

Fish trading opportunities in the arab region

By **Izzat H. Feidi** Senior Fisheries Officer

**Food and argiculture organization of the united nations
Regional Office for the Near East
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Abstract

All the Arab countries are producers of fish from marine, inland and aquaculture sources. Total fish production in 1994, as reported by FAO, reached 1.67 million tons. The estimated resources potential is in the range of 3-4 million tons.

Trade in fish and fishery products in most countries is considerable but its volume varies substantially in the different countries. Aside from international trade, there is limited trade between countries in the region otherwise described as inter-regional trade. The exported quantities in 1993 reached 336,300 tons valued at US\$ 881.3 million, while imports reached 213,900 tons valued at US\$ 238.7 million. Most of the exports, however, are those of canned fish products from Morocco. Otherwise, most Arab countries are net importers of fish and fishery products.

Generally, fish plays a minor role in the national diet of most of the countries of the region. However, per capita consumption has slightly risen in recent years reaching about 64 kg/y in 1993 from about 5 kg/y per capita a decade ago. Governments in the region are encouraging the promotion of greater fish consumption as a protein food source from own resources mainly to reduce red meat imports and to meet the increasing demand of an increasing population.

While increased fish consumption is encouraged and traditional barriers as well as trade barriers are favourably changing, opportunities for increased fish trade in the Arab region are opening.

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LIST OF ABBREVIATIONS AND ACRONYMS

AOAD	Arab Organization for Agriculture Development
COFI	Committee on Fisheries
EEZ	Exclusive Economic Zone
EU	European Union
FAO, RNE	Food and Agriculture Organization of the United Nations, Regional Office for the Near East
GCC	Gulf Co-operation Council
GLOBEFISH	Fish Marketing and Information Data Bank
INFOSAMAK	Centre for Marketing Information and Advisory Services for Fishery-Products in the Arab Region
UAE	United Arab Emirates
UNCED	United Nations Conference on Environment and Development

1. Introduction

Prior to the discovery of oil in some Arab countries, fish had traditionally been an important source of animal protein, particularly along the coastal areas. Increasing incomes from oil and due to higher purchasing power made other protein substitutes available, causing diversification of protein intake, thus reducing fish consumption. In recent years, however, due to various economic and social reasons, demand for fish and its consumption in fresh or processed form have risen in various degrees. On

the whole, consumers have begun to turn to cheaper foods, including fish as compared with red meat, consume traditionally unmarketable fish and fishery products and also develop new uses of fish by either diversifying preparation methods or accepting imported products previously unknown locally.

Fish marketing opportunities are increasingly opening up in the Arab countries. Such an increase in the demand for fish and fishery products may be met either from better exploitation of own fishery resources or through the importation of quantities that may not be obtained from local sources.

2. Present status of Arab fisheries

The coastlines of the Arab countries total 23,000 km long, and a continental shelf area of 608,000 km sq.. Inland waters are estimated to have an area of about 72 million hectares of water marshes, water reservoirs, rivers, lakes, etc.

Latest preliminary FAO fisheries statistics of the Arab world indicate that in 1994 fish production from marine and inland waters, including aquaculture, was 1.92 million tons or about 2.0% of world catches in the same year of 109 million tons. The 1993 fish landings from all sources were 1.71 million tons being 1.6% of the World catch of 102 million tons, i.e., a rise in landings of about 12% from all sources (Table 1).

Marine catches over a period of six years (1989-1994) fluctuated slightly but in an increasing trend. In 1989 total marine catches were estimated at 1.31 million tons while in 1990, 1991, 1992, 1993 and 1994 production fluctuated slightly between 1.32 million, 1.33 million, 1.32 million, 1.38 million and 1.56 million tons respectively (Table 1).

Inland catches followed the same trend. During the same period (1989-1994) the production in 1989 was 271 thousand tons increasing to 295 thousand tons in 1990 and fluctuated downwards again in 1991, 1992 and 1993 to 275 thousand tons, 271 thousand tons and 272 thousand tons respectively before rising again to 297 in 1994 (Table 1)

With regard to the contribution of aquaculture to Arab fisheries resources in both marine and fresh waters in 1994, the total production reached 63 thousand tons. Aquaculture is a relatively new resource for fish in the Arab countries but has made significant progress since 1984 when landings from fish farms did not exceed 22 thousand tons, which is an increase of about 65% in about one decade. It is significant to note that the practice of aquaculture in Egypt, Iraq, and Syria has gone on for many years due to the availability of fresh water. In recent years, however, such a practice especially in marine waters, has been activated in several other countries where fresh water is very scarce, like Kuwait, Saudi Arabia, Bahrain and United Arab Emirates (Table 2).

Fisheries resources may be classified into four main areas:

2.1 Exclusive Economic Zone Fisheries

The widespread introduction in the mid-seventies of Exclusive Economic Zones (EEZs) and the adoption in 1982 of the United Nations Convention of the Law of the Sea provided a new framework for a better management of marine resources. The new legal regime of the oceans gave coastal states rights and responsibilities for the management and use of fishery resources within their EEZs. However, many coastal

states, including several Arab countries, face serious challenges as lacking experience and financial and physical resources to achieve greater benefits from the fisheries within their EEZs.

Subsequently, the FAO Committee on Fisheries (COFI) at its Nineteenth Session in 1991 called for the development of new concepts, which would lead to responsible, sustained fisheries. As a result, the International Conference on Responsible Fishing held in 1992 in Mexico further requested FAO to prepare an international Code of Conduct to address these issues. The outcome of this Conference was an important contribution to the 1992 United Nations Conference on Environment and Development (UNCED), particularly its Agenda 21. Afterwards, the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks was convened, to which FAO provided important technical back up. In November 1993, the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas was adopted at the Twenty-seventh Session of the FAO Conference.

