framework for decision making and action.

Self-reliance Tools and Objectives

- *Promote businesses*

The YFZPA will impartially promote Yemeni and non-Yemeni business through the careful regulation of investment requirements, through the creation of an Aden-based Yemeni business registry/directory, and through the encouragement of technology transfer linkages to businesses out of the free zone.

- *Keep decision-making within Yemen*

The YFZPA will make decisions regarding the financing, aid and loans, business practices and development of the free zone based on the fast and progressive development of the free zone within the statutory laws, rules and regulations which formulate the basis of its power and authority.

- *Develop diversified financing sources*

A variety of investment options will be available to make sure that some investment capital is always available for the Free Zone. Reliance on a single source of capital can lead to a shortage of capital in the case of too much demand or the sudden withdrawal of the source.

- *Promote local investment and capital*

In conjunction with the sponsorship of Yemeni businesses, the YFZPA will act to connect local sources of capital with Free Zone investment opportunities. Likewise, the YFZPA will provide some of the profits generated in the Free Zone for investment in Yemeni businesses.

- *Integrate Aden's economy with the rest of Yemen*

The businesses and industries associated with the Aden Free Zone will ultimately create disposable income for their employees, as well as products for domestic consumption. The YFZPA will not overlook the importance of either of these factors in demonstrating the value of the free zone to the rest of the country. In addition, the free zone will provide for linkages, both forward and backward, with businesses and industries in all parts of the Aden Govenorate and Yemen.

- *Encourage advanced education opportunities*

Reviews of other free zones' successes and failures points to the need for professional graduates as a crucial part of the success of any free zones. While the YFZPA cannot single handedly be responsible for the advanced education of Yemenis, it will establish itself, however, as a Yemeni entity that lakes pride in the accomplishments and abilities of its college graduates, and rewards the outstanding ones appropriately. To reinforce an ethic of scholarship, the creation of a prize for outstanding student/students, and through the allocation of funds

for scholarships is an effective approach.

4.3.5 Protect Natural, Built and Human Environment

Aden's location, in a natural harbor near the mouth of the Red Sea, affords it beautiful and dramatic environment to operate a prosperous maritime hub, alucrative free zone, and a luxurious tourist center. The volcanic mountains, sandy beaches, azure ocean, and coastal plains attract wild birds, and a large variety of fish. Careful use and management of the resources can provide not only a high quality of life for Aden's residents, but also a clean, healthy and attractive setting for Free Zone investors, resort operators, shippers and traders, and manufacturers.

Environmental Tools and Objectives

- *Adopt and enforce regulations to protect people, land, air, water, and sea*

Regulation adopted by the YFZPA will ensure a careful balance between the needs of the investor and the care the general environment requires. A good example is the Green Plan adopted in Singapore which provides for a clean living and working environment. The plan gives a proactive role to the government and sets a standard for regional environmental management and technology.

- *Adopt a comprehensive plan for development in cooperation with government*

Singapore's prudent and comprehensive planning for its free zone has allowed it to achieve its current status as both an economic and environmental leader. The YFZPA will look to this model and similar ones in the development of environmental policy for the Aden Free Zone.

- *Adopt design, construction, and land use codes and standards*

The free zone at Jebel Ali has adopted a two-stage review process for investors wishing to locate there. After receiving approval in the initial

screening process, the investors plans are thoroughly reviewed to be sure that they comply with an established set of standards (building, environmental). These standards are available to the investor and developer, and the free zone authority makes sure that compliance is easy.

- *Enhance Aden amenities (e.g. Parks, significant and historic structures and sites)*

The YFZPA recognizes the value of Aden as a tourist attraction. Consequently, it will take a leadership role in the protection and further development of these amenities. The YFZPA will look to the third EPZ opened in Sri Lanka, at Koggala for an example of how tourism enhances and diversifies the mix of industries and gives a free zone stability and diversity. The Sri Lanka authorities have taken steps to protect the area around Koggala to make sure it retains its value as a tourist attraction.

- *Respect Yemeni culture and traditions*

Aden has a varied culture. Its Islamic heritage has persisted and given the region a cultural tradition that will be protected and enhanced by the presence of the free zone.

- *Promote conservation of ground water*

The availability of water is a key factor that could limit the ultimate long-term success of the Aden Free Zone. The YFZPA will act forcefully now to ensure that the consumption of water by industries in the free zone is done at a sustainable level. The YFZPA will also recognize the need to develop future water sources.

- *Protect fisheries and wildlife habitats*

Again, the YFZPA will recognize that fisheries and wildlife habitats have

value as renewable natural resources, as tourist attractions, and as another component of the Yemeni birthright.

- *Assure safe working conditions*

The guarantee of worker safety is part of an implicit contract that YFZPA has with the people of Yemen and future workers in the free zones. By offering incentives to bring in foreign investors, the YFZPA is offering the available labor of the country to these investors. In return, the YFZPA will actively ensure that worker health and safety will be respected.

- *Promote environmental education*

While the YFZPA will not have responsibility for the education of the people of Yemen, its actions will be the model for environmental actions throughout the country.

4.4 THE PRESENT STATUS OF PORT OF ADEN

GENERAL LAYOUT

4.4.1 Harbour

a) Fairway and Channel

Access to the harbours both at Tawahi and Little Aden is by means of a channel from the fairway. The channel to Tawahi is 5 km. long and 182 m. wide with a depth of 12.20 m. Whereas the channel to the oil Harbour (Little Aden) has a length of 2.8 km. width 182 m. and depth 11.5 m.

b) Inner Harbour Tract

This consists of two distinct regions; on 11.6 m. depth zone extending some 2.4 km. eastward from the break water in which bunkering and cargo operations take place, and the Home Trade Quay (H.T.Q.) area where general cargo is handled from coasters, limited size of ships and lighters.

c) Inner Harbour - 9.2 m. Depth

To the east of the 11.6 m. area is a section which provides a water depth of 9.2 m. containing four berths; two for the purpose of cargo handling and two located in the southern position are used for bunkering.

This area is 590 m. long and 510 m. wide.

d) Inner Harbour - 5.5 m. Depth.

This tract which is 635 m. long and 480 m. wide lying to the east of the 9.2 m. depth zone is used for berthing vessels upto 107 m. long.

e) Channel to Home Trade Quay

The 5.5 m. zone is connected to the HTQ by the Ma'alla channel which is 1190 m. long, 61 m. wide having a depth 5.5 m.

f) Ma'alla Wharf Area

This expanse which is approximately 1700 m. long and situated to the eastern extremity of the port, comprises the Home Trade, Import and Export, Dhow and lighter quays, its off-shore part consists of depth ranging from 1.8 - 5.5 m. to suit a diverse lighterning activity, 1.83 m. for discharging cargo from lighters, 2.7 m. for discharging cargo from dhows and 5.5 m. for handing cargo from coasters and vessels of limited sizes.

4.4.2 Berths

a) Bunkering Berths

There are seven bunkering berths in the inner harbour; two being of the dolphin type and the others between fixed buoy moorings. All such berths lie in the southern part of the harbour; three of which belongs to Yemen Kuwait Terminal Company and the other four berths are operated by Aden Bunkering Company. Facility exist whereby Bunkering vessels may simultaneously load and discharge general

cargo from and into lighters.

b) Cargo Berths

Cargo in the inner harbour is handled at any of the twenty one berths available for that purpose. Twenty such berths are between fixed buoy mooring and one is of the dolphin type. The berths in question are distributed to a major extent in the Northern part of the harbour whereas others are arranged in the middle of the waterway dividing it into North and South channels. Cargo at buoy moorings may be handled unrestrictedly on either side of a ship.

4.5 ADEN CONTAINER TERMINAL (ACT)

The quay wall for the Aden Container Terminal can be taken to a depth of 18 meters, four metres deeper than Jebel Ali Port, Jeddah or Colombo. The ACT will be able to handle the world's largest existing and planned container ships. Initial dredging is being carried out to 16 metres (53 feet) a longside and in the outer section of the channel. Tidal patterns effectively give the port of 16.8 metres a longside for 18 hours each day for almost the whole of the year.

The first phase of the North Shore berths, 700 metres in length, is being opened in March 1999. Phase II will provide a further 350 metres and phase III 600 metres to give a terminal length of 1650 metres. Other phases are expected to follow. The terminal has been equipped with the latest super post-panamax quay cranes, with an outreach of 57 metres. Rubber-tyres yard gantry cranes, reeferpoints, engineering maintenance and other facilities to match and support quay crane capacity are also being installed. A power station, desalination plant and sewage treatment plant are also being built [23].

4.5.1 Commercial and Economic Impact of the Aden Container Terminal

The construction of the ACT and the restoration of Aden's former position as a regional service and distribution centre will be a key element in the economic

development of Yemen. Its importance to the port, to the city of Aden and to Yemen cannot be over emphasized. Yemen Ports Authority (YPA) believes that this terminal and the associated "Free Zone" will prove to be the 'Key' project to attract inward investment for infrastructure development and awed, aside range of industrial activities.

The project "makes a statement" on improvements in political and economic stabilitly in Yemen over the past three years which other investors can recognize and respond to. There is already evidence that major companies outside Yemen are responding.

There will inevitably be competition from other Regional ports. Some of these grew impressively over the past 30 years and traffic in the more successful ones is dominated by container transshipment. Container movement worldwide increased at around 8-9% annually in the 1990's and is predicted to grow at between 7-8% until 2010. Container handling was a market which did not exist when Aden was a major bunkering port, but has become a market which Aden can and will bid to share.

A growing percentage of the very large container ships which currently handle the world's 'break-bulk' cargoes are now in the 600+TEU class. Ships carrying over 9500 TEU's, which currently make up only 2% of the world, are forecast to form 33% of the world's container fleet by 2010.

With the Aden Container Terminal coming into service this year, Aden is ready to handle ships of this size, and larger, and to regain its position as regional hub port.

Meanwhile, Ma'alla Terminal continues to provide an important service for the port and the nation. It generates valuable foreign exchange earnings from the revenue earned by handling transshipment, containers and also allows Yemen to import, with much greater efficiency, the raw materials and finished products required as foodstuffs and for the construction and other industries which the

country requires. The small, but growing export market is also served by Ma'alla.

In future it is anticipated that the ACT and Ma'alla will complement each other, with the smaller mainline and feeder container vessels using Ma'alla for their transshipment business and the larger ones calling at the ACT.

MARINE SERVICES

Yemen Ports Authority has been under pressure in recent months in the provision of its marine services to the inner harbour, fishing harbour, oil harbour and outer harbour. Demands on its pilotage, to wing and mooring services have increased with the growth in container transshipment business.

It has taken action to improve these services by bringing in additional pilot boat, mooring boat, two work boats (small tugs) and harbour tugs. It is now arranging for the repair and extensive refurbishment of the two older Voith Schneider propelled tugs so that the new ones can be primarily allocated for use by container ships at the ACT and Ma'alla. It also plans to order two additional, larger tugs [43].

OTHER PORT ACTIVITIES

Aden is not only a container port. Other services have been provided in the past and will be provided in future. The Ma'alla Terminal was defined as a 'Free Port' area, which now offers duty-free storage, re-export and other Free Port services to traders and shippers operating in Yemen.

Ship bunkering is an obvious example of the services which Aden continues to offer. There is considerable interest in expounding present facilities and developing new ones to offer in-harbour and offshore bunkering services.

New bulk handling equipment at Ma'alla, greater economic activity and higher efficiency allowed Aden to raise its tonnage for major imported commodities by 87% in 1996 over 1995. Yemen Ports Authority predicts that this will increase to 1.4

million tonnes by the end of the century and to 1.9 million tonnes by 2003.

Ship repair services are also being seen as having considerable potential for expansion, and several companies have already looked at the National Dockyard with a view to refurbishing and expanding this. Classification Societies which were formerly based at Aden may be expected to re-establish offices at Aden. Aden already operates an important Fishing harbour, with a large cold store for the country's 'fish wealth', and fishing vessel repair services.

Marine surveying and insurance services will grow. At the airport a 'cargo village' will support sea-air cargo business. Crew changing, supply of spare parts for machinery and electrical items, ship stores etc. are also expected to expand.

Calls by passenger ships, at around 18-20 per year at present, help to develop the growing tourist business in Yemen, while yachts find Aden a good place to visit for fuel, stores and communications and many now call during the winter months.

FUTURE PORT DEVELOPMENT

When one looks at the chart of Aden, the sheer size of the natural harbour contained inside the rim of hills and shore is impressive. The twelve kilometers east-west and six north-south provide a very large area of sheltered water.

When Captain Hances first surveyed the harbour in 1855, water depths on the south side of what is now the inner harbour were around 20 feet. It needed 11 years to complete the first deepening programme to increase the depth to 30 feet.

Dredging technology has moved on and the current deepening by 4 metres has taken a total of around 30 weeks. Seabed materials of excellent quality are being used for land on the north side of the Rubble Mound for the future construction.

Yemen Ports Authority visualizes the expansion of the port to the West, to provide as haltered basin within the natural basin formed by hills and shore. It would be developed for various purposes, including industrial processes which need

access to deep quay space. Yemen can provide workers for some of the more labour-intensive industries currently looking for sites and, with easy access from all points of the compass, it would be difficult to improve on Aden's location.

4.6 SHIP BUNKERING AT THE PORT OF ADEN

With the advent of steam propelled ships early in the 19th Century, Aden came into its own as a coaling port, especially following the opening of the Suez Canal in 1869. Vessels en route from Europe to India and beyond found Aden a convenient place to pick up bunkers, even if they were not calling to work cargo.

However, at the beginning of the 20th Century, oil began to replace coal as a fuel for steam ships. In July 1904, following 28 months of continuous experiment, the report of the Oil Fuel Board of the British Navy stated that the engineering or mechanical aspects of the fuel oil problem had been virtually solved. In parallel, commercial shipping companies were working on the new fuel source. The Hamburg America Line decided, in 1902, to use fuel oil, and within a few years the Oceanic Line and the Pacific Mail Steamship Company began to use it. In 1912, it was announced that the White Star Line Vessel Olympic was to burn oil. Tanker fleets were growing, although this was still a period of oil being largely carried in barrels. Initially, fuel oil was available in only a few places in the world where there was oil production and/or refining activity. In other places, stocks had to be established to enable oil fired steam (and later motor) ships to operate worldwide. The British Admiralty, in particular, sought reliable sources of this initially scarce commodity for its ships. Oil would give their ships the speed and range necessary to counter the huge German programme of naval rearmament that was beginning to manifest itself in Europe during the early part of the 20th Century [12].

The conquest of the First World War gave the necessary impetus for the Royal navy to seek the creation of oil bunkering facilities in strategic places around

the world. However, lack of resources on the part of oil companies to fund such an operation led to the involvement of the British Government, which, in 1914, invested heavily (2 million) in the then Anglo Persian Oil Company, later to be renamed Anglo Iranian Oil Company (AIOC), and subsequently British Petroleum Company (or BP), in return for a guaranteed supply of oil for the navy.

One of the areas outside Europe where such supplies were to become of paramount importance was the Middle East, where major oil discoveries and shipping routes needed protection from the growing threat from hostile naval powers.

Aden was already a British Colony, as well as a major (Coal) bunkering port, ideal for the Admiralty's purposes. The Admiralty therefore established extensive oil storage facilities adjacent to the large bunkering installation operated by BP (Aden) Ltd. since 1919 as part of the AIOC worldwide bunkering service.

The growth in the use of oil in merchant ships, although slow, was inevitable. The first ship to take oil bunkers in Aden, in February 1920, was the British India (P & O group) vessel Angora. By 1921, Lloyd's Register's return of ships constructed during the 12 months ending 30th June 1921 showed that, for the first time, the number of oil burning merchant ships built during the year exceeded the total tonnage of those fitted to use coal only. The practical advantages of fuel oil had been proved, and the process of converting merchant ships from coal to oil, initially slow, was growing strongly.

By the end of the first half of the 20th century, the steady increase in world shipping tonnage and consequent demand for fuel oil led to the Port of Aden becoming one of the world's largest oil bunkering ports. Oil tankers delivering ships' fuel and other products to the storage tanks on the north and south sides of the harbour became a common sight. The ships of BP, which, for many years, had a fleet of around 120 tankers, were frequent visitors to Aden.

Partly responsible for Aden's popularity in this activity was the considerable fuel requirement of the passenger liners operating between Europe, India, Australasia and the Far East, servicing the cruise industry and the post World War II emigration from Europe to the southern hemisphere. Aden was not only a convenient place to bunker, but had the added attraction of being a Free Port, which enabled passengers to enjoy a few hours of duty-free shopping while their ship was being fuelled.

By the early 1960s, BP (Aden) Ltd. was supplying 3 million tons of bunkers annually to some 5000 ships working cargo in the port or calling for bunkers only. With the tonnage supplied by its competitors, Aden's total annual through put of bunker fuel of around 5 million tons compares very favourable with that of Europe's main tons/annum.

In order to meet this huge demand for bunker fuel, all of which had to be shipped in from elsewhere, BP built a refinery at Little Aden which commenced operations in 1954. Pipeline joined the refinery to the bunkering installation at Steamer Point and to the adjacent Admiralty storage facility.

The closure in 1967 of the Suez Canal resulted in a drastic reduction in shipping passing Aden and consequently in a severe drop in the demand for bunkers. This fell to an average of around half a million tons/annum thereafter.

By the time the canal opened again in 1974, Aden's position as a major bunkering and transshipment port was no longer the same.

Trade patterns had altered, general cargoes had become largely containerized, ships had become larger, with larger fuel tanks, and were increasingly able to bunker at their (usually cheaper) European or Far Eastern terminal ports for the round voyage. New load centres had become established, and passenger transport by sea was rapidly being replaced by air transport, while other advantages attracting passenger ships to Aden, such as its free port status, had gone.

For economic reasons, by 1980, all international bunker suppliers had withdrawn from direct involvement in the physical supply of bunkers in Aden, leaving their bunkering organization for the local oil industry to operate. The proposed restoration of free port status, and the creation of an industrialized hinterland, will no doubt attract considerable volumes of world shipping once again to Aden. In anticipation of this, BP is again becoming closely involved with the supply of ships' bunkers in Aden. Table Nos. (4.1) - (4.5) gives us status of port of Aden.

Table No. 4.1

Table of fuel Bunkering

To ships years 1977/1998

Yemen Ports Authority - Port of Aden

Year	Fuel Bunkering	Gas Oil Bunkering	Diesal Oil Bunkering	Total
1977	531546	59685	67006	658237
1978	369272	43291	52895	465458
1979	364020	32687	59949	456656
1980	528813	44367	84142	657322
1981	597401	28421	27107	752929
1982	696296	91456	17487	805239
1983	444575	79896	4544	529015
1984	505151	107104	2120	614375
1985	411654	82263	-	493917
1986	465853	122646	-	588499
1987	462718	133644	-	596362
1988	539701	126768	-	666469
1989	320177	126513	-	446690
1990	336309	116302	-	452611
1991	147697	60110	-	207807
1992	58742	19197	-	77939
1993	30373	25425	-	55798
1994	19842	9663	-	29505
1995	21926	17617	-	39543
1996	32767	23831	-	56598
1997	25314	24348	-	49662
1998	25004	17227	-	42231

Source : yemen Ports Authority - Port of Aden, Report 1999

Table No. 4.2

Table of Ship Movements for the Year 1966-1996

Yemen Ports Authority - Port of Aden

Year	No. of Ships Calling	Total Registered Tonnage	Net Registered Tonnage	Total Fuel Bunkering in Tons
1966	6246	-	31420964	3851350
1967	3100	-	15349038	1538761
1968	1382	-	6100599	422016
1969	1568	-	8089214	627786
1970	1613	-	8174163	974803
1971	1484	-	6610028	446472
1972	1371	-	5694630	388138
1973	1320	-	5565135	338472
1974	1233	8806208	5106518	202806
1975	1451	10762523	6016485	296236
1976	2336	16804393	9944907	637563
1977	2605	18106336	10737876	658237
1978	2215	16082321	9605197	465458
1979	2149	16707392	10185975	456656
1980	2436	20906835	12597113	657322
1981	2275	18006302	10486741	752929
1982	2360	20869184	12531655	805239
1983	2135	17154878	10098097	529015
1984	2088	17281096	10157135	614375
1985	1921	15026379	9315364	493917
1986	1737	19135961	8344107	588499
1987	1892	15494616	8788322	596362
1988	1900	15739952	8724075	666469
1989	1754	13270204	7483771	446690
1990	1840	14581151	8393671	452611
1991	1358	11200136	6553005	207807
1992	1195	10804504	6589222	77939
1993	1398	10686711	6412970	55798
1994	878	6946426	3978090	29505
1995	1164	9630341	5399516	39543
1996	1317	10602002	5685543	56598

Source : yemen Ports Authority - Port of Aden, Report 1999

Table No. 4.3

Table of Cargo and Liquid Cargo

Yemen Ports Authority - Port of Aden 1974/1998

Year	Imported Cargo Discharges (Tons)	Exported Cargo (Tons)	Crude Oil Imported (Tons)	Refined Oil Exported (Tons)	Total Cargo Handled (Tons)
1974	374457	53977	2884827	2185167	5498428
1975	327208	31421	1654673	1478198	2491500
1976	386822	79523	1779171	1310527	3556043
1977	617911	78936	1810566	1292799	3801212
1978	577617	87528	1891574	1526438	4083157
1979	480830	51683	3651168	2818599	7002280
1980	666736	74192	3763378	3268991	7773297
1981	657805	60157	3504991	2598646	6821599
1982	778902	52226	4494133	3612993	6928257
1983	799574	63660	3102642	3020520	7786405
1984	928846	52100	3801793	2982345	7655084
1985	846468	53635	3378183	2500157	6778243
1986	656970	39979	2234125	1367029	4298103
1987	640740	37331	2478304	1309625	4466000
1988	742525	30621	2773905	1567393	5514444
1989	724024	48045	2865836	2057923	5695828
1990	685770	47902	4179370	3151335	8064377
1991	828912	33903	4288573	3068436	8219824
1992	893874	53108	4892765	3958428	9798175
1993	1243145	32720	5410779	4338011	11024655
1994	911315	52682	3209356	2548563	6721916
1995	675750	57285	4913133	4201809	9847977
1996	1260919	43133	4712038	3819964	9836054
1997	885934	74312	4343176	3404244	8707666
1998	1285370	380369	4688298	3461948	9815985

Source : yemen Ports Authority - Port of Aden, Report 1999

Table No. 4.4
Table of DHOW Movements for the Years 1975/1998
Yemen Ports Authority-Port of Aden

Year	No. of Dhows Calling	Net Registered Tonnage	Cargo Discharged (Tons)	Cargo Exported (Tons)	Total Cargo Handled (Tons)
1975	396	44219	10088	25394	35482
1976	234	24816	3184	11751	14935
1977	178	20456	1020	12348	13378
1978	167	20910	7100	11234	11951
1979	139	18287	1927	6313	8240
1980	136	16901	753	8180	8933
1981	105	13256	1482	6140	7622
1982	110	15393	1561	4841	6402
1983	113	17414	2679	3511	6190
1984	91	13914	2156	2165	4321
1985	98	15262	1687	2768	4455
1986	53	10401	957	2464	4321
1987	53	8849	2418	1165	3583
1988	100	25208	7697	1291	8988
1989	175	39488	6637	3090	9727
1990	227	68487	11005	699	11734
1991	169	43840	7816	4425	12241
1992	83	18485	3018	1355	4436
1993	52	12900	1945	1112	3057
1994	43	11400	1421	955	2376
1995	103	16056	7020	1169	8189
1996	58	10800	928	790	1718
1997	51	9200	393	62	455
1998	52	7450	2043	1791	3834

Source : yemen Ports Authority - Port of Aden, Report 1999

Table No. 4.5

Table of Container Numbers and Tons Exported and Imported during the Year 1983/1998 Port of Aden

	Imports		Exports	
Year	Number	Weight in Tons	Number	Weight in Tons
1983	1426	15754	1193	2595
1984	1623	16511	2438	5252
1985	2430	38209	2310	5542
1986	1884	19493	2106	4703
1987	2084	23669	1780	4633
1988	4736	30935	2392	8706
1989	3667	44651	3018	10867
1990	4058	56723	3727	8110
1991	6374	90526	4117	9053
1992	5166	73313	4466	10195
1993	5067	68830	4889	11695
1994	3650	43891	3751	11432
1995	4805	63823	4108	8985
1996	6334	98169	5719	12606
1997	6668	105887	6788	46795
1998	9439	131691	9489	44525

Source : yemen Ports Authority - Port of Aden, Report 1999

The data related with the imports and exports from Aden port for 1997 and 1998 are gives in Table No. 4-6. This table gives the items which are included in the import list and in the export list of Aden.

It may be seen from the table that Yemen is exporting less from Aden and importing more through this port. Therefore Aden is very important port to meet the domestic requirement of various commodities.

Table No. 4.6
Aden Port Statistics - 1997 vs 1998

Indicator	1997	1998	+/- (%)
Number of ships called (except yachts and 'others')	1,171	1,454	24%
Dry cargo discharged (including containerized-tons)	885,934	1,285,370	45%
Dry cargo loaded (including containerized-tons)	74,312	380,359	412%
Liquid cargo discharged (tons)	4,343,176	4,688,298	8%
Liquid cargo loaded (tons)	3,404,244	3,461,948	2%
Bunkering (fuel oil and gas oil, tons)	49,662	42,231	-15%
Potable water bunkered	23,138	20,965	-9%
Transhipment containers handled			
20 foot boxes IN/OUT (number)	-	23,430	
40 foot boxes IN/OUT (number)	-	7,301	
Total transhipment containers (in TEUs)	-	38,032	
Import/export containers handled			
Imported containers, full (in TEUs)	6,668	9,439	42%
Imported containers, empty (in TEUs)	(see note 1)	577	
Exported containers, full (in TEUs)	2,313	2,120	-8%
Exported containers, empty (in TEUs)	4,475	7,369	65%
Total import/export containers	13,456	19,505	45%
Total containers handled (in TEUs)	13,456	57,537	328%
Imports (in tons)			
Rice	32,463	15,049	-54%
Sugar	115,269	148,472	29%
Beans and Flour	366,408	367,923	0.4%
Cement	135,274	290,271	115%
Timber	6,679	5,162	-23%
Steel	75,213	52,075	-31%
General cargo	106,612	165,469	55%
Imported transhipment cargoes*	12,359	217,408	1659%
Other cargoes**	35,657	23,541	-34%
Total Imports	885,934	1,285,370	45%
Exports			
Salt	16,881	93,277	453%
Fish	1,370	9,727	610%
Cotton	3,052	3,309	8%
Iron scrap	11,095	2,774	-75%
exported transhipment cargoes	11,792	211,615	1695%
Foreign exports	21,198	41,868	98%
Local exports	8,184	17,372	112%
Other cargoes***	740	427	-42%
Total exports	74,312	380,369	412%
Total tonnage handled	**8,780,466**	**9,879,171**	**13%**

Source : yemen Ports Authority - Port of Aden, Report 1999

Notes :

1. Empties included with full containers imported
* Transshipment cargoes were not in containes in 1997.
** Includes; forzen cargo/livestock/equipment/automobiles/liquid in drums
*** Includes; coffee/hides/gum

4.7 THE ADEN PORT DEVELOPMENT AND EXTENSION PROJECT

For most of its history, the port of Aden did not have conventional a long side berths for cargo ships. Cargo were worked at ships moored 'in the stream' into barges, which were towed from or to shallow a long side jetties at the land/sea interface. Indeed, before the port was initially dredged (in 1890), ships which were too deep had to be lightened by transferring some of their cargo to barges in the outer harbour before they could enter. This situation was acceptable only in the sence, senesce that it confirmed, for many years, to the expectations of the time.

