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Importance of Special Economic Zones: A Jordanian Perspective

Tayel M. Al-Hajji

Abdul-Salam Naimat

Hashem Arabiat

Mohannad Sahawneh

Ibrahim El-Hassan

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List of Abbreviations

$:	United States Dollar.
ANCOM :	Andean Common Market.
B.Sc. :	Bachelor of Science.
BWs :	Bonded Warehouses.
CFTA :	Commodity Free Trade Area.
CMs :	Common Markets.
CUs :	Customs Unions.
EcUs :	Economic Unions.
EEC :	European Economic Community.
EFTA :	European Free Trade Association.
EGPC :	Egypt General Petroleum Corporation.
EIU :	Economic Intelligence Unit.
EPZs :	Export Processing Zones.
ESCWA :	Economic and Social Commission for Western Asia.

EU :	European Union.
FAZs :	Free Activity Zones.
FEZs :	Free Enterprise Zones.
FPs :	Free Ports.
FTZ :	Free Trade Zone.
FTAs :	Free Trade Areas.
FTES :	Full Time Equivalent Staff.
FTTZ :	Free Trade and Transit Zone.
FnTZs :	Foreign Trade Zones.
FZC :	Free Zones Corporation.
GATT :	General Agreement on Tariff and Trade.
GDP :	Gross Domestic Product.
ILO :	International Labour Office.
IT :	Information Technology.
JD :	Jordanian Dinar.

LAFTA : Latin America Free Trade Association.

M.Sc. : Master of Science.

ME : Middle East.

MEED : Middle East Economic Digest.

N.A : Not Available.

NAFTA : North America Free Trade Area.

NDP : Net Domestic Products.

NGOs : Non Governmental Organizations.

NNP : Net National Product.

Ph.D. : Doctor of Philosophy.

R&D : Research and Development.

S&T : Science and Technology.

SEZ : Special Economic Zone.

TZs : Transit Zones.

U.K : United Kingdom.

UN : United Nations.

UNESCO : United Nations Educational Scientific and Cultural Organization.

UNRWA : United Nations Relief and Works Agency.

USA : United States of America.

WTO : World Trade Organization.

1. Introduction

There are basic differences in the abundance of resources in a given economy from one area to another in the same country, as well as in the world from one country to another. According to the theory of comparative advantage, the movement of production factors from places of relative richness - in possessing production factors - to places of relative scarcity is of benefit to both places.

In the aftermath of World War I, due to the rise of national movements in Europe, most trade restrictions were imposed by states in order to protect their infant industries. The futility of such policies has been realized, and inclination towards privatization and trade liberalization has become the current mode.

Trade liberalization assumes removing all forms of trade restrictions, which means in the final analysis the whole world evolving into a free trade area. Such a concept is hypothetical and for several reasons is not feasible. As an economic policy tool,

special economic zones (SEZs) are the best solution available to governments in order that the need to resort to protectionist policies will not have to arise and strong economies may not be able to exploit the weaker ones. SEZs, in liberalizing trade, assume two forms, i.e. the multinational bindings and the internal bindings. The first form (multinational bindings) involves liberalizing trade between two countries or amongst a number of countries. In such zones, each country can bargain to maximize its benefits, and/or minimize its losses. Also, the particularities of each member country can be considered, e.g. the GATT agreement offers certain concessions to the developing member countries.

The second form (internal bindings) involves attracting foreign and local investment to certain activities or districts. The form of the zone itself is determined according to the need of the intended country, i.e. export processing zone, free investment area, ... etc.

Jordan and the countries of the region have been moving in the direction of privatization and

trade liberalization. Jordan undertook a series of substantive policy reform measures. These measures are for reinvigorating and liberalizing the economy and ensuring a hospitable environment for investment. The government has applied for joining GATT/WTO and embarked on reform, that is in harmony with GATT/WTO stipulations, i.e. including reducing tariff rates and introducing sales taxes. It has started negotiations with the EU, Egypt and others to sign partnership agreements and/or to establish free trade areas.

Due to its geographic location and socio-economic status compared with that of the surrounding countries, Jordan has the potential:

i) To become a transit hub for the region and a centre for manufacturing, assembly of manufactured parts and storage. In other words, the reasons for successful SEZs/internal bindings are available.

ii) To integrate its economy with the surrounding countries, since the socio-economic status of the latter assures economic complementarity with

Jordan. In other words, the reasons for successful SEZs/multinational bindings are available.

1.1 Significance of this Study:

The importance of this study comes from the fact that Jordan and most countries of the region are moving towards economic globalization. This is apparent in many ways, one of them is their interest to join Gatt/WTO.

The rules and laws governing special economic zones are oriented to act as an incentive for the economic units to behave rationally towards maximizing benefits from available resources. In some cases, such zones are used to motivate investors - domestic and foreign - and labourers to induce activities in remote areas, rich with natural resources.

SEZs could be used to mobilize resources in a region amongst a number of countries whereby complementarity is achieved. In other words, the unused resources of one country

will be transferred and used by another member country or countries.

This study is of relevance for the following reasons:

- The ME, as the rest of the world, witnesses a dramatic movement towards privatization and liberalization of trade. Such a movement has increased competitiveness among various countries.
- The ME peace process has meant better prospects for political stability in the area. This fact will enhance investment and economic growth.
- The economies of the ME region are supposed to be complementary rather than competitive ones; there are discrepancies, between the countries of the region with regards to "labour, capital, technology and raw materials". Area and population density vary from

one county to another as presented in the following table:

(1-1) Area, Population and PopulationDensity for Jordan and its NeighbouringCountries.

Country	Year	Area (ThousandKm²)	Population (Million)	Population* Density (Capita/Km²)
Jordan	1995	89	4.20	46
Saudi Arabia	1994	2150	17.95	8
Syria	1995	185	14.32	75
Iraq	1990	435	18.30	41
Palestine	1993	6.16	1.73	281
Egypt	1994	1001	57.85	58
Israel	1995	21	5.54	257

* Calculated.

Source:

(1) The Economic Implications of Peace on The Hashemite Kingdom of Jordan (in Arabic), 1994.
(2) EIU: Jordan (Country Profile, 1st. Qrt., 1996), Iraq (Country Profile, 1st. Qrt., 1996), Egypt (Country Profile, 1995-96), Israel and the Occupied Territories (Country Profile, 1995-96), Saudi Arabia (4th. Qrt., Country Profile, 1995), Syria (Country Profile, 1st. Qrt., 1996).
(3) World Development Reports.

1.2 Objectives of the Study

Special economic zones, created as a solution for a given economic situation, can take many forms. Therefore, economic indicators, activities, laws and regulations must be studied and analyzed carefully in order to determine the most appropriate form/forms of SEZs.

This study deals with the definition and importance of SEZs and aims to achieve the following objectives:

a. Revise and analyze the most popular forms of SEZs to determine the most appropriate ones for Jordan and for the region.
b. Analyze and project the socio-economic impact on the countries of the region in general and on Jordan in particular.
c. Explore the views of Jordan regarding establishing a cross border SEZs (multinational binding).

d. Recommend the most appropriate forms of SEZs for the region and for Jordan in particular.

1.3 Methodology

In order to assess the viability of establishing SEZs in Jordan, the economies of both Jordan and its neighbouring countries were studied - particularly that, WTO/GATT allows concessions whenever geographical units move towards economic integration - . Jordan's neighbouring countries that this study is concerned with are: Saudi Arabia, Syria, Iraq, Palestine, Egypt and Israel.

The study adopts the descriptive deductive approach in analysis. Available information was updated. Data was collected mainly from international publications. Regarding Jordan, interviews with government officials were conducted. As well, some embassies of the related countries were contacted but no information was supplied.

2. Special Economic Zones

2.1 Background

2.1.1 A Historical Perspective[1]

The term special economic zones was used in economic literature for the first time in 1979. SEZ as a concept, has existed since the third century BC. The city states, east and south of the Mediterranean Sea, knew the earliest forms of SEZs.

SEZs in the form of a well defined fenced area go back to the city-states of Greece and the Roman Empire. The Greeks used to levy duties on imports, and did it efficiently by allowing importation only through the designated zone. They used a plot of ground, set aside from the rest of the harbour by a stone wall, and officials responsible for customs collection operated it. All imports had to enter these plots before distribution.

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[1]See. - Richard S. Thoman, Free Port and Foreign Trade Zones, Cornell Maritime Press, UK 1959.
- See, Abdulrahman I. Al-Sanie, The Adoption of the Marketing Concept in the Operations of Free Trade Zones: A Comparative Global Study, Ph.D. Thesis, University of Sheffield, UK 1991.

The SEZs established by the Romans were more developed than the Greek ones. The Romans, used to establish duty free ports in their colonies to supply their armies. Ports in the Roman colonies were special in the sense that they were granted import and export tax exempts.

The origin of the antecedent form of modern SEZs, as currently understood, dates from 1189 AC, when the Roman Emperor Frederick I, granted a charter to Hamburg, exempting that port city from the payment of customs duties. Thus, Hamburg became the first known SEZ. This form of SEZs disappeared in the middle ages following the defeat and division of the Roman Empire.

The re-appearance of certain forms of SEZs took place during the stages of mercantilism (17th and 18th centuries). They were to facilitate the movement of the traded goods among countries. These SEZs were distinguished from earlier known forms by offering some free privileges, i.e. port facilities to the merchants. Such privileges were used as incentives to attract merchants to use these zones.

During the late mercantile and early industrial era (19th century), a completely different form of SEZs was created, namely a free trade area. The roots of this form go back to the 15th century when Hamburg, Bremen, and Luebeck, the commercially competitive city-states had all experienced a transition from tight commercial restrictions to free trade (duty free exports and imports) among themselves. This status was reached in 1835.

The colonial states of the 19th century realized the impact of SEZs on economic activities. In most colonies, SEZs were established. The British had established SEZs in many of their Colonies: Singapore (1819), Hong Kong (1842) , Colombo (1842) and Aden (1853). The Spanish established some SEZs namely in the Canaries (1852). All of these zones were designed for exchanging merchandise with outlying areas and for ship chandlery.

During the second half of the 19th century, the industrial revolution concurred with the birth of national movements. Then, many of the industrial states conducted a protectionist policy in their

economic relations, particularly in external trade, in order to protect their infant industries. Such policies reduced the growth of international trade and accordingly encouraged the establishment of SEZs. Thus SEZs competed in offering free privileges and facilities. Also, during this period the present-day legal structures and forms of SEZs were initiated. In 1902, Bremen's free port succeeded in acquiring the status of "out-of-toll territory" and thus gained a measure of freedom from national customs. In addition to the permitted operations of sorting, mixing, manipulating, and packing of imported goods for re-exports, the privilege of manufacturing was permitted in Bremen's free port for the first time.

The period between the two world wars witnessed, in addition to the great depression of 1930s, a sharp increase in tariffs and other forms of trade impediments. Consequently, economic nationalism and protectionism increased drastically. This meant partition of large markets into more smaller markets resulting in a loss in the economies

of scale, i.e. higher production cost and inefficient use of the available resources. This fact was realized after the 2nd world war creating a climate for reconsidering trade liberalization. Negotiations for the General Agreement of Tariff and Trade (GATT) were initiated, with the aim of finding ways to reduce tariffs and remove trade barriers among the contracting countries[1]. The GATT agreement opens the door for the economies to integrate in order to strengthen their ability to compete in the international markets. Such integration comes by using different economic ties and adopting special laws that discriminate the economic activities of the integrated economies from the rest of the world[2].

2.1.2 Definition of SEZs

Special economic zones can be defined as geographical sites or zones within the territory of a country or group of countries where special laws and

[1]See, E. MacGovern, International Trade Regulation, Globefield Press, Globefield UK 1986.

[2]See, Tamam A. El-Ghul and Tayel M. Al-Hajji, Impact of Joining GATT and WTO on Jordan's Economy (unpublished), The Research Unit, HCST, Amman 1994.

regulations control some or all of the economic activities operated in these zones. The special laws and regulations are significant because they allow for concessions not offered outside the SEZ. The SEZs might be either an internal binding (within a given country) or a multinational binding (covering a part or all of the territories of two or more countries). In the case of the internal bindings, usually, the dominant laws and regulations differ from those dominating elsewhere in the country. With regards to multinational bindings, the particularity of the dominant laws between the member countries stems from being different from those which organize and control the economic activities and relations - of each of them - with the rest of the world.

2.1.3 Significance of SEZs

Countries differ in their supplies of economic resources: land and natural resources, labour, capital and technology. In addition to this, a country may have a relative abundance of one resource, in

relation to one of the other resources. Therefore, specialization in producing products - which use the more abundant resource - may reduce the cost of production and create additional opportunity to increase foreign trade and hence trade related benefits. This is true only under circumstances of perfect competition: large market, freedom of entrance and leaving, freedom of trade and transfer of factors of production, perfect knowledge ... etc. But in the aftermath of the rise of national movements, early twentieth century, these conditions could not be easily realized. Governments have interfered in different ways to support the economic units and orient them towards reaching a higher level of competition and arriving at a more efficient use of available resources[1].

SEZs could be considered an important tool available to governments in order to guide economic activities to increase their efficiency in utilizing the available resources. On the national level, internal

[1] Delbert A. Snider, Introduction to International Economics, Sixth Edition, Richard Irwin Inc., USA 1975, pp. 119-123.

bindings are used to encourage both local and foreign investors to invest in a certain district and/or activity. On the international level, the multinational bindings reduce or eliminate the barriers facing the movement of factors of production and final products from one country to another. SEZs help in improving both capital and labour productivity as they create larger integrated markets, i.e. by encouraging specialization in production in areas where a country has a comparative advantage and has a freer movement of production inputs and final products.

2.1.4 Objectives of SEZs

The ultimate common objective for establishing SEZs is to enhance socio-economic development and finally to raise up the standard of living. This objective can be achieved either by efficient use of available economic resources and/or by increasing the number of commodities accessible to the final consumer. In other words, it could be achieved by

mobilizing or liberalizing the movement of production factors and/or final products within one country or from one country to another. Each type of SEZs has its own objectives.

A. Objectives for Establishing Multinational Bindings[1]

1- Bridging the Resource Gap amongst Partners

This objective is achieved by the free movement of labour, capital and entrepreneurship among the economies of the binding. This free movement raises the volume of production of the binding and improves the productivity of each of the factors of production by transference from areas of relative plentifulness to areas of relative scarcity.

2- Gaining the Economies of Scale

In some cases, the market may not be large enough to support even one firm operating at optimum scale. This means that firms in such

[1] Ibid., pp. 250-259.

markets will produce relatively more expensive products and exploit more production factors. Economic integration means enlargement of the market and enhancement of firms to reach the optimum level of production. This level is an efficient one at which firms can produce at the lowest possible cost and sell at lower prices, which will create more demand and accelerate the process of economic growth.

3- Increasing Competition

Economic integration and the enlargement of the market size imply an increase in the number of producing and consuming economic units, i.e. creating more competition. In the final analysis those who are able to compete will remain in the market. Reduction in production costs and prices and improvements in the production quality will encourage demand for the products, increase sales and accelerate the process of economic growth.