As a result of these developments, the Code of Conduct for Responsible Fisheries, adopted in October 1995 by FAO Conference, provided a necessary framework for national and international efforts to insure sustainable exploitation of aquatic living resources in harmony with the environment activities. It has also brought about a significant change in the conditions under which fisheries are carried out on a world-wide basis. The extent of national EEZs and the nature of the jurisdiction claimed differ from country to country but in the majority of cases, the zone extends 200 nautical miles offshore and in all cases, jurisdiction over fishery resources is included.

All Arab countries, albeit in ranging degrees, may have access to fisheries resource in their EEZs. However, it is not yet very clear what benefits can the Arab countries gain from fish resources available in their EEZs, though such benefits should not be exaggerated. The only extension of jurisdiction by Arab countries of possible benefits to their fisheries is in the fishing areas of the countries bordering the East Central Atlantic Ocean (Mauritania and Morocco) and North West Indian Ocean (Oman, Yemen and Somalia). However, although extension of jurisdiction by these countries over the fish resources in their EEZs provides an opportunity for more effective development and national management of fisheries based on the stocks available, realization of that opportunity depends on the solution of a number of difficult problems.

2.2 Marine Fisheries

Due to the nature of the Arab region and its wide geographical spread, there are large disparities among countries of the region. The marine fish production system may be classified in two broad categories based on vessel size, gear types and species targeted.

2.2.1 High Seas (Offshore) Fisheries

In large fish-producing countries, e.g. Morocco and Mauritania, this category is characterised by large modern mechanised fleet with vessels equipped with freezing, storage and other facilities (factory trawlers) capable of up to three-month operation at sea at a stretch. These vessels operate beyond the 20-mile fishing zone. Their catches are almost excessively destined for export. This is a capital-intensive activity requiring large investment, often beyond the reach of most private local fishermen. It is an export-oriented sub-sector high-value species, like

cephalopods, i.e. cuttlefish, octopus, squid, etc., crustacean e.g. shrimps, and tuna. The fleets operating in this fishery are most likely fleets from several nations, mainly Spain and Portugal operating in most instances under license, or joint ventures. Their catches are of high value, but they are not in most cases, reported as catches of the countries bordering the waters where fishing operations take place.

2.2.2 Coastal Fisheries :

Within this category, two sub-groups are usually considered, intermediate and small-scale (artisans) fisheries.

- Intermediate Fisheries: This sub-group is characterised by vessels of 25 meters or less, operating up to 20 miles offshore and mostly targeting pelagic species, sardines and mackerels in particular. Because an important proportion of the production of this category goes to canning and, to a lesser extent fish meal and fish oil industries, it is sometimes called "industrial fisheries". The fleets operating in these waters are mainly national fleets. Some operations are either nationally owned or a joint venture of mixed national/foreign capital or para-statal companies operating to supply local markets. The average share of THESE fisheries is 15-20%.

- Small Scale Fisheries: This sub-group is characterised by a fleet of small mortised (inboard and outboard) boats (5-6 meters length) of small catching capacities equipped with various traditional fishing gears. Fishermen composing this group are scattered all along the coast lines of Arab countries. Their numbers are numerous. Much of their fishing is subsistence fishing catering for their local markets, families and clans. The official statistics of their catches are not recorded systematically and therefore, lack specific reliability. Their landings are usually on beach sides and in many sites like harbours or docking piers to unload their catches. The species they target are mostly demersal, near shore species and crustaceans mainly shrimps, where these exist. The average share of coastal fisheries in the Arab World fish landings has been estimated at 80-85%.

2.3 Inland Fisheries

Inland fisheries resources are those landed from the various water surface bodies which are estimated to cover about 1.5 million km sq. The major countries, where these are available, are Egypt, Sudan, Iraq, and Syria. These include lakes, rivers, marshlands, swamps, reservoirs, natural and man-made lakes. The lakes in the Egyptian Delta region are the main fish production water bodies in addition to Lake Nasser in the South and Lake Qaroun as well as the River Nile. In Sudan, the main inland fisheries are in the Blue and White Niles in addition to the Main River Nile. Other rivers with smaller size fisheries exist in Syria, Lebanon, Jordan, and Mauritania. Lake Assad in Syria is also a fish producing man-made lake.

Most of the inland fisheries in the Arab countries are characterised by subsistence fishing to meet immediate food supply needs of those populations who live in the vicinity of the water bodies. Any excess to their food needs is sold to the immediate local markets. The major problem facing inland fisheries is that the sizes of these bodies, especially Egyptian Delta lakes, are declining due to more control of the flow of the River Nile Land reclamation practices and heavy pollution practices. Likewise are the problems faced by Iraq and Syria with regard to the water flow from the Tigris and Euphrates Rivers. Another cause of threat to inland fishing is the malpractice in the fishing operations, which the fishermen use in their fishing operations.

2.4 Aquaculture

Aquaculture importance to the world grows each year because of population growth and the fact that the natural fisheries resources may have reached their maximum sustainable yield. The Arab World is no exception. Many countries with fresh water resources such as Egypt, Sudan, Iraq, and Syria have practised aquaculture for many years. Other countries where fresh water is scarce are engaging in mariculture activities, farming fish along their coastlines such as in Tunisia, Morocco, Saudi Arabia, Kuwait, and Bahrain. Countries such as U.A.E and Oman have also established research centres with the aim of developing mariculture in their waters.