By the late 1940s, Aden's main concern was still ships' bunkers; either coal or oil. Cargo transshipment and the loading/discharging of cargoes from/to Yemen played a secondary role. However, the need for 'Proper' a long side berths was recognized, and it was decided to build the Home Trade quay, 850 Feet long, at Ma'alla, plus new jetties for handling the barges which would continue to take cargoes to and from deep sea ships in the stream. As its name implies, the Home Trade quay was intended primarily for national cargoes. At the same time, vast areas of land were reclaimed from the sea to provide a trading estate on the sea ward side of Ma'alla main road and additional space for the land based cargo operations of the Port.

As recorded in early Annuals, this scheme was completed in 1958/59. Since then, the Home Trade quay has served Aden for many fruitful years, reducing costs for importers and exporters through direct loading/discharging from or to cargo sheds or lorries.

In the 1980s, the need for deep water along side berths was again becoming evident. By this time, the cranes at the Home Trade quay had deteriorated, wear and tear was affecting the quay itself, and the growing population of Yemen called for the use of larger more cost-effective-ships for the import of foodstuffs and other cargoes. Thus, the Ma'alla Container and Multipurpose Terminal was conceived. Coode Blizard had completed a study for the development of the port in the early 1980s, and were asked to update this and confirm the overall design of the terminal. A mass concrete method of construction was chosen to avoid the corrosion problems of steel piling and enable the time frame to be kept as low as possible. Coodes were subsequently asked to carry out detailed design of the Terminal and to prepare tender documents for what was then known as the "Aden port Extension and Development Project" [48].

This work was completed in good time, and lead to the award of a US$ 36 million contract to the Archirodon Construction (Overseas) Company of Jeddah, Saudi Arabia [53]. Funding came from three sources; The Saudi Fund for Economic Development and The Kuwait and Abu Dhabi Funds for Arab Economic Development. Work commenced at the end of 1988, based on the borehole programme, soils testing, data evaluation and reports prepared by Coodes, who had been engaged by YPA to carry out supervision of construction and contract administration. The Project was completed and handed over to Yemen Ports Authority in mid-1990 and has transformed the Port of Aden and drastically altered the views from the Ma'alla flats. Three million cubic metres of spoil has been removed from the sea bed to form the approach channels, turning basin and berthing areas, and with this spoil 23 hectares of new land has been reclaimed. Work at the site continued for 14 hours a day for almost three years; casting concrete blocks of up to 48 tonnes used to form the quay wall, the many concrete beams and making the 12 million concrete paving blocks needed for the 240,000 square metres of concrete block pavement laid

on a soil/cement sub-base. Initial dredging along the line of the quay wall to 13.2 metres below chart datum provided the base on which a 1.35 metre deep bed of rubble was laid by teams of divers, providing a level surface accurate to + or - 2 cm. at a depth of 11.8 m. below datum. Derrick barges were then used to lower the concrete base blocks into position.

The corner of the quay was constructed to carry the loads transmitted by the quay walls of Berth 1-4 and the RoRo berth, with the blocks forming these walls being laid in sloping slice-work. When the block work was above the high water level, it was preloaded with a 4,000 ton load for 48 hours to remove any settlement before the precast super structure was laid, taking the berths to a clear height of 3.66 metres above chart datum. Subsequently, fendering and other items required at the quays were fitted.

This investment has provided 750 metres of quay for four modern deep water berths, with excellent fendering, founding, mooring and other facilities, plus 150 metres of RoRo berth to similar standards, depth 7.62 metres. The cargo sheds at the lighter berths, built in 1953/54 when the new terminal site was still under 3 metres of water, are now 350 metres from the apron of the new quay. Their signs forbidding fishing and swimming remain in place!

Three new cargo sheds have been erected, each 170 x 60 metres; one each at berths 3 and 4, set well back from the apron, the third at the back of the 7.5 hectare container park to act as a container freight station. A completely new fire main and fire station has been provided. Two new fire engines have recently been delivered. Electrical sub-stations, latrines, and 32 reefer container points, with back-up electrical power supply, have been installed. The container gantry crane inner rail is carried on reinforced concrete beams set on piled foundations. Loads from the outer rail are transmitted to the quay wall. A high voltage network has been provided to power the cranes, with low voltage for lighting and other

purpose. Pylon-mounted lighting provides illumination for the whole of the new terminal area.

The first Liebherr Container Gantry Crane was delivered and erected in 1993, and a second crane will be installed by mid-1994. Other equipment (42 ton fork-lift trucks, trailers etc.) is already in place, speeding the flow of goods through the terminal.

In parallel with the construction of the new Terminal, the Home Trade quay has been extensively refurbished and much of the area at this quay laid with new concrete block pavement. New crane rails, new tendering, new area lighting and cope side furniture has been provided to bring the old facilities up to standard. The new fire main also serves the Home Trade quay area.

The Ma'alla Terminal is a first stage in the modernization of facilities at the Port of Aden; a process which will continue to the end of this century and beyond.

Table No. 4.7
Aden Free Zone Development 25 Years Rough Order of Magnitude - $ 5.8 Billion

	Phase 1	Phase 2	Phase 3	Phase 4	Total
Refinery	339,991,000	397,105,000	1,402,603,000	702,985,000	2,842,684,000
Water	113,693,000	126,149,000	-	1,082,000	366,756,000
Airport	52,435,000	66,223,000	125,832,000	13,953,000	225,629,000
Electric	16,724,000	300,045,000	93,018,000	266,382,000	866,028,000
Sewer	14,369,000	48,111,000	282,877,000	20,679,000	118,628,000
Tourism	10,567,000	88,653,000	35,469,000	59,778,000	218,776,000
Seaport	10,220,000	184,527,000	59,778,000	107,944,000	907,914,000
Storage	3,974,000	31,671,000	605,218,000	40,675,000	107,991,000
Industry	3,352,000	13,984,000	31,671,000	33,919,000	68,936,000
Roads	2,582,000	27,062,000	17,681,000	19,871,000	69,617,000
Total	567,912,000	1,283,53000	20,102,000	1,267,268,00	5,792,959,000

Source : yemen Free Zones Public Authority, 1994

4.8 FREE TRADE ZONE RELEVANCE TO ADEN

4.8.1 The Jebel Ali Free Zone (JAFZ)

A. Background

The establishment of FZs in the UAE is a design fitting into the economic diversification policy of the country in order to lessen dependence on oil reserves which would one day be exhausted. The creation of JAFZ in 1985 has been one of the major contributions to the transformation of Dubai into one of the fastest-growing and most attractive business centers in the Middle East [62].

Unlike other zones, JAFZ did not base its development on the availability of low-cost manpower or home-grown technological capacity. In fact, JAFZ started as an expansion of trade services, and has gradually integrated these with an expanding efficient infrastructure to develop into a growth pole. Although, JAFZ has promoted itself primarily as a centre for regional distribution, overtime it had diversified into manufacturing and assembly.

The major locational advantages offered by JAFZ are : i) strategic location for the global marketer, midway between East and West (i.e. 7,500 miles from China and 7,000 miles from England), and with access to the Mediterranean area. It is in fact, the centre of the Main Line transportation links between Asia and Europe, ii) access to a market of over 1.5 billion consumers in the surrounding markets of Iran, GCC, CIS, South Africa, and the Indian Subcontinent, iii) built around one of the world's largest man-made ports with over 300,000 m^2 of storage space. iv) just 35 kilometers from the center of Dubai, JAFZ is emerging as a major regional trading, distribution, and industrial centre.

B. Organizational Synergy

JAFZ is a port-based zone, centered on the Jebel Ali port terminal of the

Dubai Ports Authority (DPA), and covering a land area of 100 km^2. By design, the FZ and the port are to operate as complementary organizations. The FZ would help in drumming up traffic through the port, and the port would provide facilities that would make the FZ an attractive place for investors.

Organizationally, the Jebal Ali port terminal and the Port Rashid terminal in Dubai city, are jointly managed by DPA. And by implication, JAFZ is also organizationally linked to DPA. The Jebel Ali port terminal is essentially an extension of the Dubai transport infrastructure through which traders and distributors in Dubai can serve the regional markets of the Arabian Gulf, Middle East, Far East, South East Asia, Indian Subcontinent, Central Asia, Eastern and Western Europe, Africa and North America. The administrative affairs of the FZ are managed by the Jebel Ali Free Zone Authority (JAFZA) [53].

C. Objectives and Legal Status

JAFZ was established with the specific purpose of facilitating investment. While JAFZ contributes to Dubai's growth and development, its legal status is quite distinct. Companies operating in the zone are treated as being "offshore", or outside the UAE for legal purposes. This advantage offers the potential for minimizing operating costs and maximizing profits. Consequently, it can represent a solid contribution to a company's bottom line.

It follows that, the option of setting up in JAFZ is most suitable for companies intending to use Dubai as a regional manufacturing or distribution base with most or all of their turnover directed outside the UAE. Specific incentives offered are summarized in Table No. (4.8).

Table No. 4.8
Jebel Ali Free Zone
Summary of Incentives

Incentives	Description
Ownership	100% foreign ownership
Duties	Exemption from all import duties
Capital/Profit	100% repatriation of capital and profits
Taxation	• No corporate taxation for 15 years, renewable for an additional 15 years • No personal taxation
Energy	Abundant inexpensive energy
Manpower	Simple and efficient recruitment procedure which can readily provide highly-skilled, inexpensive and experienced workforces from Asia
Administrative support	• Administrative support from JAFZA* • Easily obtainable operating licenses
Transport links	Road, sea and air links
Telecommunications	• State-of-the-art telecommunications system • Computer interface with all local ports and Government offices

* JAFZA = Jebel Ali Free Zone Authority

Source : Compiled baded on JAFZA

D. Infrastructural Capacity

1. Port Terminal : JAFZ is centered on the Jebel Ali port terminal. But in fact, Dubai's two port terminals operate interchangeably and the shipper is always guaranteed a point of discharge. Table No. (4.9) gives a summary of infrastructural capacity at the service of shippers.

2. Storage Space : Extensive open air and covered storage space is available to meet a wide diversity of requirements (Table No. (4.9)).

3. Temperature-controlled Storage : A large capacity for storing products needing cooling is available (Table No. (4.9)).

4. Operational Readiness : The target of JAFZ for cargo handling is to move 100 containers in one hour, and to turn a ship around in 24 to 28 hours. The service philosophy here is that the zone would rather have cranes lying idle than keep customers waiting. All customs inspection and documentation are in the same office ("one-stop-shop"), and trucks have been equipped with computer technology so that they can pass control points with pre-cleared cargo. In addition, Dubai International Airport is a major regional sea/air centre housing an Air Cargo Village with a capacity to handle in excess of 500 tons/day and offering over 300 flights/day to and from around 100 destinations. Furthermore, sea/air conversion time from container on board to pallet on plane is fast taking only between 2-4 hours [61].

Table No. 4.9
Jebel Ali Free Zone
Infrastructural Capacity

Item	Capacity
Port terminals*	102 deep water berths 23 gantry cranes
Storage space	Open air (59 hectares) Covered space (300,000 m^2)**
Temperature-controlled storage	90,000 m^3***

* Jebel Ali Port Terminal (67 berths) and Port Rashid Terminal (35 berths). All kinds of ships can be handled, including container, bulk, tanker, refrigerated, and Roll-on Roll-off (RO-RO) vessels. Jointly, both terminals handle over 2 million TEUs/year. JAFZ's alliance with DPA also promotes easy access to over 100 international shipping lines serving major regional markets. Feeder lines service the near Gulf, Iran, and Africa.

** Includes transit sheds. The twin terminals also offer excellent storage facilities for the giant car factories, providing both, short and long-term storage for transshipment and re-export. For petroleum products, storage tanks can be rented by companies who wish to hold stocks of oil before delivery elsewhere around the world.

*** Cold storage for frozen and perishable food (43, 000 m^3), cool storage for semi-perishable cargo (47,500 m^3).

Source : Compiled based on JAFZA.

E. Investors

At the end of 1985 only 16 companies were operating in JAFZ. It was not until 1988 that the number of companies investing in the zone reached 100, and in 1990 the 200 mark was broken. In 1997, 1,290 companies from 75 countries are operating in JAFZ. While the zone works in trying to attract new investors, it seeks leading established companies so that quality is not sacrificed for growth. Another investment guideline is to strike a good balance between foreign and local investment. Indeed, the management of JAFZ does not seek to allow it to become an enclave economy, isolated from the domestic economy and dominated by foreign investors. As (Figure 1) shows, the investor community at the zone is diverse in nationality, with around 26% being local companies. The major regions investing in the zone are Europe and South Asia. JAFZ investors target markets such as the GCC and Iran, the European Union, the USA, Lebanon, and CIS.

Still another investment guideline is activity diversification. In fact, while JAFZ is a general type of zone, it does not seek to become dominated by a single kind of activity. Although the zone does not necessarily restrict investor business activity, it is selective and encourages those that generate high value-addition and/or use high technology. Diversification efforts have changed the basic trading orientation of JAFZ. Indeed, foreign investment ($1.1 billion) has been heavily directed toward industrial activities (66%, Figure 2). However, until

Fig. 4.1. Jebel Ali Free Zone
Distribution of Companies by Area of Origin
(1997)

(Source: Composed Based on data from JAFZA)

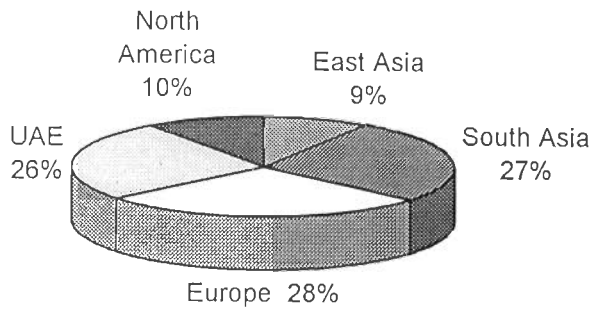


Fig. 4.2 Jebel Ali Free Zone
Distribution of Investment (1997)

Source: Composed based on data from JAFZA

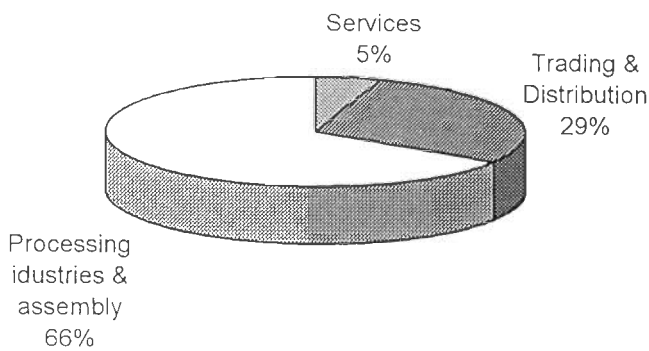


Fig. 4.3 Jebel Ali Free Zone Distribution of Companies by Field of Activity (1997)

Source: composed based on data from (JAFZA)

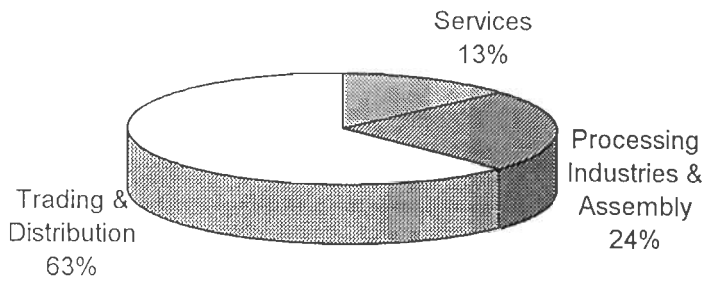
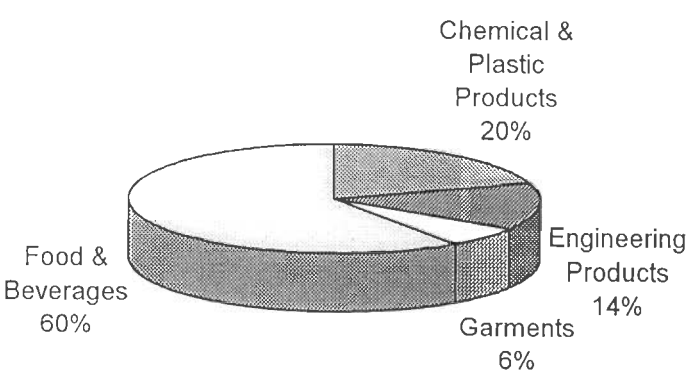


Fig. 4.4. Jebel Ali Free Zone Distribution of Companies by Industrial Activity (1997)

Source: Composed based on data from JAFZA



now, most of companies in the zone are engaged in trading and distribution (63 %, Figure 3). The implication of the diverging patterns of investment allocation and fields of activity would seem to be that the tendency of foreign investors is to use JAFZ as a temporal trading/distribution point. Clearly, to guarantee a smooth and rapid exiting strategy to another geographical point, minimal investment in facilities is required. Conversely, the concentration of investment in industrial activities and the much smaller number of industrial firms would seem to indicate that fewer foreign investors consider JAFZ as a permanent manufacturing location.

As to industrial diversification, JAFZ seeks to avoid overconcentration in particular industries, as has been the case in other FZs, particularly in South Asia and Latin America. The success of this strategy is shown by the fact that Food and Beverages (60%) and Chemicals/Plastics (20%) account for the largest chunk of industrial companies in the zone (Figure 4). And contrary to the experience of other developing countries, garment activities and engineering products (which includes electronics assembly) are only small industrial activities [60].

F. Technology and Skill Dissemination

The emphasis placed by JAFZ management on value addition and high technology activities has another dimension. Indeed, in order to create the potential for having technology and labor skills transferred to the domestic economy, JAFZ is keen to particularly encourage those types of activities.

G. Economic Repercussion

The quality-based approach to business followed by the JAFZ translates into business growth. For instance, imports through the zone went from around $ 100 million in 1986 to nearly $ 1.6 billion in 1995. And exports and re-exports shipped outside the UAE reached $ 1.2 billion. Goods exported to the domestic

economy through local importers amounted to over $400 million. To put this expansion into perspective, of all the goods entering the UAE in 1986 only 1% went through JAFZ. But that proportion reached 13% by 1995. On the export side, JAFZ accounts for around 23% of the UAE's non-oil exports and re-exports [63].

As to employment generation, JAFZ employs over 35,000 workers (which is similar to the entire workforce of the Government of Dubai). At the present, the majority of these positions are manual jobs undertaken by expatriates. Larger employment benefits would accrue to Dubai to the extent that it can fill gaps in required skills. However, while making the needed skills available with indigenous labor is a necessary condition, it is not enough. To be effective, local labor must also bring experience on a cost-competitive global basis. Table No. (4.10) shows salary levels at JAFZ.

JAFZ also produces a direct contribution to the local economy through expenditures on land, building rent, port and cargo handling charges, and local purchase of goods and services both, by the companies and their manpower.

JAFZ provides opportunities to internationalize GCC business activities by attracting companies from the region, and by offering the opportunity to form joint ventures with foreign investors. Such joint ventures help GCC business to integrate into the global economy.

H. Strategic Issues

Table No. (4.11) offers additional insights into the experience and outlook for JAFZ based on discussions of strategic issues with zone top management.

Table No. (4.10)
Jebel Ali Free Zone
Indicative Salary Range* 1997

Labor Category	Expatriate ($/month)	GCC** ($/month)
Unskilled	100 - 200	150 - 400
Semi-skilled	160 - 270	240 - 540
Skilled	200 - 500	300 - 1000
Clerical	300 - 500	450 - 1000
Professional		
Accountant/foreman	500 - 800	750 - 1600
Engineer	800 - 1300	1200 - 2600
Superintendent	1000 - 2000	1500 - 4000
Managerial		
Manager	1600 - 2700	2400 - 5400
General Manager	Up to 4,000	Up to 6000 - 8000

* Excludes benefits such as workmen's compensation ($10,000 for death or total disability), accommodation (Annex VI), health care, air-tickets for leave every 2 years, and annual leave (30 days). Overtime pay is 1.25 times the monthly salary.

** The salary differential in favor of GCC labor is given by a factor of 1.5 to 2.0 times.

Table No. (4.11)
Jebel Ali Free Zone
Executive Briefing on Strategic Issues

Strategic Issue	Executive Briefing
Zone Administration	• Zone operates as a profit-making corporation • Has 10-year business (operational) plan and facilities plan (roads, utilities, office/warehouse buildings, workers housing etc.) • Will not privatize zone administration (i.e. management contract) since it has achieved an adequate level of expertise on this account.
Financial Management	• Zone did not generate profits in the early years of operation as the small number of companies did not generate revenues large enough to more than offset the cost of setting the initial infrastructure setup • All infrastructural costs are recovered out of revenue on a long-term basis • Cost and revenue accounts are drawn on a monthly basis to check on the profitability of the zone. • Profits are transferred as contribution to Dubai's Government fiscal revenues • Land belongs to Dubai's Government but is leased to zone investors through JAFZA to generate rent revenues.
Infrastructure	• Expenditure over 1985-1996 reached $2 billion (excluding deep-water port) • Expenditure over 1997-2006 to expand infrastructure and facilities will reach up to $2 billion • Plans include building an international airport within the zone • Zone provides all urban development/city planning requirements (engineering services, housing, quality assurance, security, pollution control, medical facilities etc.) • Current land size of 45 km^2 is already fully commited to the operation • Another 50 km^2 are to be developed under a 10-year plan (1997-2006) • Expansion of infrastructure and facilities is on the pay-as-you-go basis (i.e., demand-push, not supply-pull) • Zone is far from reaching infrastructural and foreign investment saturation point.
Contribution to Local Economy	• To generate benefits to the local economy services procured outside the zone must be provided by local companies with 51% or more national shareholding* • Many companies do not need to subcontract for manfact-uring services outside the zone as they have set up their own industrial service companies inside JAFZ

Strategic Issue	Executive Briefing
Employment benefits	• 100% of workrs in the zone are expatriates • Zone does not require the employment of locals since it operates on the principle of freedom to do business, which includes freedom in hiring/firing manpower • Hiring locals will increase operating expenses of companies in the zone, reducing their cost competitiveness on a global basis
Foreign Investors	• If JAFZ could start again the one thing it would change is the selectivity approach in taking foreign investors • At the beginning JAFZ took every company that came along irrespective of the quality of the company • Today, JAFZ carefully screens applicants and tends to accept only companies of wordwide reputation
Outlook for Fields of Activity	• Manufacturing will receive the major emphasis over the next 10 years (1997-2006) • Concentration will be on energy and capital-intensive industries • Main industries targetted are oil refining, gas-based chemical products (urea,ammonia,others) and petrochemicals • The above large-scale projects will generate multiple effects in terms of demand for ancillary industrial services within the zone • Currently there is no gas feedstock supply to JAFZ but arrangements are being discussed to bring gas supplies from Abu Dhabi and Qatar
Competitive Threats From companies	• JAFZ is under constant competitive pressure on a global basis. When prospective companies come to evaluate JAFZ they have already checked a number of others FZs and will select the one that offers better terms on account of costs, incentives, infrastructure, and availability of local, trained manpower to provide for present/future labor skill requirements on a cost-competitive basis • Company competitive threat is maximized when a big name corporation leaves JAFZ to go to another zone and others follow the move of the leader corporation
From other FZs	• The competitive threat comes when a global approach to competition is lacking and FZs that are far away are ignored. It is precisely those FZs that can take away all of your business. • JAFZ is not much concerned with competition from future GCC FZs as it is ahead in the FZ life-cycle, there are formidable barriers to entry, and it is diversifying into large scale energy and capital-intensive manufacturing

Strategic Issue	Executive Briefing
From other FZs	• JAFZ is in favor of regional coordination of GCC FZs to exploit complementarities instead of contributing to duplication of investment • JAFZ believes regional coordination should not suppress healthy competition among future GCC FZs because competition brings discipline to keep improving the FZs in the future • JAFZ has started to act as the "free zone of free zones" in the UAE by providing other local FZs with management training and the transfer of specialized zone management tools

* Bank financing, . housing, catering, health, education, training, industrial services, transportation, and others.

4.8.2 Singapore

The free trade of Singapore, located at the cross roads of international trade routes, has become known as a major center for global commerce and exchange. The success of Singapore can be attributed to its stable political and economic climate, worldwide sea and air links, modern port and airport facilities, sophisticated telecommunications network, comprehensive land transportation system, skilled and motivated work force, and simplified documentation procedures.

Singapore began as a warehousing and transshipment entrepot. The late 1970's and early 1980's brought an increased emphasis on high technology high-value-added goods and services, thus making Singapore an electronics and regional banking center. Before the industrialization of Singapore, two-thirds of the import and exports consisted of entrepot trade. Singapore's trade pattern reflects a shift towards importing capital goods and raw materials for industry and exporting locally manufactured products. In 1990 the principal groups of items traded were petroleum and petroleum products, machinery and transport equipment, electronic products and manufactured goods. These products accounted for 86% of the total

trade. Major trading partners in 1990 were the US, the European Community, Malaysia and Japan. Their combined share of total trade was 5% [58].

FOREIGN INVESTMENTS

Because of the governments policies to promote rapid economic growth, Singapore excels as an investment center for manufacturing, financial, business and overall services.

In 1990, 89.3% of the total investment commitments originated from foreign nations. Most of these commitments were directed at technology intensive and high value added industries [57].

SINGAPORE FINANCIAL SECTOR

a) The Monetary Authority of Singapore

In January of 1971, the Monetary Authority of Singapore (MAS) was established. Its primary role is to act as a banker, fiscal agent and financial advisor to the government. Promotion of monetary stability, credit and exchange policies benefiting the growth of the economy are the goals of the organization.

b) The Banking Sector

As of August, 1989 there were 140 commercial banks operating in Singapore, of which 13 were local, of the remaining 127 foreign banks, 22 have full banking licenses, 14 have restricted banking licenses and 91 have off shore banking licenses. Restricted banks can only accept time deposits at a minimum of $ 250,000 each. They cannot operate savings accounts and can only operate a single office in Singapore. Off shore banks work mainly with the Asian dollar and foreign exchange transactions, and, concentrate mainly with the whole sale banking business with non-residents.

c) Singapore As An International Financial Center

The government of Singapore seeks to develop Singapore into an international financial center. The Monetary Authority of Singapore (MAS) is the chief party responsible for achieving this strategy. For the past decade the MAS gave emphasis to building a solid infrastructure for financial activities.

The future strategy calls for adding on to existing infrastructure and to improve the capital market and related activities like risk and investment management in the hopes to develop Singapore as an international fund management center. Another way Singapore is trying to become an international financial center is to promote international loan syndication activities. The government has introduced a special tax holiday scheme to encourage these activities.

d) Industrial and Investment Incentives

Industrial development in Singapore is an important aspect for the future. Investment incentives are used for the promotion of new industries as well as encouraging existing companies to upgrade through mechanization and automation and the introduction of new products services. The Economic Development Board (EDB) is responsible for the planning and promotion of Singapore's industrial and commercial development. The EDB offers the following tax incentives [59] :

- Pioneer status
- Expansion Incentive
- Investment Allowance Incentive
- International Direct Investment Incentive
- Approved Foreign Loan Scheme
- Venture Capital Incentive.

A variety of fiscal and financial incentives are available to companies using Singapore as a regional distribution center. The Singapore Trade Development can

customize an incentive program to suit the particular investor.

PORT FACILITIES

The port of Singapore Authority (PSA), manages the Singapore's port activities and services. Singapore is currently the busiest port in the world handling 154,738,800 tonnes of cargo in 1988, a 54% increase over 1979.

a) International Shipping Center

With over 160 years of port and shipping experience, Singapore is ranked as the busiest port in the world with regards to shipping tonnage. Not only is Singapore one stop shipping center, it is a major warehousing, distribution, and transshipment point as well.

