


<b>FISHERY COUNTRY PROFILE</b>	<b>Food and Agriculture Organization of the United Nations</b>	<b>FID/CP/SAU</b>
<b>PROFIL DE LA PÊCHE PAR PAYS</b>	<b>Organisation des Nations Unies pour l'alimentation et l'agriculture</b>	 <b>October 2003</b>
<b>RESUMEN INFORMATIVO SOBRE LA PESCA POR PAISES</b>	<b>Organización de las Naciones Unidas para la Agricultura y la Alimentación</b>	

## KINGDOM OF SAUDI ARABIA

### GENERAL ECONOMIC DATA

Area:	1 960 582 km <sup>2</sup>
Shelf Area:	Approx. 95 040 km <sup>2</sup>
Length of Continental Coastline:	2 640 km (of which approx. 580Km is to Gulf & remainder to Red Sea)
Population (2001):	22 829 000
GDP at purchaser's value (2001-02):	\$US 241 300 million
PCE per head (2001-02):	\$US 10 262
Agricultural GDP (2001-02):	Est. \$US 16 870 million

### FISHERIES DATA

#### Commodity balance (2001):

	<b>Production</b>	<b>Imports</b>	<b>Exports</b>	<b>Total supply</b>	<b>Per <i>caput</i> supply</b>
	tonnes liveweight				kg/yr
Fish for direct human consumption	57 385	106 828	2 412	161 301	7.1
Fish for animal feed and other purposes	nil	33 900	nil	33 900	

<b>Estimated employment in fisheries (2000):</b>	
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(i) Primary sector (including aquaculture):	5 887
(ii) Secondary sector :	15 125
Gross Value of Fisheries Output (2001):	\$US 69.82 million
Trade (2001):	
Value of imports :	\$US 131 010 000
Value of exports:	\$US 10 535 000

**Commodity balance for 2003 (updated 26/07/2005):**

2003	Production	Imports	Exports	Stocks variation	Total Supply	Per Caput Supply
	tonnes liveweight					kg/year
Fish for direct human consumption	64 753	112 693	13 069	400	164 220	6.8
Fish for animal feed and other purposes	557	n.a.	n.a.		n.a.	-

<b>Trade (2003):</b>	
Imports:	\$US 136 070 000 99 596 tonne
Exports:	US\$ 27 157 000 10 451 tonne

## STRUCTURE AND CHARACTERISTICS OF THE INDUSTRY

### Marine fisheries

Saudi Arabia occupies 80% of the area of the Arabian Peninsula and is bordered on the west by the Red Sea and on the east by the Gulf that lies between Iran and the Arabian Peninsula. Although the length of coastline bordering the Red Sea represents about 79% of the total Saudi coast, production from the Red Sea area in 2000 was 20 734 t, or slightly less than 50% of total production. The remainder was taken from the Arabian Gulf coast. Production in the Red Sea is dominated by groupers (2 594t in 2000), emperors (2 791t) and scads and jacks (2 827t). While these species are also important in the Arabian Gulf, production of shrimp (4 760t in 2000) and kingfish (2 250t) also constitute important components of the catch.

The traditional or artisanal fishery as well as industrial fisheries operates in both the Red Sea and the Arabian Gulf areas. In the Arabian Gulf, the industrial sector is solely

concerned with shrimp production while the artisanal sector uses fish traps (locally known as 'gargoor'), gillnets, handlines, trolling and small shrimp trawl nets. In addition, a small number (5 in 2001) of traditional stake nets (hadrah) are still utilized in the area. The industrial fleet of the Arabian Gulf coast, which is based in Dammam, exclusively targets shrimp although fish by-catch from these bottom trawling operations is an important component of the catch and is also landed and marketed. Fish trap fisheries dominate artisanal production in the Arabian Gulf with 44% of production coming from this method in 2001.

In the Red Sea, artisanal fisheries production is almost entirely from handline and gillnet methods, while the industrial fleet utilizes fish and shrimp trawl nets and purse seine nets. The industrial vessels operating in the Red Sea utilize trawl nets to target both demersal fish stocks and shrimp, with the majority of these vessels belonging to Saudi Fisheries Company and operating out of Jizan on the southern Red Sea coast.

In 2000, 5 892t of the total Red Sea production of 20 734t came from the industrial fish trawlers with the remainder from the artisanal sector. This can be compared with the Arabian Gulf coast where, in 2000, 98.3% of the total production of 24 605t came from the artisanal sector.