B. Objectives for Creating Internal Economic Bindings

Internal bindings imply the presence of two partners, namely, the host country and the investors who invest in these bindings. The benefits gained by the former depend on its ability to attract the latter for investing in the established zones. So, there must be two sets of objectives, that of the host country and that of the investors. It must be noted that the investors are interested in the incentives offered to them by the host countries. The latter do so in order to attract investors and thus achieve their own objectives.

1. Objectives of the Host Country

Generating Foreign Exchange Earnings and Rates of Return

Payments of wages, salaries, rental/lease expenditures, are the most important foreign exchange sources for the host country. Returns of privileges, facilities, services, minimum taxes, and

the purchase of domestic raw materials are to be considered as exchange earnings. Against these payments, capital transferred abroad - for administrative cost and repayment of foreign loans used to finance construction of buildings, and infrastructure - must be accounted for.

As for the rates of return, the performance depends largely on whether the SEZ is operated by the host government or by a private company. It was proved that the privately run SEZs have conducted operations at a net profit and have generated lease revenues and income payments for the host government. In contrast, the financial return on investment in government-run SEZs appeared recurrently to be either nominal or negative.

Job Creation

One of the main motivations underlying the creation of SEZs in the 1960's and the 1970's was to increase the employment in the manufacturing sector and provide jobs for the growing number of new entrants into the labour force.

Acquiring and Upgrading Labour and Management Skills

SEZs have played an important role in acquainting large number of people who have previously lacked industrial habits with assembly and light manufacturing procedures. There is evidence to suggest that firms operating in SEZs can be a useful source of basic industrial training for host countries with high unemployment.

With the exception of few SEZs, the amount of training which can be imparted to workers or the amount that investment firms operating in SEZs are prepared to devote to training is closely linked to the composition of the involved labour force.

Technology Transfer

Technology transfer is supposed to be one of the major advantages of SEZs. However, technology transfer from SEZs operations has not been very impressive. Technically sophisticated production processes are not normally found in most SEZs. Nevertheless, there is evidence that the type of

industry located in SEZs changes as the project matures. The transition from simple-assembly operations to manufacturing has occurred in Ireland (Shannon), South Korea, Taiwan and Malaysia. Shannon, the pioneer in zone development, has moved from assembly type operations to more vertically-integrated high technology industries[1].

2. Objectives of the Investors

Access to Low-cost Labour

The main reason for foreign investors to locate or relocate particular production activities in developing countries is the availability of low-cost, hard-working and easily trained manpower. It is evident that wages in developing countries are lower than those paid in the developed countries.

[1]M. Frazier and J. Erony, Free Zones in Developing Countries: Expanding Opportunities for the Private Sector, A Report Published by the Jaber Foundation of US Agency for International Development, Discussion Paper No. 18, USAID 1983.

Tax Incentives

Tax exemption on profits, made by enterprises in SEZs, is usually granted for a period of 7 years and often for 5 years, and in a few cases for an indefinite period (Egypt), or up to 1999 years (Senegal). The following tax incentives are usually offered by SEZs:

- Exemption from export duties and other taxes such as professional tax, property tax, city and regional taxes.
- Exemption of foreign personnel from income tax.
- Partial or total exemption from the tax on profits for varying periods and under diverse conditions. Examples are: total exemption in Malaysia for two to five years for enterprises with "Pioneer Status" and total exemption in South Korea for the first five years and then a tax exemption of 50% for the next three years. Whereas in Sri Lanka total exemption is granted for a period of two to ten years as determined by the number of jobs created and inflows of foreign currency.

Financial Benefits

There are numerous financial benefits which can be gained when a business enterprise is established in a SEZ. These financial gains include the following:

- When goods are held inside a zone, funds are not tied up in the payment of custom duties, import taxes or the posting of bonds or other security.
- Custom duties are not payable while goods are in the zone or when they are exported.
- Loans to finance local operations are generally obtainable because goods held in SEZs can be used as collateral. The administrative authority of a zone will usually issue warehouse receipt or other certification concerning the goods.
- Other financial incentive measures are also used and differ widely from one zone to another. These involve capital grants whereby the host country covers part of the cost of the fixed assets in a project or the cost of manpower training in one way or another.

Grants may also be made in the form of interest or rent subsidies or for specific marketing services, product development, or any activities which are considered of value to the national interest.

Increased Convenience and Flexibility

There are a variety of advantages that SEZs authorities offer which cannot be found elsewhere. The purpose of these advantages is to facilitate and ease the burden of the activities of the enterprises operating inside the zones. This kind of advantages could be grouped under the "advantages of increased convenience and flexibility" which include:

- Goods enter the zone promptly and without custom delay. This generates efficiency in shipping, docking, loading and unloading.
- Compared with the factory production line in the country of origin, the SEZ may be a better place for the packaging, marking and labelling of goods in accordance with local consumer preference.

- The use of a SEZ at or near a final market as a distribution and storage point, can reduce the time-lag between order and delivery and thereby strengthen a foreign supplier competitive position in the local market. New inventory and spare parts can be released from storage in accordance with local market demand.
- Since there is no limit on the amount of time during which goods may be held in the SEZs, such zones become useful for storing foreign goods which are not affected by lengthy storage or for which a rise in price is anticipated.

2.1.5 Forms and Types

SEZs may be classified under a number of forms in respect to three interrelated factors: location, objectives and activities permitted, yet, they can be classified under two main categories: internal economic binding which is usually located inside the territory of a given country, and multinational binding (in co-operation with other nation(s)) which

is usually located in a site covering some or all of the territories of two or more countries. Under each of these two categories there are many types of SEZs. Though all types of the former are investment bindings, operated mainly for economic reasons, the types of the latter are operated for political and/or economic reasons.

A. Internal Economic Bindings

There is more than one classification for internal economic bindings. Each classification has certain limitations, basically that it does not cover all forms of SEZs[1]. The following classification can prove to be a comprehensive one:

1- Free Enterprise Zones (FEZs): where some economically depressed or underdeveloped regions or areas in a country are designated as free enterprise zones. In these zones a number of burdensome types of regulations and taxation have been reduced or eliminated. The products of the FEZs can be either locally

[1] See, Abdulrahman I. Al-Sanie, op.cit., p. 49.

consumed or exported. Baja California in Mexico and Amazon Region in Peru are examples of FEZs.

2- Export Processing Zones (EPZs): where users can perform a host of activities for the purpose of exporting or re-exporting the finished products and in some cases use it locally (e.g. Egypt). The permissible activities in these zones include sorting, mixing, blending, stripping, processing, assembling, manufacturing, sampling, packaging, repackaging, labelling, containerization, exhibiting, storing, warehousing, refrigeration, loading, unloading, exporting and re-exporting.

3- Foreign Trade Zones (FnTZs): where firms can perform the basic permissible activities of the EPZs but instead of exporting or re-exporting, the finished products are imported by the local market of the country which established the zone. The United States had 147 foreign trade zones in 1989.

4- Free Ports (FPs): a free port is an area, generally encompassing an entire port and its surrounding locality, into which goods of foreign origin may enter free of custom duties or subject to minimal tariffs. With the possible exception of a limited number of items like alcoholic beverages and tobacco, this tariff exempt is given whether the commodities are for re-export or for local consumption. Most of the FPs allow light manufacturing or assembly operations in addition to the wholesale distribution and accompanying activities such as sorting, mixing, packaging, sampling and the like. Hamburg and Copenhagen are good examples of free ports.

5- Bonded Warehouses (BWs): a bonded warehouse is a place which is generally under the control of custom authorities where goods for re-export may be stored for an extended period of time without payment of duties or other taxes. In addition to storage, the activities which do not change the nature of

products are permitted. BWs exist mainly in the industrial nations.

6- Transit Zones (TZs): are ports of entry usually in a coastal country, which serves as a storage and distribution centre to facilitate free transit of goods to or from the neighbouring countries. The goods that are destined for TZs are not subject to custom duties, import controls, and other entry and exit formalities of the host country. Storage and necessary operations such as repackaging or other steps to ensure that the goods will reach the final destination in good condition, are the only permitted operations. Mendoza in Argentina and Dar es Salaam in Tanzania are examples of TZs.

7- Free Activity Zones (FAZs): FAZ is a well defined area in which a given activity can be performed without the usual formalities that control the conduction of similar activities elsewhere in the host country. Some examples of FAZs are:

* Free Banking Zones: where banks can carry out business transactions in foreign currencies without the requirements to maintain minimum reserves and pay certain taxes levied on regular banking.
* Free Investment Zones: where securities and other assets can be sold unrestricted by the government regulations governing such sales.
* Free Gambling Zones: where all forms of gambling are permitted without restrictions.

It is worth noting that it is possible for a single SEZ to perform some or all the above functions.

B. Multinational Bindings

The General Agreement on Tariffs and Trade (GATT) of 1947 and the international trend towards reducing trade restrictions emphasize the importance and the need for increasing economic ties

and integration amongst nations. Accordingly, the second half of this century witnessed a wide spread of various forms and degrees of economic ties and integration among nations. The prototype is the customs union, less and more intensive degrees of integration are possible. The following are the most common forms of multinational bindings:

1- Free Trade Areas (FTAs)

The FTA is the loosest and least intensive form of integration. In a FTA, all artificial restrictions on the movement of goods and services among the countries participating in the agreement are removed. But each country may retain its own tariffs, quotas, or other restrictions devices on its trade with nonparticipants. A good example is the European Free Trade Association (EFTA) which was established in 1959 by Great Britain, Norway, Sweden, Denmark, Switzerland, Austria, and Portugal. Another example of FTAs is The Latin America Free Trade Association (LAFTA), which was established in

1960 by Argentina, Brazil, Chile, Paraguay, Peru, Uruguay, and Mexico. A more recent example of FTAs is the North America Free Trade Area (NAFTA) which was established in 1993 by the USA, Canada and Mexico.

2- The Customs Unions (CUs)

The CU is one degree further up the scale of economic integration than a FTA. In addition to abolishing all restrictions, mainly tariffs and quotas on the intra-union trade, common external commercial relations are conducted by the members. For instance they must adopt common external tariff on their imports from other countries. The union members distribute tariff revenue among themselves according to an agreed formula. An example of CUs is the Benelux of Belgium, Luxembourg, and Netherlands. It was established in 1921 by Belgium and Luxembourg and the Netherlands joined them in the aftermath of War II.

3- The Common Markets (CMs)

CMs represent the next higher degree of economic integration beyond customs union. In addition to removing trade barriers among member countries and conducting unified trade policy with the non member countries, the members of a CM remove all national restrictions on the movement of factors of production: labour, capital and technology among themselves. An example of CMs is the European Economic Community (EEC) which, was established in 1957 by W. Germany, France, Italy, and the Benelux countries (Belgium, Luxembourg, Netherlands). Another example of CMs is the Andean Common Market (ANCOM) which was established in 1967. Today the ANCOM members include, Bolivia, Columbia, Ecuador, Panama, Peru, and Venezuela.

4- Economic Unions (EcUs)

EcU represents the last and highest stage of economic integration. In addition to removing trade barriers and removing the obstacles facing the movement of factors of production, the EcU unify the monetary and fiscal policies of the member countries. The most significant current example of EcUs is the European Union (EU), targeted by the countries of the EEC.

2.2 SEZs in Jordan and Its Neighbouring Countries

Since the beginning of this century, Jordan and its neighbouring countries have known internal bindings usually known as free zones. The first known free zone was established in Aden in the year 1825, followed by free zones in Lebanon and Syria in the middle of the nineteenth century.

Since the 1970s, SEZs / internal bindings have spread in the region. However, by the beginning of the 1990s the countries of the region started planning for establishing 13 new free zones, especially export oriented industrial zones[1].

The countries of the region have formed different kinds of multinational bindings as: the Arab Economic Unity Council, Arab Common Market and Arab Co-operation Council. However, excluding the experience of Israel with the western economies, SEZs / multinational bindings of the region didn't achieve their objectives. The political instability of the region as well as the absence of an independent

[1]Development of Free Zones in the ESCWA Region, Economic and Social Commission for Western Asia, ESCWA, United Nations, New York, 1995.

decision by the countries of the region could be the reasons behind that.

This part of the study will concentrate on the regional experience with SEZs / internal bindings.

2.2.1 The Objectives of internal bindings

An ESCWA study entitled, "Development of Free Zones in the ESCWA Region 1995", summarized the main objectives of internal bindings in the region as follows[1]:

- Attracting local and foreign investments.
- Enhancing the development of specific areas.
- Increasing hard currency resources.
- Creating new employment opportunities.
- Releasing the population pressure by moving people from the highly populated areas to the newly developed areas.
- Increasing benefits of available resources.
- Activating the services and transport sectors.

[1]ESCWA, op.cit.

- Encouraging the establishment of export oriented industries.
- Providing the local market with its consumption requirements.
- Facilitating the transfer of technology.

The following section sheds light on the current status of SEZs that are present in the countries, this study is concerned with.

2.2.2 SEZs in Jordan

There are several forms of SEZs in Jordan, mainly: free zones, industrial estates, bonded houses and others. A short analysis of the Jordanian free zones and industrial estates is introduced in this section.

A. Free Zones in Jordan

The "Free Zones Corporation" has been established in 1973 by the government of Jordan. It aims to operate a series of free zones for export-manufacturing plants and storage activities.

The main available incentives for free zones projects, are as follows:

1- Exemption from income and social security taxes for a period of 12 years;
2- Tax exemption of salaries and allowances paid to other than Jordanians working in the free zone;
3- Exempting exports, production imports and equipment from taxation;
4- Exemption of construction in the free zones from license fees and from urban and property tax in certain cases.

The main Jordanian free zones are:

1- Aqaba Free Zone

Aqaba Free Zone is considered as the first free zone that has been established in Jordan. It has been expanded and improved. Its current area is 8500 dunums (76% as an industrial area and 24% as a commercial one).

The free zone in Aqaba has been expanded to include an industrial free zone and special free zone, such as:

1- A free zone for phosphate and potassium based industries;
2- A free zone for a phosphoric acid industrial complex;
3- Five free zones specializing in sheep raising and meat industry;
4- A free zone for natural fertilizers.

There is an intention to transfer the Aqaba region or a major part of it into a free zone.

2- Zarqa Free Zone

Zarqa Free zone has been established in 1981 and has started its service in 1983. It is located 35 kilometres northeast of Amman. It has three sectors: an industrial investment sector, a commercial investment sector and a motor car free-market sector. The free zone corporation is working on the necessary studies to improve and expand this free

zone in order to meet the growing need, for its services, by the private sector. It is also working on building the needed infrastructure and the maintenance of roads, water, electricity, sewage, ... etc. For the first stage of the project, the estimated cost is about JD 50 million.

3- Jordan/Syria free Zone

Jordan/Syria free zone, an area of 4 million square meters, was established in 1976 with a capital cost of 60 million Syrian lire. The zone is located on the borders between Jordan and Syria, half of its area is located on the Jordanian side and the other half is on the Syrian side. About half a million Jordanian Dinars were invested to construct the infrastructure in the Jordanian side, and though it is ready for operation nothing has yet been established. Sixteen factories are operating in the Syrian part. There were high expectations for attracting capital inflow to be invested in this free zone since an international highway to it has opened recently.

Nevertheless, this free zone enjoys fiscal and administrative independence.

4- Other Free Zones

In addition to the above-mentioned free zones, Jordan is planning to establish the following ones:

- *Sahab Free Zone*

The area of the free zone in Sahab (25 km southern Amman) is about 62 dunums and is located in the industrial estate of Sahab. It is currently under construction.