Singapore's success as a major shipping center is due to many factors including its strategic location between the Pacific and Indian Oceans, its natural deep-water harbor, its well-developed infrastructure, its banking and financial service sector, its political stability, and its skilled motivated workforce.

b) Cargo Handling Services

The development of Singapore's port facilities was specifically geared to keep pace with future patterns of sea transportation and cargo handling methods. Currently, the port of Singapore has five gateway capable of handling nearly every kind of cargo. Annually, Singapore handles over 160 million tonnes of cargo. General cargo is handled by Keppel, Pasir Panjang and Sembawang Terminals. The oldest and largest of the three is Kepple terminal, capable of accommodating 15 vessels on its 2.5 km series of wharfs. This terminal also boasts the largest warehousing complex in South East Asia. High-volume, low-value homogeneous cargo is handled at Sembawang Terminal.

Jurong port handles dry bulk cargo at its 2.4 km wharf. This port was

developed for the specific purpose of serving the Jurong industrial estate.

c) Oil Refining and Trading

Singapore is the third largest oil refining and distributing center in the world. More than 60 million tonnes of oil are handled annually by the refineries with the product being exported to 50 countries around the world. As a refining center, Singapore also serves as a bunkering station for ships at the port. Bunker fuel is available at the wharves through pipelines, oil terminals, or at anchorages from barges.

Presently, Singapore has over 50 oil trading companies to serve the Asia-Pacific region. The government is trying to develop Singapore as an international oil trading center. A concessionary tax rate of 10% of income derived from off shore oil trading activities is being granted. The establishment of a future market for high sulfur fuel oil under the Singapore International Monetary Exchange Ltd. is the second initiative the government has granted in 1989. Profits from transactions in oil futures contracts are taxed at 10% for members of the "Approved Oil Traders" (AOT's) and members for the Monetary Exchange.

d) Shipbuilding and Shiprepair

Singapores location on the oil tanker routes between the West Asian oil countries and Japan and its development into a major port were the catalysts in Aden becoming a major shipbuilding and shiprepair center. Shipbuilders can offer virtually every type of vessel as well as the conversion of specialized vessels and heavy construction like floating barges, piers and buoys. Shiprepair yards handle routine repairs as well as complicated conversions and vessel modifications.

e) Technological Sales and Service Center

Singapore's comprehensive marine supporting industry meets the demand of

local and regional markets. In addition, the offshore oil exploration in the Asia-Pacific region in the early 1970's has led to Singapore's establishment as a leading oil-rig and drillship builder and allied offshore structure producer.

f) Warehousing

Singapore offers a wide range of warehousing facilities and services. The port of Singapore Authority has over 2 million square meters of warehousing space in the Free Trade Zone. Additional complexes are also located outside the Free Trade Zone.

g) Free Trade Zone Facilities

The port areas and air cargo terminals of Singapore operate as Free Trade Zones. Goods can be stored with no time restriction and minimal documentation and customs formalities. Goods can be repacked, stored or processed without any duty payment before re-export. Currently, transshipment and re-export cargoes are exempted from customs duties.

h) Other Services

Auxiliary services such as warehousing and shipbuilding are also provided. Support services include pilotage and tug, supply of fresh water, gas-free inspection and famigation, garbage removal and slop reception are also provided. Round-the-clock security, environmental control services, and fire-fighting services are offered.

AIR TRANSPORT

Singapore's two civil airports, Changi Airport and Seletar Airport, are managed by the Civil Aviation Authority of Singapore (CAAS). Changi Airport is used for international carriers and Seletar airport is used primarily for charter services. The CAAS wants to develop Singapore as a major international air hub.

Singapore is served by 50 international airlines operating more than 1,600 flights a week to 109 cities and 54 countries worldwide.

a) Airport Development

Because of the increasing passenger traffic forecast for the future, a second passenger terminal has recently been constructed at Changi Airport. This additional terminal makes Changi capable of handling 20 million passenger movements annually, the largest international passenger handling capacity in the Asia-Pacific region. The 1987 development of a third cargo agents building at Changi doubled the warehousing space for cargo agents to 45,000 square meters, thus, confirming Singapore's development as a major air freight center for the region.

b) Sea-Air Cargo Transshipment

The Civil Aviation Authority of Singapore (CAAS) and the Port of Singapore Authority (PSA) combine their resources and experience to serve as a leading sea-air cargo transshipment hub. The rapid growth of the sea and air cargo industries has been phenomenal. From 1979-1988 the air cargo traffic volume at Singapore grew at an annual rate of 15% Singapore's Changi Airport is currently ranked 9th in the world in terms of international air cargo volume handled.

FUTURE GROWTH AREAS

Growth areas identified by the Singapore government are:

Services

- Business and professional services
- Medical services
- Publishing
- Agrotechnology

- Leisure, entertainment and cultural services
- Technical and engineering consultancy services
- Computer services
- Laboratory and testing services
- Management consultancy services
- Educational services
- Advertising, public relations and exhibition services
- Communications and information services
- Regional headquarters services

Manufacturing

- Electronics
- Telecommunications and information technology
- Aerospace and related industries
- Parts and components
- Biotechnology
- Pharmaceuticals/medical products
- Optics
- Specialty chemicals
- Plant engineering and fabrication
- Precision engineering
- Food and beverage production

Banking and Financial Services

- Risk and fund management
- Debt securitisation and capital markets
- Third country trade financing

- Unlisted securities market
- Financial and commodity futurs

Trade

- Counter trade
- Paper commodity trade
- International oil trading
- Warehousing and distribution
- Sales of designs and know-how.

CHAPTER - V

ESTABLISHMENT AND DEVELOPMENT OF FREE ZONE

5.1 INTRODUCTION

Free Zones and Free Ports are enclosed free trade areas usually located in maritime cities within the territory of a country with a protective tariff. Ships may enter such areas, discharge and load cargoes and depart without paying customs duties and being subjected to customs inspection. Goods may be stored, repacked, sorted, reexported and in some instances manufactured free from customs formalities. The tariff regulations become effective only when such goods are conveyed to the interior of the country beyond the boundaries of the free area. The origin of free ports is closely connected with the rise and development of international commerce. In the Middle Ages certain cities granted trading privileges, which amounted at times to the creation of free trade zones, with respect to groups of merchants, classes of commodities, specified periods of time or selected geographical areas. In the period of Mercantilism the general movement for national economic consolidation behind high tariff walls threatened to disrupt international trade and many countries found it indispensable to exempt certain maritime cities from the general customs regulations. Thus Leghorn and Genoa were declared free port towns in the Sixteenth Century; Naples, Venice, Marseille, Baynne and Dunkirk in the Seventeenth Century; Ancona, Messina, Trieste, Fiume and Gibraltar in the Eighteenth Century [25].

The Hanse towns Hamberg and Bremen, which were made free ports in the early years of their existence, retained their privileges throughout this period. In a system of early capitalism the free port privilege was an important factor in the development of an active carrying trade, and most free ports became prominent as distributing centers for overseas imports, serving the entire continent.

With the growing industrialization of Europe in the Nineteenth Century the importance of the carrying trade in economic life of the principal countries declined and the free port cities became to an increasing extent trading outlets and inlets for the hinterland. At the same time governments began to resent the loss of revenue entailed by the exemption of large areas from the customs territory; extensive free areas difficult to supervise offered large opportunities for smuggling. One by one free ports were reincorporated in the general customs territory, so that by the end of the century free port cities almost completely disappeared in Europe [17].

Free ports were not, however, entirely abolished. Some of the free ports cities were permitted to retain a free zone where the business of the former ports could be carried on as before. With the subsequent development of large scale shipping and international commerce free zones were established in the ports of other countries [22]. In the post-war period the multiplication of boundaries, the upward movement of customs tariffs and the general desire of countries to emancipate themselves from dependence on intermediaries in world trade and to capture a slice of the trans-shipment trade for themselves led to a rapid extension of the device of free zones with the result that there is at present hardly a protectionist country of economic significance which does not provide or contemplate the provision of free zone facilities.

5.2 ESTABLISHMENT, CONCEPTION OF FREE ZONES

The free zone is important as a device for the centralization of international trade at a few focal points. The exclusion of the zone from a country's customs area makes it the natural distributing point for imports intended for reexport. In this respect the free zone is superior to the system of refunding the import duty upon reexport; the latter entails formalities which may prove irksome. Since the importer into a free zone is at liberty to dispose of his goods either by reshipping them to foreign markets or by selling them in the domestic market he is inclined to handle larger quantities and tempted to speculate on future demand on a larger scale; this makes for an increase in the turnover of a free zone. Shipping concerns are naturally attracted to free zones even at some sacrifice in rates charged for freight, because the opportunities of securing cargoes are better. This development is further reinforced by the tendency toward the concentration of transoceanic traffic in a few leading ports. The increase in tonnage and draft of ships necessitates well equipped harbors, which are usually provided in free zones, and the increase in capital investment represented by such ships calls for the acceleration of loading and unloading operations, which is facilitated by the absence of customs inspection [5].

Free zones are generally equipped with spacious storage facilities such as warehouses and elevators in which room is provided for sorting, cutting, repacking and similar operations necessary to prepare merchandise for reshipment to various markets. The warrants issued by such warehouses enjoy general currency in the world markets and are accepted by banking houses engaged in financing international commercial traffic. Manufacturing is prohibited in most free zones, but even in such zones where it is permitted, for example, Humburg, few industrial plants are found. The high rentals which necessarily prevail in such areas would add needlessly to the cost of production, and in the leading industrial countries

the benefit derived from manufacturing in a free zone for shipment to foreign markets would not be great, for important raw materials may be imported duty free under most prevailing tariffs. Unless local reasons favor the establishment of some special industry, the industrial activities of free zones are usually confined to ship building and small scale auxiliaries to shipping.

Free zones are usually opposed by extreme protectionists on the ground that they constitute a breach of the protective principle. Of greater importance is the current objection on the ground of overexpansion of free zone facilities, which for the time being has outrun the trading capacity of the world [6]. Many of the newly established free zones have not justified the expenditure incurred in their equipment; and the excessive multiplication of free zones has rendered more difficult the concentration of trade, thus impairing one of the essential advantages of the free zone. Outside of Europe free ports exist in some Asiatic colonies of European powers. Hong Kong, Singapore and Aden are important centers of the carrying trade; that is, they serve the same economic function as did the European free ports before the nineteenth century. Treaty ports in China did not play the part of free ports, but plans for the establishment of Chinese free ports have been recently discussed. The United States is an outstanding example of a protective country which has never had free ports or free zones. Recent proposals for the establishment of free zones as a stimulus to the development of American shipping came to nothing.

Another device similar in purpose to the free zone is the bonded warehouse and the bonded manufacturing warehouse. The former is a place where goods intended for reexport may be entered and stored free of duty unless withdrawn for purposes of domestic consumption ? The latter is a building or enclosed area where imported goods may be handled, altered or manufactured with or without the admixture of domestic materials and parts [7].

The facilities offered by the bonding system are similar in kind to those offered by the free zones but are inferior in effectiveness. The bonding system does not aid in expediting the entry and clearance of shipping or the handling of merchandise, for shipments must undergo all the formalities of customs inspection before they are allowed to proceed for storage. The requirement of providing bonds, in some instances double the amount of the duty, which are forfeited if the goods are stolen, lost, destroyed or fraudulently removed, increases the cost of handling goods. The goods stored in the warehouses are under the continuous supervision of customs authorities. The handling, sorting, mixing or repacking of the stored goods is impeded by restrictive customs regulations and finally the storing privilege itself is restricted both in point of time and in the range of commodities. The usual limit on the storing period is three years, after which goods are declared abandoned; and perishable or dangerous commodities can not be stored in bonded warehouses.

5.3 DEFINITION OF FREE TRADE ZONE

The free areas proceeding roots have deep extension in the history and desires of rulers and investors had plaited on its proceeding. The free area in the lawful usage is, a part of a state's land that allow to import goods, storing and then re-exporting them, also it allow establishing there industries and another investmental activities apart from the administrative restrictions within the restriction of legislations that organized their establishment, also it is one of the social and economical growing means [33]. Free Trade Zone (FTZ) "An area of a country where national tariffs are not applied. This is intended to encourage industries which rely largely on producing goods for export using large amounts of imported inputs. Having the inputs duty-free saves on the interest cost of having money tied up by the tariffs, and avoids the administrative expense of

claiming tariff drawbacks on the exports. National tariffs have to paid on goods shipped from a free-trade zone to the rest of the national economy [32].

From the subjectival side, the free area considered as a way of addition between the liberty system (regularity) and economical protection system because it facilitates the growth of investmental activities within the area while the internal laws of that country do not allow establishing such activities out of the free area.

The free areas considered as one of the national developing plans corners, and they fundamentally depended on bringing capital-stocks from abroad and establishing industries that increase working opportunities and raise the fitness (aptness) level for labour-corps, also they augment new (recent) sources to the national income (revenue) from the arriving (coming) money (currency) and from increasing exports and the adding prices. The industrial activities that established in the free areas were mostly directed towards developing their left behind districts (in the economical politic's frame of the state), or towards exploiting and industrialization country's raw material or its natural, agricultural and animality productions.

The investment in free areas whatever be its shape is only considered as a process of exchanging benefits between investor and the entertaining country.

A Free Zone, for purposes of this study, will be defined as a designated area where unrestricted activities of industry, commerce, trade, and construction take place and where the unrestricted flow of goods and services is permitted to the rest of the world. Usually, free zone are territorial enclaves which are outside the country customs territory.

A Free Trade Zone is a defined area that can be anywhere within a country where the unrestricted flow of trade is permitted. Items that are imported and then exported are free from customs duties. Activities in this zone include

transshipment of cargo, storage of cargo in warehouses, packaging of bulk items into smaller or individual packages, inspection of components, and regional distribution centers.

The Free Areas defined as a port of the state's district where allowed in exporting foreign goods and practicing the commercial, financial, and industrial business with exempting from customs and taxes that were decided (fixed) inside that state.

The Free areas could be a part of a town or a wholly town or district, a maritime port or an airport of airports that its geographical boundaries were appointed (fixed) in finite way [51].

The Free areas could be a general free area that gather (join) many factories and depositaries, and it could be a special free area gathering one project regarding to (because of) its special nature, like its need to be near ports or in need of wide extensivenesses, which are difficulty found inside the general areas, or it may leave behind refuses that cause harm to the neighbouring projects, also the free areas according to (ably with) its activities nature can be divided into free areas specialized in storing or free areas specialized in industrialization and third in doing services (employments).

5.4 THE FREE ZONE : GOALS AND OBJECTIVES

The state's objective behind the proceeding of free areas came in the first place (position) to attract (draw) foreign and native investments so that to raise growing rates in the country in addition to its realizing of another goals
that can be summarized in the following [44] :

(1) Raising the level of the economical technical knowledge since (because) the foreign investors who bring with them modern technology to the free areas and they train the local labourers (workers).

(2) Increasing the size (rate) of exports and lessen (diminution) the size

(dimension) of imports since the proceeding projects in the area directed bigger part of its production to the external market and provided the local market with the other side (part) of its production, and this will share in supporting the measure of payments.

(3) Increasing workers opportunities before the native labour corps.

(4) Increasing the dimension of works (currency) that desirous in an investment, because of the customal exempting the state offer to, on its imports of machines, outfits and raw materials.

(5) Increasing the national production and rising the unit (single) income's level and the livelihood's level to the free areas population.

(6) Refreshing the sector of services and transfer, ports, airports, assurance and clearing (quittance) so to serve (employ) the establishment projects in the free area.

(7) Refreshing the local stores, and exploiting the local chief materials that are available in the country.

(8) Developing (growing) some of the remote areas and that remain behind other state's parts by granting (giving) additional motives for the investors to establish projects in these areas.

(9) Developing the productional shape (form) by the native industries that are available leading to the free area projects like requirements for the local production or execute some completion processes on (upon) the productions of these projects.

5.5 TYPES OF FREE ZONE AREA (OR FORMS OF THE FREE AREA)

The free areas take many forms according to their activities nature like free areas specialized in storing or free areas specialized in industrialization and finally in doing services (employments).

But from positional nature it takes the following forms [34]:

a) **The Traditional or Commercial Free Area**

It consists of pieces of land within a fenced frame with preventive obstruction and availability of the requirements like (nets of roads, electricity, water, phone and drain) and proceeding there depositaries and parks for storing and sometimes establishing factories there.

b) **The Industrial Free Area**

This kind of areas was unknown till this century but they increased in number because of the variety of states requirements to gain (get) more economical earning and realizing banks and social employments and technology transferring and forming a resource from the foreign money (cash) and sharing in the development of the native income in general. In this kind of areas, they permit to establish industrial projects that the concerned regions in the state, had restricted their qualities (kinds) and the amount of capital-stock they required and their establishing conditions, exempting, specifications and facilities that are offered to.

c) **The Free Ports**

It could be a whole island like Singapore or a large part of the port like Hong Kong, and its foundation, its care to lean upon the commercial activities, so it become an international position for storing goods and shaping them again to the difference of countries without submission to stipulations or taxes that persumed on the imported goods to the local market.

5.6 THE AFFECTS OF FREE ZONE OF THE ECONOMY GULF COUNTRY AND YEMEN

a) **Benefits of Free Zones for the Host Country**

Free Zones can have a number of economic benefits such as:

i. Increasing foreign investment inflows,

ii. Providing a range of good investment projects for countries with a shortage of feasible domestic investment opportunities,

iii. Increasing the value addition to exports by undertaking further processing operation of the goods,

iv. Increasing foreign exchange earnings,

v. Transfer of skill by providing employment opportunities and/or training opportunities to local manpower,

vi. Provision of market by subcontracting work/services to local companies,

vii. Transfer of technology,

viii. Utilization of local raw material/intermediate products,

ix. Development of export markets,

x. Utilization of local infrastructural facilities (Ports, airports,merchandise handling services, land leasing, warehouse renting, consumption of utilities).

The above benefits for a host country depend on the nature of the Free Zone. These benefits are to be maximized to the extent that a free zone operates more as an export processing center adding value to a chain of production. Conversely, the benefits stand to be less the more a free zone operates as a trading center (i.e., merchandise distribution). An intermediate position is given by a free zone that combines value addition with trading activities.

Although countries set up free zones in the hope of receiving the above benefits, there is no guarantee that the net balance will always be positive. In fact, the associated costs for the host country include managing the free zones, forgone tax and duty revenues, subsidies on utilities (electricity, gas, water), and the massive expenditure on setting up and maintaining the infrastructure (ports, airports, cargo handling equipment, warehousing facilities, office space facilities, internal roads, provision of communications links, housing facilities,

medical facilities, security facilities, and others). Thus, it is often the case that free zone projects do not generate additional public revenue until later stages; early stages of free zone development will normally involve massive costs, which will be more than offset any revenues. Export processing zones in developing countries tend to be dominated by one or two main activities, usually garments and/or electronics assembly. These activities tend to use simple, labor-intensive, and fragmented production technologies. This concentration is in line with their abundant low-cost manpower holding a low to medium degree of skill. However, in cases where trained local manpower is in short supply, this orientation is not feasible. Or if pursued, expatriate manpower is needed to bridge the gaps in skill. Another common feature is the poor degree of backward linkage with the domestic economy in terms of subcontracting service demand and/or supply of industrial inputs from the zones.

b) Advantages of Free Zones to Investors

1. Key Advantages

The main advantages of operating in a Free Zone are:

i. avoidance of duty on imported goods, or duty on re-exported items, or local taxes on end products (i.e., valued-added taxes).

ii. reduced cargo storage and insurance costs.

The types of import-export businesses that benefit most from Free Zones are those that:

i. import finished goods for domestic sales or consumption.

ii. import finished or partly finished goods, reconfigure those goods, and then sell them in the local market or re-export them.

iii. import components or materials for manufacture and market those goods domestically or internationally.

2. *Processing Level and Nature of Import Duty Treatment*

Free zones can help companies eliminate duties on materials brought into a foreign country. Companies must pay duties if and when the materials enter the domestic market, but no duties are paid if the materials are re-exported. Free Zones enable manufacturers to select at what point in the value addition chain and when their products will be classified for duty purposes (for instance, when planning to supply the host country market.). Hence, the use of Free Zones can be advantageous depending on the nature of duty treatment. Two situations are possible :

i. From end-product to components : in this case the duty on the end-product is higher than the duty on the component parts. The end product is brought duty free into a Free Zone, it is disassembled and repackaged before being supplied to a country with high import duty on the end-product. After importation and duty assessment, the component parts are reassembled in-country to form the end product for sale.

ii. From components to end-product : in this case, the duty on the end-product is lower than the sum of the duties on the components parts. The component parts are brought duty free into a Free Zone, assembled to form the end-product, and repackaged before being supplied to a country with high import duty on the components. After importation and duty assessment, the end-product is disassembled in-country to obtain the component parts for sale.

3. *Transfer Operations*

An important factor in the success of Free Zones has been the ability to implement transfer operation from FZ to FZ. That is, transferring parts from component plants in one FZ to assembly plants in another FZ without customs paper work. This ability is critical in enabling component plants to accommodate final

assembly plants on a just-in-time basis.

4. Upstream Oil Industry

In the case of the upstream oil industry, there is the possibility of saving money on rig vessel refurbishment through FZs that offer these specialized services. The savings would come in cases when it is possible to enter a rig into a FZ shipyard and get tariff relief on foreign-sourced material not readily obtainable in the country of origin. That is, most foreign-sourced materials or equipment are duty burdened in the country of origin, but the rig vessel has obtained duty-free status in its country of origin as it constitutes an exportation of technical services to a foreign nation.

5. Downstream Oil Industry

In the case of the downstream oil industry, there is the possibility of improving refinery cash flows by locating refineries that process imported crude in specialized FZs for this kind of industry. The improved cash flows would come from two sources. First, crude oil diet of the refineries will enter the FZ duty free, increasing refining margins. Secondly, the equipment and materials for refurbishing/ maintenance of the refineries will also enter the FZ duty free.

c. Outlook for Asia-Mediterranean Transport Conditions

Although the above factors are important in shaping the present business organization of cargo transport business between Asia and Europe, this organization must be seen from a dynamic perspective, in light of the impact of future events, such as major rail link developments in Russia (The Trans-Siberian Railway System - TSR) and China (the China-Turkey Railway System-CTS), labor conditions in French Ports, and new technological advances to introduce a new generation of faster cargo vessels.

The Russian and Chinese rail projects could cut deeply into ship cargoes by

linking Japan and China to Europe and the Mediterranean. In the case of TSR, it represents a hefty cut of close to 40% in distance length between Japan and Europe. Clearly, TSR's rail distance of around 13,000 Kms dwarfs the 21,000 Kms required by sea through the Suez Canal. Well-run, along haul block train can average 65 Kms per hour against the average speed of 45 Kms an hour of most ships. Hence, TSR can reach from the Eastern sea of Japan to the Baltic sea (i.e., coast to coast) as in little as 12 days. As rail competition is to be most severe in freight markets a way from ports and coasts, the cargo business out of Jebel Ali Free Zone, which reaches CIS, Central and Western Europe from their southern areas stands to be less affected by TSR competition. Regarding CTS, this is an ongoing project to build a rail system that will follow the medieval trade routes that took spices and silk from China to Iran, Turkey, and Western Europe. The project is expected to operate in the early 2000s. In order to consummate this project political agreements must be reached with the former Soviet Republics of Kazakhstan, Uzbekistan, and Turkmenistan. In route to Istanbul the line will pass through Teheran and link with Iranian ports on the Arabian Gulf.

The China-Turkey Railway System (CTS) represents a potentially strong threat to Dubai because it attempts to link directly and very fast with the commerce Dubai currently enjoys with Eastern and Western Europe. This business operates by sea from Asia to Dubai, and from there gets distributed by air to European markets. However, CTS can potentially operate door to door from China to Istanbul in about 8 days versus about 25 days by boat. CTS also threatens Dubai's commerce with North and Central Asia. This business operates through sea feeder cargo linkage with the Port of Karachi in Pakistan, and from there on by rail to those areas. As most of this cargo is Japanese merchandise, there is the potential for losing part of this business.

Regarding labor conditions in French ports, the major Mediterranean port of

Marseilles tends to operate under conditions of high port charges, labor strikes and operational slowness. For these reasons, round-the-world ships prefer to go around Spain and up to Amsterdam. However, should the French resolve their labor problems at Marseilles and improve its operational efficiency, it would become a major threat to those Free Zones on the Main Line. Clearly, big fast containerships would prefer to go directly to Marseilles rather than Rotterdam, discharge their cargo there, and spread it through Europe by truck, rail, and barges. Dubai in particular, will experience severe competitive pressure as its sea/air combinations will now be under competitive pressure from European land-based cargo transport systems.

In connection with new marine technology, the container revolution continues to generate change in marine technology, particularly containerships. In effect, a new generation of containership currently at the experimental stage, "The Fast Ship Concept", stands to significantly reduce transport and turn around time. While the Fast Ship concept could be a threat to air cargo carriers, it could represent an opportunity for Dubai. Clearly, this kind of ship could reach Japan, Hong Kong, Singapore, Sri Lanka, Dubai and Aden quite fast and easily, at a rate of about 75 Kms per hour. Then the sea-air combinations of Dubai can be planned under much faster and economical conditions.

New shipping-air transport linkages present a threat to Dubai. Indeed, Dubai commerce with Eastern and Western Europe may face competition from shipping companies using new container ships and by passing it to bring cargo by sea from Asia and directly to the doorstep of Europe and then moving it by air into inner Europe. A gradual movement toward the integration of shipping companies with airlines represents a formidable threat to Dubai's commerce in the near future.

The outlook for Asian-Mediterranean transport conditions tends to be dominated by an increasing pressure on the traditional shipping carriers and their

trade unions for changing the status quo. Indeed, technological change and new business practices are favouring those carriers who bring modern equipment and new ways of handling freight to better serve demanding customers. Overall, the cargo transport industry in the Main Line route between Asia and Europe is expected to gain dynamism and competitiveness in the next few years. Indeed, new transport facilities (i.e., the TSR and the CTS), new container ship technology and container handling systems, computerization of operations, use of electronic data interchange (EDI) for better customer service, improvement in the labor markets of French, Indian and other port to reduce costs, management contracts for cargo business, and new business arrangements (i.e., customers that are also shippers) will result in better service at affordable cost.

5.7 POLICY ASSESSMENT

a. Changing Business Environment

International business requires a global perspective on location of plant sites and distribution centers. Hence, the newly emerging markets of the Middle East, Africa, Easter Europe, Russia, can be served efficiently from the "regional hub" Free Zones of the Mediterranean, Arab Gulf, and Indian Subcontinent, located midway along the world's main shipping routes.

Although these Free Zones still have the advantage of having the chunk of cargo volume, lower costs, and faster shipments, they can lose business to ports not on the mainline. These other ports could decrease their operating cost by adopting the new technologies such as faster feeder ships, improved cargo handling systems, and computer-based information and data processing.

Another source of business risk is likely to come out of competitive pressure in Asia/Europe freight services between the container ship and the Russian TSR (The Trans-Siberian Rail System) and the Chinese, China-Turkey Railway System (CTS). The strategic long term implication for the future viability of Free Zones

on the Mainline Shipping Line between Asia and Europe, and in particular for those in the Arab Gulf and Aden Gulf, is that they are at risk.

b. Knowledge-based Advantage

While Indian Subcontinent Free Zones will still reap benefits from their human capital advantage, there is no guarantee that this phase will not loose steam at some point in the future. In fact, an emerging trend is given by the realization that capital (in any form) is no longer the major resource for development. As we leave the age of capitalism and enter the age of the knowledge-based society, the basic economic resource will be knowledge, in its many different specialized forms.