Catch rates are generally higher in the Arabian Gulf for most fishing methods with catches/day ranging from 132Kg/day for trap fishing boats in the Arabian Gulf (compared with 23Kg/day for trap fishing boats in the Red Sea) to 15Kg/day for handline vessels in the Red Sea.

The artisanal fishing fleet of the kingdom includes 9 436 boats of which 7 611 operate in the Red Sea and 1 825 in Arabian Gulf waters. The industrial fleet consists of 149 boats in the Red Sea (primarily operating out of Jizan on the southern red sea coast) and 34 boats on the Arabian Gulf. 4 172 professional fishermen and 8 186 employees in the secondary fisheries sectors operate in the Red Sea area while 1 715 professional fishermen and 6 939 secondary sector employees operate in the Arabian Gulf areas. The majority of fishermen are Saudi nationals while expatriate workers (predominately from Bangladesh) dominate the secondary production sector.

## **Aquaculture**

Aquaculture production, although still small in comparison with wild capture fisheries, is growing rapidly with production doubling from 2 960t in 1996 to 5 600t in 2000 with a further increase to 8 018t in 2001. This represents around 14% of fish production in the Kingdom. There were 149 freshwater and marine farms in operation in 2001 with the majority of production (3 918t in 2001) coming from freshwater aquaculture, primarily Tilapia species. Marine aquaculture however is expanding rapidly, particularly shrimp farms on the Red Sea coast in the region of Jizan and Tihama Plains. Other marine species either in commercial or pilot-scale production include grouper (*Epinephelus coioides*), sea bream (*Sparus auratus*), rabbit fish (*Siganus caniculatus*) and mullet (*Mugilidae* spp). There is also interest at a feasibility level, in culture of lobster, mollusks, seaweed and ornamental fish.

## **Catch utilization**

Shrimp is sold locally heads-on without further processing. Exported shrimp is processed, packed and frozen and sold both heads-on and head-less. Most (98%) of the large by-catch of the shrimp fishery is discarded, but some desirable species are landed at local fish markets.

Finfish are landed on ice, and sold fresh in both wholesale and retail markets. Wholesale markets exist in most major coastal and inland cities.

Saudi Fisheries Company was established in 1981 to lead development in the catch utilization sector and operates both a number of wholesale and a chain of retail fish outlets throughout the Kingdom. In addition, the Company is actively involved in the export of fresh and processed fish products.

The Company also has four processing plants strategically located in Dammam, Jizan, Jeddah and Riyadh. These plants have the capacity to process more than 100 tons of fish and shrimp daily. All plants are modern, well equipped and have additional lines for freezing, processing and packing fish products. Saudi Fisheries Company

## **STATE OF THE INDUSTRY**

With demand increasing and production from wild capture fisheries stable or, for some species, falling, prices of most major local fish species are increasing significantly. As a result, profitability of individual fishing enterprises has remained adequate despite lower catch rates within the finfish sector. However, profitability is significantly distorted by direct, and increasing, subsidies by the Government which are in response to lower catches.

Most stocks are fully or over-exploited and, although some management is in place, over-capacity of the fleet remains a significant issue.

The aquaculture sector is expanding rapidly with recent expansion being in marine aquaculture. Aquaculture production now accounts for around 14% of total fish production in the Kingdom.

Supporting infrastructure is good with modern harbors being located in a number of strategic locations, including Dammam and Jizan. Saudi fisheries Company has also developed a range of facilities, including a 4 000t capacity cold store, fish meal plant and polystyrene box manufacturing plant.

## **ECONOMIC ROLE OF THE FISHERY INDUSTRY**

In comparison with the oil industry, the contribution of the fishing industry to Saudi Arabia's economy is very small. While Saudi citizens own and operate traditional and industrial vessels, the sector is heavily dependent on immigrant workers with more than 50% of these workers coming from Bangladesh or India. In addition to commercial food production, the fishery resource also supports a significant recreational fishery, particularly on the Red Sea coast.

## **DEVELOPMENT PROSPECTS**

The shrimp and the finfish resources off both the Arabian Gulf and Red Sea coasts are already intensely exploited. The present annual shrimp production could be increased, as in the 1980s, by a reduction of fishing effort, better controls on the taking of small shrimp in shallow water areas by artisanal vessels and prevention of illegal fishing on the main shrimp nursery areas. Like other countries in the region, the catch of some major finfish species (such as grouper) on the Arabian Gulf coast of Saudi Arabia are in decline. Overexploitation may be a contributing factor in this decline (as indicated by fish length or age distributions) as well as changing environmental conditions brought about by coastal development. Cooperative management among all Gulf and Red Sea

countries for shared stocks is needed to address the overall management of these regional stocks.