- *A Free Zone in Queen Alia International Airport*

Ten dunums have been designated for the purpose of establishing a commercial free zone in the International Queen Alia airport, it will serve transit goods coming by air. The project is expected to be accomplished within less than a year.

- *A Free Zone specialized for motor car agents*

Permission has been given to motor car agents to establish their own free zone. A step that will strengthen the competition among the local motor car agents and their counter parts from neighbouring countries. This will accredit the economic development process in Jordan.

B. Industrial Estates

The Industrial Estates Corporation was established in 1980 by a law (revised in 1985). The main aim of the corporation is to set and operate industrial estates within the country. This corporation offers incentives for operating new industries in these estates and encourages existing enterprises to relocate there in. The main incentives are the availability of the necessary infrastructure, services and certain tax exemptions. In addition to the exemption afforded by the Investment Promotion Law, industrial enterprises are exempted from income tax for a period of two years. The corporation established two estates of this type. The

first in Sahab, 25 km southern of Amman, which provides facilities for 700 industrial units of various sizes. This estate is now being expanded. The second estate has been established near Irbid in the northern part of the Kingdom.

C. Other SEZs

In addition to the previous cases, there are other kinds of SEZ in Jordan, for example: bonded areas (public and private). As well, the Investment Promotion Law no. sixteen of 1995, divided the country into three areas: A, B and C. These areas could be considered as SEZs, due to the variety of incentives and exemptions. Article (7) states that any project could have an exemption from income and social services taxes for a period of ten years. A, B and C are categorised in accordance to the rate of tax exemptions. The percentage of the exemption is as follows:

- 25% if the project is in a class A development area.

- 50% if the project is in a class B development area.
- 75% if the project is in a class C development area[1].

2.2.3 SEZs in Saudi Arabia

Saudi Arabia established industrial estates in Jabail and Yanbu that house 937 industrial plants and offers them incentives and privileges similar to those offered in free zones.

The incentives for investment in the industrial sector are as follows:

- Inflow/outflow of capital is free;
- The availability of land with facilities and low rent in industrial estates;
- Loans are available for industrial projects;
- Exemption of raw materials, machines and equipment from customs;
- Exemption of capital from taxes for 10 years (initial and additional);

[1] Investment Promotion Law No (16) for 1995.

- Tariff protection for local production in case of unfair competition;
- Priority is given to local products for government purchase.

2.2.4 SEZs in Syria

Syria has established several free zones to enhance development and attract foreign investments.

The following are the main ones:

- The free zone in Adra, located 25 kilometres northeast of Damascus, is linked by road with the two Mediterranean ports of Tartous and Latakia as well as with Europe via Turkey;
- The free zone in Aleppo links Europe with the Middle Eastern Arab countries;
- The free zone in Tartous is adjacent to the port of Tartous;
- The free zone in Latakia is located only seven kilometres from the port of Latakia at the cross-point leading to Aleppo and Damascus;

- Jordan/Syria free zone is located on the border of the two countries.

In order to attract foreign investments, the free zone authorities need to advocate improved legislation to facilitate investment procedures and prevent overlapping legislation. To improve the development of the free zone, the following is needed:

1. More autonomy to the General Establishment of Syrian Free Zones;
2. Reduction of customs interference and simplification of procedures;
3. Reduction of bureaucracy;
4. More effective promotion and marketing techniques;
5. More training.

2.2.5 SEZs in Iraq

Since the Iraqi economy is characterized by government control, SEZs based on the western model do not exist in Iraq.

The private sector has been allowed, recently, to expand its role in the economic life; more freedom has been given to the Iraqi private merchants for importing food and medicine. So, within such a framework, Iraq has taken the preparatory steps towards establishing free trade areas. The purpose of these free areas is to facilitate the entrance of imported food and medicine (more information is not available).

2.2.6 SEZs in Egypt

Egypt has established different kinds of SEZs. There are seven free zones in Egypt. Two of them have been established recently and there is a plan for establishing another two. The purpose for establishing free zones is to attract local and foreign investments, to improve the population conditions in remote areas and to create employment opportunities.

In 1993, free zones housed 147 industrial projects, 231 warehouse projects and 46 service projects with a total investment cost around $2.1

billion. Direct income amounted to $180.5 million, in addition to $68 million due to the income of 29207 workers.

The most important SEZs in Egypt are:

1- The Alexandria Public Free Zone is located 20 kilometres from the port of Alexandria;
2- The Nasr City Public Free Zone is located in close proximity to Cairo International Airport;
3- The Port Said Public Free Zone is located on the Mediterranean Sea at the entrance to the Suez Canal. It benefits from the port and the newly renovated airport;
4- The Suez Public Free Zone benefits from the ports of the Red Sea and the southern entrance to the Suez Canal;
5- The Ismailia Public Free Zone is located along the Suez Canal, outside the city of Ismailia on the Cairo/Port Said road;
6- Sefaga is located close to the port of Sefaga on the Red Sea;

7- Demietta is located east of Alexandria along the Mediterranean coast. The modern port of Damietta provides certain benefits;

8- In addition to free zones, Egypt has established other kinds of SEZs. A science and technology park has been established on an area of 8100 dunums in the Suez Canal area. Another one has been established, near Cairo, in the town of "Al-Sadis Min October". Those complexes offer several incentives such as tax exemption for a certain period and subsidised infrastructure. The main objective for establishing these complexes is to attract highly technological industries.

2.2.7 SEZs in Israel

To promote FEZs, Israel issued several laws in this regard such as:

- The law of the free trade zone in the city of Eilat.
- The law of free ports, which was issued in 1969.
- The law of the free production zones.

Moreover, the investment promotion law in Israel divided the country into three development zones, in accordance with the rate and period of tax exemption.

2.2.8 Evaluation

The experience of the countries of the region in establishing SEZs as successful models for the developing world, does not appear encouraging. Commercial activities still dominate the majority of the Arab free zones which have failed to attract sophisticated industries. Benefits of host countries from such zones have been limited.

In general, the SEZs in the third world countries did not achieve their objectives. Their positive effect regarding unemployment has been marginal. Technology transfer has been very limited due to: the nature of industrial firms which took place in the SEZs, the isolation of these zones from the domestic economies and the small amount of domestic capital equipment and raw materials purchased from the local markets.

As for earnings from foreign currencies, the host countries share is confined to a small amount that is converted to pay wages, land rent, electricity ... etc. It is noted that foreign currency dividends, of SEZs firms, circulates within the international banking system outside the host country.

The SEZs in the region suffer from many problems and obstacles, the ESCWA study identifies these obstacles as follows[1]:

- The lack of true autonomy.
- The contradiction between the free zone regulating laws existing in many countries.
- Some free zones strayed from their original objectives and became importation enclaves for consumer goods.
- The limited size of the Arab markets and the great foreign competition prevent the growth and development of free zone industries.

[1] ESCWA, op.cit.

- The size of the industries in most Arab free zones is small, so benefit from the economies of scale is limited.
- The dependence on imported raw materials.
- The absence of technology transfer in the free zones industries.
- The weak backward and forward linkages with the host economies.

In order to adopt the necessary measures and create the kind of SEZs that will help to achieve the intended objectives and advantages, Jordan and the Arab countries ought to review and re-evaluate the different forms of SEZs that are in operation.

3. Socio-Economic Status of Jordan and Its Neighbouring Countries

As an economic policy tool, the objectives behind creating SEZs in a given country or countries are determined by the socio-economic status of the country. The objectives, in turn, will decide the type and form of a SEZ to be created.

This part sheds light on the socio-economic status of Jordan and its neighbouring countries. The indicators applied help to explore feasible objectives and form(s) of SEZ(s) to be established independently or jointly with other countries. Indicators used are: human resources, mineral resources, sources of income and foreign trade and balance of payments.

3.1 Human Resources

3.1.1 Jordan

The population of Jordan was estimated at 4.1 million, in 1994, with an annual growth rate of 3.4%.

In 1993, the number of the labour force was 859300, i.e. 21% of the total population with an

unemployment rate of 18.8%. The number of employed persons increased from 406,000 in 1979 (including 39,000 foreign workers) to 750,772 (including 53021 foreign workers) in 1993. The annual growth rate of employment of Jordanians has been approximately 5%, compared to 2.6% of foreign labour during the same period. Moreover, the number of Jordanians working abroad was 275,000 during the same year (1993)[1].

In 1993, 6.4% of the Jordanian labour force were engaged in agriculture, 10.6% in mining and manufacturing, 0.7% in electricity and water, 7.0% in construction, 15.1% in trade, 6.7% in transport and communication, 2.9% in finance and insurance services and more than half (50.6%) were engaged in social and public administration services, see Table (3-1).

[1] Ministry of Labour, Annual Report, 1993, p.16.
Ministry of Planning, Plan for Economic and Social Development, 1993-1997. p. 38.

Table (3-1): Labour Force Estimation in Jordan by Major Economic Activity for 1993.

Major Economic Activity	Number	%
Agriculture	54995	6.4
Mining & Manufacturing	91086	10.6
Electricity & Water	6015	0.7
Construction	60151	7.0
Trade	129754	15.1
Transport & Communication	57573	6.7
Finance & Insurance Services	24920	2.9
Social and Public Administration Services	434806	50.6
Total	**859300**	**100**

Source: Ministry of Labour, Annual Report, 1993.

The average monthly wage for skilled labour ranges between JD100 ($150) to JD280 ($400) depending on the type of the required skill. Labour law does not impose a minimum wage.

Table (3-2) Wage Rate in Israel, Jordan and Egypt

Country	Unit/month	Year	Agricultural Activities	Manufa-cturing	Mining and Quarrying
Israel	Dinar/month	1994	981	1097	1879
Jordan	Dinar/month	1993	176	147	286
Egypt	Dinar/month	1993	50	50	103

Source: International Labour Office (ILO), Yearbook of Labour Statistics, 1995.

A number of official institutions are involved in the field of training, most prominent of which are: the Vocational Training Corporation and the Ministry of Education. Also involved in training are international and UN organizations, mainly (UNRWA), and local NGOs as Queen Alia Social Welfare Fund, Noor Al-Hussein Foundation and others. Jordan has also private and public institutions that are involved in specialized training, e.g. in banking and administration.

There are 24 vocational centres located in different governorates run by the Vocational Training Corporation. Examples of these centres are the Occupational Safety and Health Institute and the Trainers and Supervisors Training Institute. Training programs at the Corporation cover 62 occupations. The number of trainees enrolled at the Corporation increased from 6126 in 1986/1987 to 17362 in 1992/1993, i.e. an increase of 183.7%, see Table (3-3).

During the academic year 1992/1993, students enrolled in vocational education (nursing,

agricultural, industrial, commercial and hotel studies) in the schools of the Ministry of Education represented about 21.8% of the total number of students in secondary education (two years). Moreover, those enrolled in vocational education and training in UNRWA schools made up 1.4% of the total number of students in vocational education compared with 55.5% in schools of the Ministry of

Table (3-3): Enrollment in Training Programs by Institution, During 1992-1993

Institution	Number of Students Enrolled			
	1986-1987 (No.)	%	1992-1993 (No.)	%
Vocational Training Institute	2126	8	17362	43
Ministry of Education	25372	90	22359	56
UNRWA	604	2	564	1
Total	**32102**	**100**	**40285**	**100**

Source: Ministry of Planning, Economic and Social Development Plan 1993-1997.

Education and 43.1% in centres run by the Vocational Training Corporation in the academic year 1992/1993[1].

Education in Jordan is provided by both the public and the private sectors. Public expenditure on education constituted about 10% of the general budget for 1993. In 1993, 75.6% of student enrollment was provided by the schools of the Ministry of Education, 1% by other governmental agencies (such as the Ministry of Defence, Health, Labour and Islamic Affairs), 9.9% by the private sector and 15.9% by UNRWA. The latter, in collaboration with UNESCO, offers educational facilities and services for Palestinian refugees.

In 1993, the number of students was 1,181,575, the number of teachers was 55,258 and the number of schools was 3,807. Moreover, primary pupil/teacher ratio was 22 in 1992[2].

[1] Ministry of Planning, Plan for Economic and Social Development, 1993-1997, p. 62.
[2] Regional Surveys of the World, The Middle East and North Africa (MINA), 41st. ed. 1995, p. 603.

Since the beginning of the 1980s, state and private universities and university colleges have been established to absorb the growing numbers of secondary schools graduates. Currently, there are 7 state universities, 12 private universities and an applied science university college[1].

3.1.2 Saudi Arabia

A census in 1993 recorded the total population as 17 million. Saudi Arabian citizens numbered 12.3 million and foreign nationals amounted to 4.6 million. The census results reflected the country's dependence on foreign contract labour in most areas of employment excluding administration, banking and certain state enterprises. Total employment in the civic service in Saudi Arabia was expected to reach 6 million in 1995.

Educational institutions are administered mainly by the government. The private sector plays a significant role in providing basic education. Public

[1]MINA, op.cit.

expenditure on education constituted about 16% of the general budget of the year 1992[1].

Pre-elementary education, mainly in urban areas, is provided on a small scale (67,069 children enrolled in 1990-1991). In 1992, the total number of students enrolled at all levels of education was 2,934,115 (1,608,133 males, 1,325,982 females), in 14,435 schools with 188,891 teachers.

There are seven universities, with a total of 78,713 students in 1992-1993, and 66 colleges. There are also 10 colleges and one higher institute for females. In 1991 there were 131,811 students (71,935 males, 59,876 females) and 12,865 teachers in higher education. Adult education continues for three years. In 1992/1993 there were 103,111 students enrolled in adult education schools[2].

3.1.3 Syria

In 1993, the population of Syria was 13 million with an annual growth rate 3.4%. The number of

[1]World Development Report, pp. 821-823.
[2]Ibid.

employed persons was about 3.2 million (80% of the total are males) which is about 24.4% of the total population and 93% of the total labour force.

In 1991, employment in community, social and personal services was the highest. Employment in this sector is estimated to constitute 951,000 persons, i.e. 29.2% of the total employment. The share of agriculture, hunting, forestry and fishing was 28.6%, while 42.2% of the totally employed worked in the rest of the sectors such as mining and quarrying (0.2%), manufacturing (14%) and trade, restaurants and hotels (11.6%)[1].

In 1992-1993 there were 2.5 million pupils in primary education in the public and private sectors, and one million in preparatory and secondary education. There are agricultural schools and technical schools. Higher education is provided by the universities of Damascus, Aleppo, Tishrin and Baath, with a student enrollment of 169,756 in 1993.

[1]MINA, op.cit., p. 849.

The government allocated about 8.9% of the consolidated budget to education in 1986[1].

3.1.4 Iraq

The population of Iraq in 1991 was 18 million with an annual growth rate of 3.5%[2].

The labour force totalled 3,772,081 at the end of 1991, i.e. 21% of the total population. About 53% were employed in community, social and personal services, 13% in agriculture, forestry and fishing, 7% in manufacturing, 9% in construction, 6% in trade, restaurants and hotels, 6% in transport, storage and communications, 6% in electricity, gas and water, financing, insurance, real estate and business services and other activities.