For instance knowledge applied to tools (i.e., automated industrial production), knowledge applied to work (i.e., productivity enhancement), knowledge applied to information (i.e., information processing). Knowledge applied to data (i.e., data processing), knowledge applied to business networking (i.e., electronic data interchange among organization), knowledge applied to knowledge (i.e., research and development).

Free Zone in Arab Gulf countries stand to win by emphasizing computer-based services in areas such as customs clearance paperwork, container handling, business networking, and others. However, there is a limit to how far this can go. And the limit is given by the shortage of highly-skilled and experienced indigenous manpower to provide such services on a sustainable and cost-effective basis.

c. Free Zone Orientation

The presence of Free Zones in the Indian Subcontinent have strategic business implications for Jebel Ali Free Zone, Aden Free Zone and for other such zones that could be established in the Gulf in the future. Indeed, a comparative assessment

of some key factors (Table No. 5.1) leads to the realization that Free Zones in both regions must follow different paths in order to find success.

The Free Zones in the Indian Subcontinent stand to gain more to the extent that they concentrate on skill-intensive economic activities requiring a continuous upgradation of human capital. Hence, export processing Free Zones and those which tend to be service-based, are more likely to benefit that region. Conversely, in the Arab Gulf region, Free Zones that concentrate on distribution and trading and those that emphasize capital-intensive and energy-intensive industries present better chances of success.

Table No. 5.1
Comparative Assessment of the Potential for Free Zones
Indian Subcontinent Versus Arab Gulf Countries (GCC)

Category	Indian Subcontinent	GCC
Production factor-mix	• Labor-rich • Capital-poor	• Labor-poor • Capital-rich
Natural resource orientation	Diversified	Hydrocarbon-intensive
Skill source orientation	indigenous	Mainly expatriate
Skill dynamics	Skill upgradation process based on human capital development programs	Mainly expatriate
Civil infrastructure	infrastructural shortages	Modern and efficient
Industrial Land	• Competitive land use • Shortage of utilities and support services	• Abundant industrial land • Abundant utilities and support services
Subcontracting infrastructure	Indigenous	Mainly expatriate
Free Zone Orientation	Mainly export processing	Mainly distribution (trading) and service

d. Free Zone Specialization

As time progresses and Free Zones grow, possibilities for some degree of

specialization may arise. For instance, Jebel Ali Free Zone has reached a point in its evolution in which it could consider the feasibility of diversifying into subzones.

An indication of the presence of this stage of evolution is the fact that it is now able to offer packages of advantages targeted for particular groups of companies. Given its land availability and its capacity to finance infrastructure expansion, Jebel Ali Free Zone should seriously consider breaking down into three separate subzones catering to trading and distribution, manufacturing, and service companies. "Subzoning" may generate opportunities to concentrate administrative efforts and resource utilization by focusing on particular groups of investors which will benefit from more specialized quality service.

e. Logistics Frameworks

As the business environment among Free Zones on the Main line Shipping route gradually changes from price competition, to service competition, and on to knowledge-based competition, the strategic element to attract and increase investment and cargo activity is being able to assemble entire logistics frameworks.

A logistics framework can be defined as the whole complex of interacting business for coordinating all actions within the supply chain, from original purchases of raw materials to delivery of finished goods. The end result of the framework is adding value to the products and meeting final customer demands for quality and efficiency. These frameworks will have three major components, Cargo handling, Cargo transportation links, and business networking support. Table No. 5.2 gives the elements of each of these components.

Free Zones are in a key position to offer such services as they act as regional hubs for trade. Also, as these logistics frameworks can not be put together quickly without computer and information processing capabilities, they

constitute knowledge-based activities of the kind discussed earlier. Ultimately, logistics frameworks convey the message that in the future, the successful Free Zones are those that work smarter, not those that work harder (i.e., receive more volume of cargo). Success will not necessarily go to those Free Zones that deserve it (i.e., work harder) but to those are smarter. Free Zones in Arab Gulf countries are likely to face limitations in implementing such frameworks.

Table No. 5.2

Logistics Framework

Component	Elements
Cargo handling	• Warehousing • Pick-up • Packaging • Paperwork processing • Cargo consolidation • Assembly • Inspection • Tracking
Cargo transportation links	• Air freight • Container ships • Feeder ships • Rail/roads • Trucking companies
Business networking support	• Linkages among Free Zones (the "free zone of free zones" concept) • Transportation logistics services.

f. Complementarities Versus Competition

From the above discussion, it follows that a sensible approach to the conviviality among Free Zones in the Arab Gulf - Indian Subcontinent area is to concentrate the operation and planning of such zones on the exploitation of inter-zone complementarities.

To proceed otherwise (i.e., concentrating on competition issues) stand to generate lower benefits to all Free Zones involved. For instance, energy and capital intensive Arab Gulf Free Zones would be in a strong position to provide much needed energy inputs to their counterparts (i.e., gas, other fuels).

Another possibility would be in the field of financing. Arab Gulf countries should explore the feasibility of undertaking inter-Free Zone offshore financing (i.e., from Free Zone to Free Zone) of infrastructural needs of Free Zones in the Indian Subcontinent and other nearly locations. This could be achieved by establishing offshore financial services Free Zones in the Arab Gulf, or by adding specialized offshore banking centers to existing Free Zones.

5.8 MODEL FREE ZONE FOR ADEN

The zones studied ranged in size from a few hectare parcel to an entire island or province. The economic vitality of the regions studied is as diverse as the culture of the peoples that live there.

The objective of this study is to analyze the successful as well as failed free zones around the world in the hope of discovering the reasons behind the successes and failures.

What attributes does one zone have that make it effective? What problems can be avoided to save money and time in the development of a free zone?

Although each area is unique, and what works for one place may not work in another, there are many zone characteristics that stand out above all the rest in determining the success of a zone [9].

5.8.1 Government, Institutional, and Country Support

Without the proper integration of the free zone with the government, problems will arise in even the earliest stages of development. It must be made absolutely clear how the free zone fits into the scheme of the government and what this

zone's relationship to other governmental institutions and agencies is.

The entire country must support zone development. This can be achieved by making it very apparent to the public and private sectors the benefit this zone will have to their country. Conflicts often arise out of lack of information and not the information itself. If the citizens are not informed adequately, protests may occur delaying zone development plans. Government, institutional, and country support is necessary to create a supportive regularity environment. A zone encompasses many different entities, customs, port and airport operators, local businesses, sewage and electricity, and many others. Certain incentive programs, such as electricity and fuel subsidies, require the support of other agencies. This can only be possible with full governmental, institutional, and country support.

In creating a more attractive climate for foreign and local investor, the Malaysian government made many changes with regard to taxation policies. Some of them are:

- Tax rates on profits were adjusted to be more competitive.
- Revenue losses are offset by closing tax loopholes.
- Tax revenue collection improvements.
- Widened coverage of sales tax.
- Streamlining of tax incentives.
- An average nominal tariff of 13% .
- Tax incentives under the promotion of investment Act of 1986 include :

  Pioneer status

  Investment Tax Allowance

  Abatement of Adjusted Income

  Export Allowance

  Double Deduction for Promotion of Imports

Incentives for manufacturing, tourism, and agriculture sectors.

The changes the Malaysian government have made to improve the general investment climate of country have benefited the free zone program significantly.

5.8.2 Adequate Infrastructure

Every successful free zone analyzed realized the importance of having adequate infrastructure as a key in attracting investment. The port, airport, telecommunications, and roads are all very important infrastructure requirements.

Investment by a country in infrastructure can be in increments over a long period of time (like Singapore), or all at once (like Jebel Ali).

Singapore has spent the last twenty-five years investing heavily in the physical infrastructure of the country and today rates as one of the best in the world for that aspect.

The port of Singapore has grown to become the busiest port in the world with regards to shipping tonnages, and is the base for about (700) shipping lines linking more than (850) ports. In 1990, Singapore became the busiest container port in the world, an accomplishment directly resulting from the advanced infrastructure.

The Chinese are currently investing large amounts of money toward infrastructure. The entire city of Shenzhen looks like one large construction site.

The Shenzhen Airport was completed in record time and modifications are currently being made to the port. Shantous, China started with limited infrastructure which it developed gradually. It chose to begin producing items that were most compatible with the infrastructure available. Therefore, in the beginning it emphasized electronics, as well as food, garments, pharmacy and plastics, because of low energy costs, quick economic returns, high levels of

employment, and the diversity of products that could be produced. Their success is partly due to the fact that they realized their limitation in infrastructure and their capacity to improve them slowly.

Conversely, in Sri Lanka the ports and containerized cargo facilities have not been up to the standard required by foreign investors. Telecommunications and computer technologies have not been developed fully. When the infrastructure is limited, the development process may be significantly reduced. In Dakar, Senegal the ready-made infrastructure of pre-fabricated factory shells were not offered to investors. These factories would have enable the investor to avoid the financial charge of constructing a factory in a country with limited materials. It is necessary for a zone to have the infrastructure required to attract investors [20].

5.8.3 Maximised Use of Natural Resources

Each free zone analyzed was located in an area with vastly different resources. Sri Lanka, Mauritius, Hong Kong, and Singapore all had the resources of a very large unemployed population. The ability to provide cheap and abundant labour is a main reason for the success of several free zones. Malaysia developed its natural resources of rubber and tin to become a world-wide exporter of these commodities. Hong Kong utilized its naturally deep harbour and strategic location to prosper as an entrepot trade center. Utilizing the advantages of a given area to the fullest extent possible is one key to success.

Both Panama and Egypt capitalized on their position near the canals to make economic gains.

Because of the limited amount of available land, Hong Kong concentrates on industries that can operate in multi-storied buildings. Textiles and clothing producers are such industries. From the very beginning, industrialization in Hong Kong relied on manufacture of clothes. This is because textile manufacturing is a

labour intensive industry that does not rely on a highly educated labour force. In addition, textile manufacturing can be gradually improved as resources increase and the labour supply's technological capability improves. Low cost items can be dropped in favour of high cost and more complex items. This is a text book example of sustainable industrialization. Textiles still account for 40% of Hong Kong's exports. Shantou exploited its agricultural and aquatics resources, focusing on international demand, to create large production bases. Investment in conjunction with other regions in the areas of advanced food processing, food preserving, and packaging technology was pursued to create an integrated planting, breeding, processing and export industry. For example, advanced eel breeding techniques and eel roasting production lines were brought in from Japan. This effort now nets approximately US $ 14 million annually.

5.8.4 Plan for the Future

It is indisputable that planning for the future is necessary for the growth of a successful free zone. Singapore, Jebel Ali, and Bremen Bremerhaven are all examples of zones that have far-sited visions, and plans for the future. Continually updating to meet the needs of a long term development plan is crucial. Singapore's vision reaches well into the 21st century. Hong Kong has reached the advanced state of continual planning. The development of the linkages between air, sea, and land operations is crucial to the transportation efficiency of the transshipment area. The proposed airport and port expansions require high capacity roads, bridges and rail, all of which are being planned under the port and Airport Development Strategy (PADS). Developments to further improve efficiency and integration of the ports and airports continue to be assessed. This future preparedness enhances Hong Kong's attractiveness for further investments in businesses and industries using these facilities. In addition, while detailed and comprehensive planning on this scale take time and are costly, it ensures that the

overall impact of the extensive improvements will be positive and have long lasting value to both the local population (work force) and investors.

The Government of Mauritius is now trying to diversify the present industrial base a way from labour-intensive textile manufacturing into more relatively capital-intensive and high technology industries. Mauritius has developed a set of plans for the diversification and growth of the Mauritian economy which includes a Hotel Management Scheme that provides incentives and facilities for hotel development [29].

5.8.5 Flexibility in Development

The most successful free zones adapt easily to change and even find strength in it. Thirty years ago, Singapore began a program of industrialization and literally transformed the economy by the establishment of a strong manufacturing base.

As the industry expanded, the need arose for a financial and service sector. In order to stay competitive in the international community, Singapore has strategized to move beyond manufacturing to more sophisticated business and knowledge-based activities with an innovation driven industrialization program containing a greater focus on research and development activities. Development of any region will undoubtedly change over a period of time. Having the flexibility to adapt to challenges and create new solutions to conquer problems is vitally important to the success of a region.

Panama is benefiting from their flexibility of investment policies. The Taiwanese government intends to finance and build a $ 10 million export processing zone on the outskirts of Panama City. This project will ultimately employ 8,000 people working in 60 labour-intensive assembly operations creating goods for the U.S. market. The Dominican Republic is another example of a country with an adaptable free zone system. When Industrial Free Zones were first established in

the Dominican Republic there were a variety of ownership development options.

Public, private, and a combination of both were ownership options for the several zones throughout the country. Over the past twenty years, it became apparent that the mixed ownership zones were not very successful when compared to the profit-making private and public zones. Consequently, the new zones being developed are using the experience of the past to make the zones competitive in today's world [30].

5.8.6 Selective Specialization

The most successful free zones have used selective specialization in choosing base industries or trade commodities. For example, Bremen/Bremerhaven is a world leader in the ABC's (automobiles, bananas, and containers).

Bremen is known as the automobile turntable of Europe. It is a probable that any Asian car being driven in Europe was imported via Bremerhaven. The automobile terminal at Bremer haven has over 40,000 parking places with almost half of them covered. Specialty car transport carriers and data processing machines efficiently move and catalogue almost every movement of the car imports and exports the second they arrive. Bremer haven is also the foremost port for the import of bananas in Germany. A special fruit terminal uses a computerized conveyor system that enables the port to handle over 10,000 boxes of bananas per hour. By selectively specializing in specific areas of expertise, an region can literally corner the market in a commodity.

Egypt has made an attempt at selective specialization by the creation of several different public free zones and industrial zones at various locations in the country. The public free zone at Damietta was intended to be the center for industrial exports, while the zone at Suez was aimed at serving the maritime transport arena and oil industry projects.

The industrial zone of 10 Ramadan City is intended to provide goods for export.

Selectively specializing zones by industry is an innovative concept that appears to work well [18].

5.8.7 Understanding of International Markets and Donor Organizations

The success of a free zone is dependent on its understanding of world market forces and donor organizations. The Dominican Republic is such a success because of its trade relationship with the United States. The Caribbean Basin Economic Recovery Act and the Expansion Act provide customs duty free entry to the U.S. Generalized System of Preferences and the Harmonized Tariff Schedule for the U.S. provide additional incentives for trade with that country. In addition, the Dominican Republic gained duty free access to the European Community under the Lome Convention.

The prime reason for the movement of capital into the Sri Lankan Free Zone is the access to their unfulfilled Multi-Fibre Agreement (MFA) quota for the exports to the developed countries. The unfulfilled quota was an incentive for foreign enterprises and capital into the country. Mauritius receives preferential treatment to the European Community Lome Convention as well as benefits from the MFA quota agreement. South Eastern companies export MFA quota commodities from their MFA subsidies. This allows Mauritius to take the accounting under the MFA instead of the parent company's home base, which is often already close to 1% quota limit.

The World Bank, IMF, and the United Nations are donor organizations network willing to help developing countries with a variety of infrastructural. Moroccan government received a loan of US $ 110 million from World Bank to finance port development at Casablanca and Tangier. Having a good relationship with these organizations could benefit the developing of a zone significantly. Understanding

the continually changing market forces at play is very important. For years, Hong Kong has acted as a gateway to the west. The potential consumerism that could take place by a previously close country with a population of over one billion people is phenomenal. Hong Kong has the position as an entrepot trade center to take advantage of this situation which have strategically done in the past. Directing expatriate loyalty toward investments is another way of managing the international market. Overseas Chinese investment account to approximately 75% of the 28,000 foreign-invested enterprises established at the opening of China to the world market. The realization that this potential market exists and the methods of attracting investment from it could be important part of the success of a zone.

5.8.8 Willingness to Take Risks

The willingness of a zone to take risks and expand into new areas is an important factor in the success oa a zone. Risk breed innovation. Bremen/Bremerhaven believed in the power of containerized cargo long before they become standard. By building their container capacity on an a chance that container would one day be important. Bremen has profited greatly. Now they have container facility in all of Europe. The United Arab Emirates took risk by building an over $ 2 billion dollar free zone off of the Arabian Gulf at Jebel Ali. The risk was counterbalanced by the quality of facilities and equipment and the investment incentives offered, but nonetheless a risk. Because of this investment, Jebel Ali has already gained a reputation worldwide as a the premier entrepot trade center on the Gulf [54].

Singapore is now attempting to become more involved with innovation driven industries. Singapore is aiming at increasing the capacity to undertake research and development at the international standard. Although they are currently a long way from achieving this goal, the future results may prove to be extremely profitable.

5.8.9 Favorable Social Climate

Investors naturally gravitate toward peaceful and stable regions. Most investments are geared for medium to long-term profitability. If an investor needs to worry about problems like the possible nationalization of industries or a civil war breaking out, he might be hesitant to locate in an area. All of the successful free zones analyzed had a very favorable social climate.

The people of the area are amiable and helpful. The areas are generally free from external or internal strife, and there is a basic sense of personal safety for all doing business there. Mauritius, Jebel Ali, Bremen/Bremerhaven, and Singapore are the areas that exhibit this attribute to the fullest extent. In the past, Hong Kong was seen as very favorable, but its place as a Special Administrative Region of China in 1997 has caused uncertainty among some investors. Some companies are relocating because of this uncertainty.

5.8.10 Streamlined Procedures

The most successful free zones have streamlined procedures. When the procedures are streamlined, investors will be attract to the area more readily because they will be confident their goods will be handled in the most timely process. In the shipping business, time is money [24]. In both customs administration, is one of the most critical elements of a successful EPZ or FZ operation it is an essential part of the public policy which supports the ports operation of the free zone. There must be a cooperative customs policy which minimizes red tape and bureaucratic delays. Customs officials must be committed to expediting the flow of goods, and the facility should have quite customs agents. The smooth functioning of customs is dependent on the general systems. Training of customs officials and adequate pay are important for maintaining the integrity of the customs system as well as proper staffing officials. Over staffing and under staffing make it difficult to pay reasonable salaries and to keep standards of

efficiency adequate. In addition, staff must be stable at required times so that the physical movement of goods is not destroyed. It is very important that customs officials maintain good communications between themselves and other government bodies. The International Convention on the Simplification and Harmonization of customs procedures, 18th May 1973 (The Kyoto Convention 1973) has been accepted by 50 nations, many of which are developing countries. It is a major agreement for the simplification of customs procedures and is intended to minimize delays and improve international trade. The convention sets forth standards and procedures to be followed by customs officers, as a means to have fair treatment of traders and the expeditious collection of correct customs by countries. The convention is administered by the Customs Cooperation Council (CCC) in Brussels. The CCC also provides assistance and technical aids to member countries and signatories of the various conventions and taxes in force worldwide. Countries in this case studies, that participate to the Kyoto Convention are China, Germany, Malaysia, Morocco, Senegal, and Sri Lanka. Another customs procedure has been developed by the United National Conference on Trade and Development (UNCTAD). This method is cheap and simple computerized system coupled to standard customs procedures which has been adopted by many developing countries, like Mauritius. The system has allowed countries to cut tariffs without losing income and to cut customs delays for shippers down to about one or two days. Future developments will include linking developing countries into an integrated system that would provide a clearing house for up-to-date accurate trade data, and extend detailed market information to exporters. The Civil Aviation Authority of Singapore (CAAS) and the Port of Singapore Authority (PSA) combine their resources and experience to operate as a leading sea-air cargo transshipment hub. Using the computerized Trade Net system, a transshipment permit can be processed in a few minutes. Transshipment cargo is given priority, and once it is sealed by customs, it can be transferred to the

airport and forwarded to the airline handling the balance of the shipping. A Committee on Sea-Air Cargo (COSAC), comprising representatives of the public and private organizations engaging in the sea-air business, sees the smooth transfer of sea-air cargo through Singapore. The level of service is closely monitored to meet the desired standard. This type of co-development activity strengthens the competitive advantages of Singapore and the long-term sustained growth opportunities.

The import/export office in the free trade zone of Singapore provides processing of trade documents on the spot. This system has positively affected the volume of cargo handling in Singapore. Air cargo traffic volume handled at Singapore grew at an average annual rate of 15% from 1979 to 1988 resulting in a 9th place ranking for the Changi Airport in terms of volume of international cargo handled. Its one-stop facilities center operates around the clock throughout the year. Sea freight has also seen growth. In 1988, the amount handled increased to 154,738.800 tonnes, making Singapore the busiest port in the world. The port offers a turn-around time for large container vessels of only 7 hours round the clock security, and highly mechanized and efficient port operations.

5.9 Free Zone Factors for Success/Failure

It follows from the preceding analysis of Free Zones in this work, that the success or failure of these zones depends on a set of critical factors. It is worth noting that no single factor by itself will bring about success or failure. Much to the contrary, it is the combination of several of these critical factors which can make a Free Zone a winner or bring it down. Factors for the success and failure of Free Zone are summarized in tables No. (5.3) and (5.4).

Table No. (5.3)
Free Zone Factors for Success

Category	Factor
Infrastructural	• Efficient infrastructure (including deep-water port) to support industrialinvestment.
Economic/ Political	• Stable and consistent macroeconomic policy. • Presence of macroeconomic structural adjustment program to enhance business environment for foreign investors. • Availability of an economic planning framework in which to fit the Free Zone concept. • Presence of economic integration initiatives toward achieving multi-lateral Free Zones. • Stable political environment.
Freedom	• Freedom to do business
Organizational	• Organizational efficiency. • High-speed operational capability. • Privatization of zone management (Particularly port services).
Resources	• Abundance of highly-skilled and experienced local labor. • Abundance of land for expansion. • Adequate supply of utilities.
Cost	• Competitive cost structure. • Competitive port charges. • Competitive labor charges. • Competitive incentives package.
Business Services	• Centre for inter-modal transportation linkages. • Availability of inter-free zone linkages. • Availability of knowledge-based specialized services. • Support centre for corporate financial policy (i.e., tax planning). • Demand center for local subcontracting services • Supply Center of raw materials/intermediate products to local industrial development.
Location/ Specialization	• Expansion of Free Zone concept from regulatory stand point to make possible taking industrial projects to the location of raw materials or human capital (inland free zones). • Presence of policy of Free Zone specialization to concentrate efforts/resources by focussing on particular activities on national interest.

Table No. (5.4)
Free Zone Factors for Failure

Category	Description
Infrastructural	• Infrastructural bottlenecks (including the lack of deep-water port) for supporting industrial investment).
Economic/ Political	• Unstable/inconsistent macro-economic policy. • Lack of economic planning framework in which to fit the Free Zone concept. • Absence of strategic vision from economic integration point of view for conceptualizing multi-lateral Free Zones. • Unstable political environment. • Labor strikes.
Freedom	• Limited freedom to do business.
Organizational	• Administrative slowness. • Operational slowness. • Government involvement in zone management (Particularly port services).
Resources	• Acute shortage of indigenous labor skills at all levels. • Inexperienced local manpower. • Scarcity of land for expansion. • Costly change of land use pattern. • Utilities supply shortages.
Cost	• Uncompetitive cost structure. • Uncompetitive port charges. • High cost of labor. • Unattractive incentives package.
Business Services	• Shortage of inter-modal transportation linkages. • No inter-free zone linkages. • No specialized services of any kind. • No Tax Planning advantages for corporations. • Non-availability of ICDS • No linkage to domestic economy (either as subcontracting relationships or as a supply center of inputs).
Location/ Specialization	• Inability to extend Free Zone concept inland to bring industrial projects closer to sources of raw materials or human capital. • Lack of focus in Free Zone policy (inability to concentrate efforts/resources on particular activities of national interest).

CHAPTER - VI

THE STORAGE MANAGEMENT

6.1 DEVELOPMENTS RELATED TO STORE MANAGEMENT

An understanding of store management problems in today's complex business world can be understood better in the light of past developments in the field. Retailing is as old as recorded history, and many of the problems facing traders today were present in past eras. The approach used to solve these problems has changed considerably in recent years. Historical evolution : Prior to 1900 retailing practices developed mainly as a result of circumstances and a process of trial and error. Traditionalism was strong, and many operating methods were passed down unmodified from one generation to another. The existence of trade secrets and a general reluctance to band together retarded over-all progress. Since 1900 an organized, academic study of retailing using a scientific approach to the problems in the field has come about. Early retailing establishments often informal in nature, operated as circumstances directed [3]. Wholesaling and/or manufacturing activities were often engaged in by retailers. Generally lacking was a formal marketing structure such as that found in our economy today. Gradually this situation changed as transportation and communication facilities were developed. Industrialization and urbanization introduced geographic specialization in manufacturing which, in turn brought about significant changes in marketing patterns. During the past century retailing has followed the general growth of

industry with a greater emphasis on larger, more formal, institutions. Greater competition gave rise to new methods of merchandising and sales promotion. The complexity of the retail store, especially in large organizations, brought about the first real consideration of the problems of organization and management. It is interesting to note that till 1900 many firms were still managed by a single head with department managers reporting directly to him. Few stores were incorporated at that time, and ownership of the business was usually limited to one or two persons. These men, having built the business or grown up with it, knew its every problem and function. Their keen knowledge permitted them to supervise personally the many activities of the business. However, at the retirement or death of many of the founders, this responsibility was often too heavy a burden to be borne by those who followed. It was only natural that the management of large stores should begin to seek a more stable form of business organization [49].

After the turn of the century there was a tendency towards incorporation and a greater delegation of authority, with a subsequent development of managerial, controls. Perhaps the fact that incorporation tended to increase the direct control of the owners over the management of the business may have stimulated further the need for better organization and management. However, it is more likely that the same economic forces that made a more stable form of organization necessary effective and stronger internal set up.

RECENT CHANGES

Greater sales volume, changing consumer buying habits, and keener competition all combined to make the job of buying and selling more complex and to force the subdivision of this major function into such important activities as merchandise control, sales planning and promotion, store and customer service control, personnel selection and maintenance, store maintenance, and keeping operating records. Where as the various department heads previously had been responsible for

nearly all of these duties as they applied to their departments, under the new condition it became expedient to appoint specialist to direct the operation of each of these functions throughout the entire store.

This change in operating technique brought about three important development in the department store field [1]:

(1) It decentralized personal responsibility and lessened the burden resting upon general management and department heads.

(2) It coordinated merchandising activities throughout the store and made the first real department store unit. Upto this time, department stores had been composed largely of a series of specialty shops under individual control.

(3) It introduced a period during which stores were organized according to functions. This brought over specialization and required adjustments in later decades.

The managerial experiences gained through the operation of the department store have also had their counterpart in other types of establishments. The mail-order house, the chain store, and the branch-store developments have all presented new problems. Some of these were due merely to the size of the organizations to be managed, but others were due to increased competition and new forms of merchandising. For both, organization, planning and control became more necessary. The introduction and use of scientific practices enable some firm to compete more successfully for the consumer dollar. The advent and development of central merchandising by chain groups brought in the concept of "management at distance," with its problems and advantages.

The development of wide spread branch operations presented new managerial situations that were solved best through a thorough, methodical study utilizing many modern theories of organization and management.

Certainly the history of retailing in the port of Aden has proved the importance of good organization and management. Currently, many groups in Yemen are active in the study and promotion of better retailing practices. Trade associations, manufacturers, whole salers, and retailers have analyzed retail operations in an efforts to increase efficiency. In addition state and federal department and bureaus, universities, independent research organizations, and professional associations have added useful information. Many new management and marketing courses have been started in the University of Aden and Sanaa. Significant gains have been made in lowering the cost of distribution and improving customer services. It is reasonable to assume that future studies will have the effect of making store management even more efficient than it is at the present time.