The Government has identified aquaculture production as a priority and has set a target production from this sector of 48 000t in the medium term. Current aquaculture production is around 8 000t.

## **FISHERIES MANAGEMENT**

The UN Convention on the Law of the Sea (1982) was signed by Saudi Arabia on 07 December 1984, and ratified on 24 April 1996. The Ministry of Agriculture and Water (MAW) is responsible for the implementation of economic plans and programs for fisheries in addition to agriculture, water development, desalination, irrigation, animal resources and locust control.

Saudi Arabia has introduced a number of management measures to control exploitation of its fishery resources in both the Red Sea and the Arabian Gulf. These controls are all input controls and include:

- Closed seasons for shrimp fishing in the Arabian Gulf (variable but currently from January 1 to August 1 each year) and in the Red Sea from March 1 to August 1;
- Closed seasons for important coral reef species of grouper in the Red Sea;
- Mesh size restrictions for gill nets in both the Red Sea and Arabian Gulf;
- Development of the traditional fishing sector and modernization of fishing means by use of engines for propelling boats as well as improvement of material for boat making, provision of soft loans and increase in the awareness of fishermen;
- Temporary suspension on the issue of new fishing licenses;
- Establishment of marine protected areas in both the Red Sea and the Arabian Gulf.

In addition, a number of coastal environment rehabilitation projects have been undertaken, including replanting mangroves in both Red Sea and Arabian Gulf areas and releasing of fry of sea bream and grouper for restocking purposes.

The industry, particularly the artisanal fishery, receives significant Government subsidies in the form of soft loans, grants and other assistance.

## **DEMAND**

Imported fish and fish products currently account for around 62% of total supply in Saudi Arabia. Demand will continue to outpace supply in the foreseeable future as the population grows and local supply comes under pressure from both changing environmental conditions and overexploitation.

Although aquaculture has been seen as a major alternative source of fresh fish supply and is growing rapidly, production from this sector has not grown fast enough to meet increased demand. Saudi Arabia will therefore be increasingly dependent on imported products to meet its fish demand.

## **RESEARCH**

Research on wild capture fisheries is carried out by major Universities, such as the King Fahd University of Petroleum and Minerals in Dammam and by the Fisheries Affairs Directorate of the Ministry of Agriculture. Many fisheries and marine environment projects are undertaken by the Universities in collaboration with major Saudi companies (particularly Saudi Aramco) and international agencies. Fisheries aspects in the Red Sea are also being addressed by the major Red Sea and Gulf of Aden Environmental Strategic Action Program which is a Global Environment Facility (GEF) project being jointly executed by the World Bank, UNDP, and UNEP through the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA), based in Jeddah, Saudi Arabia.

Fisheries statistics are collected, interpreted and published by the Ministry of Agriculture. The Ministry of Agriculture together with the cooperation of F.A.O. also established a Fish Farming Centre (FFC) in 1982 on the Red Sea coast, 50 Km north of Jeddah. The Centre is a marine aquaculture research institution which undertakes research and development programs to identify the most suitable fish and shrimp species for culture and the optimal culture systems suited to the conditions found in the Kingdom. It undertakes the initial research programs, and then scales up to pilot scale to test and demonstrate the production systems and techniques. It has a marine hatchery facility, four culture systems (ponds, pens, cages and tanks), Baobab tilapia culture facility, laboratories and aquarium display area. Saudi Fisheries Company also undertakes commercially-orientated research including surveys and resource assessments.

## **AID**

Saudi Arabia's national policy aims to provide adequate supplies of reasonably priced food for its citizens. The fishing industry is expected to contribute to this objective. However, demand for fish continues to exceed the sustainable potential of the fish resources of Saudi Arabia, particularly of finfish. Government subsidization of the fisheries sector therefore aims to achieve low domestic fish prices while maintaining the economic viability of particularly the artisanal fisheries sector.

No external aid is provided to Saudi Arabia for fisheries development or management activities.

## **INTERNET LINKS**

<http://www.agrwat.gov.sa>

<http://www.pme.gov.sa>

<http://www.kfupm.edu.sa>

<http://www.saudi-fisheries.com>