

Fish consumption in Pakistan lowest in the world

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Fisheries contribute directly to food supplies, a source of livelihood for the coastal inhabitants, export earnings and boosting the economy. Fishery products are one of the most traded foods and feed commodities. A part from marine fisheries, inland fisheries (based in rivers, lakes, ponds, dams etc.) is also an important activity throughout the country. Fisheries share in GDP although very little but it adds substantially to the national income through export earnings.

Despite being the popular dish, the per capita consumption of fish in Pakistan is the lowest in the world with only 2 kg per year compared to world average of 17 kg per year. The major reason for the low consumption is stated to be the fact that most of the produce is exported.

According to official facts and figures, most of the fish catch in Pakistan is from marine sources, which is stated to be 70% of the total fish exports.

The main source of fish supply in the local market in Rawalpindi and Islamabad is from Mangla, Tarbela and Shahpur dams, Chashma barrage and privately owned fish farms. The well-known variety 'Kasuri Rahu' is brought from Lahore while marine fish is brought from Karachi, at the same time fish from Rawal Lake has become unpopular due to reported pollution in the Lake.

Fish has always been recognised as a cheap source of animal protein. Countries with low per capita gross domestic product (GDP) tend to have a higher proportion of fish protein in their animal protein consumption. The share of fish protein as a proportion of total expenditure on animal protein is higher for lower income groups, and poor people consume mostly low-priced fish. This shows the importance of low-priced fish as a primary source of protein among poor households in developing countries, although in many cases this low-cost fish is derived from inland capture fisheries.

Pakistan has two fishing seasons. The August to November season is for shrimp, which are mainly caught for exports. Fish are caught from October to June, the peak being March to May. Ribbon fish, croak-

Year	Value (US \$ 000)
2009-10	226,936
2010-11	296,182
2011-12	320,182
2012-13	317,652
2013-14	369,458
2014-15	349,235
2015-16	324,869

Source: Trade Development Authority of Pakistan.

ers, sole and some other species are exported to Korea and China.

Pakistan has many marine and inland fishery resources. The commercially important resources include nearly 250 demersal fish species, 50 small pelagic fish species, 15 medium-sized pelagic species and 20 large pelagic fish species. In addition to this, there are also 15 commercial species of shrimp, 12 of cephalopods and 5 of lobster.

The effect of the Indus River Delta on the marine resources of the coastline of Sindh is substantial, as this river system has been transporting enormous quantities of nutrients and sediment to the continental shelf for centuries. Pakistan has an extensive inland water areas system, which is mainly dominated by the Indus River. These water bodies, depending on their type, possess varying potential for development of the inland and aquaculture subsectors. Karachi and Mekran, being the most important fishing ports, are being developed by the government of Pakistan as a fishing centre. Inland fisheries are gaining much popularity. Some

Country	2015-16	2014-15	2013-14
Vietnam	79,532	88,102	91,802
Thailand	48,821	6,700	40,463
China	44,020	63,816	45,113
U.A.E	38,141	41,816	52,489
Korea	25,199	18,386	18,321
Kuwait	13,509	8,831	13,659
Malaysia	11,731	11,846	19,339
Japan	9,404	5,419	6,602
Egypt	8,926	11,713	16,096
Indonesia	5,633	7,291	8,892
Sir Lanka	4,994	4,424	4,437
Hong Kong	3,704	4,320	6,097
Qatar	3,435	2,096	4,437
United Kingdom	2,983	2,594	1,499
All others	24,837	71,881	40,212
Total	324,869	349,235	369,458

Source: Trade Development Authority of Pakistan

inland resources include small rivers, dams (Tarbela, Mangla and Chashma), lakes (Haleji, Keenjhar and Manchhar), barrages, reservoirs, ponds and canals.

Pakistan has a domestic and an international market for fish, shrimps and fish products. At the domestic level, the catch from marine fisheries is supplied to the local fish markets; frozen or processed fish is supplied to only a few large departmental stores in some cities.

During the year 2015-16, total marine and inland fish production was estimated 550,000 million tonnes out of which 370,000 million tonnes was marine production and the remaining catch came from inland waters. Whereas the production for the year 2014-15 (was estimated to be 510,000 million tonnes in which 365,000 million tonnes was marine and the remaining was produced by inland fishery sector.

The provinces with the greatest potential for development are Punjab, Sindh and to a lesser extent KPK, the total number of farms in all provinces being approximately 13 000. Although the fish farming through culture in ponds and other natural water bodies has been practiced for several decades, it is only during the last two decades that any impetus for further development can be seen with about 60 470 ha of freshwater ponds being used for fish culture.