Since the Gulf War, updated information has been scarce concerning education. Primary education in Iraq is compulsory, primary enrollment of children aged 6 to 11 reached 100% in 1987, but declined to 84% by 1988. Secondary education is available for six

[1]Ibid., p. 867.
[2]MINA, op.cit., p. 496.

years. About 39% of children aged 12 to 17 attended secondary schools in 1988.

The faculties of science, medicine and engineering at the universities have undergone considerable expansion, although technical training is less developed. There are seven universities. Before the Gulf War, plans were announced for establishing four new universities. The number of students enrolled in higher education increased from 86,111 in 1978 to 183,608 in 1987[1].

3.1.5 Palestine

The population of Palestine - West Bank and Gaza Strip - was 1.86 million in 1993.

In 1993, the population of the West Bank was 1.1 million Arab Palestinians and an estimated 111,000 Jewish settlers residing in 128 West Bank settlements (approximately 10% of the Palestinian population)[2].

[1] Ibid., 1995, p. 508.
[2] MINA, op.cit., p. 561.

The economy of the West Bank is still one of dependence on Israel. Israel remains by far the largest market for goods and services from the West Bank and is the most important employer of the Palestinian labour force. 37% of the West Bank's labour force is employed in Israel, mainly in skilled and semi-skilled occupations - especially in construction - .

In 1993, the population of the Gaza Strip was estimated to be approximately 760,000 (including residents temporarily abroad), with an annual population growth rate of 4%. It is worth noting that 45% of the total labour force of the Gaza Strip, approximately 30,000 labourers, regularly commute to Israel for work[1].

Vocational Training in Palestine faces problems in quantitative and qualitative terms. Vocational training is rare in Gaza and quite limited in its scope in the West Bank[2].

[1] Ibid., p. 562.
[2] The Impact of the Middle East Peace Treaty on Jordan, op.cit., p. 81.

There are two kinds of vocational training:
i) vocational secondary school training offers a degree allowing students to enter higher education;
ii) vocational training centres or applied secondary education - more scientific - enables trainees to enter the labour market directly.

Specialization in vocational training does not include hotels, nursing, home economics and certain industrial fields.

3.1.6 Egypt

In 1993, the population of Egypt was 59 million and is expected to reach 67 million by year 2000. The rate of increase is 2.1% per annum[1].

Total labour force in 1992 was about 17 million, which is about 30.8% of the total population, while total employment was 15.5 million, i.e. 28% of the total population.

During 1993, 40% of total employment were in agriculture, hunting, forestry and fishing, 0.3% in mining and quarrying, 12.6% in manufacturing, 0.6%

[1]MINA, op.cit., p. 373.

in electricity, gas and water, 6.5% in construction, 9.0% in trade, restaurants and hotels, 5% in transportation, storage and communications, 1.6% in finance, real estate and business services and the rest (23.5%) in community, social and personal services and other activities[1].

Recent government estimates put the number of Egyptians employed within the country at 16.4 million, with another 2-3 million abroad. Around 500,000 persons join the labour market every year[2].

Moreover, with such a large public sector in Egypt, the government is necessarily involved in the labour market. Job creation is a major problem for the government. A long-standing government guarantee to provide work for all university graduates has produced an eight-year waiting list for state jobs - a 1994 survey found 1.4 million graduates waiting for government posts -. Such a policy has also produced a large surplus of under-employed and badly paid civil servants, many of

[1]Ibid., p. 338
[2]EIU, Country Profile, 1995-1996.

whom have to take a second job in order to make ends meet. Successive budgets have raised state wages and pensions but invariably by less than the rate of inflation. Private sector jobs are better paid and are more challenging but are limited in number. In 1992/1993 the average wage in the private sector was around $565 per year, although wages of around $890 per year could be offered in such sectors as construction, transport, trade, tourism and personal services. Wages in agriculture are less than half of those in the leading sectors. The average public-sector wage in 1992/1993 was $356 per year[1].

Educational institutions are administered mainly by the government. Public expenditure on education constituted about 10.9% of the general budget for 1990, see Table (3-4).

There are 13 universities, with an enrollment of 520,496 students and 34,553 teachers. Education is free at all levels. In 1990, according to UNESCO estimates, the rate of adult illiteracy was 51.6%

[1]EIU, Country Profile, 1995-1996.

(37.1% males, 66.2% females). A new campaign to combat adult illiteracy was launched in 1988[1].

Table (3-4): Public Expenditure Constitution of the General Budget for Jordan and Its Neighbouring Countries.

Country	Year	% of General Budget	Year	Primary Pupil/ Teacher Ratio
Jordan	1993	10	1992	22
Saudi Arabia	1992	16	1992	14
Iraq	-	N.A.	-	N.A.
Israel	1993	11.9	1992	16
Egypt	1992	10.9	1992	26
Syria	1986	8.9	-	N.A.
Palestine	-	N.A.	-	N.A.

N.A.: Not available.

Source: Regional Surveys of the World, The Middle East and North Africa, 41st. ed., 1995.

3.1.7 Israel

In 1993, the population of Israel (including East Jerusalem and the Golan Heights) was five million,

[1]MINA, 41st ed., op.cit., p. 393.

with an annual growth rate 2.5% and an annual birth rate 18.5% per 1,000.

The labour force at the end of 1993 totalled 1,946,000, or 39% of the population aged 15 years and over. This ratio is low by European and American standards. Unemployment was 10% of the labour force in 1993 and totalled 195,000 individuals[1].

During 1993, of 1,751,000 employees, 6% were employed in agriculture, forestry and fishing, 21% in mining and manufacturing, 14% in trade, restaurants and hotels, 6% in transport, storage and communications, 11% were engaged in financing and business services, 29% in public and community service and the remainder (13%) in personal and other services[2].

Moreover, wages in Israel are determined through negotiations conducted between the government , the country's largest employer, and the Histadrut (its wage scale has strong repercussions on all segments of the economy).

[1]MINA, op.cit., p. 536.
[2]Ibid.

Unemployment in Israel does not significantly reduce wages, although at times of labour shortages, wages rise with greater elasticity in the sectors where the demand for workers is more acute.

Nevertheless, real wages in Israel are strongly effected by development in the labour market and the inflow of new immigrants. Real wages fell by 1% in 1990 and 1.7% in 1991, while productivity increased by 5.8% and 3.1% respectively. Unit labour costs fell by 2.5% in 1990 and 1991. In 1992 and 1993, real wages increased by 1.3% and 0.5% respectively. The fall in unemployment brought an increase of 2.6% in real wages in 1994. The upward pressure on wages was also the outcome of a surge of 10.1% in public-sector salaries, stemming from wage accords.

State primary education is financed by a partnership between the central government and the local authorities. Post primary education, divided into an intermediate and higher level, is free. It lasts for a span of six years, four of which are compulsory.

Israel has an extensive adult education program. It extends from primary levels up to

secondary level, allowing for entrance into university. There are post-army preparatory courses for university entrance[1].

In 1993, there were more than 3293 schools (82% Jewish schools), 1579746 pupils (84% Jewish pupils) and 105406 teachers (87% Jewish teachers), see Table (3-5).

Table (3-5): Schools, Pupils and Teachers in Israel in 1993.

	Schools	Pupils	Teachers
Jewish	2692*	1328058	91254**
Arab	601*	251688	14152**
Total	**3293**	**1579746**	**105406**

* Excluding kindergarten and teacher training colleges.

** Excluding kindergarten, vocational, agricultural and teacher training colleges.

Source: Regional Surveys of the World, The Middle East and North Africa, 41st. ed., 1995.

[1]MINA, op.cit., p. 557.

3.2 Science and Technology (S&T)

Since Israel is more advanced in S&T than its Arab neighbours, it is viewed unilaterally. The Arab countries alluded to in this study (Jordan, Iraq, Egypt, Saudi Arabia, Syrian and Palestine) are considered together in one section.

3.2.1 S&T in Jordan and The Arab Neighbouring Countries

The science and technology sphere includes higher education, research and development.

A. Higher Education

Expenditure on higher education in 1992 ranged from the lowest in Palestine $31.7 million, i.e. 0.83% of its GDP, to the highest in Saudi Arabia $1226.5 million, about 1.01% of its GDP.

Universities in Jordan include public and private universities which have increased in the last few years. In 1995, the total number of universities reached 19 universities of which 7 are state universities. In the Arab neighbouring countries, the

number of universities ranges from 4 universities in Syria to 13 universities in Egypt.

Total number of students in technical institutes, B.Sc., M.Sc. and Ph.D. in 1990/91 in thousands is as follows: 106.3 in Jordan, 187.2 in Iraq, 647.7 in Egypt, 128.4 in Saudi Arabia, 211.4 in Syria and 40.2 in Palestine. Percentage of those who are studying in S&T fields are shown in Table (1).

Staff members in universities and colleges or teaching institutes in 1990/91 ranged from 844 in Palestine to 31381 in Egypt. It is found that the staff student ratio is 1:17 in Saudi Arabia which is the highest while this ratio in Syria is 1:91.

B. Research and Development (R&D)

R&D expenditures in Jordan and its Arab neighbouring countries in 1992 ranged between $13.5 millions in Jordan, about 0.28% of its GDP, to $143.8 millions in Egypt, 0.34% of its GDP. These expenditures are funded primarily by the governments and universities. The private sector plays a minor role in funding R&D.

R&D is conducted in a number of R&D autonomous and public institutions and universities as shown in Table (3-6). R&D personnel are classified into full time equivalent staff (FTES) and research support staff. Number of persons in each type and the total number in 1992 for Jordan and its Arab neighbours are shown in Table (3-6). Total number ranged from 1053 in Jordan to 27499 in Egypt.

Table (3-6): Science and Technology Indicators for Jordan, Saudi Arabia, Syria, Iraq, Palestine, and Egypt

Science & Technology Indicators	Jordan	Saudi Arabia	Syria	Iraq	Palestine	Egypt
Part One: Higher Education						
1- Expenditure (1992):						
(Million $)	109.3	1226.5	117.6	431.5	31.7	444.5
(% of GDP)	2.28	1.01	0.93	0.57	0.83	1.06
2- Number of Universities (1993)	19	8	4	11	8	13
3- Science and Technology Student Percentage of the Total Students (1990/91)						
- Technical Institutes	25.3	0.0	39.9	47.7	35.3	38.7
- B.Sc.	46.1	26.2	41.2	34.1	37.1	22.8
- M.Sc.	36.3	32.0	86.9	50.3	43.0	61.9
-Ph.D.	52.5	54.5	60.2	43.3	55.0	73.0
4- Staff Members in Universities and Four Year Colleges or Institutes (1990-91)						
- Ph.D.	1414	5669	1826	3330	444	24024
- M.Sc.	221	2099	72	3133	400	7357
Total	**1635**	**7768**	**1898**	**6463**	**844**	**31381**
5- Staff/Student Ratio in Universities						
- Ph.D. Only	1:28	1:23	1:95	1:38	1:37	1:26
- Ph.D.+M.Sc.	1:24	1:17	1:91	1:20	1:20	1:20

Table (3-6): Continued

Science & Technology Indicators	Jordan	Saudi Arabia	Syria	Iraq	Palestine	Egypt
Part Two						
1- Expenditure on R&D (1992)						
(Million $)	13.50	131.10	13.97	33.13	NA	143.80
(%ofGDP)	0.28	0.11	0.11	0.04	NA	0.34
Per Capita Share ($)	3.60	8.00	1.10	1.60	NA	2.60
2- Distribution of R&D Expenditures (1992)						
-%Share of Autonomous & Ministry Governed	59	64	80	57	NA	79
-%Share of Universities	30	36	20	43	NA	21
-%Share of Private Sector	11	–	–	–	NA	–
3- Number of R&D Institutional Units (1992)						
-Autonomous & Ministry Governed	19	20	21	14	NA	56
-Universities	2	24	3	3	NA	10
Total	**21**	**44**	**24**	**17**	**NA**	**66**
4- R&D Personnel (1992)						
A-Full Time Equivalent						
-Ph.D.	181	440	201	442	NA	4880
-M.Sc.	150	325	129	612	NA	2666
Total	**331**	**765**	**330**	**1054**	**NA**	**7546**
B-Research Support Staff						
-B.Sc.	251	361	770	446	NA	2252
-Others	471	752	740	511	NA	17701
Total	**722**	**1113**	**1510**	**957**	**NA**	**19953**
Grand Total (A+B)	**1053**	**1878**	**1840**	**2011**	**NA**	**27499**

Source:
(1) The Higher Education Systems in the Arab States: Development of S&T Indicators, 1995.
(2) R&D System in the Arab States: Development of S&T Indicators, 1995.

3.2.2 S&T in Israel

A. Higher Education in Israel

Higher education in Israel consists of:

- Universities (eight in number)
- Post-Secondary Colleges: it includes colleges for training teachers, qualified nurses, applied engineers, technicians ... etc.

Number of students in the universities reached 78640 students in 1991/92 distributed as follows: 53950 students in B.Sc., 18860 students in M.Sc., 4680 students in Ph.D. and 1150 in Diploma Program, percentages are shown in Table (3-7). Table (3-7) shows that more than half of Ph.D. students are involved in S&T. 17500 are staff members in Israeli universities distributed as follows: 46% teachers and researchers, 20% technicians and 34% administrators.

B. R&D in Israel

R&D in Israel is carried out primarily in seven universities, a number of government and public

research institutes and hundreds of civilian and military enterprises. Significant research is also performed in medical centres and by a number of public service firms, in fields such as electrical and power research, telecommunications and water resources management.

Universities play a major role in R&D. Tel Aviv University established companies in order to commercialize research findings and apply the transferred technology.

Also the universities and the Weizman Institute have established scientific complexes attached to them.

There is strong co-operation in R&D between Israel and many other states. Binational research foundations have been established as follows:

- US-Israel Binational Foundation (est. 1974).
- US-Israel Binational Agricultural Research and Development Foundation (est. 1977).
- US-Israel Binational Industrial Research and Development Foundation (est. 1977).

- German-Israel Foundation for Scientific Research and Development (est. 1987).

Expenditures on R&D reached about 3% of GDP in 1987, it is considered as one of the highest in the world.

Table (3-7): Science and Technology Indicators for Israel

Science and Technology Indicators	
Part One: Higher Education	
1- Number of Universities	8
2- S&T Student Percentage (1991/92):	
- B.Sc.	34.4
- M.Sc.	37.9
- Ph.D.	63.8
- Diploma	3.7
- Colleges	18.9
3- Staff Members in Universities (1991/92)	
- Teachers and Researchers	8110
- Technicians	3576
- Administrators	5853
Total	**17539**
Part Two: Research and Development	
1- Expenditures on R&D	3
% of GDP (1987)	275
Per Capita Share in 1992 ($)	
2- Number of Institutions Working:	
with S&T Activities:	
- R&D Centres Related to Technion-Israel	
Institute of Technology (1993)	22
- Universities	7
- Research Centres	24
Total	**53**
3- Number of Persons working in R&D	135
Per Thousand of Population (1991/92)	
4- Number of Persons working in R&D	
in Industry (1991):	
- Scientists	6055
- Engineers	3345
5- Number of Science Publications Annually	
Per One Thousand Researchers (1987)	61
6- Number of Applications for Patent Registration	3727

Source:

(1) The Economic Implications of Peace on the Hashemite Kingdom of Jordan, RSS, 1994 (Publication is in Arabic).