In 1993, fish from aquaculture reached a production of 61 thousand tons. 4% of total fish catches in the Arab Region valued at about US\$ 265 million. Production in 1984 was only about 22 thousand tons valued at only US\$ 59 million, an increase of 64% in quantities and 88% in value (Table 3).

Most Arab countries now has established fisheries research centres aiming at obtaining the technologies and know-how in the fields of aquaculture and mariculture. The research results are being gradually passed on to the private sector, which is the main potential investor in these activities.

The main species fanned are those indigenous species, which are popularly accepted in the individual Arab countries. In Egypt and Sudan, *Tilapia* is fanned. *Tilapia* is also being introduced for farming in Saudi Arabia where Egyptian and Sudanese minorities live. In the Gulf Co-operation Council States (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and U.A.E.), (GCC), groupers are farmed in most of the countries. Also *Siganus* (rabbit fish) is most popular. Shrimp farming has also been attempted along the Egyptian coast of the Red Sea. There are also experimental projects aimed at developing the commercial cage fanning of sea bass and sea bream in Egypt, which were started in 1990 in Port Said in the east and Mersa Metrouh on the Mediterranean coast in the west. It is expected that when the research studies on fish farming become feasible, and as the technologies and know-how become readily available, fish from aquaculture production is accordingly expected to expand substantially.

With a coastline stretching for about 23,000 km, the Arab Region offers considerable possibilities for fish farming both in inland and marine waters. It remains to be seen, however, if aquaculture production of fish will substantially increase fish supply in the region and significantly reduce the supply/demand gap and reduce dependence on imports.

3. Fish resources potential

The Arab countries command a strategic, and an important geographic location among other regions of the world. It is surrounded by the waters of the Atlantic Ocean from the West, the Indian Ocean and the Arabian Sea in the South, and East and the Mediterranean Sea from the North, and in between the Red Sea and several gulfs. All Arab countries have a sea expanse, which allows it to have access to fishing grounds and activities. It also has an important number of internal water bodies.

The fisheries statistics of FAO indicated that total fish catches from all sources during 1994 were about 1.92 million tons. However, the fishery statistics issued by the Arab Organisation for Agricultural Development (AOAD) indicated that the Arab fish landings in the same year were over 2 million tons. This discrepancy in reporting

figures indicate that statistics need reconciliation and harmonisation In order to arrive at a more reliable and accurate data base.

However, when considering the potential of all the water bodies that border the Arab countries, it is believed that the marine fish caught from Arab waters is more than what is actually reported. This assumption is made on the belief that there are many foreign fishing vessels operating, legally or illegally, in Arab fish rich waters such as those of Morocco, Mauritania, Somalia and Yemen, and the catches made are not registered as catches from these waters. These catches are estimated to be about 1-2 million tons. In other words, the Arab actual fish landings from marine resources may be in the range of 3-4 million tons per annum.

In the absence of strict surveillance, monitoring and control of the fisheries resources of the fish rich countries, who generally do not have the means to do so, it would be difficult to substantiate and document the actual fish caught from Arab waters. It is well known, however, that there are several joint venture operations between these Arab countries and foreign companies, but the extent and volume of their actual operations are not publicly known.

On the basis of the above facts, Arab annual marine fish landings could reach 3-4 million tons. This quantity includes the current marine landings of 1.3 million tons, the catches believed to be caught by foreign fleets, and the quantities that may be added from better exploitation of the under-exploited areas (Table 4). In addition, the improvements in the exploitation of inland fisheries and the expansion of aquaculture and mariculture will add to Arab fish landings.

4. Fisheries utilization

4.1 Fish Consumption

The average per capita fish consumption in the Arab World in 1993 was about 6.4 kg compared with the world average of about 13 kg/y. The available quantities for human consumption were estimated to be about 1.5 million tons (fresh weight) (Table 3).

Major per capita fish consumption is highest among the Arab countries in the united Arab Emirates with 51.1 kg/y, followed by Oman with 36.7 kg/y, Bahrain with 1693 kg/y, Mauritania with 166 kg/y, Qatar 165 kg/y, Morocco with 154 kg/y . All other Arab countries are much below the international average, with some as low as less than 1 kg/y, such as in Lebanon and Syria.

Fish consumption in the region as a whole has some distinctive characteristics.

1. Fish consumption is highest in coastal countries where fish is comparatively abundant and the population is low. These countries are U.A.E., Oman, Bahrain, Qatar, Mauritania, and Morocco where fish forms a very important part of the national diet.
2. All other Arab countries generally have a low consumption rate. This is mainly due to low production levels, high population figures and shortage of hard currencies to import fish as a supplement to local supplies. Besides, in some countries, people living in remote areas with poor communications receive only minor quantities of fish, if any. In contrast, the coastal areas in such several countries have very high consumption levels, e.g. Somalia and Yemen.
3. Fish consumption patterns have changed somewhat in some of the countries with

a substantial foreign labour population, notably the oil producing countries. This is due to the increased importation of non-traditional species to satisfy new consumer demands, the introduction of new fish preparation methods and also new eating habits and innovations in product forms.

4.2 Consumption Preferences

The preference throughout the Arab countries is generally for fresh fish. However, in recent years, whole individually chilled and frozen fish have become widely accepted in most countries. Labelling of the whole frozen fish includes information on recommended dates for consumption. Cured fish (mostly dried) is also popular, but largely in remote areas.