6.2 THE STORAGE FUNCTION

This function is of great importance for a big port and free trade zone like Aden.

Purpose-Responsibilities-Organization-Position within the supply organizat-ion-Relationship with other departments.

The stores function is a vital part of industrial concerns, public and private utility undertakings, agricultural enterprises, municipal authorities, armed services and government departments, and it must be designed to suit the particular needs of the organization it serves. There is, therefore, no standard system which can be universally recommended or applied but, in the course of time, certain principles and practices of more or less general application have been evolved [37].

6.2.1 Purpose of The Stores Function

The stores function in any concern is to assist in the production of goods or

services and no industrial unit or public undertaking of substantial size can be efficiently managed without it. The primary objective is to provide a service to the operating functions and this must be fully appreciated. All other stores activities, although they have their own relative importance, are subordinate to this main responsibility.

The service given by the store function at the port of Aden can be analysed into four parts as follows:

(i) To make available a balanced flow of raw materials, components, tools, equipment and any other commodities necessary to meet operational requirements.

(ii) To provide maintenance materials, spare parts and general stores as required.

(iii) To receive and issue work in progress and finished products.

(iv) To accept and store scrap and other discarded material as it arises.

6.2.2 Responsibilities of The Stores Function

It has several dimensions :

(1) Economy : It has been emphasized that service is the principal objective of the stores function, but it is obviously desirable to provide that service economically. The most important consideration here is to maintain the value of stores in stock (i.e. the inventory value) at the lowest practicable level at all times in order to economize in the use of working capital and to minimize the costs of storage. Since Aden is a natural port and has a strong historical background, the economy is more ensured in the stores function of this port. It will be readily understood that there is some conflict between the need to give a good service and the need to economize in stock holdings. On the one hand, the more stock held the easier it is to have required items readily available on demand; on the other hand, the more stock held the greater the cost incurred.

It is necessary that stores function cooperates with other functions in securing savings in material and other costs wherever practicable.

(2) Identification : Identification is the process of systematically defining and describing all items of stock. It includes the preparation of a store code or vocabulary, the adoption of materials specifications and the introduction of a degree of standardization [56]. In certain circumstances, part of this work may be done by design, planning or standards department, and the purchasing department also has an interest. Due to a long experience of identification of goods, this service at Aden is very satisfactory.

(3) Receipt : Receipt is the process of accepting, from all sources, all materials and parts which are used in the organization, including supplies for manufacturing or operating processes, plant maintenance, offices, capital installation and finished products. It helps in maintaining records of the port.

(4) Inspection : Inspection means the examination of incoming consignments for quantity and quality. Very often there is a separate inspection department which undertakes this work foremost, if not all, material but otherwise goods are inspected by stores personnel. Whatever the system of inspection in force, it is the duty of the stores function to ensure that the inspection laid down is carried out before items are accepted into stock. In Aden, the inspection department is very vigilant and active.

(5) Issue and Dispatch: This is the process of receiving demands, selecting the items required and handing them over to users. It includes also, where necessary, the packaging of issues and the loading of vehicles with goods for delivery.

(6) Stock Records : These are the documents which record, from day to day, full particulars of individual receipts, issues and balances of stock.

(7) Stores Accounting : Stores accounting is the process of recording details of stock movements and balances in value.

(8) Stock Control : Stock control is the operation of continuously arranging receipts and issues to ensure that stock balances are adequate to support the current rate of consumption, with due regard to economy.

It involves the related process of provisioning, which is the means where by instruction are given for the placing of orders. In some industrial concerns the production control department may take a large share in provisioning, at least as far as production materials are concerned. Remarkable progress has been achieved in stores accounting at the Aden port in the last few decades.

(9) Stock Taking : Stock taking is the process of physical verification of the quantities and condition of goods. Now, in this connection, computerised programmes are available at Aden.

(10) Storage : Storage comprises the management of store houses and stock yards, the operation of handling and storage equipment, and the safe custody and protection of stock. Due to heavy inflow of consignments at Aden port, often there is a shortage of storage space.

6.2.3 Organization of the Store Function

Policy Directive : In any enterprise it is desirable that the board of directors, or other appropriate authority, should issue a written directive covering stores policy and organization, clearly defining the limits within which the function operates, and conveying the authority to act within these limits. A directive is usually supplemented by departmental instructions regarding details of systems and operations, and these in turn may be incorporated into a handbook or manual containing all the standing instruction together with specimen forms and lists of

duties of the personnel concerned. The policy guidelines issued to the port authorities in Aden by the Government of Yemen and very comprehensive and clear.

6.2.4 Position Within The Supply Organization

An arrangement of supply organization has obvious advantages, the chief of which are outlined as follows:

(i) One department head only reports to the line management and his responsibility for the price and availability of materials is clear and unavoidable.

(ii) A single departmental control eliminates friction and ensures the maximum co-operation of each section.

(iii) It is easier to give a more comprehensive training to the staff, and improves promotion prospects.

(iv) It avoids duplication of records and activities.

6.2.5 Relationship With Other Departments

In order to discharge its responsibilities adequately, the stores department must actively co-operate with other departments, not only to provide a service, but to give and receive information so that the service is efficient. The nature of the other functions involved varies in different organizations, as does the scope and responsibility of the stores function, so that it is difficult to be precise about the relationships unless each case is considered separately.

(1) Inspection Department

Accommodation for inspection personnel. This department helps in maintaining quality, and therefore may be provided in store houses, and they are notified of all receipts. The stores department is responsible for holding goods received in "quarantine" and submitting samples to inspection promptly. In return the

inspection department inspects and tests deliveries without delay, and indicates acceptance or rejection together with advice on whether doubtful consignments can be put in to use subject to a discount in price, or whether they should be returned to suppliers as totally unacceptable. Inspection Department at Aden port is very old and very alert in its service.

(2) Finance Department

There is a continuous exchange of information covering verification of book entries and physical stock, clearance of invoices, both imports and exports, revision of prices, supply of material cost information, and control of working capital allocated to the financing of stock. Procedures are organized to work together effectively to control the value of inventory and cost of materials. The finance department usually provides regular periodic detailed statements of the cost of operation of the stores services. There is a separate department and foreign transaction financing in the Central Bank of Yemen.

(3) Transport Department

The stores department is itself sometimes responsible for transport, but there is a separate transport department in Aden which is also supported by private transport. It is essential that the two work together harmoniously to clear the port of the goods unloaded from incoming ships. The stores function reports details of loads, pick-up locations and discharge points, makes facilities available for the speedy, safe loading or discharge of goods, and provides a weighbridge service. The transport department is responsible for the ready availability of vehicles and for advising any circumstances which may delay deliveries or collections, such as break downs, strikes or adverse weather.

(4) Sales Department

The service provided is normally the acceptance, storage, packing and

dispatching of finished products. The sales department co-operates by advising of any appreciable fluctuation in the demand for finished goods which may affect storage accommodation, and is also responsible for giving instruction on the quantities of spare parts or other materials to be held for servicing sales already made.

6.3 STORE LOCATION

Poor location contributes to many store failures. The value of a site for a store depends upon its profit possibilities. Even though a store location may attract a large number of traders, the amount of business obtained may not warrant the cost involved. A good location, therefore, is one that assists in making possible the most profitable sales volume. The site must be convenient to the store's customers i.e. exporters and importers.

Location problems are not limited to the choice of a site for a new store, nor are they limited to the small store [37].

Because of constant shifts in trading areas, because of changes in traders, habits, and because of new transportation facilities, store managements are always faced with a location problem. In most large metropolitan cities, traders and port like Aden centers are in a state of constant change. Some sites become less desirable and other areas increase in value. There is a big plan of Government of Yemen to establish a very modern store place for Aden port. The problem of store location varies considerably among various establishments. Some types of stores depend upon convenient location. The nature of their business is such that they must be situated on direct roads to the port.

6.3.1 Store layout

The successful operation of any store, large or small, is dependent upon good physical layout. Layout refers to the location of entrances, the pattern of

traffic aisles, the arrangement of fixtures and equipment, the location of merchandise departments or merchandise classifications, and the location and arrangement of displays. The intelligently planned layout not only increases the ease of shopping for the customer, improves the appearance of the store, and creates the desired impression of the store, but it also makes possible many significant economies in operation [45].

The all important considerations in store-layout planning are selling effectiveness and efficiency of store operation. The objectives of layout adopted by Aden Free Trade Zone therefore are:

(1) Increased sales and profits made through trade.

(2) Coordination of operation of imports and exports.

(3) More effective and convenient service for traders.

(4) Better store appearance.

Four basic factors influence store-layout planning. These four factors were considered as the points of view from which the problems of store layout were approached and were also used as a check-list when the project has completed at Aden port. They were (1) Merchandise location and arrangement; (2) Trade volume; (3) Store appearance; and (4) Physical considerations.

6.3.2 Stores Buildings

It is impossible to give any detailed advice or rule-of-thumb method for the sitting and construction of stores building, because of the variations in circumstances in different organizations. The needs of individual business differ enormously; a large central store may be required, sometimes a series of small store houses is necessary, sometimes only one small store house, and there are a number of instances where special facilities such as tanks and bunkers are essential. Very often there is no alternative but to accept existing building and

try to make the best use of them. Even when the building of new store houses is envisaged, the situation is usually complicated by existing conditions to some extent. The site may be governed not by what is desirable but by what land is available, the building may have to be designed to harmonize with existing premise, and there is always the over-riding consideration that, from the financial angle, the facilities to be provided must be in accordance with the funds which can be allocated for the purpose.

(1) New Stores Buildings

The construction of new store houses may be discussed on the assumption that there are no unusual restrictions on the site of size of the buildings, and that the only financial consideration is to put up a structure which will be reasonably economical in relation to the service it is expected to provide. Although it is not practicable to deal with the details of every type and size of store house, many of the factors are common to all. Generally speaking, the bigger the building the more complicated it will be, and the greater the problems of construction and operation. Expansion of the existing storage facilities of Aden port would require the following:

(i) The number and location of the outlying units which are to be served.

(ii) The number of items of stock to be held.

(iii) The division of this stock into -

(a) Small items which can be accommodated in drawers.

(b) Goods which can best be stored in pallet racks.

(c) Heavy articles which must be placed on the floor.

(d) Crated, boxed or cartoned stores which can be stacked without racking.

(e) Items which require special racks or fixtures.

(f) Goods which must have separate or unusual storage facilities.

(g) Materials which can be kept outside in the stockyard.

(iv) How many tons per day will be received and issued.

(v) What major handling equipment will be used, i.e. overhead or mobile cranes, fork-lift trucks, conveyers, etc.

(vi) How many road vehicles will have to be [a] unloaded, and [b] loaded, and at what times.

(vii) If rail transport is also deemed necessary, how many trucks will be required inwards and outwards, and at what times.

(viii) Whether it is intended to use coastal shipping transport.

(ix) Whether sea-borne traffic is envisaged.

(x) The number of staff to be employed.

From the above information, it will be possible to estimate the size of the building or buildings and the approximate total site area, and also to give a general indication of where the site should be.

(2) Site

The decision on the site is affected by many factors, of which the most important are listed below -

(i) The store houses should be as near as possible to the geographical center of the area to be served, or to the biggest stores-consuming unit. In this connection, it may be said that Aden is most suitably located.

(ii) If road transport is to be a major feature, the site must have good road access. It should not be in an area congested with traffic but, if possible, on or near a trunk road with good cross-country communications. Aden has opening to both road and coastal transport.

(iii) Where rail traffic is to be handled, the store house should be near a main line and the site must be sufficiently extensive and level enough to allow for the construction of adequate sidings. But in Aden Free Trade Zone there is no possibility of rail links in near future.

(iv) If coastal transport facilities are required, it is self-evident that the store house must be built on the sea shore itself.

(v) Where direct access to sea going ships is necessary, the building will have to be on the docks at a port as it is in Aden.

(vi) The site should, if possible, be reasonably level, well drained, and not too far from essential services such as water and electricity etc.

(vii) The site ought to be of sufficient size for its intended purpose, with adequate space for manoeuvring vehicles, an area available for an outside stockyard if required, and some extra room for possible future 'expansion. Aden is being expanded on the out-structure days.

(viii) The land should not be too expensive.

(3) Construction

When the site has been chosen, the next problem arising is the size, shape and construction of the store house. This deserves the closest possible attention because the building will probably be in use for many years, and mistakes made at the outset may be the source of continuing inefficiency for a long time.

Single-storey and Multi-storey Buildings

As a general rule, single-storey construction as found in Aden is best for large store houses for the following reasons :

(i) The cost per cubic foot of storage space is usually much cheaper because the shell can be of lighter construction than is possible with a building having upper floors.

(ii) The weight-carrying capacity of an upper floor is always limited by structural considerations.

(iii) Material-handling costs are likely to be less than in a multi-storey building where goods have to be transported up and down between floors.

(iv) More use can be made of natural daylight.

(v) Adequate ventilation is easier to arrange.

The use of multi-storey buildings may be more favourable in special circumstances which are less applicable to Aden, such as :

(i) Where the store are required to serve production or process shops already operating in a multi-storey building.

(ii) Where land available is restricted in area or extremely costly.

Bearing in mind the arguments outlined above, it is now proposed to continue with the consideration of store house construction on the assumption that we are dealing with a single-storey building.

6.4 CURRENT PROBLEMS OF STORAGE AND MANAGEMENT IN ADEN FREE ZONE

It is not the purpose here to discuss the many problems involved in buying the right merchandise in the right quantities at the right price. In addition to these, there are a great variety of complex problems connected with the physical operation of the store after the merchandise has been bought. The problems most directly related to store management are as follows:

(1) Location, arrangement, and layout of the store building

(2) Organization of store function

(3) Administration of personnel

(4) Provision and supervision of services

(5) Protection of customers, employees, company funds, and physical property.

(6) Control of store expenses.

6.4.1 Problems of location, arrangement, and layout of the store buildings

The efficiency of store operation is measurably influenced by the location of the store and by the physical arrangement of aisles, fixtures, displays, and other

facilities that influence, store service and customer shopping. Store location, arrangement, and layout are major retailing problems which can be properly solved only by the application of scientific study. Good locations can be measured; store arrangements can be planned for a maximum of customer convenience and sales promotion; and displays can be created to dramatize merchandise and arouse customer buying interest [36].

6.4.2 Organizational problems

An important relationship exists between the way a store is organized and the efficiency with which it is operated. If responsibility and authority are properly delegated, much confusion and misunderstanding can be avoided; scientific organization results in a more efficient business. Job studies, surveys of operating procedures, and other analyses of the business problems can clear the way for the application of practical organisation techniques.

6.4.3 Problems of personnel administration

The administration of activities involved in performing the many services offered in store operation together with the jobs connected with the buying and selling function requires a diversified personnel, the equal of which is found in few other types of business. The variety of skills required in these jobs ranges from the most professionalized activity down to the simplest form of non-skilled labor. In addition to the many rank and file employees, large stores often have on their pay-rolls physicians, nurses, lawyers, teachers, economists, banking experts, accountants, stylists, merchandise specialists, and public relations experts, social service workers, psychologists, and the like. In this regard it is important that there is lack of highly qualified technical managers in Yemen and other specialists.

The selection, hiring, placement, training, and maintenance of people to fill the many jobs that exist in store work present probably the most serious problems of store management. People are of the greatest importance in retailing. Other types of business have become increasingly more mechanized, using less and less human power, but the retail store has continued to become more humanized. The average store now has more employees for every unit of sales volume than it had several years ago.

The increasing demand of customers for more services and the fact that, in general, stores have taken over some of the marketing functions once performed by middle men are two causes of this condition. There remains also the important fact that the running of a store is a personal business. Mechanized devices have not taken the place of sales people or of most other store employees.

6.4.4 Provision and supervision of services

Many years of experience of trade business has taught traders that two factors influence people to become regular customers of a store. These are:

(1) Good values in merchandise.

(2) Pleasing and convenient contacts with the store.

During the past few years the attention of merchants has centered more and more upon customer contacts or services. Store competition today is not only in merchandise values but in customer conveniences as well. In fact, some merchants have emphasized customer services so successfully that they have managed to lift their stores out of the confusion of price competition so prevalent in the retailing of today. Almost every phase of store operation has some direct or indirect effect upon customer services. Some of the most important phases are as follows :

(1) Store layout

(2) Location of merchandise

(3) Customer contacts

(4) Customer conveniences.

6.4.5 Protection of customers, employees, company funds, and physical property

The physical protection problem is concerned with avoidance of damage, destruction, and dishonesty. Store lifting, robbery and burglary, mishandling of cash, employee collaboration, mispricing of merchandise, and carelessness of all types are real problems in every store.

Methods commonly used to meet these are :

(1) Careful selection of employees in various departments of port storage and management.

(2) Continuous and conscientious efforts to build and maintain loyalty to the port business.

(3) An efficient system of records and check up of imports and exports.

(4) Detection and protection activities at loading/unloading.

(5) Good protection equipment at the port.

(6) Insurance covers for goods and personnel.

6.4.6 Control of store expenses

The constant and increasing demands for more service, increasing costs of both labor and store materials, and a constantly mounting protection problem have combined to raise expenses of store operation to a point where they have become one of the chief problems. Expenses of store operation are high. From one-fourth to nearly one-half of every Riyal spent in stores goes to cover the cost of operating those stores. It is estimated that retail operating expenses are from 25 to 50 per cent higher in the developed countries than in many developing countries like Yemen.

CHAPTER - VII

COMPARISON BETWEEN JEBEL ALI AND ADEN FREE ZONES

7.1 JEBEL ALI FREE ZONE

The history of the United Arab Emirates as a nation dates back to 1971. Prior to that time, a variety of independent Sheikhdoms predominated in the area.

British influence in the area dates back to 1806, when the British first acted to control a common law in the Arabian Gulf.

The Emirate of Dubai has a long tradition of being involved in commerce and trade. Oil first began to play a role in the economy of Dubai in the 1966. However, the economy of Dubai is still largely driven by trade, and increasingly, by manufacturing. By some accounts, Dubai is the most prominent commercial center in the Middle East.

Dubai is the second largest emirate and the commercial capital, located on the south-eastern shore of the Arabian Paninsular. Dubai is located in a desert-like climate, with high humidity and precipitation a way from the cost.

The Jebel Ali Free Zone is located in the United Arab Emirate Sheikhdom of Dubai. Dubai and its associated Free Zone of Jebel Ali occupy a strategic location in the Arabian Gulf. From this location shippers have fairly convenient access to both the Far East markets of India and Singapore, as well as East Africa, and convenience to European markets. The port of Jebel Ali is situated some 35 kms South-West of the city of Dubai.

The port at Jebel Ali, the largest man-made port in the world, was founded in 1979, the Free Zone at Jabel Ali was established by government decree six years later.

In 1991, the two ports Rashid and Jebel Ali, were administratively united under the Dubai Ports Authority (DPA). At the time, the stated purpose of the Free Zone was to diversify the scope of industrial activity in Dubai. The long term understanding was that the petroleum resources from which the UAE derives its income would eventually be depleted, and alternative forms of commerce would have to be developed.

The regional situation is potentially more dangerous: A greater threat to UAE stability in future is likely to come from regional tension. The USA is reconsidering its so-called dual containment policy vis-a-vis Iraq and Iran, but the likelihood is that tension between the USA and Iran will remain high. Further Iranian military moves on the disputed Gulf islands of Abu Musa and the Greater and lesser Tunbs would aggravate the situation. The UAE will continue to lobby international organisations to support its claim to the islands, which lie in strategic locations close to international shipping lanes and the offshore Mubarak oil field near Sharjah.

The authorities in UAE plan to control immigration. However, following the recent expulsion of around 150,000 illegal immigrants, the authorities will be much more stringent about the number of foreign workers they let in and how long they allow them to stay. The expulsions, which ended before have already made labour more expensive, and it has also caused labour shortages [8].

But other factors will depress consumption growth. At the same time, however, the expulsion of so many immigrants has removed some demand from the market and raised prices for labour in certain sectors of the economy, such as construction

and textiles, where it will have a negative effect. Meanwhile, government consumption will grow more slowly because of the fall in oil revenue. Fixed investment, which accounts for a little over 22% of GDP, is expected to grow year after year, in part because Abu Dhabi will move ahead steadily with large gas, refining and petrochemicals development plans. Growth in the export of goods and services, however, is expected to be limited.

Focusing on capital-intensive industry, in particular, Dubai plans to focus industrial development in capital-intensive rather than labour-intensive projects so as to minimise the need for additional foreign labour. This put pressure on the Jebel Ali port in terms of more imports and more exports. Under the plan Dubai estimates it will need 52,000 foreign workers over the next five years. The government is specifically aiming to encourage the establishment of advanced technology, knowledge-intensive small and medium-sized enterprises (SMEs), so that some of the expertise can be transferred to locals. One very tangible proposal is to develop a 2,500-hectare industrial estate at Jebel Ali, just outside Dubai city.

Inflation is a major problem which is likely to rise further in coming years because of the increase in labour prices, etc. although this increase will be partly offset by a fall in the price of non-oil commodities, the world price of which we expect to drop due to recession. Impact of higher labour costs is likely to ease as workers are replaced, so that UAE inflation should ease back down to around 5.2% from 5.5% in coming years. The UAE dirham, which was first fixed to the US dollar in 1980, is expected to remain pegged at Dh. 3.671 = $ 1.

Including a $ 1.8 bn refinery expansion proposal - At the heart of plans for Ruwais is a proposed $ 1.8 bn expansion of the refinery, one of the two in the emirate, phase one of the plan involves adding two "trains" to process gas condensat at a total cost of $ 300 m. This should add around 130,000 b/d to

existing capacity of 135,000 b/d. Originally, the two additional trains should have been completed in 1998, but under the review they are unlikely to be ready until 1999. Once finished, the work should bring total refining capacity in the UAE from around 260,000 b/d to around 400,000 b/d. Phase two of the plan to add another 135,000 b/d in capacity has been delayed indefinitely. Plans to build a power station to support the additional refining capacity have been scaled back until the exact energy requirements are known.

The airport free-trade zone attracts a blue chip firm: An international courier company, Federal Express, has signed a $ 4 m ten year lease on a 192,000 sq ft warehouse and office complex in Dubai's new airport free-trade zone in what looks like another promising step. In mid-1996, a US aircraft manufacturer, Boeing, agreed to open a major distribution centre in the zone to supply the Middle East and North Africa. The government of Dubai has also agreed to pay for development of a technology park in the zone to attract high-tech companies.

All this is part of a $ 500 m expansion programme for the airport. The Dubai government is intent on turning the emirate into a regional hub and sees the development of the airport as central to its strategy.

Incentives for investing in Jebel Ali Free Zone [56]

1. 100% foreign ownership.
2. No recruitment problem.
3. 100% repatriation of capital and profits.
4. No currency restrictions.
5. No corporate taxes for 15 years, renewable for an additional 15 years.
6. No personal income taxes.
7. Excellent supporting services.
8. Readymade factories and warehouses.

Strengths/Weakness of Jebel Ali Free Zone

A description of the Jebel Ali Free Zone and its development to date is a description of success. The success of Jebel Ali Free Zone is attributable both to the strategic location of Dubai, the availability of ports and airports, and the astonishing amount of capital that has gone into the development of both the free zone and the area ports. Finally, it is attributable to the political stability of Dubai, and the encouragement its leaders have given to this development.

Inspite of all these strengths, there are some weaknesses in the overall outlook of Jebel Ali Free Zone. Foremost among these is the lack of indigenous labor. As mentioned previously, the labor force in Dubai is over 90% expatriate. Some workers have commented that the Free Zone ultimately does nothing to benefit Dubai because of this lack of local employment, the complete repatriation of profits, and lack of taxes on companies within the Free Zone.

Also, expatriate workers typically remit their earnings to support families in their native countries. The use of expatriate labor also gives one the sense that Dubai, and its ports and Free Zone, are members of an international community, an integral and contributing part of the UAE. The question must be asked:

"In the long run, how does the Free Zone of Jebel Ali benefit the economy of Dubai" ? By all expectation it may be said that the Jebel Ali Free Zone will provide new incentives, supplies of inputs, and a very conducive environment for growth and development in the entire region.

7.2 ADEN FREE ZONE

Aden is the gateway to the Republic of Yemen from the Arabian Sea. It is the most important port not only of Yemen but of the Arabian peninsula. Its importance is very strategic.

History

Following an agreement reached in December 1989 on a constitution for a unified state, the (northern) Yemen Arab Republic and the (southern) people's Democratic Republic of Yemen were united as the Republic of Yemen on 22 May 1990.

The country comprises 17 governrates and the capital city, Sana'a. The commercial capital is the port of Aden. Other important towns are the port of Hodeida, Mukalla.

The port of Aden guards the southern entrance to the Red Sea through the strait of Bab-el Mandeb, which is situated 105 miles west across the Gulf of Aden. This gives Aden considerable strategic importance. Aden has great commercial and strategic significance. Formerly a coaling port, it has become the greatest oil bunkering port in the world and in 1958 was used by 26,300,000 netregistered tons of shipping, about 7000 ships a year called at Aden. The same number visited Hong Kong annually. A Free Port since 1853, Aden is a cable and radio station and transships cotton goods, salt, coffee, hides and skins, grain, gums, tobacco and sugar. Industries include boat-building (dhows) and the manufacture of cigarettes.

Aden is considered as one of the oldest and natural protected ports in the world. The harbour has its natural defense by Sirah Island. In the 1950's and 1960's an early form of Free Zone operated in Aden.

Aden's location is ideal for becoming a distribution centre for goods throughout the Middle East and the African subcontinent. Just a few miles off the Europe-Suez Far East trade route. Aden could be important as a service stop for ships in needs of repairs or supplies.

Aden already possesses a limited manufacturing sector consisting, in part, of beverage companies and oil related industries. The expansion of this sector is inevitable given the reformed investment laws, the level of interest shown by domestic and foreign investors, and the large motivated work force.

It is implementing a number of important changes in operating practices, and in the port tariff, to expand Aden's market. Port management and labour will, as a matter of policy and good practice, continuously review Aden's facilities in order to maximise the benefits which users will derive from their calls. Aden will, through investment, training of indigenous staff and other improvements, build its capacity to offer the level of service which modern fleet management and cargo shippers demand, in order to reap the rewards of its ideal location. A small terrorist group called "Clandestine" is a worry. The ineffectiveness of the opposition, combined with the government's continuing failure to address the fundamental needs of the population, has led to a proliferation of clandestine groups claiming to be dedicated to the overthrow of the present government. The organization says that it plans to work for greater unity and equality between the north and south, and cites a sense of frustration with continuing government corruption and the widespread patronage system.

The Yemeni economy promises growth potential for future as new investment in Aden stimulates construction and the country benefits from a modest increase in oil production. In 1998 investment in the Aden Free Zone, combined with growth in manufacturing and services, is expected to spur economic growth. Growth levels will be inhibited, however, by the high level of imports necessary for the Aden project and by a drop in private consumption as the government implements plans to retire workers from the public sector. Overall, GDP growth has been about 2% in 1997 and is expected at 2.2% in 1998. The trade balance and consequently the current-account balance for 1996 have improved as oil prices have been higher than originally forcast. In 1997 and 1998 the current-account may continue to follow the trade balance, and as imports for the industrial sector increase, the current-account surplus and trade surplus will both narrow.

Economic reform faces challenges. Yemen's economic and structural reform is

broadly on track, according to the IMF and World Bank as well as the government. But the damage caused by the recent floods placed considerable strain on the programme. At present agriculture accounts for about 15% of Yemen's GDP, and a significant proportion of the country arable land and top soil was affected by the floods. Subsequent outbreaks of disease further contributed to the misery of the local inhabitants as well as placing further strains on the economy and the country's infrastructure as a whole.