(2) R&D System in the Arab States: Development of S&T Indicators, 1995.

3.2.3 Conclusion

- R&D in the Arab countries suffers from the following:
  - Low levels of expenditure on R&D amongst the Arab countries. Highest spending on R&D is by Egypt which spends only 0.34% of its GDP.
  - The private sector plays a very negligible role in promoting R&D.
- R&D in Israel is characterized by:
  - Size of expenditures: spending on R&D, measured as a percentage of GDP (3% in 1987) or per capita share ($275 in 1992), is classified as one of the highest in the world.
  - Diversity of the R&D fields: R&D comprises a wide range of different fields including industries such as: electronics, optics, computer based equipments (aeronautics and robotics), agriculture medicine and energy.

  - The major role is played by universities in R&D.
  - Israel is considered more advanced in R&D than the Arab countries alluded to in this study.

3.3 Mineral Resources

3.3.1 Mineral Resources in Jordan

Since Jordan is a non oil producing country, the mining and quarrying sector in Jordan is one of the important economic sectors. Large reserves of phosphate and potash are extracted for export. Many other minerals are not yet exploited, economic and technical feasibility for exploitation need to be studied.

Phosphate: Phosphate is the most important discovered national resource in Jordan. The assumed and inferred reserves are about 1.5 billion tons from the country mines which are located in Al-Hasa,

Wadi Al-Abiad, and Al-Shediah[1]. Jordan is the fifth largest producer of phosphate and the third largest exporter. Phosphate exports reached JD100.4 million, about 12.64% of the total exports in 1994. The phosphate production in 1994 reached 4217.9 thousand tons.

Potash: Jordan is considered one of the largest potash producers in the world. The potash plant has been established in 1982 to exploit potash crudes which exist in the Dead Sea with maximum designed capacity of 1.2 million tons. Production of potash has increased from 280 thousand tons in 1983 to 1550.3 thousand tons in 1994. Potash exports totalled JD92.6 million in 1994, i.e. 11.66% of the total exports.

Oil and Gas: The production of crude oil started in 1985 when Hamza field was discovered. This production is negligible as it reached 1.5 thousand tons in 1994. It is observed that the crude oil

[1]The Arab Economic Report, 1994.

production decreased from 17 thousand tons in 1990 to 1.5 thousand tons in 1994 about 91%.

Gas is exploited from the Risha region. The exploration in Risha region started in 1986 and the natural gas reserves amounted to 400 billion cubic feet[1]. The exploited gas is used for power generation contributing 12.3% of the total electricity production, by the end of 1993[2]. Natural gas production increased from 5.5 billion cubic feet in 1990 to 10 billion cubic feet in 1994, i.e. 82%. Since indications are that oil and gas exist, a Jordanian petroleum company for exploration and exploitation of oil has been established.

Un-exploited Mineral Resources: For Several reasons, Jordan has not yet exploited a number of available minerals. Table (3-8) presents a number of such minerals, their reserves, usage and the barriers that prevent exploitation.

[1]Ibid.

[2]Ministry of Energy and Mineral Resources, Annual Report, 1993.

Table (3-8): Un-Exploited Minerals in Jordan

Mineral	Reserves	Possible Usages	Barriers/Current Usage
Oil Shale	36.8 billion	Energy resource.	Economically unfeasible.
Glass Sand	Large quantities	In production coloured bottle glass, ceramic, abrasives, moulding sands, and chemical industry.	Used only in manufacturing coloured glass sheets.
Feldspar	100 million tons	Glass manufacturing, ceramic, tooth manufacturing pottery and rubber	Used without treatment in coloured glass and ceramic industry.
Tripoli	13 million tons	Manufacturing of paints, ceramic industry, as filling agents and as soft abrasive.	A profitable tripoli production would be 10 thousand tons annually. Marketing is the obstacle that prevents exploiting tripoli.
Zeolite	Economical amounts	Used in pollution control and in industrial and agricultural applications.	
Granite	Considerable amounts	In different applications.	Needs more detailed studies.
Diatomite	1000 million tons	Used in food industries, paints, plastics, and other applications.	
Bentonite and Palygorskite	100 million tons of multi-layer clay, illite smectite (the major element for bentonite formation and palygorskite).	Used in production of absorbents, water, oil, and natural gas purification, toxic absorbing pharmaceuticals, iron pellet binders and as fillers in paints and industry.	
Copper	16 million tons	In industry.	Economically unfeasible.

Source:

(1) Abu-Ajamieh, M., et al., Natural Resources in Jordan, 1988.
(2) Natural Resources Authority, Annual Report, 1994.
(3) Jordan An Overview of Projects, Jordanian official document submitted to the Amman Summit, 1995.

3.3.2 Minerals in Saudi Arabia

Saudi Arabia has large crude oil reserves which amount to 260 billion barrels i.e. about 25% of the total world reserves[1]. Crude oil plays a major role in the Saudi Arabian economy. Oil and gas contribution to the Gross Domestic Product (GDP) reached 34.6% in 1992[2]. The daily production of crude oil increased from 5.1 million barrels/day in 1989 to 8.09 in 1994, i.e. about 59%. Saudi Arabia achieved its target of 10 million barrels/day, i.e. that of maximum sustained capacity in mid-1994. Crude oil and refined petroleum exports reached $43.4 billion in 1992, about 92% of its total exports[3].

Natural gas reserves amounted to 182.6 trillion cubic feet at the beginning of 1993[4]. Production volume in 1991 reached 64.7 billion cubic meters.

Studies indicate that there are 800 sites for gold in Saudi Arabia of which 300 sites have already been dug for exploration. Muhed Al-Daheb is the main

[1] The Arab Economic Report, 1994.
[2] EIU, 2nd Qrt., 1995.
[3] Ibid.
[4] The Arab Economic Report, 1994.

mine located in the west of the kingdom, its reserves amount to 1.2 million metric tons of gold. By the end of 1992, the production from this mine has reached 19 tons of pure gold . Reserves of 94 million tons of bauxite which contain about 57% of alumina[1] have been discovered.

3.3.3. Minerals in Syria

Crude oil reserves amounted to 1.73 billion barrels in 1992[2]. The production has increased from 570 thousand barrels/day in 1993 to 590 thousand barrels/day in 1994. Their export value in 1994 were about $1.8 billion[3]. Natural gas reserves amounted to 600 billion cubic meters in 1992[4].

Syrian Crude Oil Company is responsible for all the operations of crude oil exploration. Several foreign companies cooperate in this endeavour.

Other than crude oil and gas there are many mineral resources such as phosphate, salt and

[1]Ibid.
[2]Ibid.
[3]EIU, 3rd. Qrt., 1995.
[4]The Arab Economic Report, 1994.

natural asphalt. Production from these minerals, respectively, in 1992 was as follows: 1265 thousand metric tons, 84 thousand metric tons and 72 thousand metric tons.

3.3.4 Mineral Resources In Iraq

Oil and Natural Gas: Iraq is rich with natural resources. It posses the second largest world reserves of crude oil after Saudi Arabia. Iraqi reserves amounted to 100 billion barrels in 1992, about 10% of the world reserves, and its natural reserve gas in 1991 amounted to 2690 billion cubic meters. According to statistics in 1990 Iraqi natural gas represents 2.4% of the total world natural gas reserves[1]. Due to the sanctions imposed on Iraq, the production and exports of crude oil and natural gas has decreased in large amounts. Oil production and exports in 1993 reached 660 and 59 thousand barrels/day, respectively. Natural gas production and the sold quantities in 1993 reached 2750 and 2550 million cubic meters, respectively.

[1]Ibid.

Other minerals[1]:

- Salt: is produced at Fao, Hit, Kom, and Tuz Khurmati where the largest deposits are located. The production runs at some 80 thousand tons/year.
- Gypsum: is located in Mosel, Kifri, and Falluja with a production of 170 thousand tons/year.
- Clay Sand for glass-making, iron, and copper ores: are known to exist but are exploited on a minor scale.
- Phosphates: is mined at Akashat, near its borders with Syria. It is entirely utilized for processing at El-Qaim fertilizer plant established as a part of an integrated programme for the establishment of a "national chemistry industry". Phosphate reserves amounted to 10 billion tons in 1990 and production in 1989 amounted to 3.5 million tons.
- Rock Sulphur: exists in Mishraq near Mosul. Production of sulphur reached about 1.4 million

[1]EIU, Country Profile, 1995-96.

tons in 1989, part of this production was used to meet the local requirements of the fertilizer plant at Al-Qaim. The exported quantity in 1989 was 1.2 million tons. Sulphur is also produced as a by-product of the refining process.

3.3.5 Minerals in Egypt[1]

Oil and Natural Gas: Crude oil extraction is considered the most important mining industry in Egypt. Reserves amounted to 3.3 billion barrels in 1995. Its production reached 44 million tons in 1992. Several foreign companies as Amoco of the USA and Agip of Italy are co-partners with Egypt General Petroleum Corporation (EGPC). Natural gas reserves amounted to 21 trillion cubic feet in November 1993. 35% of domestic energy requirements is produced using natural gas. There is a plan to export natural gas through a pipeline to Israel and possibly later to Jordan, Lebanon, Syria and Turkey.

[1]EIU, Country Profile, 1995-96.

Egypt has about 50 million tons of coal. Coal exploitation was halted in 1967 due to the war. Egypt plans to reopen a deep mine at Maghara in Sinai in 1996 with an initial production rate of 125 thousand tons/year increasing it to 600 thousand tons/year in five years.

Other minerals:

- Iron Ore: is extracted at the Baharia Oasis in the western desert. Its production reached 2392 thousand tons in 1992.
- Limestone and Phosphate Mining: is located near Safaga and Quseir on the Red Sea. Phosphate mines exist in Abu Tartur north west of El-Kharga. Production from these mines, in mid-1995, was 600 thousand tons/year and is intended to rise to 2.2 million tons/year by the end of 1996. Phosphate reserves amount to about 7 billion tons or about 7% of total world reserves. Its production reached 2089 tons in 1992.

- Other Minerals: as salt 936 common[1], Kaolin 203 thousand tons, basalt 763 thousand cubic meters, clay 10041 thousand tons, gypsum 1425 thousand tons, sandstone 113 thousand cubic meters and dolomite 838 thousand tons.
- Appreciable deposits of manganese, gold, zinc, lead, copper, potash, sulphur and uranium exist. Their remote location and high cost of extraction and transport has limited their exploitation.

3.3.6 Minerals in Israel

Israel is poor in mineral resources. Minerals in Israel consists of:

- Crude Petroleum and Natural Gas: crude petroleum and natural gas production are in small quantities. Oil production in 1992 was 49061 thousand barrels and gas production was 2.3 million cubic meters.
- Phosphate and Potash: phosphate mining takes place in the Negev at Oron and Ein Yahat and

[1] Unrefined thousand metric tons.

its production in 1994 reached 2779 thousand tons. The extraction of potash from the Dead Sea is important and its production in 1993 reached 2139 thousand tons.

- Oil Shale: there are a large deposits of oil shale in Israel. According to recent estimates, there are about 12 billion tons of oil shale[1]. PAMA, an Israeli government owned company, has been involved in the development of oil shale production in Israel.
- Copper: There are deposits of low-grade copper at Timna in the Negav. These have not been mined for several years, since production is not commercially viable at current copper world prices.

Conclusion

Complementarity exists between the countries, this study is concerned with:

[1] Development Options for the Middle East: Regional and Sectorial Analysis, Israeli official document submitted to the Amman Summit, 1995.

- Jordan and Israel produce negligible quantities of crude oil which does not meet their requirements. While Saudi Arabia and Iraq have the first and the second world largest reserves, respectively.
- Most of the countries, have exploited considerable amounts of phosphate except for Saudi Arabia and Palestine. This calls for co-operation and co-ordination between them to explore, exploit, develop and improve their use of their reserves of this material.
- Jordan and Israel have the largest reserves and production of potash.
- Jordan and Israel have large reserves of salts in the Dead Sea region. Feasibility for co-operation between them in this field is viable.
- Jordan and Israel have 36.8 and 12 billion tons, respectively, of un-exploited oil shale. Israel is involved in the development of oil shale.

3.4 Sources of Income

This section analyzes the sources of income: the agricultural, industrial and service sectors, and sheds light on their importance in GDP, exports and employment.

Table (3-9) Source of Income: Origin of Gross Domestic Product (GDP) for Jordan and its Neighbouring Countries .....(%GDP)

Sectors	Jordan 1994	S.Arabia 1994	Syria 1993	Iraq 1991	Palestine 1994	Egypt 1993	Israel 1993
Agriculture	8.0	7.4	20.6	23.1	32.9	16.5	2.4
Industry and Mining	17.5	8.9	28.1*	14.5	7.6	16.7	21.3
Construction	7.4	9.8	2.6	3	17.2	5.1	8.7
Transport, Storage and Communications, Electricity and Water	17.8	6.8	10.8**	10.9	-	9.3	7.6**
Oil and Gas	-	32.4	-	-	-	9.9	-
Services	49.3	34.7	37.9	48.5	42.2	43.3	60.1
GDP billion $	6.7	125.7	30.4	66.2	3.4	50.3	74.4

(1) Net Domestic Product for Israel.
* Includes Electricity and Water
** Transport and Communication

Source: EIU, Country Profile , 1993-1996.

Table (3-9) illustrates the percentage share of each sector in the economies of the states concerned in this study.

3.4.1 The Agricultural Sector

The importance of agriculture in the economies, of the countries of this study, differs from one country to another.

The share of agriculture of the different states in the GDP, in 1993, was 8% in Jordan, 20.6% in Syria, 16.5% in Egypt, 7% in Saudi Arabia, 23% in Iraq and 32.9% in Palestine. In Israel, the share of agriculture in 1993 was 2.4% of its NNP.

Table (3-10) and Table (3-11) present the major agricultural indicators. Table (3-10) indicates land use. Syria enjoys the largest area of arable land of 71490 Km^2, followed by Iraq with 54500 Km^2, and Egypt 25850 Km^2. Egypt comes first in its resort to irrigated agriculture, followed by Iraq.

Table (3-10) Land Use for Jordan and its Neighbouring Countries

000" Km2

Country	Total Area	Land Area	Arable Land	Irrigated Land
Jordan	89.21	88.93	3.76	.57
Saudi Arabia	2149.69	2149.69	11.85	4.35
Syria	185.18	183.82	71.49	6.93
Iraq	438.32	437.37	54.50	25.50
Palestine	27.01	25.78	NA	NA
Egypt	1001.45	995.45	25.85	25.85
Israel	21.95	21.50	4.32	1.82

Source: Economic and Social Commission for Western Asia, (ESCWA), Statistical Abstract of the Region, 1981-1990
MINA, 41st. ed., op.cit.

Table (3-11) presents the water situation, Iraq ranks the highest in water availability with 5285 M^3 per capita in 1990, followed by Egypt 1112 M^3. Table (3-11) sheds light on the water problem, by comparing the present situation with the past (1960) and the future (2025). The massive increase in the

population, of the countries of this study, reduces sharply the amount of available water for agriculture. Well developed irrigation techniques and plants that require less water ought to be considered for a more effective use of available water resources.