Consumers in the region traditionally eat fish species caught in the waters bordering their countries or from inland waters. However, due to the limited fishing methods employed, only a small variety of fish types are familiar, such as the large size demurral species, of which red snappers, grouper silver pomfrets are the most abundant. Pelagic species such as tuna, sardines, and mackerels are also widely accepted. Of the fresh water fish, the *Nile perch*, *Carp* and *Tilapia* are in demand mostly in Egypt and the Sudan, while the river shad is popular in Iraq.

The list of preferred locally produced seafood species include shrimps, lobster, and cuttlefish, caught mostly in the waters surrounding the Arabian Peninsula, Algeria, Morocco, and Mauritania. However, as local market demand in the region is limited, such species are largely exported due to their high international market prices.

Generally speaking, fish consumption is largely affected by the condition and systems of marketing, distribution and transport and to a minor extent by tribal, traditional and social attitudes where these exist. Fish consumption thus presents a complex pattern, ranging greatly between countries and within different areas in the same country or same region.

Main Commercial Species Consumed in the Arab Countries

Silver promfret	Pampas argentous
Grouper	Epinephelus spp
Grunt	Pompadasys spp
Porgy	Sparidae spp
Mulle	Mugilidae spp
Travally	Carnax spp
Snapper	Luljanidae spp
Emperor	Lethrinus spp
Lizardfish	Synodontidae spp
Croaker	Sciaenidae spp
Horse mackerel	Trachurus spp
Sardine	Sardinella spp
Bonito	Sarda sarda
Bluefin tuna	Thunnus spp
Cuttlefish	Sepia spp..
Lobster	Palinurus spp.
Shrimps	Penaeus spp.

4.3 Demand Projection For Fish

In reliable and collective data on the demand for fish and fishery products for the next five years, it would be difficult to make a sound assessment of the demand for fish in the Arab World. However, if the available data on population and population rate of growth as well as the current per capita fish consumption are taken as a base for a demand projection, about 500 thousand extra tons of fish suitable for human consumption would be needed for a population of 300 million by the year 2000 keeping the per capita at 6.4 kg/y . To raise the average per capita consumption by 1 kg/y i.e. to 7.4, an increase of 560 thousand tons of fish would be required to satisfy this demand.

This simplistic approach does not of course answer all the questions associated with demand projection for at least the next five years. But it does give a basis upon which a development program may be drawn and be used as a target for increased level of fish production from fishing areas which offer potential as well as better utilisation of the fishery resources.

Demand projection also depends very much on consumption patterns that are prevalent in the wide geographical area which constitute the Arab World. Traditional consumption patterns are strongly influenced by the ecology of the environment, which are by no means static. Significant changes have taken place influenced by economic and social factors.

The combination of a growing urbanisation towards large urban centres along the coastline and a soaring of red meat prices during the last decade or so, changing consumer tastes and preferences, have spurred domestic demand for fish, thus increasing per capita consumption in several countries.

The change in demand patterns has also been accompanied by changes in tastes and has resulted in segmented markets, resulting from varying consumer preferences. To meet this diverse demand pattern for the region's fish products, value-addition has increased the number of fish products available to consumers and opened opportunities for export to international markets. This development has promoted chances for increased investments in the fishing industry in several countries such as Tunisia, Saudi Arabia, Kuwait, Oman, and U.A.E. Only recently, it was announced that a company in U.A.E. has signed a US\$ 37 million Joint venture project with a Norwegian firm to build a 200-ton fish farm in Dubai for growing sea bass and shrimps.

Generally speaking, demand for fish has increased in recent years. This trend is expected to continue under the influence of population growth, urbanisation, rising incomes, increased investments in fishery industries and the increasing awareness of the nutritious and health qualities of fish products. It could be said that quantity wise projected demand may easily be met from the region's resources, provided that a more effective and rational utilisation is undertaken. At the domestic level, one of the major challenges to increase supplies for meeting domestic consumption demands would be to supply the market with the high value species (noble fish), especially because most of the resources of these species are either over-fished, fished by foreign fleets or fished for export purposes.

As a case in point, it has been announced recently that the GCC food imports bill has been reduced in 1993 to US\$ 7.3 billion from US\$ 7.7 billion in 1980 or a drop of 3.9% during the 13 years period. This decrease took place in spite of population and price increases. This has been attributed to the increase in establishing food processing plants including fish processing industries as a way to decrease the food

security gap and to diversify the economies of the oil-rich countries.

Demand for fish as raw material for the fish processing Industries, especially canning small pelagic, mainly in Morocco is also expected to increase. Increased investments in producing countries in canning plants and other ancillary facilities are expanding, and demand utilised processing capacities are also increasing. Also, with the increased interest for value-added products in countries where such products are consumed, such as the GCC countries would also increase pressures on the demand of high value (noble fish) for domestic and export purposes.

5. Fish trade

5.1 Trade Trends

Although the collection and dissemination of fishery statistics has generally improved over the last few years in several Arab countries, information on fish trade within each country is still not sufficient. For example it is not well known how much of the total fish production is marketed. Subsistence fishing level is practised to a considerable extent in the region, especially in the countries bordering the Arabian Peninsula and along the shores of inland lakes and rivers especially in Iraq and Egypt. Therefore, it is assumed that a considerable portion of total production is consumed by the fishermen and their families.

Marine catches constituted about 75% of total catches in 1994. Quantities not consumed locally by the coastal population are mostly cured and exported. In the last few years, foreign fish and fishery products have also been exported. These exports should not be interpreted as a genuine surplus as there is probably a strong potential demand for fish in the interior, which in some countries lack accessibility due to poor communications.

Exports in 1993 are mostly attributed to expanded fishing activities off the coast of Mauritania (17% total) possibly by foreign fleets and Trans-shipment of foreign fish. Morocco has also shown a substantial increase in canned fish product exports (58% of total).