Five-year development plan for Aden

The government has announced some details of its 1996-2000 development plan, the first for the United Yemen[1]. Foreign investment is a key component of the plan, which calls for total investment of YR 818 bn ($ 5.8 bn) during the period : The plan also calls for 7.2% annual growth in GDP (compared with 3.7% in 1990-1995) and the elimination of the budget deficit by 1998. Oil and gas productions are expected to grow by a hefty 55% over the five years. According to the Prime Minister, government efforts over the period will focus on the completion of infrastructure projects. The private sector will be encouraged to invest in key areas such as agriculture, tourism, industry, oil and fisheries [46].

Inflation: Government policies put in place over the past year, including the liberalisation of interest rates, the increase in reserve requirements for commercial banks and the proposed increase in the frequency of issuance of Treasury bills, are expected to dampen inflationary pressures over the forecast period. Expected exchange rate stability will also slow inflation, despite the removal of subsidies on many consumer goods and services. Annual inflation is forecast to decline to 65% in 1997 and 55% in 1998.

Upgradation of Aden Refinery : The refurbishment and expansion of the Aden

refinery is to proceed, with Tarmac of the UK and ABB Lummus Global of the USA carrying out the work. The consortium is to arrange 100% finance for the project, which is expected to cost about $ 180 m. After work is completed, the refinery should be able to process about 85,000 b/d, about half the volume previously refined at the plant. Further proposals, which have yet been approved, have been submitted to build a new distillation unit along side the existing facilities. The total cost of this additional facility, which would include a 30-mw power station, would be $ 224 m.

Gulf Oil, one of the companies in the London-based Hinduja Group, announced plans in late September 1996 to build a lubricants factory in Yemen. The $ 8 m plant should be able to produce 2000 tons/year [55].

Plans call for production to start in January 1997. Gulf oil is also investing in new facilities in the UAE and Egypt.

The airport included in the plan

As part of the second phase of the project, Aden airport is being upgraded. The airport buildings are to be renovated, and new air traffic control equipment installed. Consultancy and civil works are being part-financed by a $ 14.5 m World Bank loan, and France has promised a $ 5 m loan for air traffic control equipment. British Petroleum, a UK company, has won the exclusive contract to operate and manage refuelling facilities at the airport.

Aden Free Zone Scheme

The President of Yemen laid the foundation-stone, for the Aden Free Zone (AFZ) on August 26, 1995, and work is progressing on the scheme.

Bechtel international, a US-based company, has been appointed by Yemen Investment and Development International (Yeminvest) as project manager. Bechtel replaces Fluor Daniel, another US company. The first phase of port development is

scheduled for completion by March 1999, and the dredging of approximately 2.5 m CU metres of material from Aden port should begin soon. The dredged material will be used in the construction of the container terminal island. Tenders for the 9m-10m CU metre second phase of dredging work are due to be issued by the end of the year. Plans call for the harbour and its approach channel to be dredged to a depth of 16 metres. The first phase of the project will also include the construction of a 180-mw power station, to be built on a build-operate-transfer (BOT) basis.

Expectation from the Aden Free Zone

In the short term, the government is concentrating on large labour-intensive infrastructure projects associated with the AFZ in the hope that the scheme will help to alleviate some of Yemen's unemployment problems.

In the longer term, it hopes that the AFZ, the country's largest non energy project, will prove a significant source of foreign exchange for the country. It anticipates that revenue in the first year of operation will be about $ 1 m, but hopes that it will grow to $ 5 bn within three years.

The government declaration to transfer Aden into Free Zone raises the above question as to why Aden is being given this status ? The answer to this question can be given on the basis of the following reasons :

1. Advantage of Aden location, very close to the main international shipping routes passing down the Red Sea and across the Indian Ocean, and the savings in transportation cost by sea compared with other Free Zone in the area.
2. Availability of a skilled and trainable work force, with current salary levels of expectations low by international standards.
3. A large range of investment is available through investing in the infrastructure and developing services.
4. The favourable status which will be given to companies selecting to establish an early presence in Aden's Zone.

What makes Aden so uniquely suitable for its role as a port and distribution centre in the region? Aden offers shippers and shipping companies many advantages, which have helped to make the port a regional centre during its long history and will continue to favour it in future.

These advantages may be summarized as follows :

1. The port lies where the Red Sea and Gulf of Aden meet, directly on the main round-the-world and the Far East to Europe/America trade route.
2. It requires a deviation from this route of only 4 nautical miles to reach the pilot station.
3. It has clear approaches from water 20-40 metres deep without reefs, well marked by aids to navigation.
4. A well-planned and easy channel extends only four miles from the fairway buoy to the inner harbour berths;
5. Aden offers deep water in one of the world's largest natural harbours, protected from prevailing winds during winter months by hills 500 metres high to the South and East and from the summer SW monsoon by hills 350 metres high to the South West;
6. It enjoys clear weather and is able to operate for 365 days a year.
7. Aden is around 4570 miles from NE Europe and 3640 miles from Singapore, around 9 day from Europe and 7 from Singapore on modern container ships.
8. It is very well placed to provide transshipment services to East Africa, the Red Sea, the sub-continent and the Gulf, and :
9. It enjoys a dry climate with temperatures of around 28^0C through the winter and 38^0C during the summer (between May and September).

Based on these splendid advantages, Aden developed and expanded its port services until 1967, when the Suez Canal closed for 8 years. This, added to the uncertainties following national independence, led to a severe downturn in Aden's

trade at a time when other states in the region were beginning to generate substantial oil revenues. New ports in the region handling massive amounts of construction and project cargo then grew to became major cargo centres in the 1970's and 1980's.

Aden had no facilities for handling containers during these years and was starved of investment capital. All dry cargo was handled at buoys in the inner harbour before being transferred to the Home Trade Quay by lighters. Double handling, the accepted means of working cargoes in most ports up to the 1960's, continued at Aden into the 1980's.

The draft on Free Zones provide for a number of incentives and privileges including the following [68]:

1. Exemption from custom duties and any other taxes and duties on the entry of goods, on their processing and exportation, outside the free zone.
2. Exemption from commercial and industrial taxes on net profits, as well as from general taxes on income for a fixed period of time (not less than ten years) that could be extended by the Board of Directors for half of the same period.
3. Exemption from stamp tax on all correspondence of projects operating within the zone regarding their transactions and dealing with Free Zone Authority or other official bodies on duty within the zones.
4. Salaries and wages earned by none Yemeni employers and workers belonging to projects operating within the zone, are exempt from salary and wage tax.
5. Ordinary customs procedures are not applicable on goods brought into and exported from the Free Zone.
6. Import and Export requirement and restriction are also not applicable on goods brought into and exported from the Free Zone. Also no restriction on the stay of goods in warehouse within the Free Zone.

7. Legislation relating to the foreign exchanges control shall not be applicable within the Free Zone.
8. Projects operating within the Free Zone are free to transfer their capitals and profits abroad, non-Yemeni employers and workers are also free to transfer part of their earning abroad.
9. Nationalization and confiscation of projects operating within the Free Zone is prohibited. With holding and freezing assets of this projects or putting them under custody is allowed only by means of a court decree.
10. Projects operating within the Free Zone are granted land, electricity, water and other necessary facilities at low prices.
11. Projects within the Free Zone can be 100% foreign ownership.

REGIONAL PORTS :

There are many ports near Aden which provide good oppertunity for regional trade. An outline of the regional ports is given in Table No. (7.1).

MAIN CONCLUSIONS

From the comparison of the study of the two Free Zones - Jebel Ali and Aden the following points emerge :

1. Good geographical location of both Jebel Ali and Aden ports are favourable and important. Both these ports are on "International Lines". Historically the location of Aden ports is unique, it's a route of international lines to cross Red Sea to Indian Ocean, Aden port is better because it saves time and fuel. The cost of loading compared with Jebel Ali port is also less. Hence Aden has a surplus, the amount of surplus equal to 1/4 million US dollar for one journey or 1.5 million US dollar for large ship in a year.

Table No. 7.1
Port of Aden
Outline Analysis of Regional Ports

Port	Quay Cranes	Main Yard Equipment	Depth alongside	Quay length (metres)
Aden (Ma'alla)	2	FLT's	11.0	375
ACT Phase I	4	Gantries	16.0	700
ACT Phase II	8	Gantries	16.0	1000
ACT Phase III	12	Gantries	16.0	1650
Salalah	6	Gantries	15.0	1260
Dubai	10	Straddle/Gantries	11.4-13.0	1350
Jebel Ali	14	Gantries	14.0	1535
Fujirah	6	Gantries	11.0-12.5	750
Khor Fakkan	6	Gantries	12.5	420
Colombo	12	Gantries	11.0-13.8	2250
Djibouti	2	FLT's	9.5-12.0*	400
Jeddah	12	Straddle Carriers	12.0-14.0	1180

* 10.3 metres limitation in the approach channel at present.

Dubai/Jebel Ali has 24 ship gantry cranes up to 14 metres of water and a total of 2.9 km of berths.

Colombo has 12 gantry cranes up to 13.8 metres of water, with 2.2 km of berths.

2. Before and even now Aden port is the hub of all sea routes passing through Red Sea and Arabian Sea. It connects Suez Canal, Colombo (Sri Lanka) Dar-es Salam (Tanzania), Bombay (India), Medagastar, Cape Town (S. Africa), Rangoon (Burma), Singapore, Sydney (Australia) etc. So the ships cross Suez Canal to Colombo, Singapore need not any deviation or modification in its route. because of Suez Canal and Aden port in the mouth of the Red Sea, the ships coming from America and Europe via the Mediterranean Sea pass through Aden and it saves times and fuel for them.Thus Aden assumes great importance on this searoute. This is a beneficial point for Aden.

3. Free Zone in Jebel Ali and Aden Port requires labour but labour in Jebel Ali mostly comes from foreign countries like East Asia and India. It mean there is difference in habits and norms and poses psychological and social problems and thus economically becomes very expensive. But Aden provides training and experience to national labours with certain standard in wages which is less than International Standards. Therefore, Aden is getting cheap home labour with numerous benefits. Social/ psychological problem at Jebel Ali are due to foreign labour. This is not so in Aden. The labour from foreign countries is not able to adjust to work conditions and hence not contributing fully to production. If health is bad, more absenteeism and loss of productivity will result. A socially dissatisfied person finds problems of concentration and devotion.

4. Gulf area and hence Dubai may face more conflict and wars as during previous years Iran and Iraq and Kuwait was known as Gulf War. Few years back and recently boundary problems between Iran and UAE on Big Tanb and Small Tanb Island have come up and it is likely to effect trade and investment in the area. Accordingly it may lead to instability and disturbance of security in the region. No such strategic problem in Aden is felt. In fact its more safe.

5. The geographical, historical and economic importance of Aden, international economic activity is more significant than Jebel Ali. Aden Port is one of the oldest natural ports in the world; on other hand, Jebel Ali Port recently built by human beings and built on the sand from UAE shore. Being natural port and Aden is better in many respect.

Table 7.2
Economic Structure Yemen and UAE

Economic Indicator	Yemen 1992	Yemen 1995	UAE 1992	UAE 1995
1. GDP at current prices percentage change 1995 1992	134.71	385.80 186%	131.7	144.0 9%
2. Population (m) (increase %)	12.50	14.02 12%	2.01	2.38 18%
3. Export ($ bn) (Percentage)	1.10	2.09 90%	25.33	28.07 10%
4. Import ($ bn) (Percentage)	1.94	1.83 -5.6%	15.83	21.35 35%
5. Current account	-1,119($m)	323($m)	3.85($bn)	3.75($bn)
6. Reserves exclgold	320.5(m)	605.0(m) 89%	5.71(bn)	7.47(bn) 31%
7. Exchange rate	33.38 (YR=$)	115.00 (YR=$)	3.671 (Dh=$)	3.671 (Dh=$)

Source : EIU : Country Report YEMEN, The Economist Inteligence Unit Limited 1996.
EIU : Country Report UAE, The Economist Inteligence Unit Limited 1997.

Table 7.3

Principal Exports of Yemen and UAE

Items	Yemen (1993) $ m	UAE (1996) $ bn
1. Crude oil	1,610.8	14.57
2. Coffee	25.9	NIL
3. Raw materials	25.0	NIL
4. Fish & fish products	8.5	NIL
5. Re-exports others	NIL	9.81 6.95
TOTAL	1,670.2	31.33

Source : EIU : Country Report Yemen and UAE, The Economist Inteligence Unit Limited 1996-1997

Table 7.4

Direction of Trade of UAE (1995)

- A -

Countries	Exports	Countries	Imports
1. Japan	38.0%	1. Japan	8.6%
2. India	6.0%	2. USA	8.1%
3. South Korea	5.8%	3. UK	7.6%
4. Singapore	5.4%	4. Italy	6.7%
5. Oman	4.5%	5. Germany	6.6%
6. Iran	3.6%	6. South Korea	5.4%

- B -

Direction of Trade of Yemen (1995)

Countries	Exports	Countries	Imports
1. China	23.4%	1. UAE	14.2%
2. Korea	19.2%	2. Saudi Arabia	9.7%
3. Japan	12.3%	3. USA	7.7%
4. Singapore	10.1%	4. Malaysia	6.5%
5. Brazil	8.7%	5. UK	4.8%

Source : EIU : Country Report UAE, Yemen, The Economist Inteligence Unit Limited 1996-97.

Destination of Exports from Yemen and UAE

The exports from UAE are sent to countries like Japan, India, South Korea, Singapore, Oman and Iran. Among these countries, Japan is most important because it has the largest share in UAE's exports. Its share is about 38% , India comes next to Japan. Trade relations between UAE and Iran are very low. It is only 3.6% of the UAE's exports.

The export from Yemen go mainly to China, Korea, Japan, Singapore and Brazil. Among these the share of China is the largest. It accounts for about 23% share in Yemen, towards export. The second place goes to Korea which share is 19% . The share of Japan comes to 12.3% and trade of Singapore stands at 10.1% . Brazil which is in Latin America and physically very far off from Yemen account for 8.7% of the total exports of Brazil.

IMPORTS IN UAE AND YEMEN

Both the countries depend on imports from many other countries of the world for example UAE's imports originate from countries like Japan, USA, UK, Italy, Germany and South Korea. Among these Japan is most important.

These we can say that Japan is the main trading partner country of UAE because it is in top both in exports and in imports.

But in case of imports, most of the goods are coming from developed countries like USA, UK, Italy, Germany etc. which the exports of UAE are going mainly to developing world.

On the other hand, the main countries from which Yemen receive its imports are UAE itself, the neighbouring Saudi Arabia, USA, Malaysia and UK. Among these, Yemen's imports mainly come from UAE which accounts for 14% share. Here again developed countries like USA, UK are import suppliers to Yemen.

Table 7.5

Main Points Comparison

Jebel Ali	Aden
1. It is situated in Arab Gulf.	1. It is in the Indian Ocean where Red Sea meets the Indian Ocean.
2. Jebel Ali is very closed port.	2. The area of Aden is wide open.
3. Jebel Ali is artificial port.	3. Aden is a big natural port.
4. The traffic of ships is low in Jebel Ali.	4. The traffic of ships is very huge in Aden.
5. Jebel Ali is very new port.	5. Aden is very old and historical port.
6. Jebel Ali was developed by UAE as modern port.	6. Aden port has mainly developed when Aden was a British Protectorate

7.3 ADVANTAGES OF FREE TRADE ZONES

The summary of studies conducted by United Nation Conference On Trade and Development (UNCTAD) about the free zones for preparing of export goods, point out some of the significant positive results which highlight that:

1. The free zones stand for preparing export goods which are the industrial goods made inside the national custom zone. It is generally located near a port or an international airport. Usually the aims of the production of these regions are to export goods. As far as the import of raw material, semi products and necessary assets and equipments for manufacturing of export goods are concerned, these are exempted from the purview of custom duty. Hence the custom duty procedure paid at the time of importing goods to the region and exporting from it is confined to the minimum level or exempted at together.
2. On the wider range, the free zones for export of goods have been handled by the developing countries to encourage and boost the transit of industries for export. It is expected that the foreign investor may enter into the prime fields. Around the Free Trade Zone of Aden. More specifically, the fixed targets of several host governments are as under :

a) Take excise duty from foreign currency.

b) Generate more employment for the people which is very helpful for the local population.

c) Attraction of foreign capitals and advanced technology.

d) Arranging training programme for improving manpower, administration and top level management.

e) Make relations between the free zone industries and the rest of the economy.

3. Likewise the investors in the free zones enjoy concession with the tax and get finance incentives. As far as the incentives, offered to the investors

inside the free zones, are concerned these do not vary in most of the developing countries which differentiate these assistance from the incentives offered to industries exports outside these zones. There is a common characteristic that is the administrative facility of exempting tax on imports. Apart from that, the tax exemption is granted for a longer time only in the case of exports industries located outside these zones.

7.4 DISADVANTAGES OF FREE TRADE ZONE

On the other hand, there are some discouraging results specially in the direction of transporting the technique etc. Main features are as under :

1. The contribution of free zones in increasing and transporting the technique to the neighbouring country was and is still disappointing. The reason goes to the foreign companies which are inclined to transport the dense letel work of its production process to the free zone for the purpose of utilizing the distinct percentage of cost and work between the developed and developing countries. Thus the activities of main production in the free zone are the collective industrial activities in the fields of electronics, garments, shoes, leather products, electricity, spare parts extra.

   It is not usual to find process of technical high-level production in this industries when it was carried out in the free zones.

2. Employment ratio in all free zones of developing countries was evaluated recently much more less than million persons or 2.6% of total manpower recorded officially in the transit industries of developing countries. Production opportunities in the free zones provide work that would be, generally, for the low efficient manpower which produces simple hand work that could be learnt in the short period of time comparatively. Thus its impact on uplifting the manpower latents confined to the minimum level.

3. Volume of locally value added exports in free zones does not reach to 25% , but it could be much more less than that. There are sufficient evidences that the 70% of workers income ratio in the locally value added and extract export goods in the free zones basically represents minimum value more than the maximum level.

4. Low proportional share of foreign investors in the free zone of total capital money of national economy (of host countries). That is because of the factories found in these free zones are generally mere simple production units which process the heavy work without the expensive assets and equipments.

5. The excise duty produced by free zones exports from foreign money of host countries, does not cross the earned amount of locally added value. Since the most of the profits foreign investors are getting, go to outside without its reinvestment.

6. The evidences in the free zones point out that the industrial activities inside that, did not produce experienced manpower that could be able to work in the total industrial sector at the time of leaving the free zones. As the impression of obscurity of free zones and difference between its production process and the work of local sectors is to a large extent a bar also for a developing standards of knowledge and experience.

7. Temporary impression for the projects of free zones. That goes to the foreign companies working in the free zones to prefer opening small factories comparatively and using the cheap and simple equipment which enable the companies to transport the production from one country to another fastly. Since the competition among the countries to attract the foreign investors to their special free zones is to be very tuff. It is seemed that there is a trend to increase attraction of finance and tax incentives.

7.5 Review of International Experience

7.5.1 Introduction

The review of international experience with FZs concentrates on major zones located along the Main Line shipping route by sea between Asia and Europe. These include FZs in Syria, Jordan, the UAE, Pakistan, Sri Lanka, Bangladesh, Russia, Turkey and Spain. As these FZs are also close to JAFZ, they are part of the competitive environment facing the zone. Russia has been included because of the rail linkage to Central Asian countries (i.e. CIS) and the potential to serve Japanese cargo directed to that area.

7.5.2 Free Zones in the Middle East

1. The Syrian Free Zones : The government organization in charge of administering FZs in Syria is the General Authority for Free Zones. When Syria started with FZs back in 1971, it did not have an economic and social conception in which to frame them. Hence, they were only neutral, physical and administrative zones, to facilitate the entry of goods into Syrian boundaries until they could be put in the local market or be re-exported. From the early 1970s, when the infrastructure and initial buildings were completed at all zones to the early 1990s, the concept of FZ has evolved from its early form. Today, that concept takes FZs as one of the main tools for economic and social development. Currently, there are 6 FZs : two in Damascus (one inside the city and one at the airport), one at Aadra, one at Aleppo, one at Latakia (a major seaport), one at Tartous (another major seaport). Syria has also a joint FZ on the Syrian/Jordanian border, and is considering another joint FZ on the Syrian/Lebanese border. Table No. (7.6) gives an overview of the incentives offered by the Syrian FZs, Table No. (7.7), summarizes their overall profile, and Table No. (7.8) gives the profile of the Syrian/Jordanian FZ [39].

Table No. (7.6)
The Syrian Free Zone
Summary of Incentives

Incentive	Description
Customs duties	Total exemption
Taxes	Tax-free status for the duration of the investment in the Zones
Remittances	Free remittance of invested capital and profits outside Syria
Import-Export Movement	Free movement of goods into and out of the Zones*

* In exporting to the domestic market, normal import restrictions and duties apply.

Table No. (7.7)
The Syrian Free Zones
Summary of Profile

Item	Description
Number of Companies	78 industrial 237 Commerical
Investment by Companies	$330 million
Geographic extension	Industrial area (103,000 m^2) Commerical area (583,551 m^2)
Number of workers	724

Table No. (7.8)
The Syrian Free Zones
Profile of Syrian/Jordan Free Zone

Item	Description
Number of Companies	13 industrial 6 Commercial
Infrastructure	Railway service Utilities available (water and electricity)
Manpower	Locally (Syrian/Jordanian) available skilled manpower at very competitive cost
Location	At the border of Syria and Jordan, with highway connection to major ports serving as gateway to the Arab Gulf region and Europe; **Port** — **Distance (Kms)** Beirut — 200 Tartous — 150 Aqaba — 300

The major factors for the success of the Syrian FZs have been : i) a favourable social and economic environment, ii) the availability of infrastructure withe the basic facilities needed to support industrial investment, iii) strategic geographic location, and iv) competitive cost of production of the companies involved.

There is good potential for establishing linkages between JAFZ and the Syrian FZs. Indeed, while JAFZ is the gate for international trade coming from East to the West, the Syrian FZs are the gate for international trade from West to East. Possibilities for linkages are to be found in the field of coordination between the two separate geographical locations, so as to take advantage of the dual direction of international trade.

2. The Jordanian Free Zones : FZs in Jordan are administrated by the Jordanian FZs Corporation, which enjoys financial and administrative independence. The board of directors includes representatives from both, the public and the private sector. There are 2 FZs in operation in Jordan, Aqaba and Zarka. The Aqaba FZ, which was established in 1973, is the oldest one. It is located at the only port city of the country (Aqaba), and operates as a warehousing/distribution point serving the transit trade of goods shipped by sea. The zone includes a large warehouse, storage yards, and a cold storage with a capacity of 6,000 tons. The FZ at Zarka, was established in 1983. Zarka area, located 35 kms from the capital city of Amman, serves as the international cross roads point which connects Jordan with neighbouring countries. The Zarka FZ is a combination of value addition processing (industrial investments) and distribution/trading (commercial investments) [65]. The commercial activities are known for their heavy concentration in the free car market. Two other FZs, the Queen Alia Airport Free Zone and the Free Zone at Sahab, are under different stages of construction. Incentives offered at the Jordanian FZs are summarized in Table No. (7.9).

The major factors for the success of the Jordanian FZs have been : i) the level of education, skill, and experience of the local labour force at all levels, ii) the level of political maturity and stability of the country, iii) a favourable investment environment, iv) consistent and stable macroeconomic framework [66].

Table No. (7.9)
The Jordanian Free Zones
Summary of Incentives

Incentive	Description
Customs duties	Total exemption
Taxes	Tax-free status for 12 years
Remittances	Free remittance of invested capital and profits outside Jordan
Import-Export Movement	Free movement of goods into and out of the Zones*
Manpower salaries	Total exemption of income and social service taxes for non-Jordanian personnel employed at the projects set up in the Zones
Government fees	Total exemption of construction permit fees, and fees on buildings and land

* In exporting to the domestic market, normal import restrictions and duties apply.

7.5.3 Free Zones in the Indian Sub-continent

1. The Karachi Free Zone (Pakistan) : The government organization in charge of FZs in Pakistan in the Export Processing Zones Authority of Pakistan. Established in 1980, its mandate is to attract foreign investment with the view to accelerate the pace of industrial development in the country. The Authority, which is an autonomous body, plans, develops, and manages FZs in Pakistan. At the present, only the Karachi Export Processing Zone is operating. Four new zones are to be set up inside the country, away from major sea/air gateways. One of them will be located in the city of Lahore.

In the early stages of FZ development, the government emphasized the package of incentives as the major point of attraction for investors. However, experienced has proven that incentives by themselves do not result in satisfactory industrialization. Indeed, the incentive package is only part of the investment

decision by private entrepreneurs. The other major factor is the availability of adequate infrastructure in any FZ. Today, the approach to setting FZs in Pakistan is one of marriage between the public and the private sector. The public sector has to be involved in the development of infrastructure and in providing complementary financing to local entrepreneurs so that they set up businesses in the FZs, individually or in joint ventures with foreign investors. The next step is to allow the private sector, under license from the Authority, to set up specialized export processing FZs inside the country. And again, the government role's will revolve around providing complementary support for building up the required infrastructure. Because this approach is more practical and feasible, it stands to be more attractive to the private sector [40].

The Export Processing Zone at Karachi is located at the largest city of Pakistan, with a population of around 10 million people. Karachi is a large centre for business, trade, finance, and industry. An international airport and a seaport further enhance its strategic geographic location. Indeed, Karachi is a gateway to the Arab Gulf, Africa, Central Asia, Europe, and other major markets. Table No. (7.10) presents the profile of the zone. The zone size is 300 acres which have been fully developed into 578 plots of land. The package of incentives offered is summarized in Table No. (7.11). While there is a wide choice of industrial activities which can be set up in the zone, a selective approach is taken for investment Table No. (7.12) and Table No. (7.13). Costs and operating fees are presented in Table Nos. (7.14), (7.15) and (7.16). A breakdown of factories by industrial activity and an export overview of the zone are given in Table (7.17) and Table (7.18).