Table (3-11) Water: Availability and Withdrawal(1) in Jordan and its Neighbouring Countries

	Renewable Resources Per Capita M^3			Share of Withdrawal (%)		
	1960	1990	2025	Domestic	Industry	Agriculture
Jordan	529	224	91	29	6	65
Saudi Arabia	537	156	49	6	2	91
Syria	1196	439	161	7	10	83
Iraq	14706	5285	2000	3	5	92
Egypt	2251	1112	645	7	5	88
Israel	1024	467	311	16	5	79

(1) Water availability: cubic meters per years.
Share of withdrawal: per cent.

Source: MEED, Middle East Economic Digest, Vol. 40, No. 4, 26 January 1996.

As for the Palestinians, the available resources estimated are between 580-830 million cubic meters per year. The Palestinians were permitted to use only

110-133 million cubic meters in 1993, the Israeli settlers share was 43 million cubic meters. The rest was withdrawn by Israel. 71% of the water available for the Palestinians was used in agriculture.

A. Agriculture in Jordan

The importance of agriculture, in the Jordanian economy, has declined in comparison with the other sectors over the years. This is due to the limitation of water resources and the dependence on the fluctuation of rain fall on one hand, and the rapid development of the other economic sectors on the other hand. According to Table (3-9), the share of agriculture in the Jordanian GDP was 8% in 1994.

In 1994, agricultural export was 11% of the total exports, the number of agricultural workers in 1993 was more than 54 thousand, or 6.4% of the total labour force[1].

Agriculture in Jordan suffers from limited water resources. This led to a rapid increase in agricultural

[1]Central Bank of Jordan, Annual Report 1994.

imports which in 1994 formed 17.3%[1] of the total Jordanian imports.

The main Jordanian agricultural products are: vegetables especially tomatoes and cucumbers, citrus, olives and olive oil.

It is worthwhile noting that the Jordan Valley, rich in agriculture, is shared by Jordan, Israel and the Palestinians.

B. Agriculture in Saudi Arabia

Agriculture is not considered as one of the important sectors in the economy of Saudi Arabia, this is natural due to its topography and climate. Furthermore, the discovery of oil and gas led people to migrate to the more profitable jobs, in the oil sector. The share of agriculture in the Saudi GDP does not exceed 7%, and its share in exports is about 1%. Despite this, 39% of the labour force, in 1990, were working in the agricultural sector[2].

[1]Ibid.

[2]MINA, 41st. ed., op.cit. & Economic and Social Commission for Western Asia, Statistical Abstract of the Region, 1981-1990 Issue 13, 1992.

In the 1980s, the government made effort in order to increase agricultural production. It provided the farmers with soft loans and subsidies. The result of this policy was a real growth in production. Wheat production increased from 142000 metric tons in 1979/1980, to 3.9 million in 1990/1991, of which 1.7 million were exported.

Major agricultural products of Saudi Arabia are: seeds, especially wheat, dates, vegetables and fruits.

C. Agriculture in Syria

Due to the availability of agricultural resources, (land and water) the agricultural sector in Syria is an important one, it generates 20% of the Syrian GDP, absorbs 28% of the Syrian labour force and forms 11% of the Syrian exports (1993 figures).

The government's efforts and reforms to provide incentives led to a tremendous increase in the production. As a result, agricultural imports declined from 22% of total Syrian imports in 1990 to

10.3% in 1994[1]. In addition, agricultural products - particularly cotton - are a major source of input for the textile industry. In 1994, textiles and raw cotton contributed to 13.4% of the Syrian exports[2].

The major agricultural products of Syria are: Seeds particularly wheat and barley, vegetables as tomatoes and potatoes, olives, apricots, grapes and industrial crops such as cotton and sugar beet.

The Syrian agriculture faces serious threats caused by Turkey's water projects, which will reduce the amount of water available for both Syria and Iraq and will affect the quality of water.

D. Agriculture in Iraq

Iraq is a country with great agricultural and water resources. Due to the oil discoveries in the beginning of this century, the share of agriculture in the GDP was only 5% in 1989, though employment in it forms 20% of the total labour force.

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[1]EIU Country Report 1994 and The Middle East and North Africa Report 1995.

[2]EIU Country Report, Syria, 1st. quarter 1996.

The severe conditions, caused by the UN embargo since 1990, forced Iraq to pay more attention to agriculture in order to replace the imported agricultural products. In the last few years, Iraq established several agricultural and irrigation projects. Despite all efforts, agriculture deteriorated seriously, due to several reasons: the shortage in seeds and fertilizers, the absence of spare parts for agriculture machinery and the departure of foreign labour.

The major agricultural products of Iraq are: seeds, vegetables, fruits, citrus and dates.

E. Agriculture in Palestine

Agriculture has a special importance to the Palestinian economy, it constitutes more than 32% of the GDP (Table 3-9), and provides jobs to 26% of the labour force[1]. Israeli occupation limited to a great extent the development of the other sectors in general and the industrial sector in particular, so the importance of agriculture has been maximized.

[1]EIU, Country Report, Occupied Territories, First Quarter 1996.

The major agricultural products of Palestine are: citrus, fruits, vegetables and olive oil.

F. Agriculture in Egypt

The importance of the agricultural sector in Egypt arises from the growing demand for food caused by the rapid population expansion. In 1993, agriculture was the origin of more than 16% of its GDP. In 1994 the agricultural goods constituted 7.7% of exports and 18.1% of imports[1]. In addition, agriculture provides the basis for the textile and food processing industries. More than 36% of the Egyptian labour work in agriculture. To increase agricultural production and provide the Egyptian people with their food requirements, Egypt's water resources ought to be utilized more effectively.

The major agricultural products of Egypt are: seeds (wheat and barley), rice, cotton, sugar beet, vegetables, fruits and other crops.

[1]The Arab Economic Report, Arab Chamber for Trade and Industry, General Union, 1994.

G. Agriculture in Israel

Israel is considered a developed industrial state, but due to the great support provided by the agricultural research centres, the agricultural sector in Israel is well developed and is an active one. At present 22% of the land is under cultivation, 49% of which is under irrigation (Table 3-10). The share of agriculture in the Israeli NDP (Net Domestic Products) was 2.4% in 1993 (Table 3-9), and agricultural workers did not exceed 3.3% of the total labour force[1]. Several factors account for this fact: the development and size of the other sectors such as industry and services and the natural limitation of the agricultural land which reduces the possibility of horizontal expansion.

Agriculture contribution to Israeli exports in 1994 was US $581 million or 3.5% of the total[2], this could be alluded to the well organised marketing mechanism.

[1] EIU, Country Profile, 1995-1996.
[2] Ibid.

The main agricultural products of Israel are: citrus, grapes (table and wine), bananas, avocados, wheat, hey, vegetables and olives.

H. Conclusion

1- The following can be noted:

- Agricultural land and/or water resources are available mainly in Syria, Iraq and Egypt.
- Jordan, Israel and the Palestinians, share the advantages of the Jordan Valley, and can provide the area with its need of vegetables and fruits particularly in the winter season.
- The industrial crops such as sugar and cotton are produced in both Syria and Egypt. Cotton provides the basis for the development of the textile industry.
- Agricultural research centres are available in the region particularly in Israel.

- The chemical fertilizers (potassic, phosphate and nitrogenous) are available mainly in Jordan, Saudi Arabia, and Egypt.
- A number of the neighbouring countries have common water resources, water basins, surface and ground sources, e.g. Jordan, Syria, Israel and Palestine are riparians of the Jordan River basin. In the south of Jordan, both Jordan and Saudi Arabia share the underground Disi aquifer.

Co-operation and co-ordination amongst the countries of the region in the agricultural sector will enhance the expansion of agricultural productions.

2- A macro view of the agricultural sector denotes that each country has a comparative advantage in certain agricultural products:

- Syria, Egypt and Iraq in: seeds, rice, sugar and dates, in addition to vegetables and fruits.
- Jordan, Israel and Palestine in: vegetables, fruits and citrus from the Jordan Valley in winter.
- Jordan, Syria and Palestine in olives and olive oil.
- Iraq and Saudi Arabia in dates.
- Egypt, Jordan, Israel and Palestine in the production of citrus.

3.4.2 The Industrial Sector

The share of industry in the domestic products vary from one country to another, Table (3-9) shows these variations: 7.6% in the Palestinian GDP, 28.1% in Syria, 21.3% in Israel, 17.5% in Jordan, 16.7% in Egypt, 14.5% in Iraq and 8.9% in Saudi Arabia.

But it is worth mentioning that these figures do not necessarily reflect the real industrial development of these different countries. In the Arab

states, manufacturing plays a small role and the kind of industry that prevails is an assembly one.

The industrial indicators referred to in this study are: contribution of industry to GDP, exports, employment and major industrial products.

A. Industry in Jordan

As presented in Table (3-9), the share of industry in the Jordanian GDP was 17.5% in 1994, and industrial exports amounted to JD 640 million ($960 million), which represent 80% of the total exports.

The number of the industrial establishments (1992) was 16 thousand, with more than 100 thousand workers i.e. 12.4% of the labour force, (1992 figures)[1].

Manufacturing industries are concentrated around Amman. The majority of the factories produce food products, clothing or consumer goods. But the major industrial income derived is from few heavy industries such as: phosphate extraction,

[1]The Middle East & North Africa Report 1995.

cement manufacturing, petroleum refining fertilizer and medicament productions.

Jordan is a country with limited natural resources. Its mineral wealth lies in the phosphate reserves and the Dead Sea salts.

Jordan is making an effort to maximize its benefits from the available resources. In the recent years joint venture projects have been agreed upon with Japanese, Indian and Pakistani companies. The construction process for these projects began in Aqaba, Shidiya and Pakistan respectively. All of them depend upon the Jordanian phosphate and potash.

The major industrial products of Jordan are: phosphate, potash, cement, petroleum products, fertilizers, chemical acids and medicaments.

B. Industry in Saudi Arabia

Saudi Arabia has been making determined efforts to achieve a tangible industrial development. The oil and gas industries are the pillars of the industrialization program.

The government established several industrial complexes such as those in Jubail and Yanbu. These complexes provide basic infrastructure services required by the new industries. In addition, the government provides a wide range of incentives and subsidies to encourage industrial investments.

The industrial sector share in the GDP of Saudi Arabia was 8.9% in 1994, with 2036 establishments and 175000 workers[1], representing 4.3% of the total labour force. Petrochemicals constitute 7.9% of the Saudi exports.

The main industrial products are: petrochemicals, fertilizers, petroleum products, cement, crude steel, food stuffs and aluminium.

C. Industry in Syria

The industrial sector in Syria is considered an important sector in the Syrian economy. For the period 1989-1991 contribution of industry was 18-20% of the GDP. In 1993, those figures rose to 28.1% (including water and electricity). Manufacturing

[1] Ibid.

represents a small part of these figures, in 1990 manufacturing amounted to 5.8%.

The number of workers in the industrial sector at the end of 1992 was 456000, i.e. 15% of the Syrian labour force.

Syrian industrial exports were $647 million in 1990. The textile industry, which Syria is well known for, amounted to 27% of total exports[1].

In the past, all the heavy industries were state owned. The role of the private sector was limited to small size enterprises. Recently, the private sector was allowed to expand its role in the economic life of Syria.

The major industrial products of Syria are: cotton yarn, silk, cotton textiles, woollen clothes, consumer durables and oil production and refining.

D. Industry in Iraq

The industrial sector in Iraq has the potentiality for more growth and development. It is assumed that central planning promoted Iraq to achieve

[1] EIU, Country Report, Syria, 1994.

advanced technology levels. A wide range of light and heavy products were produced in Iraq in the mid 1980s such as: oil products, phosphate, petrochemicals, textiles, steel, sugar, food stuff, electrical goods, consumer durables, trucks and buss chassis.

The UN embargo on Iraq, led to serious shortages in spare parts and in maintenance, thus, adversely effecting the industrial sector. Iraqi industries have the potential to boom, particularly if the military industry is transferred to civilian purposes.

The share of the industrial sector in the GDP of Iraq was 11.5% in 1989[1], and in 1991 it rose to 14.5% (Table 3-9). Unfortunately, this increase has been due to the absence of the oil production caused by the embargo rather than due to the sector's growth or development.

[1]EIU, Country Report, Iraq, 1994.

E. Industry in Palestine

The occupation conditions since 1967, prohibited the development of the Palestinian economy in general and the industrial sector in particular. The share of industry in the gross domestic product was around 8%. Available information, regarding the industrial sector, shows that in 1987 the number of industrial establishments was 4255 with 19268 workers. Industrial workers in the West Bank and Gaza represent 16.6% and 17.5% respectively[1] of the total employment.

F. Industry in Egypt

In the recent years, and in consistence with the economic reform program, the state monopoly over several sections of the industrial sector has broken down. This led to renewed growth in the vehicle assembly sector. International companies, like Suzuki, General Motors, Citroen, Hyundai, Nissan

[1]Omar Abdul Razeq, Industrial Survey, Centre of Labor Studies, Ramallah, 1991.

and Peugeot, started local assembly through joint ventures or licensing agreements.

Egypt managed to have a share of the international information technology (IT) market. Currently, Egyptian production of the IT product, mainly software, is worth $172 million. But this can rise to $2.5 billion per year if the global IT companies can be induced to act as engines of growth[1].

The share of the industrial sector in the Egyptian GDP was 16.7% in 1993 as presented in Table(3-9). More than two million workers were employed in the industrial sector. The share of industry in the Egyptian exports was 83% (1992) of which: 45% oil, 5.5% textiles and 23% different products such as: food stuff, chemicals, engineering products etc.[2]

The major industrial products of Egypt are: textiles, cotton yarn, cars, busses, trucks, consumer durable, steel, aluminium, cement, phosphate, fertilizers and tyres.

[1]EIU, Country Profile, 1995-96.
[2]Ibid.

G. Industry in Israel

The share of the industrial sector in the net domestic product of Israel was 21.3% in 1993 (Table 3-9). It reflects the importance of the industrial sector for the Israeli economy. By 1992, the number of the industrial establishments was more than 17928. The manufacturing sector employed 31% of the total civilian labour force in comparison with 7% working in mining and quarrying.

The share of industry in the Israeli exports in 1992 was $9739.5 million (74.4% of the total exports). In addition, the Israeli military industry is a developed one in the area. Military exports amounted to $670 million in 1990[1].

Israel is considered a well developed industrial state. It produces a wide range of industrial products. The following are some of the major products: diamonds (worked), clothing, textiles, fertilizers, chemicals (organic and inorganic), transport equipment, machinery and parts, electrical machinery and parts and metals and its products.

[1]EIU, Country Profile, Israel, 1995.

H. Conclusion

The following conclusions can be derived:

1. Israel is the most developed country in the region in the industrial field.
2. Main industries of the Arab states are mining and quarrying. Each state tries to maximize its benefits from the available natural resources, i.e. phosphate and potash in Jordan and oil and gas in Saudi Arabia, Iraq, Egypt, and Syria.
3. The share of manufacturing in the industrial sectors of the Arab States is negligible.
4. The area has a great industrial potential, due to the availability of raw materials, energy, labour force, technology and financial resources.
5. The countries of the region have a comparative advantage in different industries. A report by the World Bank shows that:
   - Jordan has a comparative advantage in chemicals;
   - Egypt and Syria in food, refined oil and textiles;

   - Saudi Arabia in refined oil and chemicals;
   - Israel in food and feed, chemicals and manufactured goods[1].
6. Potentiality exists for co-operation and integration, among the countries alluded to. In order to maximise benefits of available resources each country has to specialize in the industries in which it can obtain a comparative advantage.