With regard to imports, most countries of the region are importers of some quantity of fish. Egypt is the largest importer (46% of total) followed by Saudi Arabia (25% of total). Apart from the imports to Egypt, other major import items include canned and foreign products and some high-value fish preparations especially for the Gulf countries.

It would seem that the Arab region is a net exporter of fish and fishery products. However, excluding Morocco and Mauritania, other countries are net importers. It should also be noted that the exports from Mauritania are predominantly small pelagic species caught mostly by foreign fishing vessels off the territorial waters and similar fish species caught and canned by Morocco. Exports by other exporting countries are mainly high valued demersal species, crustaceans and cephalopods species mostly exported to outside the region.

5.2 Trade Policy

Fish export trade in the Arab region is in general commercial activities undertaken by private industrial companies and also state or semi-state companies. Most of these companies have their own agents abroad for the export and distribution of their products especially the high-value commodities such as shrimps. Government

interference in the activities of the private companies is very minimal while in the state and semi-state companies, government investment is more apparent.

In the latter case, the fish exporting companies use their trade agents who are usually attached to their countries embassies and trade missions where available. In some cases, annual trade protocols are signed and adjusted periodically. State imported frozen fishes are usually made to supplement shortages in local production and are, in most cases, subsidised. Other fishery products, such as canned, cured or processed products are however, usually imported through a wide range of local privately owned supermarkets. These supermarkets establish their own contacts and make their own import arrangements according to local laws and restrictions.

5.3 Trade Constraints

Shortage of dependable information on demand and supply prices and price fluctuations, as well as buyers and sellers in most of the countries involved has been a major factor adversely affecting the growth of Arab trade in fish and fishery products. Coupled with this is the dearth of technical know-how and trained manpower, together with inadequate infrastructure facilities. Attempts at product development, product and market diversification and value addition have been quite limited in scope and results, in spite of few improvements in recent years.

Lack of regular and direct flights linking the production and consumption centres both within and outside the Arab World has restricted trade in fresh fish, while irregular reefer shipping facilities hamper smooth flow of frozen fish from one port to another. Moreover, though some of the countries in the Arab World are among the richest in the world, there are also several countries that are not so fortunate. This has resulted in insufficient communication facilities even between neighbours. Due to such problems, the share of intra-regional trade in fish and fishery products in the total import-export trade within the Arab region also quite negotiable.

Inadequate information on demand and supply, prices and price fluctuations as well as buyers and sellers in most of the countries involved has been a major factor adversely affecting the growth of the Arab fish trade. Coupled with this, is a shortage of technical know-how and trained manpower, together with inadequate infrastructure facilities. Attempt at product development, product and market diversification and value addition have been quite limited in scope and results, so far.

Another trade constraint is associated with canned small pelagic, a major export item. It is estimated that the GCC countries put together consume around 25 thousand - 30 thousand tons of canned fishery products per annum. Despite the growing demand, major shares of these imports are not from Arab exporters of the same commodities. At times, countries such as Tunisia and Morocco are often stuck with quantities of canned products for want of buyers. Moreover, the installed capacity utilisation in these two countries is quite low often due to lack of orders. In some Arab countries, the general pattern of trade linking producers to buyers is based exclusively on a few traditional products, depending on a few traditional buyers and sellers. In other countries, where there is a wish to diversify products, enter new markets and increase trade, producers and processors suffer from acute of up-to-date information on such vital matters as product requirements and specifications, the required processing technology, quality standards, current prices, marketing opportunities and market trends; all of which lead to the miss-application of production capacity, loss of potential profits, loss of foreign exchange and reduced employment opportunities.

Several of the financially rich Arab countries, but with shortage of fish supply import fresh chilled fish and shellfish from various parts of the world. Also, fresh chilled fish is exported from several other Arab countries such as Oman, U.A.E., Somalia, Tunisia, Morocco, and so forth. These trade activities are carried out by individual entrepreneurs and groups, without much of a standardised procedures with regard to freight, packing, labelling and quality.

In general, fish and fishery products trade constraints may be summarised as follows:

- insufficient reliable information on products and prices;
- lack of information on potential trade patterns;
- irregular shipping / airfreighting facilities;
- dearth of information on demand and supply;
- documentation/statistics problems;
- scarcity of insurance cover; and
- tariff barriers;

In addition, there are technical problems related to fish handling, icing, packaging etc., which are required in shipping and freighting.

5.4 Major Trade Markets

The Arab World is most likely to continue to be a major importer of fish and fishery products in the years to come. This is in spite of the efforts made to increase indigenous production. Some of the items available in this region like cephalopods, crustaceans, molluscs and high value demand species will have to be exported to markets elsewhere due to either its little domestic demand or in the quest of obtaining hard currency earnings.

The major importer of the Arab Countries is Egypt with 98 thousand tons valued at US\$ 50 million imported in 1993 or 46% of all Arab fish imports. Egyptian imports are mostly frozen small pelagic species of sardines and mackerels which are mostly consumed by the low-income section of the population at subsidised rates. The next major market are the six Gulf Co-operation Council states who, as a combined market area, imported in 1993 a total of 75 thousand tons valued at US\$ 128 million and led by Saudi Arabia as the main importer of the GCC states and second from the Arab Countries.

Irrespective of the varying size of markets and the corresponding levels in quantity and value of imports, the consumption pattern as well as marketing channels in the GCC states have many things in common. All the GCC countries are characterised by close socio-economic linguistic links and population growth trends. With the implementation of a free trade area and free movement of nationals' funds and goods, and the liberalisation of wholesaling and other marketing activities, the importers distributors, and wholesalers, in general, benefited immensely.