Table No. (7.10)
Karachi Free Zone
Summary of Profile

Item	Description
Number of Companies	Industrial : 150 Warehousing/trading : 46
Investment by Companies	Industrial : $ 158 million Warehousing/trading : $ 44 million
Size	**Economic Activity** — **No. of Plots** — **Size per Plot (m^2)** • Industrial — 475 — 1000 • Warehousing & Trading — 70 — 400-1000 • Financial Services — 33 — 96-216 **578**
Infrastructure	
Electricity	Electricity for industrial use available at 11 kV and 400 V (3-phase 500 H2 AC System). The zone has its own 132 kV Grid Station with capacity of 400 MW of electricity
Energy	The Zone is provided with a supply of 600,000 ft^3 of natural gas per day*
Water	Water is supplied to the Zone at the rate of 500,000 gallons per day. In addition, the Zone has underground water storage facility for 1.3 million imperial gallons
Communication	International telex and telephone service through a 2000 lines digital electronic exchange linked with all parts of the world by satellite communication is available in the Zone. The provision of Fax is also available
Manpower	Locally available skilled manpower at very competitive cost. Current employment is 6000 workers
Location	Located within Karachi, the country's major gateway to the Arab Gulf region, the Middle East, the Far East, the African Continent, Europe, the USA, and CIS. There is highway connection to key locations : **Location** — **Distance (Kms)** Karachi City Center — 20 Karachi Sea Port — 32 Quaid-e-Azam International Airport — 10

* ft^3 = Cubic feet

Table No. (7.11)

Karachi Free Zone

Summary of Incentives

Incentive	Description
Customs duties	• No customs or any other tax on import of machinery including components and spare parts, raw material and packing materials. • Export of goods fromt he Zone is exempt from all duties • One unique facility offered to investors in the zone consists of duty free import of one car up to 1600 cc, one vehicle for transportation of labor, and one vehicle for transportation of machinery, equipment, and goods.
Taxes	• Total exemption from all federal, provincial and municipal taxes. • Exemption from corporate tax up to the year 2000, thereafter 25% in perpetuity • Income chargeable under the heading "Capital Gains" is exempted from tax. • Income accuring outside Pakistan is exempted from tax. • Losses, if any, on an undertaking set up in the Zone may be carried forward indefinitely • Benefit of double taxation relief agreements signed by Government of Pakistan with 34 countries is available to Zone companies.
Remittances	Repatriation of capital, profits and dividends is allowed to foreign investors and non-resident Pakistanis. No foreign exchange control regulations.
Import-Export Movement	• All goods and material entering into the zone from the domestic economy are treated as exports from Pakistan and are entitled to all the facilities and concessions allowed on exports to other countries*. • Garments units at the zone are treated at par with domestic economy industries for allocation of textile quota. • Companies at the zone are entitled to use GSP concessions given by a number of countries for importation.
Labor Issues *Regulations*	• Projects established in Zone are exempt from labor laws applicable in Pakistan. The Zone management is responsible to administer labor matters for all companies in the zone.
Salaries	• Unskilled workers : Rs. 1,500/month minimum ($50/month) • Skilled/supervisory staff : free-market determined
Apprenticeship	• Required for every trade • Duration of up to 6 months

Incentive	Description
Apprenticeship	• Minimum educational qualification to join determined in advance. • Resulting degree of skill determined in advance. • Monthly stipend during apprenticeship (Rs. 1000 or $33)
Benefits	• Weekly and official holidays entitlement • Casual leave (10 days/year) • Sick leave (8 days/year) • Annual leave (14 days/year) • Termination (30 days written notice or payment of equivalent salary in lieu thereof)
Expatriates	• Free employment of expatriates with exemption of income tax on salary five years from the data of arrival in Pakistan
One window service	• Simplified procedure for approval of setting up a project in the Zone**. • Import permits and export authorizations are issued by the Zone managements itself. Thus investors have to deal with only one agency, during pre-investment, construction and production stages of their industries.
Financial services	Off-shore banking, insurance, and investment companies not subject to the foreign Exchange Regulations of the State Bank of Pakistan are available in the Zone***.
Subcontracting services	Subcontracting without limit on variety and quantity is allowed outside the Zone as well as within the Zone

* The domestic market of Pakistan (of about 120 million people) is available to goods manufactured in the Zone, subject to import policy of Pakistan and payment of prevalent import duties and taxes. No quota is fixed for the export of production to the domestic market. All customs formalities regarding receipt and removal of goods to and from the Zone are completed at the main Customs Check Post located within the Zone.

** Submission of a simple application form to Zone management with a scrutiny fee of US$250 which is non-refundable. No feasibility reports are required. The Zone management does not go into details of financial arrangements made by an investor. Immediate processing of application is undertaken and approvval is accorded within days.

*** There are four banks working in the Zone : (i) National Bank of Pakistan (ii) Habib Bank Limited (iii) United Bank Limited and (iv) Muslim Commercial Bank Limited; three insurance companies :)i) Adamjee Insurance Company Ltd. (ii) Eastern Federal Union Insurance Company Limited and (iii) Raja Insurance Company Ltd; as well as an Investment Company : Franklin Credit and Investment Company.

Table No. (7.12)
Karachi Free Zone
Eligibility of Investment

Criteria	Description
Currency	All investment in the Zone are to be made in convertible foreign currencies
National origin	A foreigner/foreign company, a non-resident Pakistani or a resident Pakistani can invest in the Zone with 100% own foreign exchange source. Moreover, if a resident Pakistani arranges 60% foreign exchange from his own sources, foreign exchange cover to 40% local currency would be provided by the State Bank of Pakistan. Also, any joint venture between a foreigner/foreign company, a non-resident Pakistan or a resident Pakistani, with own source of foreign exchange, in any proportion is allowed in the Zone.

Table No. (7.13)
Karachi Free Zone
Selective Approach to Industrial Investment

Approach	Description
Encouraged sectors	Offer advanced technology Make maximum contribution to domestic value addition Create likages with domestic industires wihtout competing with domestic export-oriented industries
Closed sectors	Industries manufacturing alcoholic beverages, narcotics, arms, and ammunition Industries giving rise to environmental pollution

Table No. (7.14)
Karachi Free Zone
Land Lease Cost

Item	Cost	
Lease terms	Plots leased for 30 years, renewable	
Down payment for plots	**Economic activity**	**$/m²**
	Industrial	12
	Warehousing/trading and financial	35
Annual rent for plots	**Economic activity**	**$/m²**
	Industrial	2.50
	Warehousing/trading and financial	3.00

Table No. (7.15)
Karachi Free Zone
Cost of Utilities

Utility	Cost
Electricity	Variable tariff depending on load
Water	$0.83 per 1000 gallons
Energy (gas)	$3 per 1000 ft³ $3 per month for meter rental

Table No. (7.16)
Karachi Free Zone
Operating fees

Fee	Description
Scrutiny	$250 non-refundable, submitted with application form
Registration	$1000 submitted with down payment for land
Export authorization	1% of FOB export value of goods
Blank import permit forms	$1 per set
Gate pass book	$5 per book

Table No. (7.17)
Karachi Free Zone
Operating Factories by Industrial Activity

Industrial Activity	Factories
Electrical & Electronics	34
Engineering	13
Precision Mechanics	4
Metals	3
Light Chemicals	20
Petroleum/Oil Processing	3
Jewellery & Gemstones	3
Garments	32
Specialized Fabrics/Yarn	7
Leather Products	8
Furniture	3
Paper/Printing/Packaging	7
Food processing	2
Miscellaneous	21
Total	**150**

Table No. (7.18)
Karachi Free Zone
Export Overview*

Item	Description
Export Categories	Ready-made garments Leather Products Toys Electronic items Watches Fiberglass water tanks Food products Lubricants Perfumery concentrates Plastic products Packing materials
Country of destination	USA Canada UK France Germany Holland Belgium Switzerland Spain South Africa Japan UAE Saudi Arabia Zanzibar Australia

* Total exports by industrial and trading companies amounted to $269 millions in 1995.

It is interesting to notice the heavy concentration of the Karachi FZ on electronics and garments. Jointly, both activities account for 44% of all factories in the zone.

2. Sri Lankan Free Zones : The government organization in charge of FZs in Sri Lanka in the Board of Investment (BOI). It is an autonomous body entrusted with the following mission : i) attracting foreign investment, ii) maximizing exports, iii) encouraging the transfer of technology, iv) generating training/employment

opportunities for the local labour force, and v) implementing the government export-led economic development programs. BOI has established 3 FZs : Katunayake, Biyagama, and Koggala. Katunayake itself, is the single largest employer zone in the world with over 50,000 workers. These zones are well-developed industrial estates backed by the country's diversified resource endowment Table No. (7.19), and provided with infrastructural and other advantages Table No. (7.20). The incentives package is summarized in Table No. (7.21).

Table No. (7.19)
Sri Lanka's Resource Endowment

Resource	Description
Agriculture	Rice and other foodcrops, spices (pepper, cinnamon, cardamom, nutmeg, cloves, coconut palm, ceylon tea, timber, rubber
Minerals	Graphite, phosphate, ilmenite, limestone, dolomite, silimanite, glass sands, quartz, feldspar, kaolin, precious and semiprecious stones
Hydroelectric power	Accounts for 81% of total generation capacity
Labor	
Population	Over 17 millions
Labor force	Over 6 millions
Educational level of labor force	• 42% wiht "O" level school standard • 13% with "A" level school standard • 45% with lower level school standard
Annual labor force increase	250,000 workers
Education	
Educational system	• Free from Kindergarten through University • Literacy rate is 88% (one of the highest in Asia)
University Level	• 9 Universities graduate 34,000 professionals each year • Over 50% in technical and business disciplines
Apprentice and industrial training	• An extensive network of state-sponsored training centers

Table No. (7.20)
Sri Lankan Free Zones
Summary of Profile

Resource	Description
Size	A total 3,000 acres* are available for indsutrial use in lots varying from 30 to 350 acres
Infrastructure	
Electricity	Electricity for industrial use available at 11 kV, 33 kV, 132 kV and 400 V (3 phase)
Energy	Refined petroleum products and gas-based products are available
Water	Available for general use
Communications	International telephone and fax services is available
Port	The Colombo port, which handles 150 million tons of cargo per year
Airport	International airport located 20 Kms North of Colombo
Manpower	Locally-available skilled manpower at very competitive cost. Current employment in the most established Zone (Katunayake) is 50,000 workers
Location	A strategic trading location in the Indian ocean between the fast growing pacific Rim/South East Asian markets and the European and Middle Eastern markets. It enjoys ready access to India.

* 1 acre = 4,046 m^2

Table No. (7.21)
Sri Lankan Free Zones
Summary of Incentives

Incentives	Description
Customs duties	• Lifetime exemption from customs levies on importation of plant, machinery and equipment required for the project, and raw materials and other approved production related goods • Lifetime duty free export of finished products
Taxes	• Corporate Income Tax at concessionary rate of 15% per annum for a 20-year period from first year of profit. • Lifetime exemption from turnover tax and excise duty in respect of plant, machinery, equipment, raw materials and ancillary materials used in the manufacture of products for export • Lifetime exemption from income tax on capital gains arising from the transfer of shares of an enterprise • There are double taxation agreements with 23 countries

Incentives	Description
Remittances	• There is free repatriation of capital, dividends, profits, and royalties • Freedom to open foreign currency banking accounts • Lifetime exemption from exchange controls
Import-Export movement	Free movement of imports and exports into and out of the zones.
Labor issues	
Salaries	Factory salaries average $65-110/month*
Apprenticeship	• Develops practical, industry-related skills • Trains workers for specific projects while the factory is under construction • Ensures rapid skill build-up and productivity increase • Ensures rapid production start-up upon construction
Benefits	• Provident fund contribution (12% of employee annual earnings • Trust fund contribution (3% of employee annual earnings • Senior management fringe benefits (company car, health insurance, bonus, and others) • Overtime pay on working days (1.5 times hourly rate) • Overtime pay on holiday (2 tiems hourly rate)
Expatriates	Exemption from income tax during the first 3 years of project operation. For the next 3 years income taxed at 15%. Thereafter normal taxation is applied.
One window service	Minimal bureaucracy. Flexibility. Quick decision making. The Board of Investment of Sri Lanka (BOI) acts as a one-stop-service for investors and is committed to facilitating clients. BOI will assign one of its executives (or more if required) to a company establishing a new operation in the country whose sole responsibility is to ensure smooth positive interactions with state and other organizations and to be of assistance in any other way possible to guarantee a smooth startup.
Financial services	• Security of investment is guaranteed by the constitution and through investment protection agreements • 100% foreign ownership of companies is permitted. • Company shares can be freely transferred.

* Average of unskilled and skilled labor (see Table No. (7-22)).

The major industrial activities located in the Sri Lankan FZs are electronic products and garments. And again, this pattern of activity is in line with the international experiences of developing countries. Exports of these products from the Sri Lankan FZs are very dynamic. For instance, in the case of garments, as the domestic textile industry is unable to meet the quality and quantity requirements of garment exports, the country has had to import textiles (i.e., fabrics) since the early 1990s. These imports have been growing at an annual rate of 17%. But there is potential for other investment opportunities on a selective basis. Table No. (7.22) gives selected investment opportunities that are currently being encouraged at the Sri Lankan FZs.

Manpower, land, utilities, freight and communications costs are given in tables (7.23), (7.24), (7.25) and (7.26).

Table No. (7.22)
Sri Lankan Free Zones
Selective Approach to Industrial Investment

Sector of Investment	Selectivity Criteria
Electronics and Information technology	• Assembly/production of electronic/electrical products • Special incentives provided to assist in training, product development, and quality control
Agriculture and food processing	• Cultivation/industrial processing of horticultural crops (cashew, fresh fruits, vegetables, processed fruits, processed vegetables, tropical flowers) • Aqua-culture (prawn production/processing, aquarium fish production)
Rubber	• Healthcare products • Household and industrial gloves • Pneumatic and solid tyres • Footwear • Latex crepe rubber (raw material for medical products, toys, and food containers)
Light engineering and metal working	Mould-making, precision tools, and electrical enclosures

Sector of Investment	Selectivity Criteria
Soft Toys	Stuffed toys
Textiles	• Woven fabrics • Knitted fabrics • Yarns • Dyeing and finishing • Interlining
Garment accessories	Buttons, zippers, thread, label, and others
Mineral Extraction and Processing	
Apatite	Prospects exists for the manufacture of phosphate fertilizer
Graphite	The graphite has an extreme high purity of 99%. It provides interesting opportunities for refractories, crucibles and colloidal graphite
Ilmentite	Has a high concentration of heavy minerals (above 60%). 150,000 tonnes of refined ilmenite could be produced per annum. Opportunities exist for to converting ilmenite into synthetic rutile
Quartz	High purity quartz (99.98 % of SiO_2) exists in large quantities
Salt	The potential exists to produce much larger quantities of salt by evaporation for export, and to form the basis for the production of various chemical products
Dimension Stone	Granite and other attractive stones are ideal for cutting and polishing for use as interior wall and floor finishes and also for exterior cladding of office, apartment and other luxurious buildings
Ceramics	The large proven reserves (1,400,000 tons, annual consumption is 10,000 tons) of high quality ball and china clay offer opportunities for the production of a wide range of other ceramic products
Infrastructure	• BOO* and BOT* approaches are encouraged for foreign investment in industrial infrastructure (raods, ports, electricity generation, water supply, and others) • Hotels, golf course, resorts, and recreation facilities for the higher end of the tourist market

* BOO = Build-operate-own ** BOT = Build-operate-transfer

Table No. (7.23)
Sri Lankan Free Zones
Indicative Manpower Costs

Category	$/month
Trainee	40*
Unskilled	45-55
Skilled	
Factory worker	75-125
Plant operator	75-150
Highly skilled	75-175
Professional	
Accountant/Engineer	325-625
Managerial	
Junior Manager	225-325
Middle Manager	325-425
Senior Manager	375-525
Directors	Negotiable

* Minimum salary for up to 6 months.

Table No. (7.24)
Sri Lankan Free Zones
Land Lease and Construction Costs

Item	Cost
Lease	
Terms	Plots leased for 99 years
Annual rent*	$3-6/m^2 with full services
Ground fee	$0.62/m^2 annually
Construction**	**$/m^2**
Pre-fabricated building	150-180
Pre-fabricated building with Air-conditioning	200-260
Bricks and Mortar type building	140-175

* Sites closer to the capital (Colombo) are more expensive

** Including basic services. Cost per year.

Table No. (7.25)
Sri Lankan Free Zones
Cost of Utilities*

Utility	Cost
Electricity	
• Power consumption up to 50 kVA	
Unit charge ($/k Wh)	0.06
Fixed charge (up to 10 kVA)	0.69
Fixed charge (above 10 kVA)	3.27
• Power consumption above 50 kVA**	
Unit charge ($/kVA)	3.54
Fixed charge	6.52
• High-tension supply (At 11,33 and 132 kV)	
Unit charge ($/kWh)	0.06
Fixed charge	6.52
Water* **	$0.41/m³
Energy	**$/Liter**
• **Petroleum Products**	
Premium gasoline	0.69
Super gasoline	0.74
Auto diesel	0.24
Heavy diesel	0.23
Super diesel	0.30
Industrial kerosene	0.25
Furnace oil* **	0.13-0.15
• **Gas Products**	
Liquid Nitrogen*****	$1.15/liter
Oxygen	$1.38/m³
Acetylene	$5.94/Kg
Liquefied Petroleum gas	
Domestic 13 kg cylinder	$5.42
Commercial 40 kg cylinder	$18.63

* Indicative prices. Large users will normally be able to negotiate more competitive prices.

** Supply at 230/400 V

*** Potable water for general use. There is an additional once off connection fee of $480 for a 2-inch pipe, and $204 for a 1-inch pipe. Sewage connection cost is $156.

**** 500-1500 seconds

***** High purity

Table No. (7.26)
Sri Lankan Free Zones
Indicative Cost of Freight and Communications

Item	Cost
Sea freight	**$/container***
UK	1100-1200
USA	1600-2300
Singapore	60-850
Hong Kong	650-850
Japan	750-1750
Air freight	**$/Kg****
London	3.09
New York	4.92
Los Angeles	5.62
Dubai/Bahrain	2.15
Singapore	1.37
Hong Kong	2.20
Sydney	3.05
Tokyo	2.85
Telephone-fax	**$**
Installation charge	270
Annual rental	20
Deposit-domestic	104
Deposit-business	520
Local calls (per 6 second unit)	
First 200 units	0.03
Thereafter	0.04
International calls (per 6 second unit)	
USA	0.25
UK	0.25
Germany	0.25
Japan	0.20
Hong Kong	0.20

* Rates for a 20-feet container from Colombo
** For a package of more than 45 Kgs

BOI is moving towards making the entire island of Sri Lanka (65,000 km^2) into a full export processing zone by itself. The strategy behind this approach is to maximize the use of human capital and gain operational agility. In fact, by taking industrial projects to the location of human capital instead of bringing human capital to the location of projects precious resource redeployment and commuting time is saved, resulting in lower operational costs for foreign investors. For

insurance, with this strategy the cost of providing housing and extensive catering facilities for workers and their families is avoided [10].

3. Bangladesh Free Zones : The government organization in charge of free trade zones in Bangladesh is the Bangladesh Export Processing Zones Authority. The Authority is entrusted with the following mission : i) attracting foreign investment, ii) maximizing exports, iii) generating employment opportunities for local manpower, and iv) encouraging the transfer of technology. As the country is very short in capital and technology and very long in labour, exporting through FZs using foreign capital is an approach that can meet all the above objectives. Table no. (7.27) gives the profile of the Bangladeshi FZs.

Table No. (7.27)
Bangladeshi Free Zones
Summary of Profile

Resource	Description
Size	n.a.*
Infrastructure Electricity energy	• Electricity is gas-generated • Gas is available at subsidized rates
Manpower	• Total labor force of 46 million people will exceed 50 million by year 2000 • Locally-available managers engineers, technicians and skilled labour for wages that are among the lowest in Asia • Public and private human resource development over entire educational cycle (general education, technical and professional)
Location	Strategic location with the potential to become a major gateway to the Arab Gulf region, the Middle East, the Far East, the African Continent, Europe, and CIS

* n.a. = Not available

The experience with FZs in Bangladesh started in the early 1980s. The first zone initiated operations in 1983 at the port city of Chittagong, and the second started in 1993 near the capital city of Dhaka. The entry of Bangladesh into the FZ business has been a byproduct of following macroeconomic structural adjustment programs. Indeed, under such programs market-orientation, industrialization, deregulation, private enterprise, foreign investment, and currency convertibility are the key pillars. Since the business environment for foreign investment has been gradually enhanced, FZs with foreign investors can now operate, and contribute to meeting economic development objectives.

Due to the relative scarcity of capital and technology, the country's natural resources remain grossly underexploited. Hence, export-oriented, labour-intensive and high-tech industries using local resources are encouraged for development at the FZs. As a result of low wage costs and input costs, the cost of production in the FZs can be kept low, creating competitive advantage on a global basis for capturing additional market share. A distinctive trait of FZs in Bangladesh is the emphasis in export orientation of the investment. Indeed, establishments are required to export the entire production outside the country. The only exception is related to garments. As the country has a large number of domestic factories for garment production, the factories in the FZs, which produce materials for export-oriented garment factories, are allowed to sell directly to the domestic units. Table No. (7.28) summarizes the treatment accorded to foreign investment in the FZs.

Table NO. (7.28)
Bangladeshi Free Zones
Eligibility and protection of Investment

Item	Description
Eligibility	• 100% foreign ownership is allowed • Freedom to select kind of industrial activity* • Treatment at par with local investor
Protection	• Protection against nationalization or expropriation** • Full indemnization in the event of financial loss due to civil unrest** • Arbitration facility by the international centre for settlement of investment Disputes

* Except in strategic sectors which are reserved for the State such as armaments, nuclear energy and security.

** Through arrangements with the World Bank's Multilateral Investment Guarantee Agency (MIGA)

7.5.4 The Nakhodka Free Zone (Russia)

Nakhodka is the first and only FZ operating in Russia. Although establishing other FZs is under consideration, Nakhodka is a pioneer chartering the way for future zones. The zone was established in 1990 but has had a gradual start up in operations since 1995. It is managed by the government through the Administrative Committee of the Nakhodka Free Economic Zone. The main objectives of the zone are : i) to become a world-class logistics and distribution center facilitating access for trading and industrial companies to the lucrative Russian market, ii) to serve as an export processing platform by attracting the flow of raw materials from one side of the country (Siberia and the Russian Far East) and modern technologies from the other side of the border, particularly, Japan, Korea, and the U.S.A. A profile of Nakhodka is given in Table No. (7.29).

Table No. (7.29)
Nakhodka Free Zone
Summary of Profile

Item	Description
Size	4600 km²
Number of Companies	461 including telecommunications, electronics transportation*, touristic developments
Investment by Companies	$81 millions
Infrastructure	• Industrial utilities, financial and business services are available • Refurbishment and expansion of 4 specialized ports; construction of new ports • Railway improvement (the corresponding area of the Transsiberian railway) • Conversion of the military airport into an international cargo transportation airport. • Development of the Russian-Korean industrial park (a duty-free export processing complex) • Development of the Russian-American industrial park (a duty-free export processing complex)
Manpower	n.a.
Location	Located on the Sea of Japan, in Russia's Far East. It is strategically situated near the fast growing economies of Korea, China, and Japan and acts as a gateway between Russia and the countries of the pacific Rim

* Sea-Land Corp. (USA) and P & O Co. (UK).

Nakhodka is actually planned to be a massive conglomerate of FZs. Indeed, instead of the whole territory of the zone (4600 km²) being a single general-purpose FZ, an array of specialized free sub-zones is currently under consideration. The first 5 sub-zones, for trading and export processing activities, are at the beginning stage. It is expected that as transportation services from Siberia and the Russian Far East to Nakhodka develop, more sub-zones can be established. Although information about the zone is still scarce, the incentives include total exemption from customs duties, free movement of imports and exports into and from the zone, and support in administrative procedures for

potential investors. At the present stage of development, government activity in Nakhodka is concentrated on building heavy service infrastructure to support future development of industrial and service activities. And within this environment, rail transportation (i.e., the Trans-Siberian Railway) remains a top priority.

The Russian move into FZs is a byproduct of the collapse of the former Soviet Union and the change to a more market-oriented economic system in Russia. Also, a move from government ownership to privatization has open the way for private sector initiatives to materialize. As a result, one promising way to capitalize on the changed political and economic environment is to go into FZs.

7.5.5 Free Zones in the Mediterranean

1. The Turkish Free Zones : The government organization in charge of FZs in Turkey is the Turkish Free Zones Directorate. Turkey is a big player regarding FZs. Indeed, its total horizon includes 12 such zones, of which 5 are in operation and 7 are at different stages of planning and construction. Turkey entered into the FZ business in 1987, as a result of an emphasis on export-oriented activities and the adoption of a more market-oriented economic management approach.

Turkey's strategy seems to revolve around the creation of a conglomerate of FZs including export processing, trading and distribution, and specialized zones. In fact, of the 7 new FZs planned, one is dedicated only for leather products (the Istanbul Leather Free Zone) and another one only to banking services (the Istanbul Off-shore Banking Center). The other FZs will be : Adana-Yumurtalik, Istanbul-Trakya, Zonguldak-Filyos, Mardin, East Anatolya.

Table No. (7.30) summarizes the profile of the Turkish FZs and Table No. (7.31) gives a brief overview of the ones already in operation. A concise account of main incentives offered to foreign investors is given in Table (7.32). And land costs are stated in Table (7.33).

Table No. (7.30)
The Turkish Free Zones
Summary of Profile

Zone and Type	Description
Size	n.a.
Number of Companies	Domestic (534), foreign (109)
Investment by Companies	n.a.
Infrastructure	Comparable with international standards
Manpower	Locally available skilled manpower at relaively low cost
Location	Turkey is situated at the Juncture of the European and Asian continents. They country is surrounded by seas on 3 sides with a coastline of more than 7,000 km^2

Table No. (7.31)
The Turkish Free Zones
Brief Overview of Zones

Zone and type	Description
Trade and Distribution	
Mersin	It is located adjacent to the Mersin Port, one of the largest in the country. The Zone has highway, railway and airline connections to major domestic cities. Also, there are seaway connections to the world.
Antalya	It is located adjacent to the Antalya Port. Antalya is one of the most touristic and commercial centers of Turkey. The Zone houses a number of shopping centers for tourist-oriented shopping.
Ataturk	It is located next to the Istanbul Ataturk International Airport to take advantage of airline cargo services.
Trabzon	It is located in the city of Trabzon, at the south-eastern corner of the Black Sea. It enjoys highway, airway, and sea connections, and acts as trading center for CIS and Black Sea Economic Corporation (BSEC) countries. The Zone also offers convenient storage facilities.

Zone and type	Description
Export Processing Aegean	It is the first export processing Zone of Turkey, and is operated by a private sector company. The Zone was designed to serve as a 2 km² industrial parks, with building spaces and plant sites available. It enjoys highway and sea connection (it is only 4 km away from Izmir, the 3rd largest port in the country).

Table No. (7.32)
Turkish Free Zones
Summary of Incentives

Incentives	Description
Customs duties	No customs duties on imports
Taxes	No taxes. Income generated through activities in the free zones is exempted from corporate and value-added taxes.
Remittances	Repatriation of capital, profits and dividends to any country (including Turkey) is allowed free of any restriction, taxes, or fees*
Import-Export movement	• Free movement of imports and exports into and out of the zones • Contrary to most free zones in the world, sales into the domestic market are allowed
Labor issues Regulations	Strikes and lock-outs are prohibited for a period of 10 years frm date of operation of each zone
Salaries	**Category** — **$/month** • Unskilled workers — 75-100 • Semi-skilled workers — 150-250 • Skilled-worker — 350-500
One window service	Investors deal with only one agency in charge of all administrative procedures**
Financial services	n.a.
Subcontracting services	There are no procedural restrictions regarding prices, product standards, or quality of goods in the Turkish free zones.

* There is also no limitation on the proportion of foreign capital participation within the free zones.

** The maximum period for an operating license is 99 years.

Table No. (7.33)
Turkish Free Zones
Land Costs

Type and Zone	Cost	
Covered Areas*	*Up to 1000 m² ($/m²)*	*1000-5000 m² ($/m²)*
Mersin	2 - 4	2 - 4
Antalya	2 - 3	1.50
Ataturk	11	n.a.
Trabzon	13	13
Aegean	6	3.50
Open areas**	*$/m²*	
Mersin	2	
Antalya	2	
Ataturk	n.a.	
Trabzon	2.50	
Aegean	3.60-6.30	

* Storage and office space. Monthly rent.

** For production and commercial activities. Annual rent.

The FZ framework of Turkey has been designed with the purpose of exploiting the concept of strategic location by positioning the country as the trade link between Europe and Asia. Also, Turkey is capitalizing on two ongoing processes in the former Soviet Union : political disintegration and economic integration. Clearly, as the former Soviet republics acquired political independence, the need to forge new economic alliances to foster economic development became apparent. Such is the case of the Black Sea Economic Cooperation (BSEC) countries seeking regional integration to develop commercial, financial, and technical cooperation. The aim is to maximize joint benefits steaming from close geographical location and ecnomic complementarities. Within this changing geo-political environment, Turkey has offered Black Sea states to open the gate to the Mediterranean through her FZ framework. In addition, Turkey is also pioneering the concept of "multilateral FZs" among Black Sea states.