3.4.3 Services

Services play an important role in the economies of the region. The share of services in the GDP vary from 41% in Saudi Arabia to 65% in Jordan. Table (3-12) illustrates the contribution of the service sectors in the economies of the different states.

Furthermore, the importance of services was enhanced by touristic resources since the ME region

[1] Claiming the Future, Choosing Prosperity in the Middle East and North Africa, World Bank, 1995.

is the birth place of the three monotheistic religions and the cradle of major ancient civilizations.

Table (3-12) Services in Jordan and its Neighbouring Countries

% of GDP

Services	Jordan 1994	Saudi Arabia 1994	Syria 1993	Iraq 1991	Palestine 1994	Egypt 1993	Israel 1993
Financial Services	21.7	NA	4.4	7.7	NA	included in commerce	18.6
Transport, Storage and Communications	15.7	6.4	10.7	9.1	36.9	6.7	7.6
Public and Private Services	19.2	27.8	14.4	17.7	11.7	23.1	26.8
Imputed Banks Charges and Subsidies	-1.3	-	-	-	-	-	-4.1
Commerce and Hotels	9.7	6.9	19.1	14.3	-	20.3	11.6
Total Share of Services	65	41.1	48.6	48.8	48.6	50.1	60.5

Source: EIU Country Profile , 1993-1996.

Thus the countries of the region can constitute a complementary unit for touristic attraction both religious and historical.

A. Jordan

Services constitute an important sector in Jordan. About 65% of the GDP is from derived services (Table 3-12). In 1993 more than 75% of the

Jordanian labour force were in the service sector[1]. The financial services have the largest share with 21.7% in 1993. The service sector in Jordan could widely benefit from establishing SEZs in the region due to the central location of the country. Such a location promotes a variety of service activities in transportation, tourism and monetary and financial services. As for tourism, more than 844 thousand tourist visited Jordan in 1994, and income from tourism was $582 million.

B. Saudi Arabia

The share of services in the Saudi GDP was 41.1% in 1992 of which 6.9% was from commerce, 6.7% from transport and communications, (Table 3-12). About 37% of the Saudi labour force were in the service sector in the mid 1980s.

As for tourism, millions of persons visit Saudi Arabia each year for religious purposes generating more than $1 billion.

[1]Monthly Statistical Bulletin, Central Bank of Jordan, April 1995.

C. Syria

The share of services in the Syrian economy, in 1993 was about 48% of the GDP. It came mainly from: trade and commerce (19%), governmental social, and personal services (14.4%) and transport and communications (10.7%). Only 4.4% came from the financial services. About 46% of the Syrian employed labour force are involved in the service sector[1].

As for tourism, in 1994, more than 718 thousand tourist visited Syria and income from tourism was $800 million.

D. Iraq

Services share in the Iraqi GDP was 48.8% in 1991 (Table 3-12), in comparison with 22% in 1989[2]. This rise, is not necessarily a real one, but is due to a halt in the oil revenues because of the UN embargo imposed on Iraq[3].

[1]Ibid.
[2]EIU, Iraq, Country Profile, 1993/1994.
[3]The Middle East and North Africa, 1995.

E. Palestine

The service sector is the largest one in the Palestinian economy. Its contribution to the GDP was 48.6% in 1993, of which 11.7% were public and community services and 36.9% were transport, trade and other services (Table 3-12).

F. Egypt

The Egyptian service sector is important for the Egyptian economy. In 1993, services generated more than 50% of the GDP. In 1989, services employed more than 37% of the labour force[1]. The share of public and private services was 23%, while trade, finance and insurance contribution was 20% of GDP. The share of transport storage and communications was 6.7% (Table 3-12).

G. Israel

The share of services in the Israeli NNP was more than 60% in 1993. Of these 26.8% were public and private services, 18% financial services, 11%

[1]Ibid.

commerce and hotels and 7.6% transport and communications, Table (3-12). More than 67% of the Israeli employed labour force in 1992 were in services. As for tourism, about 1.8 million visited Israel in 1994 generating $2.2 billion in income.

H. Conclusion

Services play an important role in the economies of the region. The following are noted:

1. The share of financial services is the highest in Jordan, followed by Israel.
2. The share of transport, storage and communications is the highest in Jordan, followed by Syria.
3. The share of public and private services is the highest in Saudi Arabia followed by Israel.
4. The share of commerce and hotels is the highest in Egypt, followed by Syria.
5. Tourism is a sector that has a high growth potentiality in the region. Regional co-operation can be viable in this sector.

3.5 Foreign Trade and Balance of Payments

3.5.1 Jordan

The volume of Jordan's international transactions was $9.2 billion (164% of its GDP) in 1993, assuring high rate of economic openness and high degree of sensitivity to the international events. The share of merchandise trade in 1993, was about $4.39 billion (48% of total international transaction), of which $1.25[1] billion constituted exports and $3.15 billion imports. This means there was a trade deficit of about $1.9 billion in 1993. Since the independence of Jordan, trade deficit has been one of the main characteristics of its economy.

However, Jordan used to finance its trade deficit mainly via the invisible transactions and the surplus of unrequited transfers. In 1993, the surplus of invisible operations amounted to $0.1 billion and that of unrequited transfers amounted to 1.4 billion.

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[1]EIU, Country Profile, 1996, (1st. Quarter) and IMF, Balance of Payment Statistics 1993.

The current account of Jordan had a deficit of about $0.47 billion in 1993. This high volume of deficit first occurred in 1992. The main reason for this deficit was the loss of the remittances of Jordanians working in the Gulf, who had to return to Jordan, and the loss of the official unrequited transfers received from the Gulf States. Jordan's current external debt stands at $5.9 billion.

The Jordanian exports, in 1993, were in the form of raw materials (55%), consumer goods (41%) and capital goods (4%). The most important exported commodities are phosphate (13%), Potash (12%), medicaments (12%), fertilizers (11%) and fruits and vegetables (8%).

Jordanian exports in 1994 were to Iraq (13%), India (11%), Saudi Arabia (9%) and United Arab Emirates (5%).

Table (3-13): Current Account and International Transactions (1993)

(Billion $)

	Jordan	Syria	Egypt	Saudi Arabia	Israel	Total
Merchandise	4.39	6.63	13.17	70.82	35.22	130.22(1)
- Exports	1.25	3.15	3.24	44.92	14.80	67.36
- Imports	3.15	3.48	9.92	25.90	20.41	62.85
- Balance(1)	-1.90	-0.32	-6.68	19.02	-5.61	4.51
Services	2.92	2.73	13.56	27.84	12.62	59.67
- Credit	1.57	1.50	8.20	3.53	5.87	20.66
- Debit	1.35	1.23	5.37	24.31	6.75	39.01
- Balance(2)	0.23	0.27	2.83	-20.79	-0.88	-18.34
Capital	0.35	1.36	3.08	8.11	4.57	17.46
- Credit	0.10	0.08	1.11	6.15	1.47	8.91
- Debit	0.25	1.28	1.97	1.95	3.10	8.54
- Balance	-0.15	-1.20	-0.86	4.20	-1.63	0.37
U. Transfers	1.53	0.66	7.68	16.66	7.46	33.98
- Credit	1.44	0.65	7.68	0.00	7.10	16.87
- Debit	0.09	0.01	0.00	16.66	0.35	17.11
- Balance	1.35	0.64	7.68	-16.66	6.75	-0.23
C. Account	-0.47	-0.61	2.97	-14.22	-1.37	-13.69
Credit	4.36	5.38	20.23	54.60	29.24	113.81
Debit	4.83	5.99	17.26	68.82	30.62	127.51
V.O.E. Optns	9.19	11.37	37.49	123.41	59.86	241.32(2)
External Debt	5.9	22.1	40.8	NA	40.0	-
Debt /GDP%	88	73	81	NA	53	-

Sources: IMF, Balance of Payments Statistics.

If the estimated figures of Iraq and Palestine are added:
(1) Total merchandise trade might reach $154 billion.
(2) Total volume of international transactions might reach $302 billion.

U. Transfers = Unrequited Transfers
C. Account = Current Account
V.O.E. Optns = Volume of External Operations.

Most of the Jordanian imports in 1994 were in the form of food and live animals (17%), fuels (13%), chemicals (12%), manufactured goods (18%) and machinery and transport equipment (25%). The major imported commodities in 1994 were crude oil (10%), transport equipments and spare parts (10%), electrical and nonelectrical equipments, animal and vegetable oils and fats (4%).

The main origins of Jordanian imports were from Iraq (12%), Germany (8%), Italy (6%), U.K. (5%), France (5%), USA (10%) and Japan (4%).

3.5.2 Syria[1]

The volume of Syrian international transactions was $11.37 billion (30% of GDP) in 1993. It could be interpreted that the Syrian economy is either a closed one (compared with those of the region) or it has high degree of self sufficiency and a promising strong economy. The volume of merchandise trade was about $6.63 billion in 1993,

[1]EIU, Country Profile, 1996, (1st. Quarter) and IMF, Balance of Payment Statistics, 1993.

exports were about $3.15 billion and imports were about $3.48 in 1993. Syria had a trade deficit of about $0.32 billion in 1993. This deficit was considered relatively limited in comparison with the volume of the Syrian economy. Syria used to finance this deficit mainly via the invisible transactions and the surplus of unrequited transfers. In 1993, the surplus of invisible transactions amounted to $0.27 billion and that of the unrequited transfers amounted to $0.64 million.

Syria had a current account deficit of about $0.61 billion in 1993. This was mainly due to the capital account which had a deficit of $1.2 billion in 1993, reflecting a relatively high level of foreign investments in Syria and payments for servicing its external debts. Currently, Syria's external debt stands at $22.1 billion.

The Syrian exports in 1992 were composed mainly of petroleum products (66.7%), agriculture products (13.4%), textile and raw cotton (11.4%).

Syrian exports in 1992 were to Germany (18.2%), Italy (13.8%), Lebanon (13%), France (10.8%), Saudi Arabia (3.8%) and Spain (3.6%).

The principal Syrian imports in 1992 were machinery and equipment (17.8%), metal and metal products (9.7%), food stuffs (10.3%) and textile (7.5%).

The main origins of Syrian imports in 1992 were Italy (10.8%), Germany (10.5%), France (5.3%), Turkey (3.7%) and Japan (9.4%).

3.5.3 Egypt[1]

The volume of Egyptian international transactions was $37.49 billion in 1993 (80% of its GDP). The share of merchandise trade of this volume was about 35% ($13.17 billion), of which $3.24 billion were in exports and $9.92 billion in imports, i.e. Egypt had a trade deficit of about $6.68 billion in 1993. This deficit is the largest one among the countries of this study. If the huge natural

[1]EIU, Country Profile, 1996, (1st. Quarter) and IMF, Balance of Payment Statistics, 1993.

capabilities of Egypt are considered, such a deficit reflects a structural deficiency in the Egyptian economy. This deficit led Egypt to finance its trade deficit mainly via the invisible transactions and the surplus of unrequited transfers. Surplus of invisible operations amounted to $1.97 billion and that of unrequited transfers amounted to $7.68 billion in 1993. These surpluses resulted in a surplus in the current account of about $2.97 billion. Egypt's external debt is $40.8 billion.

Egyptian exports in 1994 were petroleum and its products (48.9%), cotton yarn and textile (16.1%), engineering and metallurgical goods 10.7%, agricultural goods (6.3%) and raw cotton (1.5%).

The main destination of Egyptian exports are Italy (19.8%), USA (9.7%), Greece (8.8%), Spain (4.8%), UK (6.3%) and Germany (4.7%). The Egyptian imports in 1994 were composed of machinery and transport equipment (27.3%), food stuffs and beverages (18.1%), chemical products, rubber and leather (10.9%), metal and base metal and manufactures (9.4%) and wood, paper and textiles

(9.4%). The main origins of these imports were USA (20.4%), Germany (9.7%), Italy (9.2%), France (6.1%), Japan (5.1%) and UK (4.1%).

3.5.4 Saudi Arabia[1]

Saudi Arabian economy is considered as one of the most influential of the open economies in the region. It has a huge volume of international transaction. This volume reached $123.41 billion in 1993 (106% of GDP).

The volume of Saudi Arabian merchandise trade amounted to $70.82 billion (57.4% of GDP) in 1993, of which $44.92 billion were in exports and $25.90 billion in imports, i.e. Saudi Arabia had trade surplus of about $19.02 billion in 1993, assuring its richness due to the oil exports. In addition, Saudi Arabia is the only country in the region which had surpluses in the capital account. This surplus amounted to $4.2 billion in 1993, reflecting the Saudi investments abroad. The services operations deficit amounted to $20.8 billion in 1993 and that of

[1]EIU, Country Profile, 1996, (1st. Quarter) and IMF, Balance of Payment Statistics, 1993.

unrequited transfers $16.66 billion. Such deficits reflect the capability of Saudi economy to grant aid to others and its need to acquire foreign services.

However, Saudi Arabian current account had a deficit of about $14.22 billion. That was mainly due to the unrequited transfers to other countries which amounted to 16.7 billion in 1993.

In addition to crude oil and refined petroleum exports which composed 88.9% of total exports, petrochemicals and plastics compose 8.6% of total exports of Saudi Arabia in 1993.

The main destinations of Saudi exports in 1994 were Japan (16.9%), USA (16.8%), South Korea (8.8%), Singapore (6.1%), France (5.5%) and UK (2.3%).

In 1993, Saudi imports were mainly composed of (20.7%) transport equipment machinery (20.7%), food stuffs (12.9%), chemical products (11.1%) and textiles and clothing (7.3%). These imports were mainly from USA (16.8%), Japan (16.9%), UK (7.7%), Italy (4.4%) and France (4.4%).

3.5.5 Israel[1]

The economy of Israel could be considered as an open one. The volume of its international transactions amounted to $59.8 billion (92% of GDP) in 1993. The share of merchandise trade was about 59% of total volume of external operations ($35.22 billion) in 1993. Exports and imports amounted to $14.08 billion and $20.41 billion respectively. This situation reflects high production capabilities of the Israeli economy. However, the Israeli trade deficit amounted to $5.7 billion in 1993. This deficit is permanent and used to be financed by the unrequited transfers received mainly from USA. In 1993, the surplus of unrequited transfers amounted to $6.75 billion. Israel's current external debt stands at $40 billion.

The principal exports of Israel in 1994 were electronics, machinery and metal (34.4%), worked diamonds (26.3%), chemicals (12.3%), textiles and clothes (6.1%), agricultural goods (3.5%) and food

[1]EIU, Country Profile, 1996, (1st. Quarter) and IMF, Balance of Payment Statistics, 1993.

(3.4%). The main Israeli exports in 1994 were to the USA (31.6), Luxembourg (5.5%), Japan (5.9%), UK (5.1%) and Germany (5%).

The Israeli imports in 1994 were composed mainly of investment goods (20%), diamonds (18.3%), fuel (7.4%), consumer nondurable goods (6.9%), consumer durable goods (6.6%), other production imports (46.3%). Such imports were imported mainly from: The USA (17.9%), Belgium, Luxembourg (12.7%), Germany (10.4%), Italy (7.8%) and the UK (8.7%).