The average expatriate population in the GCC countries is estimated at 45% of the total population. Therefore, consumer preferences among the expatriates are very often different from that of the nationals. Thus, fish and fishery product imports are mainly of two categories viz., chilled/fresh fish, as well as canned and dried products preferred by the native population and items like frozen fish in good demand among the expatriates.

With regard to exports, the major Arab exporter is Morocco with exports totalling 195 thousand tons in 1993 or 58% of total exports valued at US\$ 538 million. Most of these exports are canned small pelagic fish species to markets in Europe, some of which are re-exported to the Arab markets. Mauritania is the second largest exporter with 58 thousand tons or 17% valued at US\$ 122 million. Main exports are to the cephalopods markets and Japan being the most important one. Also, Italy, Spain, France, and Germany are importers of Mauritania demersal fish species. African countries import small pelagic species from Mauritania.

5.5 Role of INFOSAMAK Centre

One of the most apparent impediments in enhancing inter-regional trade in fish and fishery products and consequently a better exploitation of Arab Fisheries is the fact that this sector has not in the past been given the priority it deserves in several of the Arab countries. The Centre for Marketing Information and Advisory Services for Fishery Products in the Arab Region (INFOSAMAK), which was established in Bahrain in 1986 as a link in the FAO world wide Fish Marketing Information Network, played a major role in providing several fish trade promotional services.

INFOSAMAK services helped to raise the level of awareness and importance of the sector. Inter-country trade has benefited in both value and quantity by the information made available by INFOSAMAK. The market information service is an efficient and productive mechanism for fish trade information and collation. In respect of market promotion, the ability of INFOSAMAK to match buyers and sellers has been productive.

INFOSAMAK has played and should continue to play a catalytic role in promoting inter-regional as well as intra-regional trade, by initiating international buyer-seller meetings, fisheries exhibitions, conferences, etc. Also, it should continue to provide advisory services on a wide range of issues relevant to the Arab fisheries sector, e.g. fish handling, processing, marketing, packaging, labelling, quality control, shipping Insurance, etc...

The Centre, with its direct access to the other similar links and FAO - GLOBEFISH can provide relevant information on request. Furthermore, it could provide the small-scale fisheries with technical assistance, an efficient (but low cost) fish catching and fish processing technologies, fish handling, quality control, and assurance. It can also make available the roster of consultants with expertise in processing and artisans fishing (production, capture and processing techniques, marketing, organisation, co-operative establishment, etc.) to cater for this sub-sector.

Investment opportunities in the field of Arab fisheries have also been one of INFOSAMAK promotion and identification services. It undertook pre-feasibility studies on behalf of investors, which led to the strengthening of contacts with Arab national and regional institutions and organisations who are potential investors in the fisheries sub-sector.

The role of INFOSAMAK has proven to be an important regional service and an active participant in the Arab international fish-marketing sub-sector. Its establishment has boosted the development of the Arab fish trade. It generated a beneficial impact through the increase in fish trade activities which, in turn, has a significant effect on the predominantly small scale fisheries in the production sector as well as on fish consumption.

6 Conclusions

From the foregoing, it is clear that there are extensive possibilities for the promotion of trade in fish and fishery products in the Arab World. These opportunities, if rationally studied and seized, could come in various ways and means. Trade opportunities may develop within the countries themselves by up-grading trading channels, promotion of domestic consumption by the introduction of new products in various forms and increasing awareness of fish consumption for its nutritional values. Opportunities could also open by trading in fish and fishery products among the countries of the Arab region. Much of the quantities of fish imported from outside the region may be imported from countries within the region. Such a practice would activate inter-regional trade and may result in reducing value of imports due to reduced cost of transportation, commission, and other related expenses. Also inter-regional trade may also develop for the introduction of new products, improved trading channels and satisfying of previously unknown demand.

Several factors may help promote these trading opportunities. The easing of trade constraints by establishing more regular shipping lines between the trading countries, the reduction of tariffs, etc. may also help promote opportunities for fish trade in the Arab countries.

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Table 1: Fish production in Arab countries in 1989 - 1994

Quantity
(Q): 1000
M.T.