In Sindh Province, the majority of the farms are located in Thatta, Badin and Dadu, the three districts through which the River Indus passes. Badin and Thatta have water logged floodplain areas which are suitable for fish farming. In Punjab Province, farms are located mostly in irrigated areas or where there is abundant rain and the soil is alluvial. As a result, Sheikhpura, Gujranwala, and Attock districts have larger number of farms and constitute around three quarters of the total number of farms in Punjab.

The KPK has comparatively fewer farms, because of the cold climate in the mountainous areas. Trout farms are located in Chitral, Swat, Dir, Malakand, Mansehra, Federally Administered Tribal Area (FATA). Carp culture is practiced in Dera Ismail Khan, Kohat, Mardan, Swabi and the Abbotabad districts of KPK.

Development Plan

The Ministry of Food, Agriculture and Livestock (MINFAL) has devised a plan of action for the development of fisheries. The plan envisages research on migratory patterns; biological studies of demersal and mesopelagic fisheries to develop strategies for sustained exploitation; shrimp conservation programme; studies on the effects of reduced Indus River water flow in the sea on the fauna, flora and fish stock; modernisation of tradi-

Per Capita Consumption of Fish	
Country	Kgs
Iceland	90.1
Malaysia	58.1
South Korea	58.0
Portugal	56.8
Japan	53.7
Norway	53.4
Spain	42.4
Finland	35.6
France	34.6
Vietnam	33.2
China	32.8
Philippines	32.7
Sweden	31.0
U.S.A	21.7
Switzerland	17.4
Pakistan	2.0

tional fishing fleet; development of export outlet from Gwadar and Pasni; and introduction of improved aquaculture techniques.

The plan also envisages up gradation of the Punjab Fisheries Research and Training Institute and the Trout Cultural Training and Research Centre at Mardan. Likewise, infrastructure facilities through construction of small landing jetties and important fishermen settlements such as





Jiwani, Ormara, Sonmaini, Sur, Gaddani and Keti Bandar have also been planned in addition to the establishment of an information system for fish exporters.

Fish marketing

Pakistan has a domestic and an international market for fish, shrimps and fish products. At the domestic level the catch from marine fisheries is supplied to the local fish markets though wholesale dealers in Karachi, the main fishing centre, street hawkers also buy some of the fish catch and provide a door to-door service. Frozen or processed fish is supplied to only a few large departmental stores in urban areas, because people prefer to buy fresh fish and prawns rather than the processed ones. However, the local demand for fish is less than its catch. The per capita consumption is 2.0 kg p.a., which is quite low as compared to the European countries where it is 20 kg per annum.

Export of seafood's decreased from US\$ 369.46 million in 2013-14 to US\$ 324.87 million in 2015-16, thus showing decline of 12% per annum. The principal importing countries in 2011-12 were Vietnam, Thailand, UAE, Korea and Saudi Arabia.

The fish catch is packed in ice for transportation to Karachi from where it is further exported to other countries. Fish is marketed in three ways.

1. Some businessmen from Karachi or foreign countries buy fish in the open sea. In this way they avoid paying charges
2. Most of the fish is auctioned at the fish harbors like Gwadar and Pasni from where businessmen send it to Karachi and the neighboring districts. Sometimes fish is exported directly from here to the foreign buyers.
3. A proportion of the total catch is marketed locally. It is sold to the local population of the district who are not involved in fishing.

Future prospects

Pakistan is blessed with a wealth of fishery resources; however, these resources are still not being utilized according to their potential, which results in the under-developed fishery industry; the main causes are lack of institutional facilities, shortage of fish seed of cultural species, lack of basic knowledge of fish farm and capital to run new ventures.

Despite sufficient production as well as export potential, the fisheries sub-sector Pakistan has not been able to attain a satisfactory growth rate. The world-wide shortage of animal protein

has resulted in increased attention towards programs of aquatic resources.

Fish is one of the best aquatic animals that can help in supplementing the protein. During the past two decades, most countries (both developed and developing) have made steady progress towards increasing protein production from aquatic resources. This is resulting in an overall increase of harvest from water resources. Pakistan has vast inland water resources. The general characteristics of inland fisheries are dominated by the Indus River, which flows southwards from the mountains of Khyber Pakhtunkhwa, entering the Punjab province near Attock, and eventually falling into the Indian Ocean in the Sindh province. The Indus River is joined by four large rivers that flow through most of the Punjab province. An extensive canal system and inter-connecting water ways is a salient feature of this network throughout the inland heartland in Punjab and upper Sindh.

There is a substantial scope for fish production from aquaculture in private sector. For the mobilization of private sector important concessions, such as canal water supplies at reduced rates facility of bulldozers on subsidized agricultural rates, seed supplies at nominal rates, tax holiday, and lease of government land for fish farming have been granted by the government which would invigorate fish culture in private sector to a large extent.

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