3.5.6 Palestine[1]

Due to occupation, there are no accurate statistics concerning the Palestinian economy. The volume of Palestinian international transactions could be estimated at $2.3 billion (86.5% of its GDP). The share of foreign trade of these transactions was 60% ($1.4 billion). Exports and imports amounted to $0.24 billion and $0.14 billion respectively in 1993. The

[1]EIU, (Israel and the Occupied Territories), Country Profile, 1996, (1st. Quarter) and IMF, Balance of Payment Statistics, 1993.

trade deficit in 1993 amounted to about $0.9 billion[1]. The Palestinians used to finance this deficit by the invisible surpluses on unrequited transfers received.

The major Palestinian exports are in the form of handicrafts and agricultural products. Palestinian exports in 1992 were to Israel (85.4%) and Jordan (12.9%). The main origin of Palestinian imports in 1992 was Israel (90%) and most of Palestinian imports were in the form of agricultural and industrial consumer products.

3.5.7 Iraq[2]

The unstable situation and sanctions imposed on Iraq poses a hindrance to finding accurate data on Iraq. The most recent data available is for 1989. The merchandise trade of Iraq amounted to $22.3 billion in 1989. Exports amounted to $14.6 billion and imports amounted to $7.7 billion. The Iraqi GDP amounted to $66.2 billion in 1989. By assuming the

[1]Calculated by assuming the averages of exports to GDP of the countries of this study.
[2]EIU, (Israel and the Occupied Territories), Country Profile, 1996, (1st. Quarter) and IMF, Balance of Payment Statistics, 1993.

average rate of the openness of Jordan's neighbouring countries (87% of GDP), we can conclude that the volume of Iraqi international transactions are not less than $58 billion. This figure could be duplicated by the removal of the sanctions imposed on Iraq, as a result of the anticipated reconstruction needs.

In spite of having the second largest oil reserves (after Saudi Arabia) in the world, the importance of oil in the Iraqi economy was low, even in 1989 prior to the Gulf war, compared with that of the other Arab oil countries. The oil's contribution in the Iraqi GDP was not more than 60% (1989), but it is still its main export commodity (more than 90% of total exports). Iraqi exports in 1990 were to the USA (29%), Brazil (10%), Japan (9%), Netherlands (7%), Spain (5%), France (4%) and Italy (3%).

Iraqi imports included machinery, consumer goods, production inputs in addition to military imports. The main origins of imports in 1990 were Germany (13%), USA (11%), Turkey (9%), France (9%), UK (8%), Japan (5%), Italy (5%) and Brazil (3%).

3.5.8 Conclusion

1- The volume of trade in 1992, between the involved countries of the study, reached $2199 million.

2- Intra-regional trade between the Arab countries did not exceed 4% of its trade with the world.

3- Jordan's central geographical location promotes it to play a vital role in intra-regional trade.

4. Conclusion: Jordan's Perspective

4.1 Current Situation

- Since the early nineties, Jordan has been moving seriously towards privatization and liberalization of its economy. Having acknowledged the role of the private sector in activating the economy, promoting private initiatives has been one of Jordan's main concerns. Control of certain economic activities by the government sector has been probably due to the limitations of the private sector, in the beginning, to initiate or run such activities. Jordan's move towards privatization encourages investment in the country by both foreign and domestic entrepreneurs.
- By restructuring its economy, Jordan is seeking to globalize its economy and put it on the competitive track, regionally and internationally.
- The Middle East peace process and the resolution of the Palestine problem mean

political stability in the area. Investment, both foreign and otherwise, will be enhanced. Jordan's commitment to peace is expected to promote foreign investment in the country, SEZs can form an attraction for foreign investment.

- Jordan posses a geo-strategic position, a regional and an international one, in the ME. Regionally, the GDP of the surrounding countries (alluded to in this study): Egypt, Syria, Iraq, Saudi Arabia, Palestine and Israel, exceeds $350 billion and their external trade is more than $140 billion. Jordan has been central in land transport between southeast Europe and the Arab Gulf. This central position could be further enhanced, when a comprehensive peace is achieved - if the Arab Gulf countries will use the Palestinian and Israeli ports on the Mediterranean - .
- Jordan realizes the importance of SEZs and has established a number of internal bindings: free trade areas, industrial areas and others. It has joined a number of multinational bindings: the

Arab Common Market and the Arab Co-operation Council. Jordan is currently working towards liberalizing its trade with Egypt, Saudi Arabia and Europe and is working towards creating an Arab free trade area.

- Jordan faces economic problems that require solutions, these problems are:
  * High Rate of Unemployment: A survey conducted by the Department of statistics in 1993, revealed that more than 160 thousand workers are unemployed, i.e. 18.8% of the total working force. The need for job creation has become more prominent, since more than 35% of the unemployed, whom the country has invested in, are university and college community graduates.
  * High Rate of External Debt: In the aftermath of the peace treaty with Israel, part of Jordan's external debt was cancelled. Yet, this debt remains high at $5 billion, i.e. 80% of its GDP. Servicing this debt has burdened the Jordanian economy and has

reflected adversely on the per capita income. The Economic Reform Programme assumes that the deficit in the general budget ought to be covered by internal revenues that in turn require new sources of foreign currencies.

* High Rate of Current Account Deficit: As early as its independence after the mid-forties, Jordan has suffered from current account deficit. In spite of the efforts to readjust its balance of payments, adjustments of its foreign trade account has been limited. Jordan has to increase and diversify its exports and reduce its imports, in order to reduce its trade deficit.
* Resources: Natural resources in Jordan are limited, i.e. other than phosphate, Dead Sea salts and oil shale. Jordan's main asset is its manpower. Human resources development is considered a cornerstone for the progress of its economy. Jordan has to seek economic complementarity with an external economy,

that suffers from manpower shortage, this could serve the interest of both economies.

* Low Standard of Technology and Diversification of Production: In spite of the high education level of its population, Jordan suffers from lack of technology transfer. The transfer of technology, so far achieved, does not satisfy the need for a comprehensive development. To achieve technology transfer, Jordan has to utilize all available means among which is to promote foreign investment.
* None Utilization of Economies of Scale: Jordan suffers from unused - idle - production capacities. This situation is directly linked to the fact that both Jordan's industries and its market are small. Many of the products are utilized - once - by the final consumer. Product inputs, that are consumed by other industries, are limited in number.

* Concentration of the Population in Amman and Its Surroundings: One third of the Jordanian population, i.e. 80% of the total labour force is concentrated in a circle of 100 kilometres. Jordan has designated "special developmental regions", in order to attract population movement from the more concentrated areas to the less densely populated areas.

4.2 Jordan's Needs/Appropriate Forms of SEZs for Jordan:

To decide on the best forms of SEZs to be established in Jordan, the following points should be considered:

- SEZs that require labour intensive industries.
- SEZs that will bring additional budget revenues.
- The extent of the integration of SEZs' activities with that of the domestic local economy outside the zone, i.e. the extent to which local inputs

are utilized in the zone or the ability of the zone to provide inputs for the local industries.

- SEZs' ability to attract population movement from the more densely populated areas.
- SEZs' ability to participate in technology transfer.
- SEZs' ability to enlarge the market size and induce additional demand for the available resources.

4.2.1 Internal Bindings:

With the exception of the "industrial estates", Jordan's experience with SEZs (investment areas and free zones) has not been a successful one. This is due to the following:

- Almost all of Free Zones in Jordan are commercial, industrial activities are limited.
- The shortcomings of the Law, governing FZs, constituted fundamental barriers to the development of Jordan's FZs e.g.:

* The "extraterritorial" status of the free zones, make their products ineligible for the Jordanian certificate of origin;
* The exclusive mandate given to the Free Zones Co-operation (FZC) allows it to control all the development activities in the designated area;
* Bureaucratic procedures hinder activities in the zone area, e.g. complexity of the clearance procedure of customs: 13-20 signatures are required to clear goods from a free zone;

- Lack of promotional activities that would enhance foreign investment. "Foreign investment compose not more than 3% of total investment in the Jordanian free zones";
- Inadequate utilities and services, e.g. telecommunication and investment information.

Jordan needs to restructure its current SEZs/internal bindings to attract industrial activities. The law

governing Jordan's free zones must be revised to promote the trust of investors, minimize bureaucratic processes, induce a developed accounting system for the inputs which have more than one usage, offer incentives according to the domestic inputs used and supply local industries with internationally competitive local inputs.

The following proposed forms of internal bindings could be beneficial to Jordan and could help in addressing the previously mentioned economic problems:

1- Free Activity Zones:

a: Free Touristic Investment Zones in the different governorates excluding Amman and Aqaba

Jordan is classified as one of the important touristic countries for the following reasons:

* It has a distinguished climate (four seasons), a varied topography and a central location on the route to Muslim, Christian and Jewish holy places.

* Jordan has a number of touristic and archaeological places: Petra, Desert Castles, Dead Sea and others.
* Jordan is attractive for medical tourism.
* Jordan has 19 universities that accept Arab and foreign students. The universities are distributed over Jordan, i.e. in Irbid (3), Jerash (1), Mafraq (1), Zarqa (2), Ma'an and Al-Karak (1) and Amman (11).

Though Jordan is considered an important touristic country, yet facilities are concentrated in Amman and Aqaba (80% of the hotels, 88% of the beds and 88% of the workers)[1]. Such concentration, reduces the chances of tourists visiting other sites.

Accordingly the establishment of free touristic investment zones in the Jordanian governorates, excluding Amman and Aqaba, is supposed to benefit the country. In addition to the expected direct returns and benefits of such zones, they will promote tourism

[1]The Hashemite Kingdom of Jordan, Department of Statistics, Statistical Yearbook 1994, October 1995.

by encouraging tourists to stay for a longer duration in Jordan. Added, the creation of such zones will help reduce the internal migration to Amman.

b: Free Trade Zone (FTZ in eastern Jordan (close to the borders with Saudi Arabia, Iraq, and Syria)

The establishment of a FTZ in the eastern part of Jordan is recommended for the following reasons:

* The distinguished location of Jordan between large markets i.e. Saudi Arabia, Iraq, Syria, and Israel. In addition, the land transportation between southeast Europe and the Gulf states used to pass through Jordan.
* This site is open and the land there is relatively cheap. The cost of the needed infrastructure might be covered by the difference in the land price elsewhere.
* Jordan has one of the largest land transport fleet amongst its neighbouring countries. Since the recommended site is relatively far from the Jordanian urban centres, the pollution effects related to this fleet will be reduced.

* This site is close to the Jordanian gas field of Al-Risha and can be supplied easily with the required energy.
* The establishment of a FTZ in this site will help to attract people, economic activities i.e. labourers, banks, restaurants, gas stations ... etc. thus supporting the socio-economic development of the country.

c: Free Trade and Transit Zone(FTTZ in Aqaba)

The port of Aqaba is Jordan's only gate to the sea. Its location, north of the Red Sea, and its port facilities give credence to the idea of establishing a SEZ there. Unfortunately Aqaba free zone failed to attract a considerable part of the region's trade. A free trade and transit area in Aqaba are more suitable, since the industrial activities will increase air and water pollution. The restructuring of the existing zone by converting it into a FTTZ could be beneficial for several reasons:

1- Aqaba will become a major centre for export and import, serving Jordan and its neighbouring countries.
2- This zone will encourage the growth and development of the Jordanian transportation sector, land transportation in particular.
3- This zone could help to reduce the population pressure from Amman and the major cities by creating new job opportunities in Aqaba and the southern part of the country.

4.2.2 Multinational Bindings

The study recommends the establishment of the following multinational bindings:

a. Commodity Free Trade Areas

Jordan has joined the Arab Common Market and the Arab Co-operation Council. These have failed to achieve the required objectives due to: member countries having similar industries and not complementary ones, the political instability of the region as a whole and the limitations of the member

countries to make an independent decision - it might affect the economies of the industrial countries - .

In the light of the previously mentioned economic problems facing the economy of Jordan, it can be concluded that any form of economic integration between Jordan and any other economy(ies) is supposed to benefit all. The integration with an Arab economy(ies) might be more beneficial as the levels of the socio-economic and demographic indicators are similar. In spite of the complementarity of Arab economies from the resources point of view, the economies to be integrated must be restructured in away to correct the defacements, related to the similarity in their producing units. The establishment of a "Commodity Free Trade area CFTA" could pose as a solution towards gaining integration related benefits and restructuring the integrated economies - so as to reach a higher level of integration - .

CFTA could be defined as a territory of two or more countries within which the movement of a pre-specified commodities, produced by any of these

countries, is free. To maximize the benefits gained from CFTA each of the contracting countries is supposed to choose the commodities in which it has the highest comparative advantage. This process will lead to more specialization in production and will enhance a more efficient use of the production resources. The following commodities could be mentioned as an example:

For Jordan the most beneficial commodities are the labour intensive ones, i.e. clothing, assembly ... etc[1]. For S. Arabia and Iraq the energy intensive products are most beneficial, i.e. petrochemicals. Textiles and some water intensive agricultural products are most beneficial for Syria and Egypt.

b) Free Animal Breeding Zone in El Sham Badia (Syria, Iraq and Jordan):

El Sham Badia is a region that covers southeastern Syria, northwestern Iraq, and

[1] The Royal Scientific Society is conducting a study on the competitiveness of Jordanian products. The study will determine the products in which Jordan has a comparative advantage and with which it can compete.

northeastern Jordan. This region was famous in animal breeding and fodder production and used to be a major source for live animals and meat production. This region has the potentiality and means of a successful and beneficial SEZ/ multinational binding - for Jordan, Iraq and Syria - because:

* It is inhabited by Bedouins who used to freely cross the borders of the three countries.
* It has the major component of animal wealth which belongs to these countries. The animals are acclimatized to weather conditions and animal breeding could be started successfully. Animal breeding is a labour intensive industry, that will help in solving part of the unemployment problem.
* The rain fall in the region is adequate for maintaining pastures. Furthermore the region has under ground water basins as well as on going projects for collecting surface water.

The major advantages of this recommended region are:

* The proposed zone will encourage the inverse migration from the urban centres of the three countries to this region.
* The proposed zone will increase the meat production capabilities and reduce the dependence of the three countries on imported meat.
* The proposed SEZ will help in inducing meat related industries.

4.3 Recommendations

To enhance the role of SEZs in the Jordanian economy and to harmonize economic policies with international trends, the study recommends the following:

1- To create the necessary coordination between all SEZs related institutions: the Free Zones Corporation, the Industrial

Estates Corporation and the Investment Promotion Corporation. It would be more beneficial if these institutions will work under one umbrella.

2- To retrain and rehabilitate the employees concerned with SEZs/internal bindings and to modernize the administration in order that the idea behind creating SEZs is fully comprehended. Adherence ought not to be verbally to the laws and regulations but rather to the spirit of these laws and regulations so that SEZs would fulfill the objectives they were created for.

3- Revise the existing laws in order that the private sector is able to participate in the creation and operation of SEZs.

4- To promote economic activities (in SEZs) that will contribute to solving current economic problems, as unemployment and technology transfer, by linking the economic activities with the concessions and incentives offered.

5- To modernize and upgrade, to a competitive international level, the current facilities in information and telecommunications.

6- To maximize Jordan's geo-strategic position - logistic hub - by developing and modernizing the transportation sector and introducing railway transportation.

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