Country	1989				1990				1991				1992				1993				1994			
	Marine	Inland	Aquaculture	Total	Marine	Inland	Aquaculture	Total	Marine	Inland	Aquaculture	Total	Marine	Inland	Aquaculture	Total	Marine	Inland	Aquaculture	Total	Marine	Inland	Aquaculture	Total
Algérie	99,18	0,55	0,29	100,02	90,74	0,37	0,29	91,40	79,70	0,39	0,17	80,26	95,43	0,46	0,22	96,11	90,00	0,46	0,22	90,68	135,02	0,38	0,39	135,79
Bahrain	9,21	0,00	0,00	9,21	8,11	0,00	0,00	8,11	7,55	0,00	0,00	7,55	7,98	0,00	0,00	7,98	8,96	0,00	0,00	8,96	7,63	0,00	0,00	7,63
Djibouti	0,39	0,00	0,00	0,39	0,36	0,00	0,00	0,36	0,25	0,00	0,00	0,25	0,28	0,00	0,00	0,28	0,30	0,00	0,00	0,3033	0,32	0,00	0,00	0,32
Egypt	79,32	214,28	36,50	330,10	75,26	237,69	36,92	349,87	83,57	216,35	38,66	338,58	80,80	206,31	38,90	326,01	95,36	207,47	35,18	8,01	85,43	220,30	38,62	344,35
Gaza	1,00	0,00	0,00	1,00	1,00	0,00	0,00	1,00	1,00	0,00	0,00	1,00	1,00	0,00	0,00	1,00	1,00	0,00	0,00	1,00	1,00	0,00	0,00	1,00
Iraq	50,00	13,55	7,50	71,05	35,00	12,50	8,00	65,50	30,00	11,40	8,00	49,40	40,00	19,54	15,14	74,68	,4,50	19,00	14,60	36,10	4,00	18,00	13,30	36,30
Jordan	0,00	0,06	0,06	0,12	0,00	0,06	0,06	0,12	0,00	0,02	0,02	0,04	0,00	0,02	0,02	0,04	0,00	0,06	0,06	0,12	0,00	0,09	0,09	0,18
Kuwait	7,65	0,00	0,01	7,66	4,45	0,00	0,00	4,45	2,03	0,00	0,00	2,03	7,87	0,00	0,01	7,66	8,56	0,00	0,01	8,57	7,75	0,00	0,01	7,76
Lebanon	1,70	0,10	0,10	1,90	1,42	0,10	0,08	1,60	1,70	0,08	0,08	1,86	1,70	0,10	0,13	1,93	2,00	0,20	0,18	2,38	2,21	0,22	0,20	2,63
Libya	7,78	0,05	0,05	7,88	8,69	0,07	0,07	8,83	8,03	0,07	0,07	8,17	8,87	0,08	0,08	9,03	8,72	0,08	0,08	8,88	8,41	0,09	0,09	8,59
Mauritania	86,61	6,00	0,00	92,61	74,53	6,00	0,00	80,53	80,06	6,00	0,00	86,66	88,90	5,00	0,00	93,90	87,80	5,00	0,00	92,80	80,02	5,00	0,00	85,00
Morocco	518,49	1,86	0,16	520,51	564,14	1,43	0,17	565,74	591,66	1,40	0,40	593,46	546,15	1,95	0,72	548,82	620,63	1,81	0,76	623,20	748,24	1,85	0,72	750,61
Oman	117,70	0,00	0,00	117,70	120,24	0,00	0,00	120,24	117,78	0,00	0,00	117,78	112,31	0,00	0,00	112,31	116,47	0,00	0,00	116,47	118,57	0,00	0,00	118,57
Qatar	4,37	0,00	0,00	4,37	5,70	0,00	0,00	5,70	8,14	0,00	0,00	8,14	7,85	0,00	0,00	7,85	6,99	0,00	0,00	6,99	5,09	0,00	0,00	5,09
Saudi A	,52,19	1,20	1,24	54,63	40,34	1,92	2,16	44,42	39,91	1,98	2,32	44,21	45,83	2,08	2,56	50,47	47,23	2,19	2,62	62,11	54,65	3,38	3,52	61,66
Somalia	17,70	0,50	0,00	18,20	17,10	0,40	0,00	17,50	15,80	0,30	0,00	16,10	15,00	0,30	0,00	15,30	14,60	0,25	0,00	14,85	16,00	0,30	0,00	16,30
Sudan	1,20	29,10	0,10	30,40	1,50	30,23	0,23	31,96	1,50	31,80	0,20	33,50	1,50	30,20	0,20	31,90	1,50	30,20	0,00	31,90	4,00	40,25	0,20	44,45
Syria	1,55	,3,55	1,96	7,06	1,63	4,18	2,79	8,60	1,50	4,00	3,07	8,57	1,50	3,90	4,91	10,31	1,60	4,00	5,00	10,60	1,55	5,75	4,90	12,20
Tunisia	95,09	0,00	0,82	95,91	88,60	0,00	1,02	89,62	87,62	0,00	0,93	88,55	88,54	0,00	0,84	89,38	83,36	0,40	1,37	85,13	86,92	0,28	1,40	86,66
U.A Emirate	91,16	0,00	0,00	91,16	95,13	0,00	0,00	95,13	92,30	0,00	0,00	92,30	95,52	0,00	0,00	95,05	92,50	0,00	0,00	92,50	108,00	0,00	0,00	108,00
Yemen	72,87	0,00	0,00	72,87	77,43	0,43	0,00	77,88	82,54	0,89	0,00	83,43	79,89	0,84	0,00	80,73	85,91	0,90	0,00	86,81	81,89	0,90	0,00	82,79
Total	1315,16	270,80	48,79	1634,75	1311,37	295,38	51,79	1658,54	1333,24	274,68	53,92	1661,84	1326n45	270n78	63n73	1660n96	1377n99	272n02	60n35	1710n36	1556n74	296n79	63n44	191697

Source : 1. Yearbook of fishery Statistics 1993, vol 76, FAO, Rome, 1995 2. Aquaculture Production Statistics 1984 - 1993. 3. FAO Fisheries Department Statics for

Table (2)

AQUACULTURE
PRODUCTIONDEVELOPPE
MENT IN ARAB CONTRIES

1984, 1990 -1993

QUANTITY (Q) : M.T.