2. The Barcelona Free Zone (Spain) : This FZ is a public company belonging to the municipality of Barcelona. It started in 1916 but it was not until the 1950s that it concentrated on export processing activities. Currently, the zone has 220 companies with 77% dedicated to manufacturing, and the balance dedicated to trade and services. It employs 40000 workers. The main objectives of the zone are to attract foreign investment and generate employment for the local workforce. Barcelona FZ enjoys the availability of a major Spanish port, and an international airport [67].

The Spanish experience with the FZ of Barcelona represents a case of "reverse strategy" as a result of the country's dependence on European developments Indeed, when Spain joined the European Community (EC) in 1986, it was given 5 years time (until 1992) to reverse the orientation of the zone from export processing to trading and distribution. This was due to new EC regulations requiring FZs in Europe to be dedicated to trading and distribution of merchandise. Also, as the zones faced no more borders in Europe, custom duties were abolished and taxation benefits rescinded. As any other FZ is Europe, the Barcelona FZ can offer duty free treatment only for merchandise coming from countries that are not members of EC.

Reverting to a trade and distribution FZ meant that Barcelona lost its export processing business. Consequently, Barcelona has emphasized qualitative-type of advantages to stay competitive. These include, location, quality of life, business infrastructure for foreigners, logistics, operational efficiency, specialized services, offshore safe heaven, business networking, and the like.

For instance, its efficient labor relations (no strikes by port workers since 1981) has attracted container traffic away from the port of Marseilles (France), a labour strike prone location. Today, Barcelona is the third largest container port (in volume terms) in the Mediterranean. And it aims at becoming the natural port

for ships coming from the Far East, with merchandise to supply Southern Europe (i.e. France, Italy, Portugal). Another development is acting as center for multi-modal connections in transportation. Indeed, as some 70% of the air cargo coming into Europe from the Far East arrives at its final destination by truck, Barcelona FZ strives to provide truck connections to the rest of Europe. To illustrate the magnitude of cargo traffic, Cathy Pacific alone has 12 cargo flights a week going into Europe. And each one carries 100 tons of cargo (i.e. Jumbo 747). As it is unpractical to distribute this volume using smaller regular airplanes, the cargo is sent by truck from any hub airport of Europe. Trucks can reach the rest of Europe in 45 hours (24 hours in many cases).

Another example is specialized services to customers by way of adding more value to their operations in the FZ. Such is the case of coffee services. Barcelona has become the most important coffee terminal in the Mediterranean due to added services like bulk silo coffee. The silo warehouses, clean, check for quality standards, and then blend different coffee varieties according to customer specification. The same kind of specialty service is given to cars received from non-EC countries in zone's car terminal. The cars are stored, inspected prior to delivery, cleaned, checked, and prepared for final delivery to the customer. Some accessories are even installed.

Still another example is temporal offshore fiscal protection to customers by way of serving to avoid duties and production taxes. Indeed, incoming goods from European countries do not have to pay import duties, and they do not pay the value added tax (VAT) as long as they remain in the zone. Storing goods in the zone to delay payment of VAT serves as a corporate cash management tool in order to improve company cash flow during the period of storage.

Regarding business networking, Barcelona FZ is in a strong position to offer extensive logistical capabilities to other FZs in order to assist them reaching

into the European market. In a word, it is prepared to act as a friendly regional hub center for other FZs ("the Free Zone of Free Zones", or "the Free Zone of last resort"). For instance, the zone has established such kind of links with Pudong Development Area (Shanghai in Mainland China). As 80% of Chinese goods reaching Europe come through third countries, European importers were unable to find out who produced the goods in order to request customer support. Barcelona FZ contributed in solving this problem by establishing direct trade links with Pudong. These links make possible business networking between importers in the zone and manufacturing companies in Mainland China. As part of networking, the zone itself provides technology transfer to Pudong in the areas of customs control, goods transportation engineering, and FZ logistics in general.

7.5.6 ARAB EXPERIMENTS

A conference was held in Dubai about 5 years ago to discuss the experience of Arab countries in the area of Free Trade Zone and its problems. The conference gave many conclusions which are discussed below :

(1) Administrative System

The administration of the majority in the free zones of Arab countries, charged by general institutions, has its self budget, but it is connected to the budget of state i.e. to rely finance of free zones on the treasury. This does not provide consistency for the projects to invest, inspire of that the projects has been gone very slow as the government system generally is famous for taking decision. The proposal in this regard is to reconsider in large form of the part which looking after the free zones for example take the form of companies exercise, its activities on the economic basis and make propagation efforts to attract foreign and national capitals for participating in industrial investment in the free zones [38].

(2) Export industries

Industrial projects in the free zones are characterized with the small scale projects, as those projects can not make a large volume of productions. Thus these are not capable to the world competitions, and the results would be disappointed in the export of these projects. It is also obvious that the reliance of owner of the warehouse projects on the local markets for supplying their products due to the incapability of exports to the foreign market. The most of these items are the consuming goods.

(3) Pressure on the Payments of Balance

It is natural that at the time of supplying export goods project of free zones to the local market, the transaction of these projects should be combined in increasing burden on the payments of balance. The study of auding system in Egypt about the free zones in Port Pore-Said points out the total payment of national economy continue with foreign exchange to the projects of free zones, has reached to the 223,5 million pound the year 1981 while the current outcome has been confined to 8,6 million pound only in the same year i.e. with the difference of 214,9 million pound. That leads to expansion of current deficit in the payments of balance.

(4) Nature of the local investments

The projects in the free zone are generally the projects for supplying and servicing and the industrial projects of it confine in general to the production of consumable goods and food productions, these do not find way to the foreign markets due to its incapability to compete with foreign products.

Therefore, more efforts are necessary to attract the investments in the medium and heavy industries through making distribution programme for this kind of projects and giving all facilities to those who are interested in investing in these

fields, and work for guiding the investment in the free zone so that it could run in the proposed direction.

Thus, we can say that the experience of Arab countries with regard to free trade zone is not very encouraging. However we can expect that owing to its strategic situation and other favourable conditions, the port of Aden in Yemen will prove to be a successful free trade zone and the Arab countries in general will benefit from the experience of Aden.

CHAPTER - VIII

SUMMARY, CONCLUSIONS AND SUGGESTIOS

Present chapter imbibes summary, conclusion and the suggestions.

8.1 SUMMARY

The summary of the thesis has been presented in the following lines.

Chapter I is introductory in nature and deals with the importance, objectives, scope and limitation of the study. Besides these, it spells out the methodology that was adopted for the study. This chapter prepares a base on which the super structure of the analysis is built in the successive chapters.

Chapter II gives a detailed review of literature concerned with the research topic.

Chapter III gives the outline and review of the economy of the Yemen Arab Republic (YAR) before unification. The people Democratic Republic of Yemen (PDRY) before unification and economy of Republic of Yemen after unification on May 22. 1990.

The Republic of Yemen is located in the South and South West of the Arabian Peninsula having boundaries with the Kingdom of Saudi Arabia from the North and North West borders Sultanate of Oman from the East. The Arabian Sea from the South and the Red Sea from the West. The area of the country is approximately 555,000 sq. km. with a total population of 14 million inhabitants.

The Yemen economy continued to grow slowly in 1997 as a new investment in Aden stimulated construction and the country benefited from a modest increase in oil production. In 1998 investment in the Aden Free Zone, combined with growth in manufacturing and services, is expected to spur economic growth.

The Republic of Yemen emerged as a growing and liberal economy after the unification of the North (YAR) and the South (PDRY) on May 22, 1990. It has been traditionally an agricultural economy, producing primary goods and the original tribe population passing a life of nomading and herding. The economy is chiefly based on oil and agriculture.

Chapter IV gives a historical review of the port of Aden. It has studied the status of the port of Aden from 16th century, the goals and objectives of Aden Free Zone Development are :

(i) Create an investment environment, (ii) Achieve sustainable development, (iii) Promote indigenous innovations, (iv) Secure self-reliance and (v) Protect the natural, building and human environment.

The present status of port of Aden, ship bunkering at the port of Aden, Aden was the second most important bunkering in the world. In the late 1950s and early 1960s, about 7000 ships a year arrived at Aden.

The finding of this Chapter are as follows :

(i) During the 30's, 40's and 50's, Aden's entrepot trade increased in value terms tenfold. The millions of yards of cotton, thousands of tons of coffee and gums, and millions of skins Traded.

(ii) Aden became a hive of activity with shops for visiting crews and passengers open 24 hours a day, 40 to 50 ships moved daily and large volumes of fuel oil being produced by the refinery, cargo was discharged and loaded, providing Aden with daily shipping services to and from Europe and the Far East and enabling the merchants in Aden to supply importers over a wide area

of the region with competitively priced goods.

(iii) Historically, Aden has benefited from its advantageous location, eg. very close to the main international shipping routes passing down the Red Sea and across the Indian Ocean, and the savings in transportation cost by sea compared with other Free Zones in the area, availability of a skilled and trainable work force, with current salary levels of expectation low by international standards.

(iv) The Republic of Yemen is now a source of natural gas and petroleum, as well as affordable labour. The Free Trade Zone at Aden can take the lead in demonstrating to the rest of the Republic of Yemen the value of producing for the domestic and international markets using domestic resources.

Chapter IV gives establishment, conception of Free Trade Zones, definition and types of Free Trade Zones, goals and objectives of Free Zone, the affects of Free Zone on the economy of Gulf countries and Yemen, policy assessment, model Free Zone for Aden, and Free Zone factors for success and failure.

A Free Zones and Free Ports are enclosed free trade areas usually located in maritime cities within the territory of a country with a protective tariff. A Free Trade Zone is a defined area that can be any where within a country where the unrestricted flow of trade is permitted. Items that are imported and then exported are free from customs duties.

The finding of this chapter are as follows :

(i) There are two types of Free Zones : General Purpose and specialized purpose. While General Purpose Free Zones are open to any manufacturing/assembly, trading/distribution, or service activity, Specialized Purpose Free Zones are designed specifically with the objective of promoting only a certain type of industrial activity or service.

(ii) Free zones can have a number of economic benefits for the host country such

as : increasing foreign investment inflow, increasing exchange earnings, transfer of technology, development of export markets, utilization of local raw material/intermediate products, increasing the value addition to exports by undertaking further processing operation of the goods, providing a range of good investment projects for countries with a shortage of feasible domestic investment opportunities.

(iii) Every successful Free Zone analyzed revalued the importance of having adequate infrastructure as a key in attracting investment, plan for the future is necessary for the growth of Free Zone, the most successful Free Zones have used selective specialization in choosing base industries or trade commodities, understanding of international markets and donor organizations, the willingness of a zone to take risks and expand into new areas is an important factor in the success, favorable social climate, freedom to do business, organizational efficiency, stable political environment, competitive cost structure and port charges, abundance of highly-skilled and experienced local labour.

Chapter VI gives a reference to Aden of development related to store management, the storage functions, storage location and current problems of storage and management in Aden Free Trade Zone.

The finding of this chapter are as follows :

(i) The departmental store decentralized personal responsibility and lessened the burden resting upon general management and departmental heads.

(ii) It coordinated merchandising activities throughout the store and made the first real departmental store unit upto this time, departmental stores had been composed largely of series of specialty shops under individual control.

(iii) It introduced a period during which store were organized according to functions. This brought specialization and required adjustments in later

decades.

(iv) The history of retailing in the port of Aden has proved the importance of good organization and management.

(v) Aden is a natural port and has a strong historical background, the economy, identification, receipt, inspection, stores accounting, stock control is more ensured in the stores function of this port. Due to a long experience of identification of goods, and several storage function, these services at Aden is very satisfactory.

(vi) In most large metropolitan cities, traders and port like Aden Centres are in a state of constant change. Some sites become less desirable and other areas increase in value. There is a big plan of Government of Yemen to establish a very modern store place for Aden port.

(vii) The problems most directly related to store management are : location, organization of store, administration of personnel, provision and supervision of services, control of store expenses and protection of customers, company funds, and employees. In Aden port, the authority is very vigilant and active.

Chapter VII gives a comparative study of Jebel Ali Free Zone and Aden Free Zone, advantages and disadvantages of Free Trade Zone, review of international experience and Arab experiments. The Jebel Ali Free Zone is located in the United Arab Emirate Sheikhdom of Dubai. Dubai and its associated Free Zone of Jebel Ali occupies a strategic location in the Arabian Gulf. The port at Jebel Ali, the largest man-made port in the world was founded in 1979. The Jebel ALi Free Zone has grown and developed through more than ten years of experience to take its place amongst the world's leading Free Zones. The Free Zone offers market access to a potential market place of more than 1.5 billion people. It is now the base for over 900 companies from 72 countries engaged in 60 activities, ranging from

trading and manufacturing to service industry.

Aden is the gateway to the Republic of Yemen from the Arabian Sea. Aden is considered as one of the oldest and naturally protected port in the world. In the 1950's and 1960's and early form of Free Zone operated in Aden. Aden's location is ideal for becoming a distribution centre for goods throughout the Middle East and the African subcontinent. Just a few miles off the Europe-Suez Far East trade route. Aden was the second most important bunkering port in the world.

From the comparison of the study of the two Free Zones-Jebel Ali and Aden finding the following points :

(i) Good geographical location of both Jebel Ali and Aden ports are favourable and important. Historically the location of Aden ports is unique, its route of international lines to Cross Red Sea to Indian Ocean, Aden port is better because it saves time and fuel. The cost of loading compared with Jebel Ali port is also less.

(ii) Free Zone in Jebel Ali and Aden port requires labour but labour in Jebel Ali mostly comes from foreign countries. But Aden provides training and experience to national labour with certain standard in wages which is less than international standards.

(iii) Gulf area and hence Dubai may face more conflict and wars as during previous years Iran and Iraq, Kuwait (known as Gulf war), it is likely to affect trade and investment in the area. No such strategic problem in Aden is felt. In fact its more safe.

(iv) The geographical, historical and economic importance of Aden, international economic activity is more significant than Jebel Ali.

(v) Jebel Ali is artificial port and is a new port, but Aden port is one of the oldest natural ports in the world.

(vi) Jebel Ali is a closed port, but the area of Aden is wide open, the traffic of ships is low in Jebel Ali, but the traffic of ships is very high in Aden.

The review of international experience with Free Zones concentrates on major zones located along the Main Line Shipping route by sea between Asia and Europe. These include Free Zones is Syria, Jordan, Pakistan, Srilanka, Bangladesh, Russia, Turkey and Spain. Russia has been included because of the rail linkage to Central Asia Countries (i.e., CIS) and the potential to serve Japanese cargo directed to that area.

The major factors for success of Syrian and Jordan Free Zones have been :

(i) A favourable investment environment, (ii) Strategy geographic location (iii) The level of political maturity and stability of the country, (iv) The availability of infrastructure with the basic facilities needed to support industrial investment.

The major factors for the success of Free Zones in the Indian sub-continent have been : (i) Strategic geographic location and big markets (ii) Locally available skilled manpower at very competitive cost (iii) Advantage of investment in human capital (labour-rich).

8.2 CONCLUSIONS AND SUGGESTIONS

Aden is considered as one of the oldest and natural protected port, and the second most important bunkering port in the world. Since the ancient ages specifically in B.C.era, Aden held a monopoly over goods trade which the ships arriving from both Egypt and India where it witnessed the exchange of their goods. This fact shows the geographical and historical importance of Aden at that time. In the 1950's and 1960's an early form of Free Zone operated in Aden. Aden port competed with New York port on the basis of yearly trade for the best and energetic facilities for ships.

In 1967 so many factors effected the out-going and in-coming services of the port and gradually lost its importance. The factors which affected its importance are :

1. Due to the war between "Arab and Israel" Suez Canal was closed for eight years.
2. Most experienced people left the port to neighbouring countries like Saudi Arabia, UAE and Oman for more better facilities.
3. Political instability in Yemen.
4. Scarcity of investments of all types - both domestic and foreign.
5. Shift from big general cargo to small companies trade operators.
6. Increase in the size and capacity of ships.
7. Establishment and development of new ports in the region.

The location of the port on the main line will attract a big size of ships and its work efficiently and become highly competitive and thus become basic port of the region. Money is very important in this type of trade and timely delivery is also important. Geographical location of Aden port near main line is 20 Km away. Thus it makes the ships going and coming through short cut route trouble for route and coming back quickly and easily.

But the important question is it possible for Aden port to succeed and develop again?

Return of Aden port as a commercial port and plying its vital role in international trade is quite possible, and the answer is Yes. The history of Aden port and good location, pass through Suez Canal and its link between East and West and its location on main line and its centre for all trade markets - all these factors put together allowed Aden port to succeed and progress and become the back-bone of international trade.

It is supposed and the important role to play by authorities and

administrators to make advertisement to prove that for large companies there are good facilities provided at Aden port.

But there are problems of competition from other ports :

(i) Jeddah port : The advantage of this port is quick and easy delivery for all containers and deep landing its location near the Red Sea, but it can allow to re-carry goods and cargo. It imposes restrictions on the loaded goods in container for purpose of loading on the port. Furthermore it is very difficult for the ship to reach Jeddah port due to natural obstacles plus facilities provided are very less compare to Aden port. (ii) Djibouti port : It has a good facilities to take the containers but the problem is how to reach to the landed of this containers because of the landed area in deep and also its very crowded, there is some delay in taking out containers transit to the shores (iii) Dubai port : Jebel Ali is the only competitive one to Aden port, good facilities are provided, high degree of efficiency and is very organized. But the unique feature of this port is that it is built on the sand of UAE shore by high cost, the way to reach to this port it takes 17 Km. and another feature of this port is that it is built by human beings and it is not a natural port. In respect to Aden port the ship takes three days more to divert from International Main Line through Indian Ocean passing near Aden to enter Gulf and after that return to its original route through Srilanka and others South Asia direction with respect of the large container ships whose cost reaches 60,000 US dollar daily to the owner of these ships for them it is better to go straight instead of directing its ships to Gulf ports due to location and deep water of this port and Aden is the only port to deal with this type of international containers ships going in direct route. Singapore and Hong Kong are the best examples of "Trade area" in the world. They attained huge success in the field of this trade due to less cost in transportation and size traffic attracted by them.

So Aden port can easily attract the "Main Lines Ships" to stop passing to Singapore. It is possible for transit containers (cabin) to be loaded by supply branch ship direct to Red Sea and Gulf ports, Pakistan, India, Colombo and East-Africa for example, cargo is taken on "container ship" from Rotterdam on a ship speed (22 Nautical Miles per hours). If a ship cross Aden port on speed (18 Nautical Miles per hour) it will reach to Bombay in 14 days and same one if it takes from Rotterdam to Singapore and recarry to Bombay on "supply ship branch" with speed of (18 nautical miles per hour) on the same assumption, it will take 24 days. This is a good example for a good location of Aden port and recarry to ports on Arab-Sea, Aden Gulf, Red Sea and East-Africa.

Yemen Ports authority with aid of United Nations Development Programme and the International Maritime Organization (IMO) established training centre to train employees of the port and other sectors and till now 1000 employees got training at this centre. Even Dubai (Jebel Ali Free Zone) got benefit of this training centre and the staff gives some training to the employees of Dubai Port and this centre is completely established with computerized facilities. Also Yemen port authority with the aid of United Nation Development Programme and (IMO) established a centre for marketing, and the work is continued to renew the oil pipes and refueling will be done through "Hotpipes" for ships coming to Aden.

On the other hand, Aden international airport has a good facilities for all the type of airlines without any difficulties on the weight and size of aircraft. Main facilities are Hangers which are available for maintenance of aircraft, sufficient area of (1700 sq.meter) for cargo purpose, sufficient area for at least 18 aircraft parking and runway of 3100 meter a enough to land heavy aircrafts. Aden international airport provides an important link between Yemen, the Middle East, and cities in Europe, Africa, and Asia. The airports' location, which is only minutes away from the port, makes the sea-air transfer of cargo extremely

efficient. Thus it plays a significant role in the economic development of the region by supporting the activities of the Aden Free Zone.

So many things established in Aden Port and the main duty of the Authorities to prove it ability and how it deals with main ships and supply branch ships and organising the area of containers and taking the container from and to the ships.

So Aden Port, to attain its efficiency requires the following :

(1) Political stability and government supporting and funding. Stability brings peaceful situation so as to find a country politically stable without any kind of war or rebel. They live in harmony which is the main thing for country to progress and for all national and international (foreign) investors. Stability and guarantee must be provided by the government of Yemen.

To ensure the success of the Free Zone at Aden, the government of Yemen must use its position as a national role model and strive to create an environment that foreign private investors will find hospitable. A review of other successful Free Zones indicates that it is within the ability of Free Zone administrators working in cooperation with the government to make the structural changes necessary to guarantee the success of the Free Zone.

(2) The foremost component of the investment environment is a stable political situation, in addition to political stability, attractive business incentives are another essential factor for the creation of a favourable investment environment. The Yemen Free Zone enabling legislation, the current investment law, another critical component of the attractive investment environment is the availability of a well-trained, economical labour supply. The authority of Free Zone of Aden and the Republic of Yemen will have to recognize the importance of training and education and jointly develop programs to meet the needs of the Free Zone.

3. Long range planning and strategy its aims is to encourage investment and development in the field of industry and manufacturing domestic materials.
4. Heavy campaign of advertisement and marketing and invitation to the investors and organising of conferences and seminars with cooperation of Arabic and international organisation and owners of companies.
5. In respect of marketing the main thing is to develop old relations with different companies, corporation, multi-national and with new one. Participate in fairs, seminars and meeting on international trade.
6. Create banking and finance organisation to attract and encourage establishment of interested industries like overseas financing operation and because of previously financing and banking organisation which can help in developing its work to reach modern and a progressive one.
7. Check and development of Free Zone : laws to overdue double problems and to avoid conflict with laws of another institution belong to state.
8. Attempt-full analysis and evaluation of market and to give suitable opportunities for investors in Free Zone at Aden. According to this evaluation and analysis, we can choose a successful market which is producing large amount of every in Free Zone accordingly we are able to make whole analysis and planning for all the area.
9. Decision should be taken in suitable place and time, planning and guidance in port and Free Zone, determination of the relation of Free Zone and customs area clearly with direct relation.
10. Suitable formulation to deal with Free Zone activities and other typical activities inside the state to coordinate investment activities.
11. Determination of priority to preserve and develop infrastracture (water, roads, mass-communication) etc. and this preservation must be co-ordinated to fit service of other schemes. Roads should be wide and organised to attract

all types of truck and heavy carrier and remove all obstacles which causes the crowd in making the system of transportations comfort and fast and to make easy operation of cargo between port and airport and centres of store and manufacturing.

12. Modernisation of Aden port and airport by using new technology for efficiency performance starting from secretariat to the port and all system must be computerized and co-operative and there should be co-ordination between all offices and employees of Free Zone and Port. Airport should provide good facilities to investors without any administrative complications or barriers and bureaupthology.

13. To provide a successful Free Zone in all standards. We must take care of huge investment to establish the infrastructure or base and after that it becomes heavy duties in the near future and the main thing is to exploit all facilities provided and we should modernize it, develop it in the first stage at no additional cost in this stage.

14. Try to bring professional and experienced companies of international repute in the field of organisation and administration and this will also attract other large companies (IMO).

15. The success of Free Trade Zone is dependent upon managing and understanding of international market and funding organization including all international agreements laws of import and export for all countries.

16. For Yemen it is better to start with manufacturing of low standard of technology, after that it improves the product of its export on the basis of advantages of reinvestment and transfer of technology. Fast development for those who have abilities, vocational training for talents and well educated plus development and funding development research projects.

17. The customs and administration processing helps in exchange of goods quickly and fastly it becomes very important to attract employees and investors of Free Zone. For removal of all obstacles it is compulsory and better to provide ideal way of training to the customs incharge to provide good and possible services.

18. The property of the land must belong to authority of Free Zone and authorize to rent, invest it accordingly. Its policies and planning, partition and planning of land must be accordingly homogeneous of industrial schemes from side and industrial schemes that causes damage to environment from another side. Store schemes and cooler stores from site to certain location at oil dams, gas and industrial materials.

19. Tariff equation of ports and services : The duty of Authority of Free Zone is to keep the amount of money invested or any other capital and must be returned within five years and accordingly charge fees and tariff which covers all expenses.

20. Appointments must be made according to abilities and high experience. Those who are well-qualified and experienced must be immediately appointed and those who are not able to prove their abilities and qualification must be thrown out of competition without any recommendations from any side in the state.

21. Facility of commercial incentives : To prove a commercial incentive to investors is very important to attract them. Singapore, Jebel Ali, took same policies to prove commercial incentive to lure investors to participate in progress operation. It is the duty of the Government to adopt for Yemen the same policy to reach full development.

22. Providing relevant atmosphere for investment : Government must provide guarantee for the investors in case of conflict and disputes. The only superiority for the law and government must recognize it, and to convince the investors that the government itself respects the law and there is no loopholes in the law from any side or any body. So the respect of the laws and guarantee and efficiency of its role is the real guarantee to attract the investors and to attract national and foreign capital and investment.
23. Misadministration of government and unfavourable at the times of contracts and supervising of auction by independent council and respective persons.

It is clear for us that the administration of the majority in the Free Zone of Aden, charged by general institutions, has its self budget, but it is connected to the budget of state i.e. to rely finance of Free Zone on the treasury. This does not provide closistency for the projects to invest, inspite of that the projects has been gone very slow as the government system generally is famous for taking decision.

The proposal in this regard is to reconsider in large form of the part which looks after the Free Zones for example take the form of companies exercise, its activities on the economic basis and make propagation efforts to attract foreign and national capital for participating in industrial investment in the Free Zones.

The projects in the Free Zone are generally the projects for supplying and servicing the industrial projects of its confine in general to the production of consumable goods and food productions, these do not find way to the foreign markets due to its incapability to complete with foreign products. Therefore the work is necessary to attract the investments in the medium and heavy industries through making distribution programme for this kind of projects and giving all facilities to those who are interested in investing in these fields, and work for

guiding the investment in the Free Zone so that it could run in the proposed directions.

Suggested schemes to establish in Aden Free Zone : Many important schemes suggest to establish and develop like to establish the infrastructure, the bases of new port in KALTIKS and provide all facilities and establish cargo-village. Improve situation in the airport, facilities and preservation of electrical station and to establish new roads and dams. Approximately the cost of these schemes is at least two billion USA dollars and there are more substitutes to fund these schemes.

For self funding, there are difficulties in this substitute because the situation and circumstance of Yemen do not allow, the second substitute and the loans system is also very costly. The only good and provided substitute is "Grant of facilities". It means to give the facilities to companies and automatically a company playing role of funding and establishing of schemes and the companies responsible for working and administration system for specific period allow the companies or company to get cost and benefits of schemes and then owner of this scheme is Free Zone. This system is working in most parts of the world.

High rate of illiteracy : The decreasing number of educated and highly professionals and qualified people makes difficult to understand and using modern technology. To take benefits and advantage of required experience which are not available inside from outside countries specially from that country which has a good reputation and highly experience and has long experience in the field of Free Zone. Till the times and chances come to allow education standard of citizens and employees to replace imported experience.

Increase in standard of population progress increase in population equalize standard of economic progress so the responsibility of state to have restrictions on educated people and make programmes and project to explain advantage and

disadvantage of increase in population. To advice people to control its expenditure.

The rights of some people who are staying in the areas geographically determined and the system of Free Zone will start from it practically or typically. Suggestion : Cancel any last contracts and suitable compensation for those people should be given. Totally refusal for formal authorities appointed for these matters to discretion or to behave behind this decision.

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