VALUE (V) : US£'000

COUNTRY	1984		1990		1991		1992		1993	
	V	Q	V	Q	V	Q	V	Q	V	Q
Algeria	169	36	790	292	543	170	606	215	595	216
Egypt	9600	15000	82352	36916	87169	38658	84567	38895	85160	35180
Iraq	43197	4476	80000	8000	80000	8000	137840	15142	146000	14600
Jordan	138	30	196	60	66	20	101	22	279	60
Kuwait	-	-	0	0	0	0	50	5	50	5
Lebanon	1110	300	280	80	280	80	488	130	720	180
Libya	-	-	84	70	84	70	120	80	120	80
Morocco	365	180	695	170	196	402	8502	715	8871	760
Saudi.A	-	-	6458	2158	7678	2323	9317	2559	9799	2691
Sudan	13	10	117	234	187	203	190	200	196	200
Syria	4399	1525	13747	2789	14202	3067	22716	4907	23160	5000
Tunisia	71	116	4441	1019	4505	928	7129	844	9448	1367
U.A. Emirates	32	7	6	2	6	2	7	2	11	3
TOTAL	59094	21680	189166	51790	195116	53923	271633	63716	284409	60342

Source : Aquaculture
Production Statistics 1984 –
1993. FAO, ROME, 1995

Table (3)

Fish Outlook In Arab
Country I 1993

Quantity (Q) : 1000 M.T

Value (V) : MILLION U.S.\$

Country	Production				Population (000)#	Imports		Exports		Available Non-Human Uses	Available For consumption	Per Capita Kg/y
	Inland	Marine	Aquaculture	Total		V	Q	V	Q			
Algeria	0,46	90,00	0,22	90,68	26722	1,21	2,59	2,32	0,58	0,00	92,69	3,47
Bahrain	0,00	8,96	0,00	8,96	535	5,51	2,42	3,77	2,32	0,00	9,06	16,93
Djibouti	0,00	0,30	0,00	0,30	557	1,15	0,43	0,08	0,02	0,00	0,71	1,27
Egypt	207,47	95,36	35,18	338,0138,10	60319	50,16	97,93	5,23	1,26	0,00	434,68	7,21
Iraq -Jordan	19,00	4,50	14,60	0,12	19454	-	-	-	-	0,00	38,10	1,96
Kuwait	0,06	0,00	0,06	9,56	4082	19,69	12,32	0,85	0,36	0,00	12,08	2,96
Lebanon	0,00	8,56	1,00	2,38	1775	15,54	5,51	7,26	0,79	0,00	13,33	7,51
Libya	0,20	2,00	0,18	8,88	2806	-	-	-	-	0,00	2,38	0,85
Mauritania	0,085,00	8,72	0,00	92,,80	5048	19,52	8,87	21,90	2,00	3,36	13,11	2,60
Morocco	1,81	87,80	0,76	623,20	2161	1,00	0,46	121,86	57,60	0,00	35,66	16,50
Oman	0,00	620,63	0,00	116,47	25945	7,78	11,34	538,69	194,50	40,00	400,04	15,42
Qatar	0,00	116,47	0,00	6,99	1992	3,56	2,48	51,46	45,81	0,00	73,14	36,72
Saudi.A	2,19	6,99	2,69	52,11	529	2,62	1,74	0,05	0,01	0,00	8,72	16,48
Somalia	0,25	47,23	0,00	14,85	17119	77,06	54,33	4,52	1,96	0,65	103,83	6,07
Sudan	30,20	14,60	0,20	31,90	8954	0,27	0,05	7,17	3,60	0,00	11,30	1,26
Syria	4,00	1,50	5,00	10,60	26641	2,50	0,80	0,17	0,06	0,00	32,64	1,23
Tunisia	0,40	1,60	1,37	85,13	13696	1,56	2,21	0,05	0,06	0,00	12,75	0,93
U.A Emirates	0,00	83,36	0,00	92,50	8570	2,24	0,78	85,86	15,11	0,00	70,80	8,26
Yemen	0,90	92,50	0,00	86,81	1816	23,70	8,20	19,45	7,85	0,00	92,85	51,12
		85,91	0,00		13196	3,60	1,40	10,60	2,40	0,00	85,81	6,50
Total	272,02	1376,99	60,35	1709,36	241917	238,67	213,86	881,29	336,29	44,01	1542,92	6,38

Source : yearbook of
fishery statistics 1993 ,
vols. .76&77, FAO

production yearbook
1994, vol. 48, F.A.O

Table (4)

Marine Fish Production
and Projected Potential of
Arab Countries, 1993

Fishing area countries	Landings 1993	TOTAL Fishing Area	Estimated Potential (MSY)	Production As Percent of Potential	Remarks
Area 34	87.8	708.43	975	48%	1.Mauritania Potential: Demurrals including Cephalopods and Crustaceans 527.000; small peelagics 22.000
Mauritania	620.63		500		2. Morocco potential: Demurrals, Cephalopods and
Morocco					
Area 37 (morocco) Algeria Tunisia		282.04	350.00	80%	1 Demurrals in Western parts mostly exploited
Libya	90.00				2 Expansion in demurrals is possible in central parts
Egypt	83.36				3 Additional small pelagics available in gabes Bay
Gaza	8.72				4 Eastern parts are rather poor
Lebanon	95.36				5 Gaza fish landings exceeded 4,000 Tons before occupation.
Syria	1.00				
	2.00				
	1.60				
Area 51		102.31	250.00	41%	Substantial mesopelagic resources in Oman And Aden Gulfs not included
					Small expansion in demurral in Red Sea possible
(Egypt)	1.50				Important increases are possible in small pelagics in Gulf of Aden
					Annual potential of Gulf of Oman and North Arabian Sea Estimated to exceed 400,000 tons mostly in small and large pelagics
Sudan	0.30				Mariculture potential not included
Djibouti	14.60				
Somalia	85.91				
Yemen	0.00				
Jordan	4.50				
Iraq	47.23				
Sauddi Arabia	8.56				57%
Kuwait	8.96				
Bahrain	6.99				
Qatar	92.50				
U.A.E.	116.47				
Oman					
	1377.99	1377.99	2575.00	53%	

¹included in Area 34

² included in Area 37